Radiation Oncology
UNIVERSITY OF TORONTO

Annual Report
2010-2011
**Vision:**
Excellence and leadership in radiation medicine research, education, and clinical practice

**Mission:**
To advance the science and practice of radiation medicine
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Department of Radiation Oncology Executive
2010-2011

Chair
Mary Gospodarowicz

Vice-Chair
Academic Affairs
Pam Catton

Vice-Chair
Clinical Affairs
Shun Wong

Vice-Chair
Academic Programs
David Jaffray

Associate Chair,
Graduate Studies &
Radiobiology Director
Bradly Wouters

Director
Postgraduate Education
Barbara-Ann Millar

Director
Fellowship Program
Charles Catton

Director
Physics Residency
Jean-Pierre Bissonnette

Director
Graduate Education
Nicole Harnett

Director
Undergraduate Education
May Tsao

Director
Academic Communications
Anthony Brade

Director
Continuing Education
David Wiljer

Director
Equity
Fei-Fei Liu
Chair’s Letter

Mary Gospodarowicz, MD, FRCPC, FRCR (Hon)
Professor and Chair

It is with great pleasure that I present to you the University of Toronto, Department of Radiation Oncology 2010-2011 Annual Report. Our Department has continued to expand research, education, and clinical practice while maintaining a keen eye on our future directions.

Our Department grew significantly over the past year as we welcomed eighteen new members to the UT DRO faculty, eight of whom hold adjunct appointments.

Our faculty continues to make significant contributions to research and education on an international level, securing funding from agencies worldwide and receiving honors for their work. This fall, Professor Bernard Cummings will be awarded the prestigious ASTRO Gold Medal, ASTRO’s highest honor, for his outstanding contributions to the field of radiation oncology, including research, clinical care, teaching and service. Dr. Andrea Bezjak became Canadian Association of Radiation Oncology (CARO) President-Elect and will take over as CARO’s President in September. At Sunnybrook, Dr. Eileen Rakovitch was appointed Campbell Chair in Breast Cancer Research, and Dr. Gregory Czarnota was appointed Director of Cancer Research.

Congratulations are due to Dr. Normand Laperriere, who was promoted to the rank of full Professor, and Drs. Lisa Barbera, Gregory Czarnota, and Gerard Morton, who were promoted to the rank of Associate Professor.

I am excited to announce that the first class of the new Master of Health Science in Medical Radiation Sciences completed their studies in August and will are set to convocate this November. The program’s second class will begin their studies in September 2011, and will have the option of learning via a new distributed learning format that supports the completion of most coursework outside of Toronto.

Our department continues to provide excellent programs and events and this would not be possible without the help of our faculty and committees. This year, our CE planning committee was successful in securing a CIHR Grant for the RTi3 meeting. RTi3 was attended by a record 140 participants from five countries. The Target Insight conference partnered with Cancer Care Ontario once again in 2011 and attracted its biggest audience to date, 190 registrants.

We made considerable progress defining our Department’s future direction through the strategic planning process. With the advice of faculty, and of leaders in radiation oncology worldwide, we have identified key priorities moving forward. I look forward to working toward these common goals with the continued cooperation, feedback, and assistance of our outstanding faculty.

I am grateful for the support and dedication of Vice Chairs Professors David Jaffray, Pamela Catton, and Shun Wong over the past year. Professor Catton led the Department as Acting Chair from June to October 2010 while I was on sabbatical, and oversaw the implementation of our new Departmental website. The capable leadership and achievements of our Vice Chairs have an immeasurable impact on the success of our entire faculty and the Department as a whole.
As you review our achievements in this report, I am certain that you will be impressed with the output and direction of the Department.

Mary Gospodarowicz, MD, FRCPC, FRCR (Hon)
Professor and Chair
Vice-Chair Reports

Academic Affairs
Dr. Pamela Catton

As Vice-Chair for Academic Affairs, Dr. Pamela Catton is responsible for the oversight of all education and financial activities in the Department. During the 2010-2011 period our focus was on: 1.) Developing our academic partnerships 2.) Renewing MRS Program elements 3.) Consolidating the successes of the Fellowship Program

1. The UTDRO has a number of academic partnerships at the institutional, departmental and course levels resulting in innovative programs and services for our students. In particular, our relationship with Michener Institute is longstanding. This year, we worked with leadership to recruit a new Chair for the Radiation Therapy Stream to succeed Fiona Cherryman, a UTDRO faculty member who has moved portfolios. We welcome Catherine Ladhani as incoming Chair. The strong relationship with the Department of Physiology and the Division of Teaching Laboratories at U of T has continued to flourish. This relationship, in collaboration with the Division of Anatomy in the Department of Surgery, continues with the ongoing development of an online Anatomy course to be implemented and delivered to MRS students in September 2011. Discussions with Ryerson University Department of Physics on developing a deeper collaboration for the delivery of graduate and undergraduate teaching in medical physics and biology have resulted in the joint offering of an applied physics course, with a promise for greater integration in the future.

2. The MRS Program replaced the traditional admissions personal interview with the Multiple Mini Interview (MMI). The MMI is an admissions process where applicants complete a circuit of eight mini-interview stations, rotating from station to station evaluating non-cognitive characteristics. Students, didactic and clinical faculty all participated as raters and viewed it as a fair and unbiased method of applicant selection. The clinical simulation semester, designed to better prepare students for entry into the clinical practicum component of the Program continues to evolve and advance, as newer technologies become available. We saw increased participation from the medical radiation sciences clinical faculty, particularly from Princess Margaret Hospital and the Odette Cancer Centre. The MRS Program also continues to align and integrate the UofT longitudinal interprofessional learning activities throughout the MRS curriculum.

3. The UTDRO Fellowship Program has grown to be one of the largest and most successful radiation oncology fellowship programs in North America, attracting excellent candidates from around the world. This past year 27 Fellows were involved in the Fellowship program at both sites, from Australia (5); Canada (12); Ireland (1); Japan (1); New Zealand (3); UK (5). The Fellows are very productive academically in the short time they are with us and this past year saw 45 abstracts accepted, 17 papers published, $285,000 in grant funding awarded, and fellows were PI in three instances. Two of our fellows won prestigious research awards: an ASCO Young Investigator Award and the IMS Whiteside Thesis Dissertation Award.
Clinical Affairs
Dr. Shun Wong

As Vice-Chair for Clinical Affairs, Dr. Shun Wong is responsible for policy and program issues related to relations with clinical sites and faculty. In this portfolio, he oversees the appointment, three-year review and academic promotions of members of the Department, and ensures that the recruitment and clinical manpower plan at the clinical sites is aligned with the academic plan of the University Department.

The past 12 months have witnessed continuing growth of research and educational activities at Princess Margaret Hospital (PMH)-University Health Network and Odette Cancer Centre-Sunnybrook Health Sciences Centre (Odette). The opening of the radiation treatment unit at Southlake has resulted in a small decrease in clinical activities at both PMH and Odette. Just over 9600 treatment courses were delivered at PMH, and 6156 new radiation oncology cases were seen at Odette in fiscal 2010-11. Both centres continued with upgrading of state-of-the-art radiation planning and treatment units and information systems. Despite the economic downturn, the radiation program at the two sites continued to benefit from strong philanthropic support by their respective hospital foundations. Dr. Rakovitch was awarded an endowed chair (Campbell Chair for Breast Cancer Research) at Sunnybrook, and Dr. Czarnota was appointed Director of Cancer Research at Sunnybrook.

The Department continued to foster its regional leadership in research and cancer care in collaboration with Cancer Care Ontario. The Department continued to provide educational and clinical support to an expanding list of academic and community hospitals both within and outside the Toronto Central LHIN. New initiatives included multidisciplinary tumor boards and consultation services at The Scarborough Hospital, St. Joseph’s Health Centre and St. Michael’s Hospital.

We bid farewell to Drs. Deidre Batchelar and Joyce Nyhof-Young.

The academic activities of the Department continued to grow with a number of successful recruits in all three clinical disciplines, Radiation Oncology, Physics and Radiotherapy. New appointments in 2010-2011 included: Dr. Caroline Chung, Assistant Professor; Dr. Stanley Liu, Assistant Professor; Dr. Warren Foltz, Assistant Professor; Dr. Teodor Stanescu, Assistant Professor; Dr. Justin Lee, Assistant Professor; Mr. Neil D’Souza, Lecturer, Ms. Carina Feuz, Instructor; Ms. Florencia Siu Moon Jon, Instructor; Ms. Kieng Tan, Instructor and Dr. Masoom Haider, Cross Appointment: Professor. A process has begun to offer adjunct academic appointments to radiation oncologists at Southlake, Credit Valley and Royal Victoria Hospital to support teaching and educational activities at these community hospitals.

Congratulations are in order to Drs. Lisa Barbera, Gregory Czarnota and Gerard Morton who were promoted to the rank of Associate Professor and to Dr. Normand Laperriere who was promoted to the rank of Professor.
As Vice-Chair for Academic Programs, Dr. David Jaffray is responsible for the oversight of the research programs in the Department. During the 2010-2011 period the Department embarked on its new Strategic Plan. This plan highlighted many objectives for Department development, including, a number of specific research directions. The research directions include:

1. Repairing radiation damage including developing the world’s first program in “Radio-Repair”
2. Optimized biological and physical targeting for the patient including multidisciplinary, multimodal targeting, initiating radioisotope therapy research, and smart particle therapy research
3. Informatics for radiation oncology including creating a Toronto-wide data warehouse.
4. Metastatic and recurrent disease research including building the best metastatic disease management program in the world.

These directions are now being matured into specific objectives with actionable items through the efforts of many faculty and external thought leaders. While establishing the these specific research objectives is an important step in implementing the strategic plan, I have been more excited by the nature of discussion that these objectives have stimulated between and across the clinical sites of the UTDRO and with outside partners. In fact, there is a clear shift towards more communication and collaboration as the Department faculty take the Strategic Plan ‘on the road’ to get engagement. It appears the open, outward statements of the strategic plan results in the effort belonging to everyone and everyone wants to see it grow. It is clear to me that the development of collaborative programs to address the strategic objectives will begin to leverage the substantial research productivity and leadership opportunity that the UTDRO represents.

This deployment of the strategic plan is occurring on a very encouraging backdrop of positive trends in research productivity - our annual research activity analysis demonstrates a significant increase in research dollars raised by the Faculty. There is also a modest increase in the number of publications per investigator and the quality of the publications is trending up over the past 5 years (percentage of publications in intermediate impact journals, 5<JIF<10, at 28%) while holding steady in the number of publications in higher impact journals (7%). As part of our reporting this year, we have implemented an analysis to watch for cross-site (PMH, OCC) and cross-discipline (RT, RO, RP) publication rates. With this metric, we should be able monitor the dynamics of our distributed, multi-disciplinary research enterprise as we pursue our strategic plan. After all, it would be nice to not only say we have a uniquely multi-disciplinary research program, but to actually be able to prove it!
## Faculty

### Radiation Oncology

**Professor**
- Andrea Bezjak
- James Brierley
- Robert Bristow
- Charles Catton
- Pamela Catton
- Edward Chow
- Bernard Cummings

- Laura Dawson
- Anthony Fyles
- Mary Gospodarowicz
- Normand Lapierre
- Fei-Fei Liu
- Michael Milosevic
- Brian O’Sullivan

**Associate Professor**
- Ida Ackerman
- Lisa Barbera
- Gregory Czarnota
- Cyril Danjoux
- Andrew Loblaw
- Robert G. MacKenzie
- Cynthia Menard
- Gerard Morton
- Lawrence F. Paszat

**Assistant Professor**
- Judith Balogh
- Elizabeth Barnes
- Andrew J. Bayley
- Anthony Brade
- Patrick Cheung
- John Cho
- Caroline Chung
- William Chu
- Hans Chung
- Peter Chung
- Phillip Davey

- Robert E. Dinniwell
- Mary A. Doherty
- Saibishkumar
- Parameswaran
- Andrew J. Hope
- John Kim
- Anne Koch
- Justin Lee
- Wilfred Levin
- Stanley Liu
- Lee A. Manchul

**Adjunct**
- Marisa Finlay
- Charles Hayter
- Glenn Jones

- Jidong Lian
- Thomas McGowan
- Christiaan Stevens

**Radiation Physics**

**Professor**
- David Jaffray

**Associate Professor**
- Kristy K. Brock
- Michael Sharpe

**Radiation Oncology**

**Professor**
- Jean-Philippe Pignol
- Gillian Thomas
- Richard Tsang
- Padraig Warde
- Rebecca Wong
- Shun Wong

**Associate Professor**
- Andrew LoBlaw
- Eileen Rakovitch
- Jolie Ringash
- Yee Ung

**Assistant Professor**
- David Payne
- Michael McLean
- Barbara-Ann Millar
- Ian Poon
- Arjun Sahgal
- Jacqueline Spayne
- Alex Sun
- Ewa Szumacher
- May Tsao
- Danny Vesprini
- John Waldron
- Woodrow Wells

**Adjunct**
- Jonathan Tsao
- Jasper Yuen
- Yongjin Wang
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<tr>
<th>Assistant Professor</th>
<th>Lecturer</th>
<th>Radiation Therapy</th>
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<tr>
<td>Hamideh Alasti</td>
<td>David Beachey</td>
<td>Associate Professor</td>
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<td>Deidre Batchelor</td>
<td>Robert Heaton</td>
<td>Tara Rosewall</td>
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<td>Jean-Pierre Bissonnette</td>
<td>Anna Simeonov</td>
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<td>Stephen L. Breen</td>
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<td>Catherine Coolens</td>
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<td>Timothy Craig</td>
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<td>Amanda Bolderston</td>
<td>Neil D’Souza</td>
<td>Ruth Barker</td>
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<td>Caitlin Gillan</td>
<td>Lisa DiProspero</td>
<td>Renate Bradley</td>
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<td>Patricia Charman</td>
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| Biology                     |                                        |                  |
| Professor                   |                                        |                  |
| Bradly G. Wouters           |                                        |                  |

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<td>Marianne Koritzinsky</td>
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Education
Associate Professor
Joyce Nyhof-Young

Assistant Professor
David Wiljer

Cross-appointments
Professor
Masoom Haider
Richard Hill
Andrew M. Rauth

Associate Professor
Alex Vitkin

Assistant Professor
John Rawlinson
Milton Woo

New Appointments 2010-2011
Caroline Chung
Neil D’Souza
Carina Feuz
Marisa Finlay
Warren Foltz
Masoom Haider
Charles Hayter
Florecia Jon
Glenn Jones
Justin Lee
Jidong Lian
Stanley Liu
Teodor Stanescu
Christiaan Stevens Kieng Tan
Jonathan Tsao
Yongjin Wang
Jasper Yuen

Departures 2010-2011
Deidre Batchelar
Joyce Nyhof-Young

Promotions - Effective July 2011
Professor
Normand Laperriere

Associate Professor
Lisa Barbera
Gregory Czarnota
Gerard Morton
UT DRO Staff
Administrative Manager Effie Slapnicar
Business Officer Telma Liu
Communications Officer Alicia O’Shell

Administrative Coordinators
Resident Training Program Kim O’Hearn
Physics Residency in Radiation Oncology Tanya Webb
Fellowship Training Program Elena Gessas

Medical Radiation Sciences Program
Associate Registrar Jeremy Kwan
Student Services Officer Humberto Rocha
Education Officer Tanya Webb
Department of Radiation Oncology Committees

Executive Committee
Mary Gospodarowicz (Chair)
Jean-Pierre Bissonnette
Anthony Brade
Charles Catton
Pamela Catton
Fiona Cherryman
Hans Chung
Nicole Harnett
David Jaffray
Fei-Fei Liu
Stanley Liu
Katherine Mah
Barbara-Ann Millar
Cathryne Palmer
Tom Purdie
Effie Slapnicar (Ex-officio)
May Tsao
Padraig Warde
David Wiljer
Shun Wong
Bradly Wouters

Finance Committee
Pam Catton (Chair)
Mary Gospodarowicz
David Jaffray
Telma Liu (Ex-officio)
Effie Slapnicar (Ex-officio)
Shun Wong

Appointments Committee
Shun Wong (Chair)
Pam Catton
Mary Gospodarowicz
David Jaffray
Effie Slapnicar (Ex-officio)
Academic Communications Committee
Anthony Brade (Chair)
Kristy Brock
Elisa Chan
Greg Czarnota
Adrian Ishkanian
Kim O'Hearn (Ex-officio)
Alicia O'Shell (Ex-officio)
Effie Slapnicar (Ex-officio)
Anand Swaminath
Jon Thoms
Danny Vesprini
Tanya Webb (Ex-officio)

Academic Promotions Committee
Shun Wong (Chair)
Pam Catton
Edward Chow
Mary Gospodarowicz
David Jaffray
Fei-Fei Liu
Michael Milosevic
Jean-Philippe Pignol

Teaching Effectiveness Committee
Jean-Pierre Bissonnette (Chair)
Ida Ackerman
Pamela Catton (Ex-officio)
Lisa DiProspero
Normand Laperriere
Effie Slapnicar (Ex-officio)
Bradly Wouters

Education Committees

Undergraduate Medical Education Committee
May Tsao (Chair)
John Cho
Lee Manchul
Joyce Nyhof-Young
Kim O’Hearn (Ex-officio)
Ewa Szumacher

Postgraduate Medical Education Committee
Barbara-Ann Millar (Chair)
Ida Ackerman
Robert Bristow
Michael Milosevic
Ewa Szumacher
Rebecca Wong

Fellowship Committee
Charles Catton (Chair)
Anthony Fyles
Mary Gospodarowicz
Barbara-Ann Millar
Michael Milosevic
Gerard Morton
Effie Slapnicar (Ex-officio)
Shun Wong
Department of Radiation Oncology Representation
On University of Toronto Committees

**Ackerman, I**
Continuing Education Committee, Member

**Catton, P**
Faculty of Medicine Education Committee, Member
Hospital and University Education Committee, Member
Faculty Council Board of Examiners, Faculty of Medicine, Chair
Institute of Medical Science, Curriculum Committee, Member

**Gospodarowicz, M**
Clinical Chairs Committee, Faculty of Medicine, Member
Clinical and Basic Science Chairs Committee, Faculty of Medicine, Member
Clinical Relations Committee, Faculty of Medicine, Member
Council of Health Sciences Committee, Faculty of Medicine, Member
Clinical Relations Committee, Member
Faculty Council, Member

**Harnett, N**
Admissions Committee, Institute of Medical Science, Member
Faculty Council, Faculty of Medicine, Member

**Manchul, L**
Faculty Council Continuing Education Committee, Member
Oncology Continuing Education Committee, Member

**Millar, BA**
Internal Review Committee, Member
Postgraduate Education Advisory Committee, Member

**Nyhof-Young, J**
Dean's Advisory Committee for Equity and Diversity, Member
Preclerkship Committee, Faculty of Medicine, University of Toronto, Member
Clerkship Committee, Faculty of Medicine, University of Toronto, Member
Curriculum Evaluation Committee, Undergraduate Medicine, Faculty of Medicine, University of Toronto, Member
Determinants of Community Health Year 1 Course Planning Group, Faculty of Medicine, Member

**Palmer, C**
Interfaculty Curriculum Committee, Office of Interprofessional Education, Faculty of Medicine, Member
Steering Committee, Physician Assistant Education Program, Faculty of Medicine, Member
Health Sciences Committee on Emergency Preparedness, Member
Task force on Valuing Academic Performance Phase 2, Member

**Ringash, J**
Research Grants Committee, Faculty of Medicine, Member
Clinical Epidemiology Program Executive Committee, Department of Health Policy, Management and Evaluation, Member
Clinical Epidemiology Graduate Programme Admissions Committee, Department of Health Policy, Management, and Evaluation, Chair
Academic Board of the Governing Council, Member
Faculty Council, Faculty of Medicine, Member
Clinical Epidemiology, Department of Health Policy, Management and Evaluation, Associate Programme Director
Curriculum Committee, Department of Health Policy, Management and Evaluation, Member
Faculty Committee, Department of Health Policy, Management and Evaluation, Member

Wiljer, D
Continuing Education Directors & Leaders Committee, Member
Clinical Programs

Princess Margaret Hospital
Dr. Padraig Warde

The Princess Margaret Hospital Radiation Medicine Program (RMP) is one of the largest in the world with 36 radiation oncologists, 30 physicists, and 160 radiation therapists. In 2010 RMP staff saw over 8,000 patients in consultation and delivered over 9,600 courses of radiation therapy. With modern facilities equipped with 16 linear accelerators, all IMRT and IGRT enabled, Leksell Gamma Knife 4C and Perfexion, HDR and PDR brachytherapy programs, it is capable to handle most radiation therapy challenges.

The clinical expertise spans all cancer sites with large breast, lung, genitourinary, upper and lower gastrointestinal, gynecologic, head and neck, central nervous system, ocular, lymphoma, sarcoma, skin, endocrine and pediatric radiation oncology groups. In 2010-11, PMH RMP continued to expand its clinical and academic programs. RMP faculty provided consultations in many collaborating institutions including St Michael’s and St. Joseph’s Hospitals in Toronto and the Southlake Cancer Centre in Newmarket.

One of the key initiatives undertaken in 2010 was the establishment of a multidisciplinary brain metastasis clinic. The clinic team (radiation oncologist, neurosurgeon, neuro-oncologist, radiation therapist and a nurse) works with patients and their primary oncologists to pursue optimized treatment strategies aimed at controlling tumours in the brain and addressing all surgical, radiation and systemic therapy options, as well as experimental therapies available through participation in clinical trials. Advances in radiation therapy and neurosurgical techniques have made it possible to focus more aggressive treatment on multiple well-defined lesions, offering the possibility of better control of brain metastases, improved neurological functioning and quality of life, as well as longer survival. Clinic team members have regular debrief sessions to ensure that everyone is fully apprised of each patient’s case and treatment, to support seamless, multi-professional care delivery.

The staff is involved in broad scope of research programs from basic cancer biology research, translational research program, large clinical trials program, and significant health services research portfolio. Last year witnessed continued expansion of translational research conducted in newly opened STTARR. The STTARR research programs, www.sttarr.ca, foster collaboration and interdisciplinary research. We are especially proud of the expanding research initiatives conducted by PMH radiation therapists, the largest such program in the country and one of the largest internationally. This is led by Tara Rosewall, associate professor in the Department of Radiation Oncology, University of Toronto.

RMP PMH leadership extends well beyond radiation oncology and Toronto. Dr Padraig Warde continues as Provincial Head, Radiation Treatment Program at Cancer Care Ontario. Dr. Marco Carlone continues as chair of Science and Education Council of the Canadian Organisation of Physicists in Medicine (COMP). Dr Miller MacPherson continue as the clinical physics lead Credit Valley Cancer Centres respectively. Dr. Jim Brierley continues as chair of the National Staging Advisory Committee of the Canadian Partnership against Cancer. Dr Mary Gospodarowicz is Regional Vice-President, Toronto South, Cancer Care Ontario and was made President-Elect of the UICC – she will take office at the UICC AGM in Montreal in 2012.
Reinforcing our role as regional leaders in radiation medicine, we have strengthened our clinical link with Southlake Regional Cancer Centre in Newmarket, Ontario. One of only 13 programs in Ontario designated by the provincial government to provide radiation treatment, the Stronach Regional Cancer Centre at Southlake officially opened in 2010, after a three-year collaboration with RMP to plan and develop its services. The centre will provide cancer patients from York Region and south Simcoe County with access to advanced cancer diagnostics, radiation treatment, and follow-up care. The new cancer program is the first centre in Ontario to open with one of the most advanced radiation treatment techniques, Image Guided Radiation Therapy, and RMP will offer mentoring and support in the application of precision radiation therapy techniques, as well as in clinical research, education programming and e-health initiatives, such as developing processes for sharing clinical protocols and treatment plans. RMP and Southlake have a combined physics program with DR Ivan Yeung as clinical lead, and there several cross appointments between the sites. Dr. Woodrow Wells from RMP was appointed as the Head of Radiation Oncology at Southlake, and remains on active staff in RMP.

The ongoing partnership with the Aviano Cancer Centre in Italy saw faculty from Italy visit PMH and presentations by RMP staff in Aviano Cancer Centre. A new partnership with the Kuwaiti Cancer Center (KCC) was initiated and an RMP leadership team visited the KCC in November 2010.

The year concluded with the unveiling of the RMP strategic plan – “A Moral Imperative to Innovate.” This initiative was led by Dr Brian O’Sullivan and was integrated with the University Department Strategic Plan. Implementation of the strategic plan will be a major focus of the upcoming year.
**Odette Cancer Centre**  
Dr. Shun Wong

The clinical, research and educational activities of the Radiation Treatment Program at Odette Cancer Centre at Sunnybrook Health Sciences Centre continue to grow. We project that about 6200 new radiation oncology patients will be seen in academic year 10-11, and we will deliver just over 7000 courses and 100,000 fractions of radiation treatment. Upgrades to the existing clinical infrastructure continued. This will include a new linac with full image-guided radiation treatment capability and upgrades to planning software. Many other specialized programs including tomotherapy, stereotactic radiation therapy (body and head) and brachytherapy continue to expand. A 3 Tesla MR simulator is supporting research in radiation treatment planning and high intensity focused ultrasound clinical protocols in collaboration with Imaging Research at the Sunnybrook Research Institute.

Dr. Justin Lee and Dr. Stanley Liu joined the Department as Assistant Professor. Dr. Lee joined the Department after completion of his MSc in the Department of Medical Biophysics, and Dr. Liu after completion of a post-doctoral fellowship at Oxford University. Planning continues for a new Breast Centre. Dr. Rakovitch was appointed the Campbell Chair for Breast Cancer Research. A search to recruit an academic leader to head the Department of Medical Physics continues. Dr. Andy Smith, Chair of General Surgery, University of Toronto, was appointed Chief of the Odette Cancer Centre.

The Program continues to foster its regional leadership role in cancer care. In addition to co-managing the temporary radiation treatment facility at the Royal Victoria Hospital, Radiation Oncologists continued to participate in peripheral clinics and multidisciplinary cancer conferences at a large number of academic and community hospitals both within and outside of the Toronto Central LIHN. Two new clinics, Breast and Gastrointestinal Radiation Oncology, were initiated at The Scarborough Hospital.

Faculty members continue to be successful in securing external peer-reviewed and industry supported grants. Most notable are two large team grants, a 3-year $2.7 million CIHR Terry Fox Team Grant awarded to Dr. Gregory Czarnota, and a $1.2 million Cancer Care Ontario Cancer Research Unit Grant awarded to Dr. Larry Paszat. Continuing its success in 2009, faculty at Sunnybrook once again published over 100 peer-reviewed articles in 2010. These research grants and publications are detailed elsewhere in the annual report.
Education Report

Introduction
The UTDRO has a comprehensive education program that supports the entire range of professional and research training needed for all three radiation medicine disciplines, and includes fully accredited pre and post certification programs at the undergraduate, postgraduate and graduate level, as well as thesis based research training at a Masters and Doctoral level. Professional Development and Continuing Education programs for all faculty are collaborative and interdisciplinary in nature.

Highlights of the 2010-2011 report

Medical Radiation Sciences BSc/Diploma Program
- For the intake of 2011 the Program has chosen to replace the traditional personal interview with the Multiple Mini Interview (MMI). The MMI is an admissions interview process developed by McMaster University for its school of medicine. This process has been adopted by other health professional programs at UofT (such as the Physician Assistant Program and Pharmacy) as well as the health professional programs at Michener.

Residency Program in Radiation Oncology Physics
- In 2011, the program commenced an affiliation process with the Credit Valley Hospital, leading to ten resident positions for 2011-2012.

Residency Program in Radiation Oncology
- Dr. Eric Leung and Dr. Meredith Giuliani, both PGY4 residents, were multiple award winners this year for their research.

Radiation Oncology Fellowship Program
- Dr. Philip Wong won a very prestigious 2011 ASCO Young Investigator Award.
- Dr. Karen Lim won the IMS Whiteside Award for her MSc Thesis dissertation.
- 45 fellow abstracts were accepted and 17 manuscripts were published
- Three grants were awarded to fellows totaling $285,000

Graduate Studies
- A larger attempt has been made to provide harmonization of curriculum in specific subject areas across the larger educational activities within UT DRO. This was initiated first in the MSC1502H translational radiobiology course. Last year this course was modified to include a new intensive 1-week program in clinical radiation biology that was redesigned as part of the post-graduate resident training programs in UT DRO.
- In the past year, efforts have begun to establish a database of all graduate students pursuing research degrees in the Radiation Sciences under the mentorship of UT DRO faculty. In the future, these trainees will be invited to participate in UT DRO educational activities and other research events. Furthermore, these students will be encouraged to participate in UT DRO graduate level courses currently offered through IMS.
- The first cohort of MHSc in MRS students – who entered the program in 2009 – will successfully complete the program in August 2011 and graduate in November 2011.
- For the second year in a row, Dr. Nadine Kolas, an EIRR21 alumnus (supervisor: Dr. Daniel Durocher), was the recipient of the highly coveted John Charles Polanyi Prize from the Ontario
Government, targeting researchers in the early stages of their careers who are continuing post-doctoral studies in Ontario. Dr. Karen Lim was the second EIRR21 trainee to receive the Whiteside Award (2011) from the Institute of Medical Sciences (IMS), awarded annually to a graduating MSc student who has made outstanding scholarly contributions.

**Continuing Education**
- Online registration platforms for RTi3 and Target Insight were developed for ongoing use.
- Interest in RTi3 and Target Insight increased with a record number of registrants this year: 140 and 190 respectively.
Graduate Education

The UT DRO continues to expand its commitment to graduate level education and training in Radiation Medicine. This continues in part through close collaboration with the Faculty of Medicine’s Graduate Institute - the Institute of Medical Science (IMS), as well as with other University Departments including Health Policy, Management and Evaluation (HPME) and Medical Biophysics (MBP). UT DRO faculty hold graduate appointments in these departments and have a long history of training researchers through mentorship in research MSc and PhD programs. Following the creation of a new UT DRO Associate Chair in Graduate Studies and appointment of Bradley Wouters to that position last year, the UT DRO has committed to create a larger ‘home’ for all of its graduate students participating in graduate programs across these departments. This will include continued development and participation in curriculum and training programs for graduate students in all of its major disciplines – biologists, clinicians, physicists, and therapists. The UT DRO will track and report on academic progression and output from these students across all relevant departments. The UT DRO also developed and recently renewed the CIHR funded Excellence in Radiation Research for the 21st century (EIRR21) program led by Fei-Fei Liu and more integral ties between this program and graduate education in UT DRO has been initiated. This includes preliminary work this year to establish a new graduate course in IMS based on current educational activities in EIRR. The UT DRO is committed to further expansion of both the number of MSc and Doctoral students pursuing degrees within the Radiation Oncology Stream as well as the number of UT DRO faculty at both the associate and full professor levels who participate in graduate level education. Finally, increased efforts to provide opportunities for interaction and collaboration through annual research events amongst UT DRO graduate students are underway.

UT DRO Graduate Training Initiatives at the University of Toronto

1. Research track programs for biologists, physicists, clinicians and therapists

a) The Institute of Medical Science

The UT DRO has established a collaborative relationship with the Institute of Medical Science in developing graduate research training opportunities in radiation medicine via the Radiation Oncology Stream. Through this partnership, trainees in all of the radiation medicine professional programs including biologists, clinicians, physicists, and therapists can seek MSc or PhD research degrees through supervision by UT DRO faculty holding appointments within the IMS. The partnership with IMS also includes the development and delivery of specific graduate courses by UT DRO faculty. Currently there are 3 courses that offer specific training in areas of relevance to radiation oncology. These courses continue to undergo annual improvements and in the past year have been expanded to include both core components and additional customized programs targeted at specific disciplines within UT DRO. Consequently, these courses are available to both research level graduate students as well as professional level graduate students in IMS (see below). In the future, these courses will be profiled and offered to UT DRO graduate students in other departments (e.g. MBP).

In addition, a larger attempt has been made to provide harmonization of curriculum in specific subject areas across the larger educational activities within UT DRO. This was initiated first in the MSC1502H translational radiobiology course. Last year this course was modified to include a new intensive 1-week program in clinical radiation biology that was redesigned as part of the post-graduate resident training programs in UT DRO. As such, this brings together basic researchers and clinical residents and gives them the opportunity to develop new collaborations with their clinical colleagues and to be taught
common radiobiology concepts from a group of expert faculty. This intensive week is supplemented by a student-focused customized program that is of direct relevance to the participants’ own research area. As such this course is appropriate for trainees in each of the different UT DRO disciplines. This approach also enables both research track and professional track students to benefit from this course. Similar developments are planned for the other IMS courses.

**UTDRO Research MSc/PhD Courses in IMS:**

*MSC1500H - Advanced Radiotherapy and Medical Physics*
Dr. Jean-Philippe Pignol, Director

*MSC1501H - Frontiers in Radiation Medicine Research*
Dr. Anthony Fyles, Dr. Anne Koch, Dr. Patricia Lindsay Directors

*MSC1502H - Translational Radiobiology Applied to Radiation Science*
Dr. Robert Bristow and Dr. Bradly Wouters, Directors

**b) Medical Biophysics Department**

A large number of UT DRO faculty who carry out research programs hold primary or cross-appointments in the Medical Biophysics Department (MBP) and supervise both radiation biology and radiation physics MSc and PhD trainees seeking research degrees in the Radiation Sciences. The UTD DRO has a long-standing history of research activity through this department and UT DRO faculty are integrally involved in the MBP Department, including membership on the executive committee (Dr. Bradly Wouters). As described above, the UT DRO has committed to increase its involvement in the training of these students and to provide a base for interaction with other researchers and training opportunities in the Radiation Sciences. In the past year, efforts have begun to establish a database of all graduate students pursuing research degrees in the Radiation Sciences under the mentorship of UT DRO faculty. In the future, these trainees will be invited to participate in UT DRO educational activities and other research events. Furthermore, these students will be encouraged to participate in UT DRO graduate level courses currently offered through IMS.

The MBP department also administers specific courses that contain substantial material of relevance to the radiation sciences and several of these courses use UT DRO faculty as course lecturers or course leaders. Agreements with MBP are in place to allow UT DRO graduate students in other faculties (IMS) to participate in these courses and the department will actively promote UT DRO faculty involvement in these courses. In the future, MBP courses containing curriculum of direct relevance to UT DRO trainees will be highlighted on the educational area of the UT DRO website and UT DRO faculty will encourage their trainees to participate in these courses.

*MBP 1018Y – Translational Oncology*
Dr. Bradly Wouters, Director

Goal: To expose graduate students to the concepts of translational oncology (“from bench to bedside”) through a series of seminar-type presentations highlighting recent advances of translational research; and to motivate graduate students to apply the concepts of translational oncology to their own research through a series of written and oral assignments. The theme of this year was personalized medicine.
c) HPME
A significant number of UTDRO faculty also hold cross appointments in the Health Policy Management and Evaluation Department (HPME). Like MBP, HPME is a graduate department in the Faculty of Medicine and can confer MSc and PhD degrees to students seeking research degrees in the Radiation Sciences. The new graduate student database will include graduate students in HPME, and these students will also be strongly encouraged to participate in other UTDRO based courses and training and interaction opportunities.

d) EIRR21
The EIRR21 program was renewed last year for a period of 6 years and continues its strong program to provide enhanced training opportunities in transdisciplinary science. The program continues to expand in size and scope and in the last year, efforts have begun to create integral ties between this program and graduate education in UTDRO. One of the important components of the EIRR program has been a series of ‘brainstorm’ sessions on topics of importance to Radiation Oncology led by a series of expert faculty. This is followed by individual projects and presentations designed to promote leadership skills. Preliminary work this year is underway to establish a new graduate course in IMS based on current educational activities in EIRR.

2. Professional Stream - MHSc Medical Radiation Sciences
Graduate Program Director – Nicole Harnett

Program Overview
Phase I
The current program is an 8.0 FCE, 2-year fulltime program, offered through the Institute of Medical Science (IMS) designed for expert radiation therapy clinicians who want to expand their clinical expertise and academic competence. The IMS provides the ideal graduate unit for this program. It is the primary graduate unit for clinical departments in the Faculty of Medicine, including Radiation Oncology. Applicants to the program must be licensed, experienced practitioners who have demonstrated leadership and excellence in their current practice. The program is composed of course work (required and elective), clinical practica and a major research project designed to provide foundational radiation medicine content, expand clinical skills and reasoning, and further develop the skills of enquiry, innovation, knowledge translation and evidence-based practice. The semester-based programming is currently delivered in a live, onsite format.

The curriculum is built atop 3 pre-existing foundational courses already offered at IMS in the MSc and PhD streams. Another 8 courses were developed to complete this complex curriculum – all within the Department of Radiation Oncology. 13 UTDRO faculty members comprise the core program faculty serving as course directors and supervisors for this new breed of student. In addition, dozens of radiation medicine experts are drawn upon to deliver this state-of-the-art curriculum.

The first cohort of students – who entered the program in 2009 – will successfully complete the program in August 2011 and graduate in November 2011. There was no intake in Fall 2010 due to lack of qualified applicants. The program is currently processing applications for the Fall 2011 start date.

Current and Projected Student Numbers to 2012
|--------|-----------|-----------|-----------|-----------|

26
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<tr>
<th></th>
<th>2009</th>
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* One student withdrew from program due to personal reasons.

**Phase II – September 2012**
As expected, recruitment for this fulltime, onsite program has been challenging. In order to expand program catchment, UTDRO is now taking the steps necessary to implement the modifications to the program that it feels will allow it to better meet the needs of its target population.

Beginning in Fall, 2011, application will be made to the University of Toronto to allow students to complete this MHScMRS program on a part time basis. This application will also include format modifications to all courses in order to adopt a “distributed learning” approach to program delivery. These proposed modifications will give this cohort of busy professionals/students the opportunity to maintain at least part-time employment during regular working hours to the extent they deem necessary/possible. Secondly, it will provide the means necessary to offer the MHSc MRS to students outside the GTA jurisdiction. As the only program of its kind in Canada, it is expected that this program will be sought out by experts across Canada as the only/unique preparation for advancing their clinical expertise and their scholarly competence. We believe our new format will afford the opportunity for us to recruit the best and brightest radiation therapy experts, both locally and from across the country to the University of Toronto in the MHSc MRS. Finally, it will permit students, who have not yet achieved the minimum level of clinical experience, to begin their didactic studies in anticipation of final internship year. A Self-Study document has been submitted under separate cover providing greater detail regarding this plan.

**Courses:**

**MSC1500H - Advanced Radiotherapy and Medical Physics**
Dr. Jean-Philippe Pignol, Director

**MSC1501H - Frontiers in Radiation Medicine Research**
Dr. Robert Bristow and Dr. Bradley Wouters, Directors

**MSC1502H - Translational Radiobiology Applied to Radiation Science**
Dr. Anthony Fyles, Dr. Patricia Lindsay, Dr. Anne Koch, Directors

**MSC1503H, 1504H, 1505H – Clinical Reasoning and Decision Making in Radiotherapy I, II, III**
Dr. Pamela Catton and Ms. Nicole Harnett, Directors

**MSC1506H – Professional and Clinical Leadership**
Ms. Cathryne Palmer and Dr. Joyce Nyhof-Young, Directors

**MSC1507H – Clinical Competence, Evaluation and Continuous Learning**
Ms. Ruth Barker and Ms. Lisa Di Prospero, Directors

**MSC1508H – Medical Radiation Sciences Research Development**
UTDRO faculty contribution to the professional MHSc program is tremendous. More than 50 faculty serve as guest speakers, session facilitators, supervisors and mentors to the MHScMRS students over the course of the program. Faculty evaluations are consistently high and reflect the level of dedication of each faculty member to the education of the students in this program.
Table 1: DRO Faculty with cross-appointments in graduate studies programs

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IMS=Institute for Medical Sciences  
MBP=Medical Biophysics  
HPME=Health Policy Management and Education  
IBBME=Institute of Biomaterials and Biomedical Engineering  
DRO=Department of Radiation Oncology  
MI=Medical Imaging
The Terry Fox Foundation Strategic Training Initiative in Excellence in Radiation Research for the 21st Century (EIRR21) at CIHR
Program Director Dr. Fei-Fei Liu

Introduction
The Terry Fox Foundation (TFF) Strategic Training for Excellence in Radiation Research for the 21st Century at the Canadian Institutes of Health Research, otherwise known as the EIRR21 Training Program, is a joint TFF-CIHR funded initiative designed to provide enhanced training opportunities to develop a new cadre of trans-disciplinary scientists. The primary objective is to build capacity in the domain of radiation research.

Participants
The trainees currently fully enrolled in the Program in 2010-2011 include:

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<td>Dr. Mitsu Ikura &amp; Dr. Anne Koch</td>
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Structure of Program
EIRR21 continues to expand, with the current cohort of 14 active trainees, in addition to 3 alumni and 39 full graduates. Many of these graduates hold academic positions in Canada and Europe, as clinician-scientists, research physicists, post-doctoral fellows in research, or careers in the biotechnology industry or government. Hence, all alumni (100%) are contributing to biomedical research in some capacity, either within Canada or globally.

From the current 17 trainees, 3 have completed their full 2 years within EIRR21, but are still active participants because they find the Brainstorm sessions of particular value. Thirteen of the remaining 14 active trainees currently hail from the University of Toronto; one trainee is from McGill University. With the most recent competition (October 2010), 7 trainees were recruited into EIRR21.
The spectrum of research in EIRR21 continues to be broad, ranging from \textit{in vitro} understanding of basic molecular mediators of radiation damage response and repair, to complex \textit{in vivo} models of radiation-induced lung injury, novel radiopharmaceuticals for therapy and imaging human tumor models, to optimizing radiation treatment delivery to lung, cervix, and liver cancer patients, and discovering biomarkers for prostate cancer patient radiation response and toxicity. Such a breadth of research topics, embedded within a single research training program is truly unique, providing an outstanding network for inter-disciplinary interactions, enabling “bridging” science to be conducted.

The publication record from the EIRR21 trainees continues to be exceptional. In terms of quantity of publications, there are a total of 197 (published or in press) publications, contributed by 41 trainees, for an average of 4.8 papers per trainee, which is an impressive feat, given that the average duration for each trainee in EIRR21 is only approximately 2 years. In addition, several are in high impact cancer Journals, including \textit{Science}, \textit{Curr Biol}, \textit{Mol Cell}, \textit{J Clin Oncol}, \textit{Mol Cell Biol}, \textit{Cancer Res}, \textit{Cl Cancer Res}, \textit{Nucl Acid Res}, \textit{J Cell Biol}; hence, both the quantity and quality of research are remarkable. For the second year in a row, Dr. Nadine Kolas, an EIRR21 alumnus (supervisor: Dr. Daniel Durocher), was the recipient of the highly coveted John Charles Polanyi Prize from the Ontario Government, targeting researchers in the early stages of their careers who are continuing post-doctoral studies in Ontario. Dr. Karen Lim was the second EIRR21 trainee to receive the Whiteside Award (2011) from the Institute of Medical Sciences (IMS), awarded annually to a graduating MSc student who has made outstanding scholarly contributions. Both are testaments to the outstanding caliber of research conducted by our EIRR21 trainees.

\textbf{Special Activity this Year}

In April 2009, this training program successfully renewed for another 6 years, for a total of $1.95M. Our application ranked 5 of 31 in the panel, and was selected for full funding by the Terry Fox Foundation. The vision of EIRR21 is to recruit and train innovative trans-disciplinary Radiation Medicine Researchers who will form the next generation of investigators in developing and implementing an integrated research perspective encompassing novel diagnostic, therapeutic, and evaluative approaches to Radiation Therapy. Since 2003, 56 trainees from a variety of different research backgrounds including radiation medicine, physics, imaging science, bio-informatics, molecular biology, chemistry, and cancer biology have all participated. Eighteen graduates are currently holding faculty positions in academic hospitals or research institutions, both in Canada and Europe; thereby, achieving EIRR21’s vision in building research capacity.

This year’s EIRR21 Research Day took place on Tuesday June 15, 2010, wherein the international Scientific Advisory Board (SAB), comprising of Dr. Jim Woodgett (Director of the Samuel Lunenfeld Research Institute), Professor Gillies McKenna (Director of the Institute for Radiation Biology Research at Oxford University), and Dr. Paul DeLuca (Provost of the University of Wisconsin), reviewed the EIRR21 program, and provided constructive critiques for continuous improvement.

One of the most innovative aspects of this year’s EIRR21 Research Day was the collaboration with Professor Brian Silverman from the Rotman School of Management, whose MBA students worked with EIRR21 trainees in three teams to compete for the “EIRR21 Cup”. This Cup was awarded to the team with the most compelling scientific proposal, reasonable business plan, and the most effective communication strategy to get a wealthy donor to invest in their research idea, while addressing this year’s thematic challenge of “How to treat the lymphedema that develops in breast cancer patients after therapy?” Each team also presented their project at the Annual Research Day to the EIRR21 SAB, as well as external judges, Mr. Paul Alofs (CEO of PMHF Foundation) and Dr. Brian Silverman (Rotman). The
winning team, led by Dr. Mark Pereira (PDF; pharmaceutical sciences), included Andrew Alexander (PhD; clinical physics), Christian Bassi (PhD; molecular biology), Iwa Kong (MD; radiation oncology), Minalini Lakshman (PDF; molecular biology), Priscilla Lau (PhD; molecular biology), and Kelly Stewart (PhD; pharmaceutical sciences), as well as three Rotman collaborators. A reception following the event was attended by Drs. Robert Bell (CEO & President, UHN), Avrum Gotlieb, and Ben Neel (Director, Ontario Cancer Institute), along with the SAB, EIRR21 faculty and trainees, and Industry representatives from GSK. For next year, EIRR21 will do something different, yet again. Stay tuned!
Medical Education

Undergraduate Medical Education
Program Director: Dr. May Tsao
Associate Program Director: Dr. Joyce Nyhof-Young

Introduction
The UT DRO not only supports the Faculty of Medicine Undergraduate Medical Education curriculum, it is also committed to support the needs of individual medical students throughout the country and abroad as they seek knowledge and experiences in Radiation Oncology. These experiences are primarily offered as electives, observerships and research attachments.

Structure of program
The Department of Radiation Oncology continued to provide teaching to pre-clerkship (years 1 and 2) and clerkship (years 3 and 4) medical students. Pre-clerkship teaching included teaching students in the Determinants of Community Health (DOCH) II course and providing lectures and seminars for the Pathobiology of Disease course.

Beginning in the academic year 2010-2011, the University of Toronto Undergraduate Medical Education curriculum eliminated Year 3 electives.

In 2011-2012, year 4 students will be required to complete 12 weeks of electives. Beginning in January 2012, there will be an opportunity for medical students to choose a radiation oncology selective as part of the Transition to Residency Selective program in the undergraduate medical education curriculum. Student activities for the selective in radiation oncology include learning about the principles of radiation oncology, participating in the assessment of new patients, follow-up patients and patients undergoing radiation planning and treatment.

During the academic year (2010-2011), 4 University of Toronto elective students, 26 North American visiting elective students, 3 international elective students, 10 Ambulatory Community Experience (ACE) students and 6 Ivan Smith Scholarship awardees rotated through the Department of Radiation Oncology clinical practices at both Odette Cancer Centre (OCC) and Princess Margaret Hospital (PMH).

Special activity this year
An orientation package for undergraduate medical students rotating through PMH and OCC is in the final process of development and implementation.

At the end of April 2011, we said good-bye to Dr. Joyce Nyhof-Young who has taken on the new position of Curriculum Evaluation Coordinator at the University of Toronto, Undergraduate Medical Education Program. We thank Dr. Nyhof-Young for her dynamic contributions to the undergraduate medical education program at University of Toronto, Department of Radiation Oncology and we wish her well in her future endeavors.
Postgraduate Medical Education

Residency Program in Radiation Oncology Physics
Program Director: Dr. Jean-Pierre Bissonnette
Site Coordinators: Dr. Jean-Pierre Bissonnette (PMH); Dr. Milton Woo (OCC); Dr. Katharina Sixel, (DRCC)

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

The Residency Program in Radiation Oncology Physics started in July 2007 by combining existing long-standing medical physics residency programs at the Princess Margaret Hospital and Sunnybrook Health Sciences Centre - Odette Cancer Centre. The goal of the joint program is to produce highly competent medical physicists who combine a comprehensive understanding of clinical radiation physics and specific knowledge of radiation therapy and radiation oncology principles and practice with enhanced leadership, research and teaching skills. On March 10, 2008, the program was accredited to the maximum of 3 years through the Committee on Accreditation of Medical Physics Education Programs (CAMPEP).

The program had nine Physics Residents in 2010-2011; currently enrolled are (expected graduation date in parenthesis): John Bracken (September, 2011), Huan Yu (September, 2011), Matthew Wronski (September, 2011), Robert Weersink (September, 2011), Roxana Vlad (September, 2011), Claudia Leavens (December 2011), Michael Lamey (January, 2012), Ali Fatemi (September 2012) and Anthony Kim (December 2012).

Structure of the Program
Entry requirements and updated program policies and procedures are posted here. The program accepts applications from qualified and highly motivated candidates with a post-graduate degree in medical physics or a related discipline. As of this writing, our CAMPEP accreditation is restricting entrance criteria; candidates graduating from non-accredited medical physics programs are allowed to make up for up to 4 courses during residency. In 2012, only 2 courses will be allowed to be made up during residency. It is uncertain how this policy will change afterwards.

The minimum program length is 2 years and includes a mix of didactic courses, clinical rotations and clinical projects. Each resident is assigned a mentor who acts as a guide throughout the program. During the first year, the residents have didactic training in Radiation Biology, Radiation Safety, Clinical Radiation Physics and Dosimetry and the Principles of Treatment Planning. Residents who already hold credit for these courses are exempted from enrolling during residency. There are rotations in Instrumentation, Treatment Planning and Quality Management. In the second year there are rotations in Brachytherapy and Imaging Physics, Advanced Treatment Planning and a continuation of Quality Management. One distinguishing feature of the program is that residents interact with a multidisciplinary environment involving radiation oncologists and radiation therapists during parts the Academic Block, the
Applied Physics tutorials and the Interdisciplinary Rotation that follows specific patients from first clinic to treatment.

Evaluation
Resident knowledge is evaluated at regular, topical resident question and answer sessions based upon the program syllabus. Comprehensive oral examinations are held at the end of each academic year; successful candidates to the final oral exam are considered to have fulfilled all program requirements, and may be sponsored for the Ontario Review A oral examination organized by a standing provincial committee of Cancer Care Ontario. Drs. Jean-Pierre Bissonnette and Katharina Sixel are members of the standing Review A examination committee.

In 2010-2011, three residents (Daria Comsa, Mark Ruschin, and Ananth Ravi) successfully challenged their Review A exams. All are now gainfully employed.

Academic output
Throughout the 2-year program the resident is expected to work one or more clinical physics projects under the supervision of a staff medical physicist. The results of this work were published in peer-reviewed journals or presented at the UT DRO Research Day or at the meetings of professional organizations.

Physics residents published twenty peer-reviewed papers, and nine others were in preparation. 25 abstracts were submitted to national or international conferences.

Special activity this year
In 2011, the program commenced an affiliation process with the Credit Valley Hospital, leading to ten resident positions for 2011-2012.
Postgraduate Medical Education

Radiation Oncology Residency Training Program
Program Director: Dr. Barbara-Ann Millar
Associate Program Director: Dr. Ida Ackerman/Dr. Patrick Cheung
Associate Program Director and Director Resident Research: Dr. Rebecca Wong

Introduction
The Radiation Oncology Residency Training Program is a five year CaRMS entry specialty training program fully accredited by the RCPSC. The goal of this radiation oncology program is to produce the academic clinical leadership of the future.

Participants
Currently enrolled trainees include: 24

PGY1
FotouhiGhiam, Alireza
Glick, Daniel
Klein, Jonathan
Livergant, Jonathan
Tseng, Chia-Lin (Eric)

PGY2
Alfaraj, Fatima
Kurtz, Goldie
Shahid, Negin
Skliarenko, Julia

PGY3
Barrett, Kate
Chiang, Andrew
Conrad, Tatianna
Hong, Eugene
Khan, Luluel

PGY4
AlDuhaiby, Eman
Caissie, Amanda
Giuliani, Meredith
Leung, Eric
Marchand, Eve-Lyne
Mohammed, Fazilat

PGY5
Al-Omair, Ameen
Chan, Elisa
Ishkanian, Adrian

Structure of program
The residency training program is comprised of a series of clinical attachments primarily at two fully affiliated teaching hospitals associated with the University of Toronto, Department of Radiation Oncology (UT DRO). The Princess Margaret Hospital at the University Health Network and the Odette Cancer Centre at The Sunnybrook Health Sciences Centre. PGY1 and PGY2 are primarily off service rotations. The trainees get six months exposure to radiation oncology in their PGY2. Residents can also elect to do up to 6 months of research training as part of the program. The clinical program is supplemented by a rich academic milieu of rounds, tumour boards, case conferences and visiting professorships at both institutions.

The clinical program is supplemented by formal teaching sessions and courses. The Academic Block during the PGY1, includes seven modules. The Fundamentals of Medical Physics, Fundamentals of Radiobiology, Introduction to Clinical Oncology, Research Methods – which includes indepth Biosstastistics, CanMEDS, Introduction to Radiation Therapy & Planning Systems and a Junior Anatomy course. The Fundamentals of Radiobiology Course, was developed under the leadership of Dr. Bradly Wouters, Dr. Robert Bristow and Dr. Anthony Bradey and is now offered in a condensed format. Distinguished Professor Dr. Michael Joiner attended as visiting faculty for the 2011 course.
The leadership for coordination and redesign of resident academic half day has been undertaken by Dr. Drew Hope. Academic half day now incorporates resident and faculty collaboration in teaching on core oncological topics as well as junior and senior resident treatment planning drills.

Other courses include PGY3 Applied Physics course and PGY4 - 5 Anatomy course. The residents are fortunate to have specific “meet the professor” sessions with visiting faculty such as Dr. Gill Duchenne and Dr. Robert Copps in 2011.

Evaluations
- Written examinations in physics and radiobiology in PGY1
- Mini Research Presentation evaluated by faculty Director of Resident Research during the academic block in PGY1
- OSCE’s in PGY2/PGY3
- Clinical Applied Physics Examination in PGY3.
- Treatment planning drills in PGY3 to PGY5 weekly during academic half days
- Radiation Treatment Planning Competency Examinations in PGY4 and PGY5
- Royal College Fellowship Certification Examinations in the spring of PGY5
- Bi-annual review of resident evaluations and progress in the program

Academic output
Radiation Oncology Residents presented their research at the UT DRO Research Day on May 7, 2011. There were 27 abstracts submitted for peer review by our physics & radiation oncology residents and fellows. The trainees presented 15 Orals and 12 posters at this year’s event. Dr. Todd Pawlicki, Director of Medical Physics and Clinical Operations was invited as keynote speaker. Out of the 7 Radiation Oncology residents that submitted abstracts, 4 presented oral presentation and 3 presented posters.

In addition, radiation oncology residents published 9 papers, submitted 18 abstracts, received 2 oral presentations and 11 poster presentations in major national and international conferences such as CARO, ASTRO, ASCO, MASCC, AACR and MASCC.

Academic Awards
From UT DRO Research Day event, Dr. Eric Leung, won the W.J. Simpson Award for Academic Excellence in Research by a Resident, Supervisor by Dr. Milosevic and Dr. Hill.

Meredith Giuliani won the following awards:
- Best Poster for a Postgraduate Trainee in Research, supervisors were Dr. Lindsay and Dr. Hope.
- Ellen Epstein Rykov Memorial Prize for excellence in postgraduate research, University of Toronto, supervisor Dr. Andrew Hope
- Timeposters Fellowship for excellence in postgraduate research, University of Toronto, supervisor Dr. Andrew Hope
- Joseph M. West Family Memorial Fund for excellence in postgraduate research, University of Toronto, supervisor Dr. Andrew Hope
- OICR Fellowship Grant for 13th Joint ECCO-AACR-EORTC-ESMO Workshop’ Methods in Clinical Cancer Research, Waldhaus Flims, Switzerland, supervisor Dr. John Kim and John Waldron

The residents awarded the annual clinical teaching award for 2011 to Dr. Patrick Cheung and the annual academic half day teaching award to Dr. Gerard Morton.

New this year, the Residents presented an Award for Excellence in Clinical Teaching by a Fellow to Dr. Louis Lao

Drs. Ameen Al-Omair, Elisa Chan and Adrian Ishkanian were congratulated on completing training in Radiation oncology and on achieving their Royal College Fellowships in Radiation Oncology.

Radiation Oncology Fellowship Program
Program Director: Dr. Charles Catton

Introduction
The UT DRO Fellowship Program is one of the largest and most successful radiation oncology fellowship programs in North America, attracting excellent candidates from around the world. It has three streams: a one-year Clinical Research Program; a one year Clinical Experiential Program and a two-year Research program. During the one-year Clinical Research Program, fellows acquire clinical expertise in one or two radiation oncology disease sites and complete a research project. The one-year Clinical Experiential Program is similar, except for a greater emphasis on clinical activities. The two-year Research Fellowship Program emphasizes training in the principles and conduct of scientific research. Fellows earn advanced degrees in a relevant department at the School of Graduate Studies at UT.

Participants
2010-2011 Fellows, Supervisor(s) and Country of Origin

<table>
<thead>
<tr>
<th>Fellow</th>
<th>Clinical and Research Supervisors</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Zishan Allibhai</td>
<td>Dr A Bezjak</td>
<td>Canada</td>
</tr>
<tr>
<td>Dr Alexis Bujold</td>
<td>Dr L Dawson</td>
<td>Canada</td>
</tr>
<tr>
<td>Dr Andrew Chan</td>
<td>Drs Waldron, O’Sullivan, Kim, Hope, Dawson</td>
<td>UK</td>
</tr>
<tr>
<td>Dr Albert Edwards</td>
<td>Drs Waldron, O’Sullivan, Kim, Hope, Dawson</td>
<td>UK</td>
</tr>
<tr>
<td>Dr Victoria Ford</td>
<td>Drs A Bezjak, J Cho</td>
<td>UK</td>
</tr>
<tr>
<td>Dr Doug Iupati</td>
<td>Dr C Menard, S Elantholiparameswaran</td>
<td>New Zealand</td>
</tr>
<tr>
<td>Dr Meredith Johnston</td>
<td>Drs Waldron, O’Sullivan, Kim, Hope, Dawson</td>
<td>Australia</td>
</tr>
<tr>
<td>Dr Sharlyn Kang</td>
<td>Drs J Kim, R Wong</td>
<td>Australia</td>
</tr>
<tr>
<td>Dr Su Woon Kim</td>
<td>Drs A Hope, A Bezjak</td>
<td>UK</td>
</tr>
<tr>
<td>Dr Louis Lao</td>
<td>Drs Gospodarowicz, Tsang, Brierley</td>
<td>New Zealand</td>
</tr>
<tr>
<td>Dr Laurence Masson-Cote</td>
<td>Drs Laperriere, Sahgal, Millar</td>
<td>Canada</td>
</tr>
<tr>
<td>Dr Laura Masucci</td>
<td>Drs Menard, Laperriere, Millar</td>
<td>Canada</td>
</tr>
<tr>
<td>Dr Gary Mok</td>
<td>Drs C Catton, P Warde</td>
<td>Canada</td>
</tr>
<tr>
<td>Dr Marita Morgia</td>
<td>Drs Fyles, Milosevic</td>
<td>Australia</td>
</tr>
</tbody>
</table>
Dr Nichola Naidoo  Dr R Wong  New Zealand
Dr Brandon Nguyen  Dr C Menard, S Elantholiparameswaran  Australia
Dr Paula McCloskey  Drs A Bezjak, J Waldron  UK
Dr Ananad Swaminath  Drs A Bezjak, L Dawson  Canada
Dr John Thoms  Dr R Bristow  Canada
Dr Albert Tiong  Drs Waldron, O’Sullivan, Kim, Hope, Dawson  Australia
Dr Minako Uchino  Dr P Catton  Japan
Dr Lorraine Walsh  Drs Fyles, Milosevic  Ireland
Dr Philip Wong  Drs C Catton, FF Liu  Canada
Dr Kristopher Dennis  Drs E Chow, M Tsao  Canada
Dr Iwa Kong  Dr E Rakovich  Canada
Dr Duc Le  Dr G Morton  Canada
Dr Hany Soliman  Drs S Wong, G Czarnota, G Stanicz  Canada

Structure of the Program
Fellows spend one or two years in a Research Fellowship or a Clinical Research Fellowship at either the Princess Margaret Cancer Program or the Sunnybrook Health Sciences Centre - Odette Cancer Centre. The foundation of the Research Fellowship stream is formal graduate training at a masters or doctoral level and requires the fellow to be accepted into graduate school. Fellows who already hold an MSc degree or higher may participate in the 2-year program without re-applying to graduate school. The UT DRO has developed a RO stream within the Institute of Medical Science as well as associations with the Departments of Medical Biophysics and Health Policy Management and Evaluation and the Ontario Institute for Studies in Education though UT DRO faculty cross-appointments. The foundation of the Clinical Research Fellowship stream is practice-based experience and research supervision in the clinical and translational academic programs of the Department.

This past year 27 fellows were involved in the Fellowship program at both sites, from Australia (5); Canada (12); Ireland (1); Japan (1); New Zealand (3); UK (5).

Academic output
Dr Philip Wong won a very prestigious 2011 ASCO Young Investigator Award.
Dr Karen Lim won the IMS Whiteside Award for her MSc Thesis dissertation.

Quality measures
Abstracts accepted: 45
Manuscripts published July 2010-May 2011: 17
Grants: PI (n=3) $285,000
Awards: 2
1 ASCO Young Investigators Award
1 Whiteside Award
Continuing Education

Highlights
This has been a very active and productive year for UT DRO CE activities. There has been a focus on improving collaborations and developing infrastructure to increase the reach and efficiency of our programs. The UT DRO CE office has built on its web platform and registration process. In addition, we have worked closely with the radiation medicine programs at Princess Margaret and Odette Cancer Centre to provide monthly joint rounds. The CE office has continued collaborative work with Cancer Care Ontario to host the Target Insight meeting, focused on the utilization of services and issues around access. In addition, the CE office continues to work closely with the UT DRO CE office on its 2010/2011 strategic planning process.

Leadership
The Departmental CE activities were led by individual course directors, with oversight provided by David Wiljer. In addition, the CE Committee provided strategic direction throughout the 2010/11 year.

CE Committee Members
David Wiljer, Chair
Ida Ackerman
Amanda Bolderston
Annemarie Butler
Nicole Harnett
Mary Hooey
Doug Moseley
Fei-Fei Liu
Michael Sharpe
Effie Slapnicar
Brad Wouters

The CE committee has met regularly this year and includes all of the Course Directors as well as representatives from each of the core radiation medicine disciplines. The CE Committee convened 2 times this academic year: 1) November 11 2010; 3) April 29, 2011.

The focus of the committee work was to identify common infrastructure required for CE, set strategic directions and foster productive and active partnerships.

CEI³ Core Curriculum

The UT DRO CEI³ is made up of a curriculum comprised of a fixed core of annual elements including UT DRO Rounds, Target Insight and the Radiation Therapy Conference, Inspire, Inquire and Innovate (RTI³), in addition to a variable program hosted by UT DRO faculty. Each program element has a Course Director, an inter-professional program and planning committee, is based on educational needs, is eligible for CE credits, intends to achieve an international profile and innovative elements, and is evaluated by standard educational criteria.
RTi3: Radiation Therapy Conference, Inspire, Inquire, Innovate:
March 4th and 5th 2011, Chestnut Conference Centre, Toronto
Course Directors: Amanda Bolderston and Tara Rosewall

This year the conference was again located at the Chestnut Conference Centre. The eighth Toronto conference was the first to feature two full days on Friday and Saturday. This expanded program allowed for a broader spectrum of topics, with a wider variety of educational modalities such as teaching sessions, lunch time discussions and practice sharing sessions as well as the usual workshops, podium and poster presentations. This year’s conference was highly successful, both in terms of increased registrations, the quality of the program and sponsorship.

Program goals were:
1. To disseminate the latest evidence in radiation therapy to inform and stimulate clinical practice
2. To provide learning opportunities for practitioners to update their clinical skills
3. To facilitate networking and communication and the development of professional communities of practice

Our keynote speakers this year were Hans Paul van der Laan (a radiation therapist researcher from University Medical Center Groningen Netherlands), “Optimizing CT guided radiotherapy for breast cancer”, Robert Adams (a radiation therapist educator University of North Carolina Department of Radiation Oncology, US) “Radiation therapists’ emerging roles in the creation of knowledge”, Coleen Dickie (research therapist, RMP) “From the ‘CollAmy’ to the ‘RT-6060 / T-Form Extremity Immobilizer System’” and David Hodgson (radiation oncologist, UTDRO/RMP) “Towards personalized medicine for young cancer patients: Modifying treatment for an uncomplicated cure”.

Conference workshops, focusing on Reflection and Portfolios and Starting Research, were presented in trans-Atlantic collaboration with Sheffield Hallam University (SHU) in the UK. SHU has a strong reputation for excellence in radiation therapy education and research. RTi3 will have a presence at the SHU conference in October, where we will be presenting a workshop and we hope to generate significant international interest in RTi3 2011. Interprofessional keynote speakers this year were from the UK, Toronto and the US, Dr. Heidi Probst, Beth Kapusta and Dr. Darryl Nazareth. The scientific program included the results of research performed by radiation therapists into organ motion management, professional practice and clinical outcomes, as well as student and inter-professional education.

Abstract submission award winners this year were:

**Best Podium Presentation:** Graham Smith, University of Toronto/Michener Institute
Title: Can deformable registration improve efficiency in adaptive radiation therapy treatment planning for head and neck cancer patients?

**Best Poster Presentation:** Cindy Tran, University of Toronto/Michener Institute
Title: An evaluation of the usability and usefulness of a multi-language online patient education module: a pilot study

**Top rated abstracts:**
Inspire: Lisa DiProspero, Odette Cancer Centre.
Title: What your peers think: Faculty perspectives with incorporating peer assessments as part of the teaching and learning for mandatory simulation sessions of the clinical practicum course.

Inquire: Grace Lee, Radiation Medicine Program, University Health Network
Title: Assessing the concordance in patient assessments between a breast site clinical specialist radiation therapist and radiation oncologist in weekly treatment reviews”

Innovate: Carrie Schultz, Juravinski Cancer Centre
Title: The future of brain tumour treatment is now: Clinical application of the CyberKnife system

The planning committee consisted of Tara Rosewall, Research Chair, Amanda Bolderston, Program Chair, Jane Higgins, Lisa DiProspero, Effie Slapnicar, David Wiljer.

Evaluations

95% of participants stated that they would recommend the conference to their colleagues and 75% of the respondents agreed that they would attend next year.

Comments included:

“I was very impressed with this conference … I liked that everyone was so passionate about their job and research, and the subjects were relevant and intriguing”

“I have already recommended this conference to all the other students in my program. It was very eye opening to see all of the research being carried out by other therapists and the possibilities out there. I left this event inspired.”
This meeting will explore the use of image-guided intensity modulated radiation treatment (IMRT) in relation to three important and related themes that impact our ability as radiation treatment professionals to influence the burden of cancer suffering:

- optimal utilization of radiotherapy, so that those who need treatment receive it in a timely manner
- radiotherapy quality and safety, so that patients always receive the best possible treatment
- accurate radiotherapy planning and delivery, so that the treatment is always directed to the right location

“On Target, On Track” highlights the importance of working towards radiotherapy utilization targets, establishing compliance targets for important quality indicators and enhancing the identification of tumour targets using state-of-the-art imaging.

This meeting, now in its fifth year, is a partnership between the University of Toronto Department of Radiation Oncology and Cancer Care Ontario and will explore the question of whether or not Ontario is on track in the adoption of technologies, guidelines and best practices to provide effective and safe treatment to all who might benefit.

The program addresses practical issues related to the utilization of current and emergent radiation therapy technologies, as well as current research and future directions. This 2 day program is anchored by 2 distinguished keynote speakers: Jerry Battista, Head, Division of Radiation Oncology, University of Western Ontario and Lawrence Marks, Professor and Chair, Department of Radiation Oncology, University of North Carolina at Chapel Hill.

The planning committee consisted of Michael Milosevic (Co-Chair), Michael Sharpe (Co-Chair) Ida Ackerman, Patrick Cheung, Eric Gutierrez, Nicole Harrett, Mary Hooey, Elizabeth Murray, Effie Slapnicar and David Wiljer

**Advanced Education Program**

The Accelerated Education Program is *putting innovation to work* through educational programs dedicated to promote essential aspects for clinical care: 1) the integration of emerging technologies; 2) the creation of innovative workplace models; 3) using research findings to improve practice. The Accelerated Education Program (AEP) is a unique partnership between the Department of Radiation Oncology and the Radiation Medicine Program at Princess Margaret Hospital / University Health Network that creates learning environments that are engaging, creative and interactive. The focus is on interdisciplinary activities that enhance team-work and collaboration. The goal of the program is to deliver timely, relevant and excellent programming of interest to all radiation medicine professionals.

*Currently, the AEP Program has two major offerings: the IGRT and the IMRT Courses*

**IGRT Education Course**

Course Directors: Nicole Harrett, Pamela Catton, David Jaffray
The Foundations IGRT Education Course has run twice this year, with a total of 55 participants. It continues to be relevant and well-received, and talks and practical exercises are continually revised to reflect changing technology, changing practice, new data and changing needs of participants. The Course is frequently engaging new faculty members of all disciplines to teach in the Course, allowing them to develop their presentation skills and to interact with external participants.

The first specialized course module – the Lung IGRT Education Course - was developed and run February 10-12th, 2011, with 27 participants. While a selection of talks from the original (Foundations) Course still provided essential content to the new course, many were newly-developed to address issues more specific to lung radiotherapy. Dr Jan Jakob Sonke, an internationally respected medical physicist from NKI in the Netherlands was the guest faculty member for this course providing an external perspective as well as experience from the research domain.

Course evaluation continues to be undertaken for faculty, curriculum, and application to practice, and results are consistently very positive.

**IMRT Education Course**  
Course Directors: Nicole Harnett and Michael Sharpe

As special edition of this IMRT Course was delivered for Cancer Care Ontario in response to demand in the province and to help them meet a variety of provincial objectives related to IMRT implementation. This additional course was delivered on November 26 and 27th. The 2-day course was attended by 32 radiation medicine professionals from around the province.

**UTDRO Rounds in collaboration with RMP and OCC**  
Coordinator: Drs. Lee Manchul and David Wiljer

UTDRO Rounds are delivered monthly and include joint Rounds with the radiation programs at PMH and Odette. This new format allowed us to expand the opportunities to share work and meet on a monthly basis. The new format includes video conferencing at both locations to promote collaboration and improve access to the events.

The UTDRO Rounds included:


**James Wright, Veronique Benk (Visiting Professor).** Trials & Tribulations” The Challenges of Clinical Research. December 14th, 2010.


**Andrew Loblaw.** The Value of Biological Dose Escalation in Prostate Cancer. April 28th, 2011.

**Robert Dinniwell.** May 26th, 2011.

**Eileen Rakovitch.** June 23rd, 2011.

**Other Continuing Education Activities**

*CE Publications*


**UT DRO Faculty in Continuing Education Leadership**

The UT DRO Director is playing an active role in the University of Toronto CE Office, attending the monthly CE Leadership Meeting as well as the Research in Continuing Education (RICE) quarterly meetings.

*Leadership Positions*

Pamela Catton, Member, Scientific Committee, Toronto Cancer Conference
Lee Manchul, Chair, UT Faculty Council Continuing Education and Professional Development Committee
Lee Manchul, Co-Chair, Awards Committee, Continuing Education and Professional Development
Lee Manchul, Chair, CME Section, Northeast Group on Educational Affairs, Association of American Medical Colleges
David Wiljer, Vice-President, American Association of Cancer Education
Medical Radiation Sciences Program

Academic Director: Dr. Pamela Catton
Academic Coordinator: Cathryne Palmer

The undergraduate Medical Radiation Sciences (MRS) Program is a second-entry joint BSc/Diploma of health professional education program offered by UT DRO and the Michener Institute. This four year interprofessional degree is offered in three calendar years and is comprised of didactic, simulated and clinical courses. Three discipline specific streams are offered: Radiation Therapy, Radiological Technology, and Nuclear Medicine Technology. There were 375 students registered in 2010-2011. The MRS Program prepares students for tomorrow's professional practice, for future leadership roles and to pursue advanced graduate degrees.

Participants

2010-2011 MRS Students

Acheson, Stephanie
Adam, Abdirahim
Adams, Alexander Laurie
Aidan
Adem, Finte
Ahmed, Sabreena
Aiyenimelo, Olugbenga
Ajodha, Shannon
Ali, Ayan Osman
Allanigue, Gayle Andriette
Allen, Kevin
Alsaffar, Nael
Andani, Salmaan
Anderson, Charlene
Anwari, Vahid
Arif, Imran
Arrosa, Sebastian
Au, Calvin Ka Kwan
Aucielo, Danielle
Aulakh, Mehma
Azeez, Kamal
Aziz, Sundus,
Ban, Leann
Barrera-Arbelaez, Luis Miguel
Barrett, Stephenie
Barrette, Justin
Baxter, Annie Bo Peng
Beda, Kevin Andrew
Bell, Jennifer-Lynn
Bian, Lingjun
Biernaski, Heather

Bilal, Ahmad
Bodnar, Calli
Bodnarchuk, Kevin
Boghozian, Ramon
Bola, Rupinder
Borges, Noah
Bourque, Jennifer Ruth
Bowen, Andre
Breeze, Carole
Brothers, Nadine
Bryant, Kirsten
Bukhari, Sidra
Burgess, Amy Marie
Butnar, Stefania Florica
Callan, Ryan
Chai, Yun Ho
Challiwala, Asma
Chan, Edward Yau-Cheong
Chan, Elena
Chan, He
Chan, Jenny Hoi Yan
Chan, Kai
Chan, Queenie Kwan Mei
Chan, Selig
Chan, Tammy
Chandrarajan, Shaline
Chang, Wing Wei Janet
Chau, Jessica
Chaudhry, Hamza
Chaudry, Shafa Anwar
Chee Hing, Stefanie K

Chen, Chun-Lin
Chen, Duoduo
Chen, Feng
Chen, Susan
Cheng, Eric
Cheng, Teresa Yee-Ting
Cheung, Hannah
Chiu, Mondi
Cho, Joon Ho
Choi, Yenjeung
Chow, Anna
Chow, Raymond Seong Jun
Chow, Steven Aung Myo
Chu, Anna On-San
Chu, Rosa Lok-San
Chui, Derek
Chung, Grace
Chung, Jae Min
Chung, Lawrence Siu Fai
Ciecwierz, Claudia
Cioata, Emilie
Clark, Sandra
Coelho, Ruvette Delia
Colantonio, Adam David
Cole, Colin
Cooke, Anne
Courtland, Daniel
Cox, Kimberly
Crowe, Brandon
Croy, Charles Alexander
Cruz, Christopher Kyle
Cumal, Aaron Angelo
Da Silva, Alisha
Dhesi, Dilpreet Kaur
Divadalage, Nisal Chamika
Do, Hong-Duc
Doyle, Ashley
Doyle, Erica Kristen
Dufault, David
Duong, Sandra-Mac
Effendi, Melanie
Elliott, Elizabeth
Espinoza, Frank
Etwaroo, Davana
Ezati, Parissa
Famiyeh, Fidelia
Fan, Ji Ming
Fernandes, Anthony
Fong, Angela Ai Chen
Forster, Alison
Fragale, Matthew
Fung, Calvin
Fung, Lydia
Gacek, Tomasz
Galapin, Madette Ravi Julianne
Galeano, Angelica
Gandhi, Riddhi
Gandhi, Shalmali
Ganesh, Tameshwar
Gareli, Sara
Garofolo, Mikki
Ghayas, Nasheeta
Ghaza, Sana Muhammad Azhar
Gheorghita, Albert Razvan
Ghide, Luwam
Giovinazzo, Michael
Gopee-Ramanan, Prassaaanthan
Grewal, Kirandeep
Haden, Kristin
Hamed, Eman
Hanna, Mena
Hashmi, Fatima
Hawes, Jennifer Brianne
Hazell, Ryan
Heywood, Aishah Meghann
Hoang, Thao
Hong, Victor
Hospattankar, Roshan
Hsiung, Li Wen
Hsu, Kenneth
Huang, Lily Yi Ying
Hui, Michael
Hum, Stephanie
Hung, Pinky Cho Ying
Hussain, Faiza Mohammad
Javaid
Hussain, Syed Abid
Ibrahim, Nevin
Icasiano, Amanda
Irwin, Kaitlyn
Iyer, Kartik
Jackson, Scott
Jama, Ali
Javed, Samina
Jong, Anthony K
Kabatoff, Amanda
Kam, Melissa
Kangas, Jessica
Kapoor, Dhreeti
Kawamoto, Erena
Keddie, Louise
Keh, Eirene Megan
Kelly, Sara Lynn Holly
Keshwah, Rachel Naomi
Alexis
Khalfan, Fatima Zahra
Khalid, Yaser
Khan, Abdul-Hameed
Kim, Jung Eun
Kim, Sara
Kim, Suyeon
Komal, Teesha
Kong, Franco
Koskinen, Jason
Krishnakulasingam, Yasietha
Kwan, Derrick Leho
Lalonde, Lisa
Lam, Angie
Lanh, Nixon
Lao, Helen
Laviola, Michael
Lee, Ivy
Lee, Joan
Lee, Ka Yee Karen
Lee, Ming Hon Eric
Leneve, Kevin
Lesani-Abdi, Nagmeh
Leung, Wilson Chung-Hon
Li, Karla
Li, Veny Yunn
Li, Yan
Li, Ying
Liang, Eddie
Liao, Kevin
Lin, Chin-Hsu
Lin, Qi
Linay, Jarred
Lindsay, Irene
Ling, Kelvin Kar Fai
Ling, Kuok Yi
Liu, Chloe
Liu, Fanfan
Liu, Lu
Liu, Pingzi
Liu, Xun
Lui, Alvin
Luu, Crystal Pui San
Ly, Jennifer
Ly, Nguyen Nga
Lynch, Briana
Ma, He
Ma, Kai
Mac, Sandra May
Macaulay, Robyn Lucy
MacKay, Nicole
Mackillop, Laura
MacPherson, Kristina
Macumber, Stephen
Mak, Jonathan Kenneth
Malik, Mehreen
Man, Shei-Yee
Marchand, Joshua
Martis, Julian Cedric
Mashintsova, Marina
Mattonen, Sarah Ashley
Mccart, Jessica
Mcconnell, Kristie
Michie, Caitria
Mills, Hayley
Misaka, Cristiane Yukie
Mistry, Dipan
Mistry, Rakeshbhai
Mohamed, Sabena
Mohamed Ibrahim, Shukri
Mohla, Rahul
Mok, Lillian Man-Lai
Mok, Susan
Morrison, Christine
Morrison, Felicia
Motha, Tasneembanu
Mottershead, Megan
Moy, Jenny
Muca, Denisa
Muhammad, Autif
Munir, Aneela
Murphy, Kristina Robyn
Nadeem, Kashif
Naugle, Shaun Cameron
Nelli, Stephen Anthony
Gabriel
Ng, Christopher
Ng, Jennifer Kar-Yee
Nguyen, Jenny
Nowak, Daniella
Nurse, Allison
Nwabughuogu, Chinedu
Olmstead, Craig
Omar, Sara
Padiachy, Melanie
Pai, Anushka
Park, Yoon Kyung
Patel, Anisha
Patel, Dhara
Patel, Ekta
Patel, Nisharg
Patel, Simitkumar
Pau, Alexander
Paul, Jaysree
Peden, Lisa
Peters, Lisa
Pham-Chau, Amy
Philbrick, Alicia
Phull, Nina
Pineda, Danilo Suarez
Power, Kaitlyn Marie
Prisciak, Erin
Qadir, Saira Anam
Quaasalmy, Mikhael
Quach, Antonia
Quinn, Patrick
Rajathurai, Janani
Ramadani, Odeta
Ramezani, Zohreh
Rankin, Zena Alexandra
Raveendran, Sinduja
Ravi, Raja
Reinhart, Rebecca
Ruddy, Christopher
Rudra, Viraj Kanishka
Sadikali, Zahir
Salonga, Rose-Anne
Sarju, Linda Chandra
Satkunanathan, Praveenan
Savelberg, Mary Lillian
Katherine
Shaikh, Muhammad
Shin, Jee Hae Rebekah
Sidhu, Raajan
Silverberg, Lindsay
Sinnesael, Kendra
Sirisegaram, Abby
Smith, Graham
Smith, Julie Allison
Smith, Mackenzie
Song, Anny Szu-Ying
Soulliere, Amie
Steeves, Katrina
Su, Helen
Sulistijo, Andrew
Sundaram, Athyrai
Taher, Mohammad
Tam, Henry
Tam, Michael Ka Chun
Tan, Josephine
Tariq, Mehwish
Taylor, Leanne
Terentii, Alina
Thompson, Dina
Toda, Eiko
Tran, Cindy
Tran, Jimmy
Trivedi, Kush
Truong, Michelle
Tsang, Betty
Tse, Tiffany
Tung, Anita
Ugulini, Brooklyn
Uppal, Ashley
Uy, Anne Marie
Vanasse, Magdalyn
Vane, Marco
Venkatraman, Mansa
Vig, Ramandeep
Vo, Khang
Vuong, Chelios Phi Lon
Wahab, Lames
Waite, Anna Marie
Wang, Lu Ning
Wang, Ni
Ward, Emma
Ward, Isobel K
Wight, Carolyn Danielle
Wilson, Laura
Wlasenko, Larysa
Wong, Danny
Wong, Jason
Wong, Marcus Alexander
Wong, Olive
Wong, Venus Cheuk Kwan
Woo, Amy
Wood, Boyce
Woodbeck, Kiersten
Woolnough, Laurie
Wu, Tzu-Yi
Wu, Zhen Jennifer
Xi, Jie
Xie, Pan
Xin, Ye
Yao, Gongcheng
Yap, Rachel Tien Tsui
Yeung, Man Yuk
Yeung, Marco Man Kei
Yip, Karen
Yip, Kathy Wan Kei
Yip, Tony Ho Ting
Ymele Leki, Vanessa Audrey
Yu, Ambrose Chi Fung
Yu, Danny Kenneth
Yu, Ling
Yue, Wen Wendy
Zammit, Sara
Zhang, Raymond
Zhang, Xuan
Zhao, Yi
Zhao, Yue
Zhou, Yi Xin
Zhou, Yujia
Zu, Young
**Current Student Statistics**

<table>
<thead>
<tr>
<th>Enrolment</th>
<th>Radiological Technology</th>
<th>Nuclear Medicine</th>
<th>Radiation Therapy</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 2013</td>
<td>40</td>
<td>39</td>
<td>49</td>
<td>128</td>
</tr>
<tr>
<td>Class 2012</td>
<td>40</td>
<td>31</td>
<td>48</td>
<td>119</td>
</tr>
</tbody>
</table>

*Table 1: Current Student enrolment numbers, per discipline as of May 1st 2011*

<table>
<thead>
<tr>
<th>Enrolment</th>
<th>Radiological Technology</th>
<th>Nuclear Medicine</th>
<th>Radiation Therapy</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 2011</td>
<td>36</td>
<td>40</td>
<td>52</td>
<td>128</td>
</tr>
</tbody>
</table>

*Table 2: Number of students eligible to graduate at Convocation, June 2011*

**Structure of the Program**

This joint program combines the strengths of the Faculty of Medicine of the University of Toronto and The Michener Institute for Applied Health Sciences (Michener) and makes full use of their complementary resources and expertise. The integrated three-year curriculum aims to provide students with a broad-based theoretical and analytical foundation for their discipline-specific professional responsibilities. Graduates receive a B.Sc. in Medical Radiation Sciences from the University of Toronto and an Advanced Diploma of Health Sciences from Michener. Students receive instruction at both institutions.

Teaching faculties are drawn from both the University of Toronto and Michener. The program is designed to accommodate 130 students per year. The three-year curriculum provides students in each of the three disciplines a core curriculum of broadly based content along with discipline-specific courses and clinical practice activities. The program provides breadth and depth of knowledge and develops analytical, critical and evaluative skills. Professional values, responsibility, accountability, sensitivity and ethical attitudes towards both the consumer and health care community are emphasized. Students learn to evaluate and consider the implications of their professional actions. The clinical practicum components integrate and apply the material taught in lectures and labs, leading to the development of clinical competence. Each student is required to complete 38 weeks of full-time clinical practice.

Courses delivering knowledge and imparting skills required in common by all three disciplines comprise the core curriculum and include instruction in anatomy, clinical behavioral sciences, inter-professional collaboration, patient care, physiology, relational anatomy and research methods. Students in each discipline undertake, in addition, a set of courses focused on discipline specific material. Clinical practice and experiences at the affiliated hospital sites are specific to the discipline. The curriculum emphasizes critical thinking, evidence-based practice and problem solving in the belief that these attributes play a crucial role in the optimal delivery of health care in today’s evolving health care environment.

**Graduation Statistics**

<table>
<thead>
<tr>
<th>Radiological Technology</th>
<th>Nuclear Medicine</th>
<th>Radiation Therapy</th>
</tr>
</thead>
</table>
Table 3: Percentage of students successful on the first write of the National Certification exam. (National averages in brackets).

<table>
<thead>
<tr>
<th>Year</th>
<th>Technology</th>
<th>Medicine</th>
<th>Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>84.0 (88.1)</td>
<td>90.6 (89.5)</td>
<td>97.1 (90.4)</td>
</tr>
<tr>
<td>2007</td>
<td>96.0 (94.2)</td>
<td>83.9 (82.8)</td>
<td>98.2 (89.2)</td>
</tr>
<tr>
<td>2008</td>
<td>96.9 (94.9)</td>
<td>81.8 (79.2)</td>
<td>71.7 (75.0)</td>
</tr>
<tr>
<td>2009</td>
<td>91.7 (91.3)</td>
<td>97.0 (91.4)</td>
<td>94.5 (90.5)</td>
</tr>
<tr>
<td>2010</td>
<td>97.1 (90.1)</td>
<td>75.0 (83.3)</td>
<td>80.4 (79.0)</td>
</tr>
</tbody>
</table>

Academic output
Overall Highest Academic Standing:
Gold, Silver and Bronze awards are given to the graduates attaining the highest overall cGPA at the June 2010 Convocation Ceremony

Gold Medalist: Benoit Ladouceur – Radiation Therapy
Silver Medalist: Matthew Schwietz – Radiological Technology
Bronze Medalists: Kerri McDougall – Nuclear Medicine

Research Awards
University of Toronto/Michener Institute Award for Excellence in Research by a Final Year Medical Radiation Sciences Student.
Winner: Kevin Smith - Radiation Therapy
Title: "Use of the AP-PA POP Technique for the Treatment of Spinal Metastases"
Co-Supervisors: Michelle Lau, MRT(T), Rebecca Wong, MD & Daniel Letourneau, PhD

Honourable Mention
Anna Kim – Nuclear Medicine
Supervisors: Brian Marvin, MRT(N), Glenn Wells, PhD & Terry Ruddy, MD

Clinical Project Awards
In each discipline the students who have the highest marks for Clinical Project are recognized for their achievements.

Radiological Technology
Outstanding achievement in clinical project: Catherine Mellor
Honourable mention: John Tran

Nuclear Medicine
Outstanding achievement in clinical project: Kerri McDougall
Honourable mention: Alexander Yuen

Radiation Therapy
Outstanding achievement in clinical project: Natalia Matthew
Honourable mention: Taya Kerstens
Special Activity this Year
The MRS Program leadership continues to develop a collaborative strategic agenda for the Program moving forward with an emphasis on quality. The Program also continues to build, consolidate and develop long term relationships with its clinical partners, providing professional development opportunities and exploring new clinical education models. This past year has seen relationships develop with both Southlake Regional Health Centre and the Carlo Fidani Peel Regional Cancer Centre at Credit Valley Hospital.

The strong relationship with the Department of Physiology and the Division of Teaching Laboratories at U of T has continued to flourish. This relationship, in collaboration with the Division of Anatomy in the Department of Surgery, continues with the ongoing development of an online Anatomy course to be implemented and delivered to MRS students in September 2011.

The clinical simulation semester, a semester designed to better prepare students for entry into the clinical practicum component of the Program continues to evolve and advance, as newer technologies become available. Moreover increased participation from the medical radiation sciences clinical faculty, particularly from Princess Margaret Hospital and the Odette Cancer Centre, provides for a more diverse learning environment. The MRS Program also continues to align and integrate the UofT longitudinal interprofessional learning activities throughout the MRS curriculum.

For the intake of 2011 the Program has chosen to replace the traditional personal interview with the Multiple Mini Interview (MMI). The MMI is an admissions interview process developed by McMaster University for its school of medicine. This process has been adopted by other health professional programs at UofT (such as the Physician Assistant Program and Pharmacy) as well as the health professional programs at Michener.
Equity Report
Program Director: Fei-Fei Liu

Since the initial appointment of the Equity Officer within UT DRO in 2008, a website has been established, hosted on the UT DRO webpage, informing the community of the existence of this position, and accessibility to the Equity Officer to discuss any issues of concern.

Important information is provided on this webpage, including relevant dates for religious observances, the University of Toronto Human Resources and Equity Annual Report, the newly-established Standards of Professional Behaviour for Medical Clinical Faculty, the University of Toronto Employment Equity Report, and the Ontario Human Rights Code.

There has also been co-ordination with counterparts within the Faculty of Medicine to ensure streamlining and harmonization of Equity and Professionalism activities. To that end, the UT DRO Equity Officer has been collaborating with Dr. David McKnight, the Associate Dean of Equity and Professionalism in the Faculty of Medicine, at the University of Toronto on developing programmatic activities promoting Diversity and Professionalism within UT DRO. This activity was “operationalized” by presenting the first set of rounds at the Odette Cancer Cancer in January 2010 with Drs. David McKnight, Pam Catton, and F-F Liu. This set of information rounds was very well received.

A plan for this presentation to be repeated at the Princess Margaret Hospital Site later in 2010 did not take place, for several different reasons. This will be re-planned to take place in 2011.
Research Report
Dr. David Jaffray

Members of UT DRO have made significant gains in research funding and productivity in the last year. The current faculty has tremendous strength and expertise in diverse research areas that spans molecular radiation biology, radiation physics and imaging, outcome studies and clinical trials, and health services and epidemiology. Strong collaborations, both within and beyond the University (national and international), have been established. In the UT DRO strategic planning, the faculty has identified the need to centre our research efforts on the urgency to improve patient care and outcomes. The following themes on research have emerged based on the recent completed strategic planning of UT DRO:

1. Repairing radiation damage including developing the world’s first program in “Radio-Repair”
2. Optimized biological and physical targeting for the patient including multidisciplinary, multimodal targeting, initiating radioisotope therapy research, and smart particle therapy research
3. Informatics for radiation oncology including creating a Toronto-wide data warehouse.
4. Metastatic and recurrent disease research including building the best metastatic disease management program in the world.

The faculty is currently working on an implementation strategy to develop these four research themes.

Research Highlights

- **Dr. Robert Bristow** received $20M for his research project “The Canadian Prostate Cancer Genome Network (CPC GENE)” from Prostate Cancer Canada and the Ontario Institute for Cancer Research.
- **Dr. Greg Czarnota** secured a $421,000 grant from Cancer Care Ontario for research entitled “Combined ultrasound and optical methods for personalizing care in locally advanced breast cancer.”
- **Dr. Lawrence Paszat** was awarded a $1.2M Cancer Care Ontario Research Unit Grant for his work with SCREEN-NET ONTARIO: The Ontario Cancer Screening Research Network.
- **Dr. Rebecca Wong** was awarded a Canadian Radiation Oncology Foundation/Sanofi-Aventis Research Innovation Award for her research “A Phase I/II study of high dose rate brachytherapy for the palliation of rectal cancer.”
- **Drs. Loblaw, Ménard, Bristow, Vesprini, and Haider**, in collaboration with Drs. Klotz (coPI), Fenster, Sugar, and Van der Kwast, have secured a Strategic Grant from the OICR for their research entitled "Active Surveillance Magnetic Resonance Imaging Study (ASIST Trial)." The $2.7M Grant is effective from 2011-2013.
- **Dr. Jean-Philippe Pignol** secured a CIHR Operating Grant valued at $130,323 for his work with Dr. Ivo Olivotto entitled “Long term outcomes of a multicentre controlled clinical trial of breast irradiation using IMRT.”
Indicators of Success

Yearly Research Funding (Figure 1)

Yearly Research Funding*

While measures of research funding are made more complex by the distribution of fund administration across UofT, OCC, and UHN, the trend to increased revenue is encouraging. We continue to refine our assessment measures and this year’s number includes our most accurate estimate to date by drawing on current faculty-provided data. Values represent the annual value of the awards, and not the full awarded amount for multi-year grants. The categorization of “Other” funding in 2009-2010 only includes University-granted funding. The 2010-2011 successes in landing large program (CCS), network (ORF-RE) and infrastructure (CFI) grants will introduce large variations in the totals. This masks interesting trends in investigator-driven operating grants, as well as, interferes in forecasting program growth. In the future, funding should be reported with finer granularity. Overall, UTDRO is maintaining a healthy level of funding per faculty with many more grants to be included in next year’s tally.

*2011 Research Report corresponds to the 2010/2011 academic year. However, funding statistics for 2010/2011 are not available at time of report generation, therefore, reported funding stats correspond to 2009/2010 academic year.

Active Protocols

Summary

- Review of Faculty Funding and Awards revealed an increase in funding. This observed increase is due to multiple factors including the success of UTDRO faculty in negotiating large program project grants. The ability to compete for these funds is a positive indicator for the department.

- Protocol activity remains high. The surge in protocols in 2008 could be attributed to the broad adoption of IGRT in the clinical setting. One hypothesis is that these new technologies instigate clinical studies of their performance relative to conventional approaches.
Publications

Comparison of publication output with peers: 2007-2010 (Figure 2)

![Bar chart showing total publications for UT All, UT Core, UBC, and MDA institutions from 2007 to 2010.]

Publications per investigator: 2007-2010 (Figure 3)

![Bar chart showing publications per investigator from 2007 to 2010.]

Four year summary of publications compared to peers: 2007 - 2010 (Figure 4)

<table>
<thead>
<tr>
<th>Institution (n investigators)</th>
<th>Papers</th>
<th>Citations (Aug. 2011)</th>
<th>Papers per PI/year</th>
<th>Cites per paper</th>
<th>Proportion cited</th>
</tr>
</thead>
<tbody>
<tr>
<td>UT Core (n=115)</td>
<td>1002</td>
<td>9311</td>
<td>2.2</td>
<td>9.3</td>
<td>82.5%</td>
</tr>
<tr>
<td>UT All (n=150)</td>
<td>1007</td>
<td>9327</td>
<td>1.7</td>
<td>9.3</td>
<td>82.5%</td>
</tr>
<tr>
<td>MDA (n=52)</td>
<td>552</td>
<td>6854</td>
<td>2.7</td>
<td>12.4</td>
<td>89.5%</td>
</tr>
<tr>
<td>UBC (n=65)</td>
<td>176</td>
<td>2541</td>
<td>0.7</td>
<td>14.4</td>
<td>86.3%</td>
</tr>
</tbody>
</table>

Proportion of Higher-impact publications and publications in Top Journals: 2007-2010 (Figure 5)
UT DRO Higher-impact publications: 2007-2010 (Figure 6)

UT DRO publication collaboration across clinical sites and disciplines in the UT DRO: 2007-2010 (Figure 7)
Summary of Bibliographic Review

- UHN DRO investigators continue to publish a substantial number of papers and fall between their American and Canadian peers in terms of publication intensity. The publication rate continues to trend higher in 2009-2010, including an increase in publications per investigator. Our competitiveness with respect to publications in high impact journals and citation rates is a quantity that needs to be monitored. The multi-disciplinary nature of the faculty could be a factor that affects this metric. The publication of articles related to technical factors in the practice of radiation oncology are likely to yield lower impact factors. We have seen the development of many smaller journals that respond to the large number of papers emerging in this domain. This includes the launch of Practical Radiation Oncology (PRO) by Elsevier in response to the submission rate to the Int J Rad Onc Phys Biol (Red Journal). The demonstrated trend (Figure 6) toward higher impact factor publications in the department seems somewhat inconsistent and these trends required further investigation.

- This year’s report attempted to analyze the degree of cross-discipline and cross-site collaborations through the bibliographic database. The department promotes itself as being multi-disciplinary in its education and research and measuring trends in this regard would provide evidence. Based on the results in Figure 7, it is clear that we are more multi-disciplinary in our collaboration than we are multi-site. The strategic plan has a number of elements that should encourage more cross-institutional collaboration and this metric will be able to monitor the impact of these elements of the strategic plan. Finally, identifying a comparison department at another university would be valuable to allow us to benchmark our degree of multi-disciplinary collaboration.
Research Grants


Breen SL, Jaffray DA. Adaptation of head and neck radiotherapy based on magnetic resonance imaging. Ontario Research Fund / IMRIS (ORF). $360,000, 2010-2013.


Bristow RG. A High-throughput Discovery of Prostate Cancer Stem Cell Epitopes. Orillia Cancer Foundation-Motorcycle Ride For Dad. $70,000, 2011-2012.


Chow E. Development of a Canadian-led international bone metastases module to accompany European Organization for Research and Treatment of Cancer Quality of Life Group Core Questionnaire (the EORTC QLQ-C30) for future clinical trials in patients with bone metastases Phase IV study. EORTC Quality of Life Group Grant. 74,000 Euro, 2010-2011.


Chung H, Ko YJ. Radiosensitization with bevacizumab for stereotactic body radiotherapy (SBRT) for colorectal liver metastases. Investigator-initiated funding from Hoffman-La Roche Limited. $73,000, 2010-2012.


Coolens C. 4D perfusion computed tomography. Dean’s Fund University of Toronto, $10,000, 2010.

Coolens C, Validation framework for 4D perfusion computed tomography. Natural Sciences and Engineering Research Council of Canada (NSERC), Discovery Grant. $100,000.00, 2010-2015.


Goldenberg A, Trachtenberg J, Kucharczyk W, Haider MA, Sussman M. MRI-guided focal ablation of prostate cancerous tissue. NSERC CHRP Award. $375,000, 2010-2013.


**Nyhof-Young J.** The virtual experience in radiation oncology (VERO): Website hosting, marketing and dissemination grant. Pfizer Medical Education Grant for Health Care Quality Improvement & Education. $2,000, 2010-2011.

**Nyhof-Young J.** Kinoshita K, Loo J, Vincent J. Implementation and evaluation of an experiential 'elective' in spirituality for preclerkship medical students at the University of Toronto. Education Development Fund, University of Toronto. $8,543, 2010-2012.


Oza A, **Milosevic M.** Ontario Institute for Cancer Research (OICR) Translational Team Award to support high impact clinical trials. Ontario Institute for Cancer Research (OICR). $1,000,000, 2011-2014.


Szumacher E, Maamoun J, Feldman-Stewart D, Fitch M, DasGupta T, Court A, Kiss A. Investigating the opinions of health care providers involved in treatment of patients with prostate cancer in the province of Ontario, regarding the informational needs of non-metastatic post-prostatectomy cancer patients referred for
adjuvant or salvage radiotherapy (a multidisciplinary approach) – Unrestricted Education Grant. Abbott Laboratories. $20,000, 2010-2011.


Vesprini D. Canadian BRCA1/2 Prostate Cancer Network. Prostate Cancer Canada Research Partnership. $20,000/year, 2010-2015.

Wiljer D, Bender J, Gospodarowicz M. Testicular cancer survivorship needs. PMH Testicular Cancer Site Group. $5,000, 2010-2011.


Zhao W, Rowlands JA. Flat panel X-ray imaging detector with avalanche gain. National Institutes of Health (NIH) Operating Grant. $1,750,000, 2010-2014.
Publications

Peer-Reviewed Publications


**Carlone M.** Compensation of missed fractions without knowledge of radiobiological parameters. Med Dosim (published online March 10, 2011).


Chow JCL, Owrangi AM. Monte Carlo study on mucosal dose in oral and naval cavity using photon beams with small field. J Radiother Pract (published online January 2011).


Fraser M, Coackley C, Durocher D and Bristow RG. MRE11-Dependent Phosphorylation of AKT at Sites of DNA Double Strand Breaks. Cell Cycle 1(10) 13-18, 2011.


Jonklaas J, Cooper DS, Ain KB, Bigos T, Brierley JD, Haugen BR, Ladenson PW, Magnier J, Ross DS, Skarulis MC, Steward DL, Maxon HR, Sherman SI, National Thyroid Cancer Treatment Cooperative Study Group. Radioiodine therapy in patients with stage I differentiated thyroid cancer. Thyroid 20(12):1423-1424, 2010.


Quon H, Loblaw DA, Nam R. Dramatic increase in prostate cancer cases by 2021. BJU Int (published online April 2011).


Ramaekers CHMA, van den Beucken T, Meng A, Kassam S, Thoms J, Bristow RG, Wouters BG. Hypoxia Disrupts the Fanconi Anemia Pathway and Sensitizes Cells to Chemotherapy Through Regulation of UBE2T. Radiother Oncol (Published online June 29, 2011).


Wong J, Mendelsohn D, Nyhof-Young J, Bernstein M. A qualitative assessment of the supportive care and resource needs of patients undergoing craniotomy for benign brain tumours. Support Care Cancer (published online October 27, 2010).


Non Peer-Reviewed Publications


Milosevic M and the Canadian Partnership for Quality Radiotherapy (CPQR) steering committee. Quality assurance guidance for Canadian radiation treatment programs, 2011.


Books and Book Chapters


Abstracts


Abstacts ctd.


Ko CJ, Ning H, Campheusen K, Smith S, McNally D, Choyke P, Lita E, Coleman N, Ménard C, Kaushal A. Phase II trial of combined high-dose-rate brachytherapy and external beam radiotherapy for Adenocarcinoma of the prostate: Long-term follow-up of trial NCI 02-C-0207. American Society of


Zeng L, Di Prospero L, DasGupta T, Vachon MLS, Holden L, Jon F, Chow E. Comparison of occupational stress in rapid response radiotherapy program’s interprofessional team, the radiation therapists and the nurses at the Odette Cancer Centre. RTi3: Radiation Therapy Conference, University of Toronto Department of Radiation Oncology (UTDRO), Toronto. Conference Proceedings A9 P39, 2
Presentations

**Barker, Ruth**
Fostering scholarship in medical education in cancer care through inter-institutional collaboration; challenges and opportunities. 8th Annual Radiation Therapy Conference, Toronto. 2011

Making Your Research Idea a Reality. 6th Annual Odette Cancer Centre Surgical Oncology Day, Toronto. 2011

The development of a screening tool to facilitate the provision of quality patient focused supportive care within a radiation therapy department. 8th Annual Radiation Therapy Conference, Toronto. 2011


**Beachey, David**

Outcome of Early Stage Non-Small Cell Lung Cancer Treated with Stereotactic Body Radiotherapy. American Society of Clinical Oncology (ASCO) Annual Meeting, Chicago, USA. 2010

Radiation Dose Escalation in Small Cell Lung Cancer. 5th Annual Ontario Thoracic Oncology Conference (keynote speaker), Niagara–on-the-Lake. 2010

Stereotactic Body Radiotherapy – The Hype and The Promise. University of Toronto CE Oncology Rounds (tele-rounds), Toronto. 2010

Application of IGRT to Palliative Lung RT. The Lung Image-Guided Radiation Therapy Education Course, Toronto. 2011

Implementing Lung Stereotactic Body Radiotherapy Program. The Fourth Annual International Symposium on SBRT and Stereotactic Radiosurgery, Orlando, USA. 2011

Issues in Radical Radiation Therapy in Lung Cancer. Sudbury Image-Modulated Radiation Therapy Coaching Course, Sudbury Regional Hospital, Sudbury. 2011

Issues in Radical Radiotherapy for Lung Cancer. The Lung Image-Guided Radiation Therapy Education Course, Toronto. 2011

Lung Cancer 101 – Setting the Stage. The Lung Image-Guided Radiation Therapy Education Course, Toronto. 2011

The PMH Lung SBRT Program – Progress and Challenges. Radiation Medicine Program Rounds, Toronto. 2011

**Bissonnette, JP**
La Radiothérapie Guidée par l’image pour le Cancer du Poumon. Hôpital Maisonneuve-
Rosemont, Montréal. 2010

Radiotherapy Quality and Safety in Canada: An Inter-Disciplinary, Pan-Canadian Collaboration. CARO Workshop, Vancouver. 2010

Retrospective analysis of incidents & a classification scheme. COMP Winter School, Banff. 2010

Collaborating for Quality. RTi3 Workshop, Toronto. 2011

Incident Classification and Reporting. COMP Winter School, Mont Tremblant. 2011.
Quality Assurance for Image-Guided Radiation Therapy. QA and Dosimetry Symposium, Orlando, USA. 2011

Quality Assurance for kilovoltage Cone-beam CT Image-guidance. Southeast Chapter of the American Association of Physicists in Medicine, Myrtle Beach, USA. 2011

**Brade, Anthony**
A phase II study of concurrent pemetrexed/cisplatin/radiation (RT) for unresectable stage IIA/b non-small cell lung cancer (NSCLC). American Society of Clinical Oncology (ASCO) Annual Meeting, Chicago, USA. 2010

Combining VEGF Axis Inhibition with Radiotherapy. Radiation Oncology Research Rounds, Odette Cancer Centre, Sunnybrook Hospital, Toronto. 2010

Nimotuzumab: Current Development and Future Directions; Head & Neck Cancer NSCLC and Glioma. Clinical Trial Speaking Engagement, New Delhi, India. 2010


YMB1000-010 Phase 1 Results. Clinical Trials Speaking Engagement, Vancouver. 2010

Preliminary results: a phase I study of Sorafenib and palliative radiation in patients with malignancy in the thorax, abdomen or pelvis. 3rd Symposium Novel Targeting drugs and radiotherapy (NTDR), Toulouse, France. 2010

**Bradley, Renate**
Move over Avatar, Here comes VERT, presentation at the VERTUAL booth, 34th American Society Radiologic Technologist (ASRT) Conference, San Diego, USA. 2010

**Breen, Stephen**
Applying Quality Tools in Radiotherapy. Hamilton Seminar Series, Juravinski Cancer Centre, Hamilton. 2010

Managing Change in Head and Neck IMRT. IMRT Insights, Toronto. 2010

PET in Radiotherapy Treatment Planning. Radiological Society of North America, Chicago, USA. 2010
Applying Quality Tools in Radiation Medicine. Canadian Organization of Medical Physicists (COMP) Winter School on Quality and Safety in Radiation Oncology, Mount Tremblant. 2011

**Brierley, James**
Cancer Staging 101, Canadian Partnership Against Cancer. 2010

New UICC Staging System for Cancer (TNM-7) and Japanese Staging System: Problems and Future Perspectives in Major Cancers. 69th annual meeting of the Japanese Cancer Association, Osaka, Japan. 2010

Cancer Staging – It’s importance beyond the bedside. Department of Radiation oncology, Seattle Washington, USA. 2010

Colorectal Cancer Management – Adjuvant Radiotherapy, Canadian Surgical Forum, Quebec. 2010

IMRT in Anal Cancer. IMRT Insights: Transforming Practice Through Collaboration, Toronto. 2010

Cancer Stage: How are we using Stage Data In Ontario? Does TNM have a future? Kingston Regional Cancer Centre; Grand Rounds Kingston. 2011

Cancer Staging: TNM and Collaborative Stage Joint Canadian Partnership against Cancer and Canadian association of Pathologists, WebEx Education Session, Toronto. 2011

Non-Surgical Management of Thyroid Carcinoma. Head and Neck Imaging for ENT Surgeons and Radiation Oncologists. Ontario Association of Radiologist, Toronto. 2011

**Bristow, Robert**
High Risk PCA – Radiation or Surgery? 2nd Annual PMH Uro-Oncology Dialogue Conference, Westin Collingwood. 2010

Genomics, DNA Repair and Prostate Cancer, Myriad Genetics Scientific Advisory Baord Meeting, Salt Lake City, USA. 2010

View of the Radiation Oncologist in Prostate Cancer. Swiss Academy of Multidisciplinary Oncology (SAMO) Interdisciplinary Workshop on Urogenital Tumors, Lucerne, Switzerland. 2010

Studies of DNA repair *in situ* as biomarkers of radio- and chemo response. 2010 Ontario Cancer Institute Retreat, Deerhurst Resort. 2010


Molecular Determinants of Prostate Cancer Radioresponse. UK Prostate Cancer Research Foundation Forum, North Yorkshire, England. 2010

The ICGC Prostate Project. Australian-Canadian, Prostate Cancer Research Alliance (AC-PCRA), Brisbane, Australia. 2010
Thoughts on IHC and Genetic Validation of MRI-based Prostate Imaging. Australian-Canadian, Prostate Cancer Research Alliance (AC-PCRA), Brisbane, Australia. 2010

The Biology of Prostate Hypoxia and Approaches to Targeting. Australian-Canadian, Prostate Cancer Research Alliance (AC-PCRA), Brisbane, Australia. 2010

Targeting DNA Repair as a New Therapy for Prostate Cancer. Prostate Cancer Foundation of Australia (PCFA), Brisbane, Australia. 2010

Array CGH & Copy Number Alteration: Novel Prognostic Determinants of Prostate Cancer Radiotherapy Outcome. National Cancer Institute (NCI) Radiation Resistance in Cancer Therapy meeting, Bethesda, USA. 2010

Hypoxia and PARP Inhibitors: Taking Advantage of Contextual Lethality. European Society for Therapeutic Radiology and Oncology (ESTRO) 29th Annual Meeting, Barcelona, Spain. 2010

The Tumour Microenvironment Exploiting Pathways for Targeted Therapies. Radiation Research Meeting, Maui, USA. 2010

Out of the Box Thinking in Radiobiology for Hypoxia and DNA Repair. Medical Biophysics (MBP) Retreat, Lake Couchiching. 2010

Contextual Cell Lethality and Hypoxic Cancer Cell Kill. American Society for Radiation Oncology (ASTRO) 52nd Annual Meeting, San Diego, USA. 2010

DNA repair gene modifications in prostate cancer and individualised therapy: A Canadian-ICGC prostate cancer project. Translational Cancer Genomics Symposium, Personal Genomes for Improved Cancer Care, Garvan Institute of Medical Research, Sydney, Australia. 2010


Genomic and Microenvironmental Predictors of Prostate Cancer Radioresponse. 22nd L H Gray International Conference, Realizing the potential of drug/radiation interactions in cancer treatment, Manchester, United Kingdom. 2011


Contextual Synthetic Lethality: Studies of Hypoxia and DNA Repair. 3B ASTRO Translation Research Meeting, Georgia, USA. 2011

Contextual Synthetic Lethality: Studies of Hypoxia and DNA Repair and Prostate Cancer. Queen’s University Cancer Research Institute, Kingston. 2011

Contextual Synthetic Lethality: DNA Repair and the Tumour Microenvironment. Vertex, Boston, USA. 2011
Presentations ctd.

Personalized Prostate Cancer Medicine Based on Genetic Predictors of Radiotherapy Response. Southern Alberta Cancer Research Institute, University of Calgary, Calgary. 2011

Contextual Synthetic Lethality and the Tumour Microenvironment: Implications for PARP Inhibitor Development. DNA Damage Repair Symposium, Abbott Laboratories, Chicago, USA. 2011

**Brock, Kristy**

Deformable Registration in Prostate Radiotherapy, ESTRO 29 Annual Meeting, Barcelona, Spain. 2010

Improving Contouring and Segmentation, ASTRO Annual Meeting, San Diego, USA. 2010

Imaging Challenges for Radiation Oncology: Imaging for Adaptive Planning—What if the Target Changes? Deformable Registration, RSNA Annual Meeting, Chicago, USA. 2010

Implementation of Adaptive Radiation Therapy, ASTRO Annual Meeting, San Diego, USA. 2010

Optimizing MR Imaging for Treatment Planning, AAPM Annual Meeting, Philadelphia, USA. 2010

Adaptive Radiotherapy: Imaging, Dose Accumulation, and Ensuring it is Correct, BIRC Seminar Series, London. 2011

Deciding What to Target with IG-IMRT: The Role of Correlative Pathology, Brigham and Women's Hospital, Boston, USA. 2011


Image Registration and Dose Warping for Inter-Fraction Deformation. GEC-ESTRO Annual Meeting, London, UK. 2011

Motion Management SBRT, IGRT, IMRT, ASTRO State of the Art Techniques: IMRT, IGRT, SBRT, Las Vegas, USA. 2011

The Use of Biomechanics in Deformable Image Registration, New England AAPM Meeting, Boston, USA. 2011

**Carlone, Marco**


**Cashell, Angela**

Encouraging reflection: Do professional development workshops increase the skill level and use of reflection in practice? RTi3, Toronto. 2011

**Catton, Charles**

Combined Management of Soft Tissue Sarcomas. Oncology Grand Rounds. Queen Elizabeth II Health Sciences Centre, Halifax. 2010

Pelvic IMRT for Prostate Cancer. Allan Blair Cancer Centre, Saskatchewan. 2010
Thoracic Sarcomas. Seminar for Thoracic surgery residents University of Toronto and McMaster University, Toronto. 2011


**Catton, Pamela**  
Helping Her Heal Group Program: Pilot study of an educational group intervention for male spouses of women with breast cancer. Canadian Association of Psychosocial Oncology Annual Meeting, Toronto. 2011

The PMH Cancer Survivorship Program: Health, Wellness and the Cancer Journey, Halifax. 2011

**Cheung, Patrick**  
Advances in Radiotherapy for Lung Cancer. Wellspring Discussion Series in conjunction with Lung Cancer Canada, Toronto. 2010

Stereotactic Body Radiotherapy. IMRT Insights: Transforming Practice through Collaboration (Target Insight IV), Toronto. 2010

Radiation Therapy for Prostate Cancer: The Latest and Greatest Approaches Prostate Cancer: The Latest Lifesaving Information Lecture Series. Sunnybrook Health Sciences Centre, Toronto. 2011

**Chow, Edward**  

Symptom clusters in patients with advanced cancer – a reanalysis comparing different statistical methods. MASCC/ISSO 23rd Inter Symop Supp Care Canc, Toronto. 2011

Update of the international consensus on palliative radiotherapy endpoints for bone metastases. Ann Hosp Pall Care Confer, Toronto. 2011

Update on the systematic review in palliative radiotherapy trials for bone metastases. MASCC/ISSO 23rd Inter Sympo Supp Care Canc, Toronto. 2011

Validation of a predictive model for survival in patients with advanced secondary analysis of RTOG 9714. Ann Hosp Pall Care Confer, Toronto. 2011

**Chow, James**  
Monte Carlo simulation on low-energy electrons from gold nanoparticle in radiotherapy. High Performance Computing in Medical Science meeting, Montreal. 2011

Monte Carlo simulation on a gold nanoparticle irradiated by electron beams. International Workshop on Recent Advances in Monte Carlo Techniques for Radiation Therapy, Montreal. 2011
Radio media interview (AM1540 A1 Radio): The effects of radiation on people’s health resulting from the latest nuclear incidents in Japan, conducted by Mary Yang, Director of news and public affairs at Princess Margaret Hospital, University Health Network, Toronto. 2011

Radio media interview (AM1540 A1 Radio): Radiation safety after the demineralized water leak at the Pickering nuclear plant, conducted by Mary Yang, Director of news and public affairs at Princess Margaret Hospital, University Health Network, Toronto. 2011

TV media interview (CP24): Health effects of radiation exposure from nuclear plant explosions in Japan, conducted by Sarah Tratt, Senior Producer and Reporter Jee-Yun Lee at Ryerson University Campus, Toronto. 2011

Chung, Caroline
Biomarker investigation in intracranial murine glioma study of radiation and antiangiogenic therapy, Biennial Canadian Neuro-Oncology Meeting Oral Presentation, Niagara-on-the-lake. 2010

Intracranial Murine Tumour Investigation of Radiation and Antiangiogenic Agents Using Serial MRI, University of Toronto Department of Radiation Oncology Research Day 2010 Oral Presentation, Toronto. 2010

Intracranial Murine Tumour Investigation of Radiation and Anti-Angiogenic Agents Using Serial MRI, Imaging for Treatment Assessment in Radiation Therapy (ITART), 2010 Oral Presentation, Maryland, USA. 2010

Intracranial Murine Tumour Investigation of Radiation and Antiangiogenic Agents using Serial MRI, Canadian Association of Radiation Oncology (CARO) 2010 Oral Presentation, Vancouver. 2010

Multidisciplinary Management of Brain Metastases, Princess Margaret Hospital Conference, Toronto. 2010

Serial multiparametric MRI in study design and response evaluation of radiation and antiangiogenic therapy in an intracranial murine glioblastoma model, The International Society for Magnetic Resonance in Medicine (ISMRM) 2010 Poster Presentation, Montreal. 2010

Murine Model for Early Biomarkers of Response to Antiangiogenics and RT, Imaging Network of Ontario 9th Annual Symposium, Toronto. 2011

Role of Radiosurgery for Brain Metastases in the Oligometastatic Lung Cancer, Ontario Thoracic Cancer Conference, Niagara-on-the-Lake. 2011

Update on Radiosurgery for Neuro-oncology at University Health Network, City Wide Neuro-oncology Rounds, Toronto. 2011

Chung, Hans

Chung, Peter
Image Guided Radiation Therapy in Prostate Cancer, IGRT Education Course, Princess Margaret Hospital, Toronto. 2010

New Information Reforming Clinical Practice, IGRT Education Course, Princess Margaret Hospital, Toronto. 2010

Post-Prostatectomy Radiation Therapy – PMH Uro-Oncology Dialogue Meeting, Blue Mountain, Collingwood. 2010

Radiotherapy in the Management of Sarcoma. Sarcoma Patient Event Lecture, Mount Sinai Hospital, Toronto. 2010

Skin Cancer, 15th Annual National Canadian Preparatory Course in Clinical and Radiation Oncology. McGill University, Montreal. 2010

Skin Cancer, 16th Annual National Canadian Preparatory Course in Clinical and Radiation Oncology. Ottawa Cancer Centre, Ottawa. 2011

Soft tissue sarcomas. Michener Institute, Health Sciences Building, Toronto, Ontario. 2011

**Coolens, Catherine**
4D Functional imaging for treatment response assessment in radiotherapy, Credit Valley Hospital, Mississauga. 2011

**Craig, Tim**
SmartArc Commissioning and Implementation: The PMH experience. Arc Therapy as Accelerated IMRT: Principles, Practice and Implementation, Metropolitan Hotel, Toronto. 2011

**Cummings, Bernard**
Case based teaching – gastrointestinal cancers. Princess Margaret Hospital Radiation Medicine Education Program: Current Strategies in Radiation Therapy, Mexico City, Mexico. 2010

Conservative treatment of low rectal cancer. ASTRO International Education Program. Annual Meeting Society of Radiation Oncologists of Chile, Coquimbo, Chile. 2010

Radiation treatment of metastases from colorectal cancer. Colorectal Cancer Association of Canada, Montreal. 2010

Radiation therapy in Pancreas Cancer. ASTRO International Education Program. Annual Meeting Society of Radiation Oncologists of Chile, Coquimbo, Chile. 2010

The development of treatment for anal cancer: from conventional to conformal. 32nd Annual Congress of the Association of Radiation Oncologists of India (AROI), Patna, India. 2010

When change is progress. Reflections on 38 years of Head and Neck Radiation Oncology. Wharton/Elia Day, Annual Meeting, Princess Margaret Hospital, Toronto. 2010

Radiation Therapy, Rectal Cancer and Clinical Trials: Lessons and Opportunities. The Cosbie Lecture, NCIC Clinical Trials Group Spring Meeting, Toronto. 2011
Czarnot, Gregory Jan

Micro-Doppler Ultrasound in Monitoring Cancer Therapy Responses. Acoustical Society of America (ASA) 2nd Pan-American/Iberian Meeting on Acoustics, Cancun, Mexico. 2010


D'Souza, Neil
How NOT To Get Your Cancer Centre in The New York Times: Quality and Safety in Radiation Oncology. Radiation Oncology Quality Assurance Rounds, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto. 2010

Moderator. IMRT Quality Assurance And Safety. Target Insight IV: IMRT, Transforming Practice Through Collaboration. Department of Radiation Oncology, University of Toronto, Toronto. 2010

Quality Improvement in Radiation Oncology: Practice Change at The Odette Cancer Centre. Radiation Oncology Quality Assurance Rounds, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto. 2010

The Importance Of Communication In Preventing Errors And Catching Near Misses In Health Care. Inter-professional healthcare students lecture series. Sunnybrook Health Sciences Centre/University of Toronto, Toronto. 2010

The Role of Communication in Preventing Health Care Errors. University of Toronto Institute of Healthcare Improvement Chapter Lecture Series, University of Toronto, Toronto. 2011

A Decade of Quality Improvement in Radiation Therapy at the Odette Cancer Centre: What We’ve Learned and Where We’re Going. Radiation Oncology Quality Assurance Rounds, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto. 2011

Davey, Phil
Hyperfractionation Treatment of Brain Mets. Rapid Radiation Response Program Rounds, Odette Cancer Centre, Sunnybrook Health Sciences Centre. Toronto. 2011

Dinniwell, Robert
Clinical Target Volume Delineation GYN – Hand’s-on Contouring, Spring Meeting
UNYSTRO (Upper New York Society for Therapeutic Radiology and Oncology, Syracuse, USA. 2011

Pelvic and Inguinal Lymph Node clinical Target Volume Delineation, Target Insight, Toronto. 2011

Feuz, Carina
Bridging the Gap for Students from Developing Countries: An Educators’ Anecdotal Experience. The 7th Annual Radiation Medicine Conference RTi3, Chestnut Conference Centre, Toronto. 2010

Radiation therapy: Treatment of cancer. University of Toronto Summer Mentorship Program, Princess Margaret Hospital, Toronto. 2010

De novo development of an Interprofessional Palliative Care Case-Based Simulation. Educational Exchange - AAPHM/HPNA Annual Assembly, Vancouver. 2011

From chalkboards to iPads: Teaching across the generations. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting, Winnipeg Convention Centre, Winnipeg. 2011

Preceptorship Workshop 1. Medical Radiation Sciences Clinical Preceptorship Course, Odette Regional Cancer Centre, Toronto. 2011

Preceptorship Workshop 2. Medical Radiation Sciences Clinical Preceptorship Course, Princess Margaret Hospital, Toronto. 2011

Gillian, Caitlin
Engaging Young Leaders in the MRT Community. CAMRT Leadership Development Institute, Ottawa. 2010

Options & Opportunities. St Clement’s School, Toronto. 2010

Collaborating for Quality. 8th Annual RTi3 Conference, Toronto. 2011

Gospodarowicz, Mary
Cancer Program Kuwait Cancer Control Center, Kuwait City, Kuwait. 2010

Cancer staging and prognosis in the era of personalized medicine Excellence in Oncology – Cutting Edge Findings into Clinical Practice Athens, Greece. 2010

Can we make high technology radiotherapy affordable? (Session Chair) UICC World Cancer Congress, Shenzhen, China. 2010

Case presentations in Hodgkin’s lymphoma ASTRO Annual Meeting, Boston, USA. 2010

Cancer staging and prognosis NCRI Cancer Conference, Liverpool, USA. 2010

Global health in radiation oncology (ARRO resident session chair), ASTRO Annual Meeting, Boston, USA. 2010
Internet applications and cancer (Session Chair) UICC World Cancer Congress, Shenzhen, China. 2010

Radiation Oncology – Quo Vadis?, Gordon Richards Lecture, CARO Annual Meeting, Vancouver. 2010

Radiation therapy for stage I seminoma, game on or game over? ASTRO Annual Meeting, Boston, USA. 2010

Role of radiotherapy in DLBCL Aggressive Lymphomas Workshop, Bologna. 2010

The World Cancer Declaration – A call to action from the global community UICC World Cancer Congress, Shenzhen, China. 2010

World Cancer Day – Cancer can be prevented, too 59th IFMSA General Assembly, Montreal. 2010

**Haider, Masoom**

Clinical Perspectives on Prostate Cancer Imaging and Therapeutics. Special Clinical Session. 2010 IEEE International Ultrasonics Symposium. San Diego, USA. 2010

Integrated Scientific Program Genitourinary Keynote Speaker: Prostate MRI: Ready for Prime Time. RSNA, Chicago, USA. 2010

MRI of the Prostate. Thunder Bay Medical Society Summer Course, Thunder Bay. 2010

The Cystic Lesions of the Pancreas. Refresher Course. RSNA, Chicago, USA. 2010

Prostate MRI: Advanced Imaging and Interventional Techniques. Society of Uroradiology Annual Meeting, Carlsbad, USA. 2011

**Harnett, Nicole**
A Tale of Two Advanced Practice Radiation Therapy Roles at the Juravinski Cancer Centre in Hamilton, Ontario, Canada. Radiation in Therapy Conference, Sheffield, UK. 2010

Advancing practice: Lessons learned from radiation therapy. 68th Annual CAMRT Conference, Quebec City. 2010

Advanced practice in Radiation Therapy: Bright Future or Future Shock? 7th Annual Radiation Therapy Conference (RTi3), Toronto. 2010

Multi-site CSRT Collaboration: Increasing aboriginal people’s access to cancer care. 7th Annual Radiation Therapy Conference (RTi3) Received award for “Best Poster” of the conference. Toronto. 2010
Organs-At-Risk (OAR) in H&N Radiation Therapy – Delineation Challenges and Dosimetric Relevance. Canadian Association of Radiation Oncology (CARO), Vancouver. 2010

The impact of contouring specialists on the process of head and neck IMRT treatment planning. 7th Annual Radiation Therapy Conference (RTi3), Toronto. 2010

There’s no “I” in IMRT: the perceived value of an interprofessional approach to learning about Intensity-odulated Radiation Therapy. Target Insight Annual Conference, Toronto. 2010

Weekly Radiotherapy Treatment Review: A Concordance Study between a Breast Site Clinical Specialist Radiation Therapist & Radiation Oncologist in Patient Assessments. 68th CAMRT Annual General Conference, Quebec City. 2010

**Hayter, Charles**

From Private Practice to Public Problem: Cancer Control in Canada, 1900-1950, Colloque Histoire de Cancer 1750-1950, Universite de Toulouse, Toulouse, France. 2011

**Heaton, Robert**
Reference Dosimetry: From the Standards Lab to the Clinic. Kuwait Cancer Control Centre, Kuwait City, Kuwait. 2011

The evolution of total body irradiation delivery at Princess Margaret Hospital. Kuwait Cancer Control Centre, Kuwait City, Kuwait. 2011

**Higgins, Jane**
Impact of Daily CBCT on Setup Error and Setup Margins for Conventionally Fractionated Lung Radiotherapy Patients, Radiation Therapy Conference: Inquire Inspire Innovate (RTi3), Toronto. 2010

Finding your Best Match: 3D and 4D lung Image-Guided Radiotherapy, Ontario Association of Medical Radiation Technologists (OAMRT), Huntsville Deerhurst, USA. 2011

**Hill, Richard**
Are stem cells rare in tumours? Oncology at the Limits Conference, Cape Town, South Africa. 2010

Assessing DNA damage in skin for Biodosimetry. Defence Canada, Medical Preparedness Workshop, Ottawa. 2010

Assessing DNA damage in skin for Biodosimetry. Molecular Oncology and Basic Sciences Course, Niagara on the Lake. 2010

Assessing DNA damage in skin for Biodosimetry. NIAID/NIH Meeting, Radiation-induced cutaneous injury, Bethesda, USA. 2010
Cancer stem cells, knowns and unknowns, Manitoba Institute of Cell Biology, Cancer Care Manitoba. 2010

Cancer stem cells, knowns and unknowns. 3rd International Meeting of Investigative Pathology, San Paulo, Brazil. 2010

Cyclic Hypoxia and Metastasis. Tumour Microenvironment Meeting, Toronto. 2010

Effect of Genistein and EUK-207 on Radiation Induced Lung Damage. NIAID/NIH Meeting on Radiation Induced Lung Injury, Bethesda, USA. 2010

Hypoxia and Stem Cells in Tumours. OICR Cancer Stem Cell Program, Toronto. 2010


Investigating the Microenvironment of Tumours. Radiation Research Society Annual Meeting, Maui, USA. 2010

Mechanisms of Metastasis. Terry Fox Research Institute, Annual Scientific Meeting, Vancouver. 2010

Progression in Cervix Cancers: Role of the Microenvironment. Center for Biophysical Assessment & Risk Management Following Irradiation Retreat, Rochester, USA. 2010


Hodgson, David

Controversies in the Management of T-cell Lymphomas (Panel Discussant). Conference on the Evidence-based Management of Cancers, Tata Memorial Hospital, Mumbai, India. 2010

Management of Early Stage Follicular Lymphoma. Annual Scientific Meeting, American Society of Therapeutic Radiology and Oncology, San Diego, USA. 2010

Ovarian Function Among Young Women Treated for Breast Cancer. Canadian Breast Cancer Foundation Public Education Event, Scarborough. 2010

Radiotherapy has an Important Role in the Management of Diffuse Large B-cell Lymphoma in the Rituximab era. Eighth Annual Evidence Based Management of Cancers. Tata Memorial Hospital, India. 2010

Role of Radiation Therapy in Extranodal Aggressive Non-Hodgkin Lymphoma. Eighth Annual Evidence Based Management of Cancers. Tata Memorial Hospital, India. 2010

The Evolution of Treatment for Pediatric Hodgkin Lymphoma: the North American Experience. Pediatric Radiation Oncology Society Congress/Annual Scientific Meeting of the International Society of Pediatric Oncology. 2010

Update of Pediatric Hodgkin Lymphoma Trials. Annual Meeting, Children’s Oncology Group, Dallas, USA. 2010

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Update on the Management of Extranodal Aggressive Histology Lymphoma. Annual Conference on the Evidence-based Management of Cancers, Tata Memorial Hospital, Mumbai, India. 2010

Towards Personalized Medicine for Young Cancer Patients: Modifying Treatment for an Uncomplicated Cure. RTi3 Radiation Therapy Conference, Toronto. 2011

**Hope, Andrew**
Stereotactic Lung Radiation Therapy. Belfast City Hospital Lung Masterclass, Belfast, Ireland. 2011

Extracranial stereotactic irradiation, Annual meeting of the Irish Association of Radiation Oncology, Galway, Ireland. 2011

**Huang, SH**
Human Papillomavirus and Cancers, Radiation Therapy Research Round, Odette Cancer Centre, Toronto. 2010

MRT(T) Research Bites: Truths and Myths About HPV and Oropharyngeal carcinoma, Joint UT DRO Rounds. Princess Margaret Hospital, Toronto. 2010

Current Knowledge about HPV-related Oropharyngeal Carcinoma. Radiation Therapy Team 1 Meeting, Toronto. 2011

**Jaffray, David**
Adapting to the Changing Technological Environment. Elekta SAB Meeting, Toronto. 2010

Adaptive Radiation Therapy: 2\textsuperscript{nd} Order Correction or the Future of RT. IMRT Insight. Old Mill, Toronto. 2010

Evaluation of Technology: Relevant Endpoints from the Perspective of the Physicist. AMPICON Scientific Meeting, Lucknow, India. 2010


John S. Lauglin Memorial Lecture Visiting Professorship (MSKCC) Memorial Sloan-Kettering Cancer Center. 2010

New Frontiers in Image-Guided Radiotherapy: Investigation in Nanotechnology. AMPICON Scientific Meeting, Lucknow, India. 2010


Quantification of Unwanted Dose in Perfexion. 15\textsuperscript{th} Int’l Leksell Gamma Knife Society Meeting, Greece, Athens. 2010

SRT with “Perfexion. 15\textsuperscript{th} Int’l Leksell Gamma Knife Society Meeting, Greece, Athens. 2010
Presentations ctd.

TG-104: IN-room kV Computed Tomography for Image-Guidance. AAPM Annual Meeting, Philidelphia, USA. 2010

What can Anatomical Treatment Assessment Tell Us. ITART, Gaylord National Hotel and Convention Center, National Harbor, USA. 2010

What are we doing to Address Patient Safety. ASTRO/AAPM, (SRI) Safety in Radiation Therapy. Miami, USA. 2010

IGRT, Inter and Intra Fractional Motion Management. International Centre for Theoretical Physics. Trieste, Italy. 2011

Image-guided Radiation Therapy: Asymptote or Revolution? RMP Rounds, Princess Margaret Hospital, Toronto. 2011

Importance of Acutal Versus Planned Delivered Dose Distributions. Radiogenomics Consortium Workshop, ESTRO, London, United Kingdom. 2011

Monte Carlo Calculations and Advanced Planning: Monte Carlo Current Status, Speed and Accuracy. International Centre for Theoretical Physics, Trieste, Italy. 2011

MR-Based Target Verification: Development of an MR-guided LINAC. IMRT Insight: On Target On Tract, Toronto. 2011


Overview of Medical Imaging in Radiation Therapy Including ICRU Concepts. International Centre for Theoretical Physics, Trieste, Italy. 2011

Patient Immobilization, for Precision RT, Body Frames, Visual Patient Tracking, Respiratory Management. International Centre for Theoretical Physics, Trieste, Italy. 2011

Patient Specific QA for IMRT: Dosimetry, EPID and Cone Beam CT, MVCT (KV-CBCT). International Centre for Theoretical Physics, Trieste, Italy. 2011

The Future of Image-Guided Radiation Therapy: Mighty Machines or Nanotech? EIRR21 Brainstorm Session, Princess Margaret Hospital, Toronto. 2011

**Keller, Brian**

Permanent breast seed implants: The physics perspective. Sunnybrook Health Sciences Centre. Inter-disciplinary radiation oncology rounds. (Web-Cast), Toronto. 2011

**Keller, Harald**

Texture-based segmentation of Glioblastoma Multiforme Tumors in MR Images. XVIth International Conference on the Use of Computers in Radiation Therapy (ICCR), Amsterdam, The Netherlands. 2010
Texture Changes On Hartley Transformed MRI Images as An Early Indicator of Treatment Response in Glioblastoma Multiforme. Imaging for Treatment Assessment in Radiation Therapy (ITART), Washington, USA. 2010

**Kim, John**
The Multi-Disciplinary Approach to Rectal Cancer Management: Radiation Oncology Perspective, Sudbury Regional Cancer Centre, Sudbury. 2011

Conformal Radiotherapy for Pelvic GI Cancers, CCO Coaching Visit, Grand River Regional Cancer Centre, Kitchener. 2011

Does Mesorectal Fascia Involvement Need Tailored Treatment? Kuwait Cancer Control Center, Kuwait. 2011

The Radiation Oncology Management of Rectal Cancers, Radiation Oncology Grand Rounds, Kuwait Cancer Control Center, Kuwait. 2011

The Principles of IGRT for Pelvic Cancers, Kuwait Cancer Control Center, Kuwait. 2011

Image Fusion and Registration, Kuwait Cancer Control Center, Kuwait. 2011

**Koch, Anne**
Characterizing the dynamic assembly of APLF at sites of DNA damage. Maintenance of Genome Stability Conference. Antigua. 2010

What’s new in breast cancer in 2010, PMH Conference, Toronto. 2010

PARP1 facilitates the ATM-dependent phosphorylation of APLF which is involved in the DNA damage response. Accepted for poster presentation, Keystone Symposia Genomic Instability and DNA Repair, Keystone Colorado, USA. 2011

Poly(ADP-ribose)-dependent signaling in the DNA damage response. Oral presentation, 9th Conference on Signalling in Normal and Cancer Cells, Banff. 2011

**Koritzinsky, Marianne**
Tumor cell adaptation to hypoxia – therapeutic exploitation with radiation, 56th Annual Meeting of the Radiation Research Society, Maui, USA. 2010

**Laperriere, Normand**
Annual Meeting of The Chinese Society of Radiation Oncology (CSTRO) and The Sino-American Network for Therapeutic Radiology and Oncology (SANTRO), Hangzhou, China. 2010

Ask the Panel: Expert Panel. The Management of Brain Tumours. Canadian Brain Tumour Foundation, Patient information day, Calgary. 2010
Challenges in the Assessment of T1 Gadolinium and T2 Flair Images in the RESCUE Study. RESCUE Volumetric Study, Montreal. 2010

Detection of Pseudoprogression and Pseudoresponse. Canadian Research Update Meeting, Satellite Meeting to the 14th Biennial Canadian Neuro-Oncology Meeting, Niagara-on-the-Lake. 2010

New Developments in Radiation Therapy for Brain Tumours. Canadian Brain Tumour Foundation, Patient information day, Calgary. 2010


The Role of Concomitant Chemo-Radiation in the Treatment of Malignant Glioma. 2010


The Role of Temodal with Radiation in Malignant Gliomas. 2010 Annual Meeting of The Chinese Society of Radiation Oncology (CSTRO) and The Sino-American Network for Therapeutic Radiology and Oncology (SANTRO), Hangzhou, China. 2010

The Role of Temodal with Radiation in Malignant Gliomas. Guangzhou and Beijing Brain Tumour Interest Groups, Beijing, China. 2010

The Role of Temodal with Radiation in Malignant Gliomas. Shanghai Brain Tumour Interest Group, Shanghai, China. 2010


Brain Tumour Foundation of Canada: Think Tank, Banff. 2011

Fractionated Radiation Therapy for Atypical Meningiomas. 21st North American Skull Base Society Meeting, Phoenix, USA. 2011

Fractionated Radiotherapy for Craniopharyngioma. 21st North American Skull Base Society Meeting, Phoenix, USA. 2011


New Radiation Therapy Strategies in the Management of High-Grade Glioma. 2011


New Strategies in the Management of Glioblastoma in the Elderly. Maisonneuve-Rosemont Hospital,
Montreal. 2011


Recent and Current Studies in the Management of High Grade Gliomas. Merk Brain Tumour Consultant Meeting: Western Canada, Vancouver. 2011

Strategies and Results for Management of Glioblastoma in the Elderly. Merk Brain Tumour Consultant Meeting: Western Canada, Vancouver.. 2011


Lee, Justin
Making personalized medicine a reality: Implications of new imaging technologies from bench to bedside. 11th Edition of Insight Information’s Clinical Trials in Canada, Toronto.  2010

Letourneau, Daniel
Online Planning and Delivery Technique for Palliative Radiotherapy of Bone Metastases. Invited Speaker at ESTRO 29, Barcelona, Spain. 2010

Volumetric Modulated Arc Therapy for Extracranial SBRT. Invited Speaker at Cleveland Clinic’s Fourth International Symposium on Stereotactic Body Radiation Therapy and Stereotactic Radiosurgery, Orlando, USA. 2011

Lindsay, Patricia
Development of an Image-Guided Small Animal Irradiation Platform, University of Western Ontario, Department of Physics and Astronomy Seminar Series, London. 2011

Liu, Fei-Fei

Biology of HNC; HPV & OPC. Invited speaker for Amgen Preceptorship, PMH, Toronto. 2010


Mechanisms and Consequences of miR-218 Down-regulation in Head and Neck Cancers. 2nd AACR Dead Sea International Conference Advances in Cancer Research: From the Laboratory to the Clinic. Dead Sea, Jordan. 2010
Overview of the PMH/OCI HNC Translational Research Program. Invited speaker at OCI Retreat, Deerhurst. 2011


Proteomic Profiling of Head and Neck Squamous Cell Carcinoma Cell Lines. 102nd Annual Association for Cancer Research, Orlando, USA. 2011

Regional Cancer Rounds at Juravinski Cancer Center; “Current status of HPV in HNC”. Hamilton. 2010

The role of microRNA-196b in cervical cancer. 101st Annual Association for Cancer Research. Washington, USA. 2010


Liu, Stanley
Inhibition of Dll4-Notch Signaling in tumor and vasculature enhances the response to radiation. Oxford Cancer Imaging Retreat 2010, Grey Institute for Radiation Oncology and Biology, University of Oxford, Oxford, UK. 2010

Inhibition of Dll4-Notch Signaling in tumor and vasculature enhances the response to radiation. Ontario Institute for Cancer Research (OICR) 4th Annual Scientific Meeting, Alliston. 2011

Microbubble Contrast Ultrasound to Monitor “In Vivo” Tumor Perfusion in Response to Notch Pathway Inhibitors. Invited Oral presentation at 2011 Annual meeting of the American Institute of Ultrasound in Medicine (AIUM), San Diego. 2011

Loblaw, Andrew
Active Surveillance – the Canadian Experience. Scandinavian Prostate Cancer Group, Rimbo, Sweden. 2010

Branson Multi Disciplinary Cancer Clinics – How We Do it. Juravinski Uro-Oncology Retreat, Niagara-on-the-Lake. 2010

Hypofractionated Radiotherapy – Doing More with Less. University of Western Ontario Fall Review in Uro-Oncology, Niagara-on-the-Lake. 2010

Prostate Cancer Clinic: A Care Model. University of Western Ontario Fall Review in Uro-Oncology, Niagara-on-the-Lake. 2010

Radiation Trials Update. Prostate Cancer Consultant Meeting, Whistler. 2011

The Future of Prostate Cancer – The Radiation Oncology Perspective. Issues & Controversies in Prostate Care, Whistler. 2011

Non-Surgical Approaches to High-Risk Disease. Issues & Controversies in Prostate Care, Whistler. 2011

Radiation and hormones should be the standard of care for high risk localized prostate cancer. Toronto Urology Rounds, Toronto. 2011

The Value of Biological Dose Escalation in Prostate Cancer. Department of Radiation Oncology Rounds, University of Toronto, Toronto. 2011

**MacPherson, Miller**

Advances in Technology for Modern Radiotherapy”, IMRT Insights, Toronto. 2010

Medical Physics Staffing for Radiation Treatment: A Robust Algorithm with Trans-Canada Validation. Joint AAPM/ COMP Meeting, Vancouver. 2011

Patient specific QA experience at the Carlo Fidani Peel Regional Cancer Center. IMRT Insights, Toronto. 2010

Two Years of Volumetric Modulated Arc Therapy at the Credit Valley Hospital, Juravinski Regional Cancer Centre, Hamilton. 2010

User Dependence of Three Radiation Oncology Incident Reporting Ranking Systems. COMP AGM, Ottawa. 2010


RapidArc Clincial Applications, Advanced Technology Symposium, Toronto. 2011

RapidArc planning standardization for high quality and efficiency in prostate and post-prostatectomy radiation therapy. Joint AAPM/ COMP Meeting, Vancouver. 2011


Using the Gafchormic EBT2 Film and the NACP Parallel Plate Ion Chamber to Commission the Total Skin Electron Treatment. Joint AAPM/ COMP Meeting, Vancouver. 2011


Validation of Plan Dose Perturbation Software for use in Patient Specific IMRT Quality Assurance Joint AAPM/ COMP Meeting, Vancouver. 2011

**Mah, Kathy**

Overview of Motion Management Strategies. IMRT insight, On Target, On Track Conference, University of Toronto, Toronto. 2011
Assessing the role of VMAT relative to IMRT and Helical Tomotherapy In The Management Of Localized, Locally Advanced, and Post-operative Prostate Cancer. ASTRO Annual Scientific Meeting, San Diego, USA. 2010

**Manchul, Lee**
A discussion on Sharing Patient Safety and Quality Improvement Education. AAMC 2010 Annual Meeting, Washington, USA. 2010

Foundations in Continuing Medical Education. Workshop presented at the AMEE Annual Meeting, Glasgow, Scotland. 2010


Developing and Evaluating Interprofessional, Interdisciplinary Quality and Performance Improvement Initiatives in the Workplace. Workshop. CACHE (Canadian Association of Continuing Health Education) Annual Conference, Banff. 2011

Focus Groups In Continuing Health Professional Education: How to Design and Facilitate Focus Groups for Educational Development, Evaluation and Research. Workshop. CACHE (Canadian Association of Continuing Health Education) Annual Conference, Banff. 2011


**McGowan, Tom**
Discrete data field (DDF) synoptic cancer pathology reporting enables timely prognostic factor analysis and quality indicator reporting: a population-based study of 4,296 resection reports in Ontario. United States and Canadian Academy of Pathology (USCAP) Conference, Washington, USA. 2010

Prostate bed localization in post-prostatectomy image-guided radiation therapy, American Association of Physists in Medicine, (AAPM) Annual Meeting, Philadelphia, Pennsylvania, USA. 2010

Prostate bed localization in post-prostatectomy image-guided radiation therapy, European Society for Therapeutic Radiology and Oncology, (ESTRO), Barcelona, Spain. 2010

**McLean, Michael**
Comparison of toxicity and biochemical outcomes of patients treated with permanent prostate implant for low risk prostate cancer using two different seed types (poster presentation) University of Toronto, Radiation Oncology Research Day, Toronto. 2010

Does 3D vs 2D planning techniques make a difference in palliative radiotherapy? (oral presentation) University of Toronto, Radiation Oncology Research Day, Toronto. 2010
Is there any advantage is using stranded sees over loose sees in permanent radioactive seed implant for low risk prostate cancer? (oral presentation) University of Toronto, Radiation Oncology Research Day, Toronto. 2010

The role of specialized palliative radiotherapy (RT) programs a decade of the palliative radiation oncology (PROP) experience at PMH. (oral presentation) University of Toronto, Radiation Oncology Research Day, Toronto. 2011

**Ménard, Cynthia**

Imaging in Radiotherapy. American Society for Radiation Oncology (ASTRO) IMRT, IGRT Symposium, Chicago, USA. 2010

MRI in prostate. ESTRO Advanced Imaging for Physicists, The Netherlands. 2010

Pelvis: Case Management Panel. American Society for Radiation Oncology (ASTRO) IMRT, IGRT Symposium, Chicago, USA. 2010

Augmenting radiotherapy with MRI-guided tissue sampling. CERRO Annual Meeting, Les Menuires, France. 2011

Disease Specific Breakout Session-Prostate. Presenter, Cancer Imaging and Radiation Therapy Symposium. Atlanta, USA. 2011

High dose brachytherapy as a salvage modality post XRT. GU Cancer Seminar Series. London Regional Cancer Program. London. 2011


Prostate IMRT/IGRT. Cancer Centre of Southeastern Ontario at Kingston General Hospital. Kingston. 2011


**Millar, BA**

RMP Rounds. Hunting and Foraging for Medicine Based Medicine, Princess Margaret Hospital, Toronto. 2010

**Milosevic, Michael**

Adaptive Radiotherapy: The next frontier in radiation medicine. Workshop on Mathematical Oncology III, Field’s Centre for Mathematical Medicine, Toronto. 2010

Challenging IMRT Sites: Gynecologic cancer. IMRT Insights: Transforming Practice Through Collaboration. Department of Radiation Oncology Continuing Medical...
Education, University of Toronto, Toronto. 2010

Error prevention in academic radiation treatment centers. Annual Meeting of the American Society for Radiation Oncology, San Diego, USA 2010

Canadian Partnership for Quality Radiotherapy. Quality and Safety in Radiation Oncology, COMP Winter School, Mont Tremblant. 2011

Canadian Partnership for Quality Radiotherapy. RTi3. Department of Radiation Oncology Continuing Medical Education, University of Toronto, Toronto. 2011

Canadian Partnership for Quality Radiotherapy, Canadian Association of Provincial Cancer Agencies (CAPCA) Board Meeting. 2011

Hypoxia and metabolism in human tumors. 17th International Hypoxia Symposium, Lake Louise. 2011


On target, on track: Towards optimal radiotherapy. IMRT Insights: On Target, On Track. Department of Radiation Oncology Continuing Medical Education, University of Toronto, Toronto. 2011

Quality assurance guidance for Canadian radiation treatment programs. Cancer Care Ontario Provincial Radiation Treatment Program Committee, Toronto. 2011

Morton, Gerald
Brachytherapy Contouring Workshop. Annual Scientific Meeting of the American Brachytherapy Society. Atlanta, USA. 2010

High Dose-Rate Brachytherapy for Prostate Cancer. Presented at Grand Rounds, Durham Regional Cancer Centre, Oshawa. 2010

Prostate Brachytherapy, presented at Grand Rounds, The Carlo Fidani Peel Regional Cancer Centre, Mississauga. 2010

Prostate Brachytherapy Refresher Course. Annual Scientific Meeting of the American Brachytherapy Society, San Diego, USA. 2011

Nyhof-Young, Joyce
A qualitative assessment of the supportive care and resource needs of patients undergoing craniotomy for benign brain tumours. Poster Presentation at the 2010 Cancer Education Conference, Joint Annual Meeting for AACE, CPEN, EACE, San Diego, USA. 2010

Assessing the sleepwear and lingerie needs of post-mastectomy breast cancer survivors at Princess Margaret Hospital: A clothing design project, Toronto. 2010

Cancer Education Conference, Joint Annual Meeting for AACE, CPEN, EACE, San Diego, USA. 2010

Collaboration in Action: Using Team Based Learning in a Research Methods Course. Submission to the Association of Faculties of Medicine of Canada (AFMC) Conference, St. John’s. 2010

Designing and evaluating a bra-guide for female breast cancer patients. Poster presentation at ELLICSR Survivorship Program launch, Toronto General Hospital, Toronto. 2010

Designing and Evaluating Illustrated Books about Testicular Cancer and Testicular Self-examination: Nothing Comic About It! Poster Presentation at the 2010 Cancer Education Conference, Joint Annual Meeting for AACE, CPEN, EACE, San Diego, USA. 2010

Development and Evaluation of a Lymphedema Self-Management Group Refresher Course for Breast Cancer Survivors at Princess Margaret Hospital. 3rd Annual Nursing Research Day: Person-Centred Care: Bridging Nursing Research and Nursing Practice. York University, Toronto. 2010

Development and Evaluation of a Lymphedema Self-Management Group Refresher Course for Breast Cancer Survivors at Princess Margaret Hospital. Poster presentation at ELLICSR Survivorship Program launch, Toronto General Hospital, Toronto. 2010

Development of an Experiential Elective in Spirituality for Preclerkship Undergraduate Medical Students: A pilot project. Poster Presentation at the 2010 Cancer Education Conference, Joint Annual Meeting for AACE, CPEN, EACE, San Diego, USA. 2010

Evaluating a behavioural intervention for breast cancer patients with self-reported cognitive dysfunction. 10th Princess Margaret Hospital Conference, Toronto. 2010

Evaluating the Fatigue Clinic at PMH: Working towards a model of patient empowerment. Invited poster presentation at the 3rd Annual Nursing Research Day: Person-Centred Care: Bridging Nursing Research and Nursing Practice. York University, Toronto. 2010

Evaluating the Fatigue Clinic at PMH: Working towards a model of patient empowerment. Poster presentation at ELLICSR Survivorship Program launch, Toronto General Hospital, Toronto. 2010

Fireside Chat with the Spiritual Care Team: Shifting Departmental Focus from Religious Care to Spiritual Care. TGH Change Collaborative Forum. Toronto. 2010

Incorporating multi-source feedback into a radiation oncology resident assessment system. University of Toronto, Department of Radiation Oncology, Annual Research Day, Saturday May 8, 2010. Faculty Club, University of Toronto. Toronto. 2010

Introducing the Research Program of the ELLICSR Health, Wellness & Cancer Survivorship Centre. Bridgepoint Health Hospital, Toronto. 2010

It’s in the bag: Designing innovative functional apparel and accessories for female breast cancer survivors with lymphedema. Invited poster presentation at the 3rd Annual Nursing Research Day: Person-Centred Care: Bridging Nursing Research and Nursing Practice. York University, Toronto. 2010

PhD Program in Health Sciences, University of Toronto. 2010
Care: Bridging Nursing Research and Nursing Practice. York University. Toronto. 2010

Meta-ethnography of Qualitative Research on Peer Support in Chronic Disease. University of Toronto Ogryzlo Day, Toronto. 2010


Now I Lay Me Down to Sleep: Assessing the sleepwear and lingerie needs of post-mastectomy breast cancer survivors at Princess Margaret Hospital. 3rd Annual Nursing Research Day: Person-Centred Care: Bridging Nursing Research and Nursing Practice. York University, Toronto. 2010


Patient-centered Design and Validation of a Survey to Measure Satisfaction with Emotional Support for Cancer Patients at Princess Margaret Hospital in Toronto. Podium Presentation at the 2010 Cancer Education Conference, Joint Annual Meeting for AACE, CPEN, EACE, San Diego, USA. 2010

Patient-centered Design and Validation of a Survey to Measure Satisfaction with Emotional Support for Cancer Patients at Princess Margaret Hospital in Toronto. Invited poster presentation at the 3rd Annual Nursing Research Day: Person-Centred Care: Bridging Nursing Research and Nursing Practice. York University. 2010

Patient-centered Design and Validation of a Survey to Measure Satisfaction with Emotional Support for Cancer Patients at Princess Margaret Hospital in Toronto. Poster presentation at ELLICSR Survivorship Program launch, Toronto General Hospital, Toronto. 2010

This experience has changed me: Using a reflective paper in teaching community health to second year medical students. 3rd Annual Nursing Research Day: Person-Centred Care: Bridging Nursing Research and Nursing Practice. York University. Toronto. 2010

Understanding The Effects of Recorded Lectures On Undergraduate Medical Student Learning And Performance. Faculty of Medicine University of Toronto, Educational Achievement Event, Toronto. 2010

Validation of a Cancer Empowerment Scale with Breast Cancer Patients at Princess Margaret Hospital. Poster presentation at the 9th annual Princess Margaret Hospital Conference. Invited poster presentation at the 3rd Annual Nursing Research Day: Person-Centred Care: Bridging Nursing Research and Nursing Practice. York University. Toronto. 2010

A qualitative assessment of the supportive care and resource needs of patients undergoing craniotomy for...
benign brain tumours. Poster presentation at the Annual Meeting of the Canadian Association of Psychosocial Oncology. Toronto. 2011

Assessing the sleepwear and lingerie needs of post-mastectomy breast cancer survivors at Princess Margaret Hospital: A clothing design project. Poster presentation at the Annual meeting of the Canadian Association of Psychosocial Oncology. Toronto. 2011

Designing and Evaluating Illustrated Books about Testicular Cancer and Testicular Self-examination: Nothing Comic About It! Poster presentation at the Annual Meeting of the Canadian Association of Psychosocial Oncology. Toronto. 2011

Development of an Experiential Elective in Spirituality for Preclerkship Undergraduate Medical Students: A pilot project. 9th Annual Education Achievement Celebration, University of Toronto, Faculty of Medicine. Toronto. 2011

Gay Men Confront Prostate Cancer: Development of an Evidence-Based Experiential Narrative DVD Resource. Poster presentation at the Annual Meeting of the Canadian Association of Psychosocial Oncology. Toronto. 2011

Growing up with hemophilia: An assessment of teens’ perceived needs prior to transition. 24th Annual Meeting of the American Society of Pediatric Hematology Oncology, Baltimore, USA. 2011

Investigating how patient self-efficacy affects satisfaction with care among adult oncology patients. University of Toronto Medical Student Research Day. Toronto. 2011

Logic Never Tires: Use of a Logic Model for the Development of a Cancer-Related Fatigue Clinic at Princess Margaret Hospital. Poster presentation at the Annual meeting of the Canadian Association of Psychosocial Oncology. Toronto. 2011

Peer to Peer Mentoring for Individuals with Early Inflammatory Arthritis. Peer Mentor Training. Canadian Association of Continuing Health Education (CACHE), Banff. 2011


Towards an enriching educational experience in spirituality: investigating medical student attitudes on spirituality in health care. 9th Annual Education Achievement Celebration, University of Toronto, Faculty of Medicine. Toronto. 2011

Using meta-ethnography to develop a conceptual model on the perceived impact and experience of participating in peer support interventions. 9th Annual Canadian Cochrane Symposium. Vancouver. 2011

Osmar, Kari
Electronic clinical documentation: Interprofessional collaboration in the creation and standardization of patient assessment and documentation for radiation therapy. Poster IPE/IPC Conference Sunnybrook Health Science Centre, Toronto. 2010
Electronic clinical documentation: Interprofessional collaboration in the creation and standardization of patient assessment and documentation for radiation therapy. RTi3, Toronto. 2011

**O’Sullivan, Brian**
Hong Kong Head and Neck Group and “Area of Excellence” Visiting Professor, University of Hong Kong, Hong Kong, China. 2010

Enigmas and challenges in the diagnosis and treatment of HPV-related oropharyngeal cancer. 29th Annual Meeting of the European Society of Therapeutic Oncology (ESTRO), Barcelona, Spain. 2010

Taxonomy and Application of Cancer classifications. Session: Staging and Prognosis in Cancer, UICC World Cancer Congress, Shenzhen, China. 2010

New developments in the role of radiation for soft tissue sarcoma. Western Canadian Sarcoma Conference, Vancouver. 2010

Radiation therapy for fibromatosis. Western Canadian Sarcoma Conference, Vancouver. 2010

Quality Control and Audit for Management of Head and Neck Cancers. Hong Kong Nasopharyngeal Cancer Study Group Training Seminar, Hong Kong, SAR China. 2010

An Update on Clinical Treatment of NPC. The Areas of Excellence Scheme Research Symposium, The Center for Nasopharyngeal Carcinoma Research, The University of Hong Kong, Hong Kong, SAR China. 2010

The NPC TNM stage classification of the UICC (and AJCC): Historical, Current, and Future Perspectives. 6th Chinese National Conference on Nasopharyngeal Cancer, Asia-Pacific Nasopharyngeal Cancer Congress, Fuzhou, China. 2010

Ontario Head and Neck IMRT Guidelines. Presentation to the Cancer Care Ontario Head and Neck Community of Practice, CCO Offices, Toronto. 2010

A model for a Provincial Prospective Outcomes Database. Presentation to the Cancer Care Ontario Head and Neck Community of Practice, CCO Offices, Toronto. 2010

Esthesioneuroblastoma Management: Role of Radiotherapy. 21st Annual Meeting, North American Skull Base Society, Scottsdale, USA. 2011

Management of Skull Base Paraganglioma with Radiation therapy. 21st Annual Meeting, North American Skull Base Society, Scottsdale, USA. 2011

Primer on the current role of radiotherapy in the treatment of desmoids tumours. 2011 Annual Meeting, Canadian Society of Surgical Oncology, Toronto. 2011

How should we manage patients with loco-regionally advanced head and neck cancer who are not suitable for chemo-radiotherapy? 2011 Annual Meeting, European Society for Therapeutic Radiology and Oncology (ESTRO), London, United Kingdom. 2011

The current state of physical/spatial and molecular targeting in the treatment of nasopharyngeal
carcinoma. 5th International Symposium on Nasopharyngeal Carcinoma, Penang, Malaysia. 2011

Palmer, C
Making it happen: Facilitating changes in practice and technology Radiotherapy in Practice 5/Advanced Practice 2. Toronto. 2010

Pignol, JP
Accelerating partial breast radiation: How fast can we go? Toronto Breast Cancer Symposium, Toronto. 2010

Accelerated partial breast irradiation using permanent seed implants. Rhode Island Hospital, Providence, USA. 2010

Targeted nanoparticle radiosensitization - How can we make it work? Invited symposium speaker at ESTRO 29., Barcelona, Spain. 2010

Targeted nanoparticle radiosensitization - How can we make it work? Invited communication at CARO 24th annual scientific meeting. September 22nd – 25th. Vancouver. 2010

Poon, Ian
Treatment Response Monitoring with Positron Emission Tomography in Solid Tumours: Is this The Future of Radiation Oncology. Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting. Vancouver. 2010

Purdie, Tom
IMRT Clinical Trial in Ontario – Automated Breast IMRT. IMRT Insights: Transforming Practice Through Collaboration Meeting. Toronto. 2010

Automated Tangential Breast IMRT. Juravinski Cancer Centre, Hamilton. 2011

Rakovitch, Eileen
A Population-Based Outcomes Analysis of Young Women Treated with Breast-Conserving Surgery and Radiation for DCIS Is There a Difference in Outcomes Among Commonly Used Gracionated Schemes? Canadian Association of Radiation Oncologists (CARO), Vancouver. 2010

Long Term Side Effects Cosmetic Outcomes and Local Control Following Permanent Breast Seed Implants. Canadian Association of Radiation Oncologists (CARO), Vancouver. 2010

Radiation Therapy Session Chair. Toronto Breast Cancer Symposium 2010. The Westin Harbour Castle, Toronto. 2010

Restructuring Clinical Trials: Challenges and Opportunities. 5th Annual Cancer Research Day. Odette Cancer Centre, Toronto. 2010

Risk of Diabetes with Tamoxifen Therapy Among Older Breast Cancer Survivors”. American Diabetes Association Meeting, San Diego, USA. 2011

Rosewall, Tara
The effect of delineation method and interobserver variability on “bladder” cumulative dose-volume
histograms (DVH). Target Insights, Toronto. 2011

**Rowlands, John**
Co-Organizer of 10th ECS TFT symposium and speaker TFT x-ray imagers. Las Vegas, USA. 2010


Effect of scintillator crystal geometry and surface finishing on depth of interaction resolution in PET detectors: Monte Carlo simulation and experimental results using silicon photomultipliers. oral presentation, SPIE Physics of Medical Imaging Conference, San Diego, USA. 2010

Positron Emission Mammography: Optimizing the Ratio of the Number of Scintillation Crystals to Photo detectors for Maximal Depth of Interaction Resolution. poster presentation at Terry Fox Research Institute, Vancouver. 2010

**Sahgal, Arjun**

Brain Cancer: Primary Gliomas, Princess Margaret Hospital: Patient and survivorship Education Lunch and Learn Session, Toronto. 2010

Brain metastases and neurocognition. International symposium on long-term control of secondary central nervous system malignancies. Cleveland, USA. 2010

Critical remarks on spine radiosurgery. The Leksell Gamma Knife Society 15th Annual Meeting, Athens, Greece. 2010

Prescription dose guidelines based on physical criterion for multiple metastatic brain tumors treated with stereotactic radiosurgery. 15th International Meeting of the Leksell Gamma Knife Society. Athens, Greece. 2010

Radiation Oncology Research Day. University of Toronto, Toronto. 2010

Spine Metastases. 10th Princess Margaret Hospital Conference. Toronto. 2010

Spine Radiosurgery. IMRT Insights: transforming practice through collaboration. Target Insights IV, Cancer Care Ontario. Toronto. 2010


Spine stereotactic body radiotherapy: A high dose approach for radioresistant tumors Odette Cancer Centre, Sunnybrook Health Sciences Centre Melanoma Rounds. University of Toronto, Toronto. 2010

Stereotactic body radiotherapy for spine metastases and spinal cord tolerance. Mayo Clinic, University of Rochester. Rochester, USA. 2010
Stereotactic body radiotherapy for spine metastases and spinal cord tolerance. London Regional Cancer Center, University of Western Ontario, London. 2010

Stereotactic radiosurgery for brain metastases and neurocognition. University of Toronto division of neurosurgery 2010 William S. Keiths lectureship day, University of Toronto, Toronto. 2010

The management of brain metastases. Odette Cancer Centre, Sunnybrook Health Sciences Centre Melanoma Rounds. University of Toronto, Toronto. 2010

The Management of Brain Metastases. Southlake Regional Cancer Centre Oncology Rounds. Newmarket. 2010

The Management of Malignant Epidural Spinal Cord Compression. Southlake Regional Cancer Centre Oncology Rounds. Newmarket. 2010

The treatment of paraspinal disease. Image-guided radiotherapy education course, Princess Margaret Hospital, University of Toronto, Toronto. 2010

Human re-irradiation spinal cord tolerance for spinal radiosurgery. 10th International Stereotactic Radiosurgery Congress. Paris, France. 2011

Image-guided spinal radiosurgery: patient setup and immobilization utilizing the hexapod and bodyfix systems. 10th International Stereotactic Radiosurgery Congress. Paris, France. 2011

Minimal access spine surgery for metastatic spinal tumors followed by stereotactic body radiotherapy. 10th International Stereotactic Radiosurgery Congress. Paris, France. 2011

The management of brain metastases in 2011. Department of Radiation Oncology, Rapid Response Palliative Program Rounds, University of Toronto, Toronto. 2011

The Role of Radiosurgery in Brain Metastases and an Introduction to Radiosurgery for Spine Metastases. Community Oncologists of Metropolitan Toronto. Toronto. 2011


Sharpe, Michael
American Society for Radiation Oncology (ASTRO) Advances in Technology: Practical Aspects of IMRT, IGRT, SBRT Symposium, Dallas, USA. 2010
ESTRO Course in Adaptive Radiation Therapy, Barcelona, Spain. 2010

Review of Advanced Radiation Therapy, Medica Sur Hospital, Mexico City, Mexico. 2010

ESTRO School Course in Advanced Treatment Planning, Genoa, Italy. 2011

Sheikh, Aisha
Inservice: Accessibility for Ontarians with Disabilities Act. Odette Cancer Centre. Toronto. 2010

Office of Health Professions Student Affairs Orientation for MRS Class of 2012. TMI Auditorium. Toronto2010

Dressings for Dummies – conducted hands-on refresher sessions for therapists on the types of wound dressings used for radiation-related side effects and how to change dressings. Part of the Clinical Skills Day Sessions at Odette Cancer Centre, Toronto. 2011

Simeonov, Anna
Practical approach to MR Spectroscopy. 20th Annual ISMRM Section for Magnetic Resonance Technologists (SMRT) Meeting, Montreal. 2011

Sinclair, Emily
Kyphoplasty v’s Verterbroplasty for palliative bone metastases. ASRT, San Diego, USA. 2010

Spayne, Jacqueline

Stanescu, Teo
Towards MRI-guided radiation therapy. Princess Margaret Hospital, Toronto. 2010

Stevens, Christian
Post Mastectomy Radiotherapy and Breast Reconstruction. Georgian Bay Oncology Group Meeting, Barrie. 2010

Prostate Cancer. Barrie Emergency Services Health Awareness Evening, Barrie. 2010

The Ethics of Medical Error. Department of Radiation Oncology Quality Assurance Rounds, Odette Cancer Centre, Sunnybrook Health Sciences Centre, Toronto. 2010

To Screen or not to screen: Controversies in Prostate Cancer Screening. Royal Victoria Hospital Lunch and Learn Series, Barrie, Ontario. 2010

Prostate Cancer. Orillia Prostate Cancer Awareness Group, Orillia. 2011

Prostate Cancer. Harry Rosen Health Awareness Day, Toronto. 2011

Sun, Alexander
FDG-PET imaging for radiation therapy response monitoring in lung cancer. Canadian Association of Radiation Oncology (CARO) Annual meeting, Vancouver. 2010

Szumacher, Ewa
Collaborating Across Bridges: The Interprofessional Radiation Oncology Rounds as New Model of Continuing Education at the Sunnybrook Odette Cancer Centre. Interprofessional Education/Interprofessional Care (IPE/IPC) Showcase, Toronto. 2010

Informational needs of older women with stage I breast cancer – Needs assessment study. An International Association for Medical Education (AMEE), Glasgow, Scotland. 2010


The informational needs of prostate cancer patients treated with radical prostatectomy regarding adjuvant or salvage radiotherapy DOCH 2 project. Wilson Centre Research Day, Toronto. 2010

The informational needs of prostate cancer patients treated with radical prostatectomy regarding adjuvant or salvage radiotherapy DOCH 2 project. 24th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting, Vancouver. 2010

What are my options for breast cancer treatment? Wilson Centre Research Day, Toronto. 2010

What are my options for breast cancer treatment? 24th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting, Vancouver. 2010

Chair of the oral presentation session at the 1st International Faculty Development in Health Professions Conference, Toronto. 2011

Development of a Decision Aid and 1st Impressions: A Pilot Study for Older women with stage I hormone-sensitive breast cancer. 8th Annual Radiation Therapy Conference Inquire Inspire Innovate (RTi3), Toronto. 2011

Development of a Patient Decision Aid for Women 70 years and Older with Stage I, Hormonally Sensitive, Breast Cancer Considering Adjuvant Treatment Post-lumpectomy” 25th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting, Winnipeg. 2011

Development of a patient decision aid for women with stage I breast cancer considering adjuvant treatment and post-lumpectomy. (AMEE). Vienna, Austria. 2011

Exploring the Meanings of Caring Among Health Care Professionals Providing Cancer Care the Second Sunnybrook Health Sciences IPE/IPC Showcase, Toronto. 2011

Fostering Scholarship in Medical Education in Cancer Care through Inter-Institutional Collaboration (Challenges and Opportunities). 8th Annual Radiation Therapy Conference Inquire Inspire Innovate (RTi3), Toronto. 2011

Informational Needs of Older Women with Stage I Breast Cancer: Needs Assessment Study. 8th Annual Radiation Therapy Conference Inquire Inspire Innovate (RTi3), Toronto. 2011
Tailored radiation therapy for older women with early stage breast cancer, BIT’s 4th World Cancer Congress Breast Cancer Conference-2011, Guangzhou, China. 2011

Workshop Fostering Scholarship in Medical Education in Cancer Care through Inter-Institutional Collaboration (Challenges and Opportunities). 25th Annual Canadian Association Radiation Oncology (CARO) Scientific Meeting, Winnipeg. 2011

**Thomas, Gillian**  
Palliative radiotherapy for cervical cancer: a systematic review International Gynecologic Cancer Society (IGCS), Prague, Czech Republic. 2010

Should Management of Locally Advanced Adenocarcinoma and Squamous Cell Carcinoma (with nodal spread) be similar? European Society for Therapeutic Radiology and Oncology (ESTRO), Barcelona, Spain. 2010


**Tsang, Richard**  
Efficacy and morbidity of moderate dose radiation therapy for stage IE orbital MALT lymphoma. 2010 CSTRO/SANTRO Joint Symposium and Meeting, Hangzhou, China. 2010

Educational Session #410: Indolent (low-grade) lymphoma: Update on radiation therapy management. 2010 Annual Meeting of the American Society for Therapeutic Radiology and Oncology, San Diego, USA. 2010

**Tsao, May**  
International perspectives on palliative care-updates from the third international conference on metastases. ASTRO 2010 Annual Meeting, San Diego, USA. 2010

Upcoming ASTRO guidelines: a focus on palliative care. ASTRO 2010 Annual Meeting, San Diego, USA. 2010

**Vesprini, Danny**  
The biology of prostate cancer. Orillia Prostate Cancer Awareness Night. Orillia. 2010

**Vines, Doug**  
PET/CT in Oncology: from man to mouse, there and back again. Society of Nuclear Medicine 57th Annual Meeting (Technologist Section), Salt Lake City, USA. 2010

Serial FDG PET-CT scans in oncology: A quality assurance study of repeatability of uptake times and blood glucose values. Society of Nuclear Medicine (SNM), 57th Annual Meeting, Salt Lake City, USA. 2010

**Warde, Padraig**  
What Does a Modern Radiation Treatment Look Like in 2010, Nova Scotia Cancer Centre, Halifax. 2010
Genitourinary Cancer Case Discussion – PROS Philippine Radiation Oncology Society, Bonifacio Global City, Philippines. 2011

**Wiljer, David**

Hardwired to Care: em-Powered for Progress? Health Services Research Seminars 2010-2011. Health Policy, Management and Evaluation, University of Toronto. Toronto,. 2010


Transformative Connections: Wired for Better Care? CICC Innovation Rounds, Centre for Innovation in Complex Care, Toronto. 2010


**Wong, Shun**

Changes in neural stem cell and progenitor cell populations in mouse brain after ionizing radiation. Canadian Association or Radiation Oncologist, Annual Scientific Meeting, Vancouver. 2010


**Woo, Milton**

Promoting Remote Real-time Education in Medical Physics.10th Asia-Oceania Congress of Medical Physics, Taipei, Taiwan. 2010

**Wouters, Bradly**

Addressing the Challenges of Tumor Heterogeneity, RMP Grand Rounds, Department of Radiation Oncology, University of Toronto / Radiation Medicine Program, Princess Margaret Hospital, Toronto. 2010

Addressing the Challenges of Tumor Heterogeneity, Sunnybrook Health Sciences, Radiation Oncology Research Grand Rounds, Toronto. 2010


Hypoxia and metabolism as potential targets, 9th meeting of the European Association for Neurooncology (EANO), Maastricht, The Netherlands. 2010

Mechanisms of adaptation to hypoxia and their relevance in cancer, ESTRO 29, Annual Meeting, European Society for Therapeutic Radiology and Oncology, Barcelona, Spain. 2010
Regulation of autophagy during hypoxia by the unfolded protein response, ESTRO 3rd Annual Symposium, Novel targeting drugs and Radiotherapy from Bench to Clinic, Plenary speaker, Toulouse, France. 2010

Targeting autophagy sensitizes tumours to irradiation by reducing hypoxia, ESTRO 29, Annual Meeting, European Society for Therapeutic Radiology and Oncology, Barcelona, Spain. 2010

Targeting Autophagy Sensitizes Tumours to Irradiation by Reducing Hypoxia, 52nd Annual Meeting, American Society for Radiation Oncology (ASTRO), San Diego, USA. 2010

Targeting Pathways of Hypoxia Tolerance, 56th Annual Meeting of the Radiation Research Society (RRS), Maui, USA. 2010

The Importance of Tumor Heterogeneity, Department of Medical Biophysics Annual Retreat, Geneva Park. 2010

The Influence of hypoxia on the epigenome, CERRO 26th Working Party on Clinical and Experimental Research in Radiation Oncology, Le Menuires, France. 2010

The two sides of mTOR inhibition, ESTRO 29, Annual Meeting, European Society for Therapeutic Radiology and Oncology, Barcelona, Spain. 2010

Yeboah, Collins
Leakage radiation from electron applicators. Department of Medical Physics, Odette Cancer Centre, Toronto. 2011

Yeung, Ivan
Emerging Technology in Radiation Therapy. Cancer Support Group in Richmond Hill Christian Community Church, Richmond Hill. 2010

Zhang, Beibei
Volumetric Modulated Arc Therapy for Prostate Radiotherapy. American Society for Therapeutic Radiology and Oncology annual meeting, Boston, USA. 2010
Awards 2010-2011

UT DRO Faculty Education Awards

Vanessa Barisic  
•  MRS Clinical Supervision Award, Department of Radiation Oncology, University of Toronto

Lisa Di Prospero  
•  MRS Research Supervision Award, Department of Radiation Oncology, University of Toronto

Marta Evans  
•  MRS Classroom Teacher Award, Department of Radiation Oncology, University of Toronto

Nicole Harnett  
•  CME Award, Department of Radiation Oncology, University of Toronto

Mandy Kohli  
•  MRS Clinical Supervision Award, Department of Radiation Oncology, University of Toronto

Kathy Mah  
•  MRS Guest Lecturer Award, Department of Radiation Oncology, University of Toronto

Michael Milosevic  
•  Postgraduate Mentorship Award, Department of Radiation Oncology, University of Toronto

UT DRO Research Awards

Lisa Barbera  
•  Best Annual Research Performance Award, Department of Radiation Oncology, University of Toronto

Stanley Liu  
•  Outstanding Research Potential Award, Department of Radiation Oncology, University of Toronto

Padraig Warde  
•  Sustained Excellence in Research Award, Department of Radiation Oncology, University of Toronto

Bradly Wouters  
•  Research Leadership Award, Department of Radiation Oncology, University of Toronto
Other Awards and Honours

Barbera, Lisa
- Academic Performance Award, Department of Radiation Oncology, Odette Cancer Centre, 2010

Bezjak, Andrea
- Research Leadership Award, Radiation Medicine Program Research Awards, Princess Margaret Hospital, 2010
- Research Productivity Award, Radiation Medicine Program Research Awards, Princess Margaret Hospital, 2010

Brock, Kristy
- Radiation Physics Research Productivity Award, Radiation Medicine Program, Princess Margaret Hospital, 2010

Cashell, Angela
- CAMRT E.I. Hood Award, 2010

Catton, Pam
- Mentorship Award, Radiation Medicine Program, 2010
- University of Toronto Dave Davis CEPD Research Award, Maximizing Your Patient Education Skills Course, 2010

Cho, John
- Gerald Kirsh Humanitarian Award Nominee, 2010

Chow, Edward
- Outstanding Leadership Award, Ontario Palliative Care Association

Chung, Caroline
- Chair's Award, Department of Radiation Oncology, University of Toronto, 2010
- Clinician Investigator Program Best Oral Presentation, University of British Columbia, 2010

Chung, Hans
- Postgraduate Classroom Teaching Award, Department of Radiation Oncology, University of Toronto, 2010

Coolens, Catherine
- ‘Best of Physics’ abstract, 52nd ASTRO Annual Meeting, 2010

Cummings, Bernard
- Gold Medal, American Society for Therapeutic Radiology and Oncology, 2011
D’Souza, Neil
- Speaker Competition Winner, Canadian Association of Medical Radiation Technologists (CAMRT) 2nd Annual Speaker Competition – American Society of Radiologic Technologists (ASRT) Radiation Therapist Conference, 2011
- Sunnybrook Volunteers Association Award, Sunnybrook Health Sciences Centre (SHSC), 2010

Feuz, Carina
- CAMRT Certificate of Merit- E.I. Hood Award (Essay Competition), 2010
- Radiation Medicine Program Clinical Teaching Award, Princess Margaret Hospital, 2011

Gillian, Caitlin
- Exceptional Treatment Unit Team (awarded by MRS students), University of Toronto, 2011

Hill, Richard
- Outstanding Research Award , 12th International Tumor Microenvironment Workshop, 2010
- Award for Excellence, International Conference on Radiation Biology, Nanotechnology, Imaging, Stem Cell Research and Radiation Oncology, 2010
- Henry S. Kaplan Distinguished Scientist Award, 2011

Holden, Lori
- Outstanding Leadership Award for RRRP, Ontario Palliative Care Association, 2010
- Schulich Award for Nursing and Clinical Excellence, Sunnybrook Health Sciences Centre, 2010

Huang, Sophie
- Multidisciplinary Head and Neck Cancer Symposium Abstract Award, 2010
- ESTRO Best Poster Award (clinical), 2011

Jaffray, David
- John S. Laughlin Lectureship, Memorial Sloan-Kettering Cancer Center, 2010
- James A. Purdy Lectureship, Washington University, 2011

Kim, John
- Mentorship Award, Radiation Medicine Program, Princess Margaret Hospital, 2011
- Clinical Teaching Award, Radiation Medicine Program, Princess Margaret Hospital, 2011

Morton, Gerald
- Best Guest Lecture, Medical Radiation Sciences Program, University of Toronto, 2010

Rakovitch, Eileen
- Campbell Chair in Breast Cancer Research

Rosewall, Tara
- Research Productivity Award, Radiation Medicine Program, Princess Margaret Hospital, 2010
- Research Leadership Award, Department of Radiation Oncology, University of Toronto, 2010

Sahgal, Arjun
- Best Abstract in Radiation/Medical Physics, Canadian Association of Radiation Oncology (CARO) Annual Scientific Meeting, 2010
Awards ctd.

- Post-Graduate Mentorship Award, Department of Radiation Oncology, University of Toronto, 2010

**Tan, Kieng (with Flanagan, Wendy)**
- Philips Award, CAMRT

**Vines, Doug**
- Nuclear Oncology Council Best Technologist Abstract Award, Society of Nuclear 57th Annual Meeting, 2010
- Second Place Prize for a Technologist Oral paper, Society of Nuclear Medicine 57th Annual, 2010

**Vitkin, Alex**
- Site Visitor Credential, Dutch Health R & D Council ZonMw, 2010

**Wiljer, David**
- AACE R. Davilene Carter Presidential Prize for Best Paper (1st Place), 2010
- Best Poster by Experienced Researcher, UHN Allied Health Research Day, 2011

**Wong, Rebecca**
- Research Innovation Award, Princess Margaret Hospital

**Wouters, Bradly**
- ESTRO Klaas Breur Award, Annual Gold Medal Award Lecture, 2010

**Trainee and Graduate Student Awards and Honours**

**Dr. Kristopher Dennis**
- CIHR Fellowship Award for Clinical Research, $110,000

**Dr. Meredith Giuliani**
- Best Poster Award by a Postgraduate Trainee, University of Toronto Department of Radiation Oncology, 2011
- Ellen Epstein Rykov Memorial Prize for excellence in postgraduate research, University of Toronto, supervisor Dr. Andrew Hope
- Timeposters Fellowship for excellence in postgraduate research, University of Toronto, supervisor Dr. Andrew Hope
- Joseph M. West Family Memorial Fund for excellence in postgraduate research, University of Toronto, supervisor Dr. Andrew Hope
- OICR Fellowship Grant for 13th Joint ECCO-AACR-EORTC-ESMO Workshop 'Methods in Clinical Cancer Research, Waldhaus Flims, Switzerland, supervisor Dr. John Kim and John Waldron

**Dr. Sharlyn Kang**
- R.S. Bush Award for Academic Excellence by a Radiation Oncology Fellow, University of Toronto Department of Radiation Oncology, 2011
Dr. Eric Leung
- W.J. Simpson Award for Academic Excellence in Research by a Radiation Oncology Resident, University of Toronto Department of Radiation Oncology, 2011

Dr. Karen Lim
- IMS Whiteside Award for her MSc Thesis dissertation.

Mr. Michael Velec
- Academic Excellence in Research by a Radiation Therapy Graduate Student, University of Toronto Department of Radiation Oncology, 2011

Dr. Lorraine Walsh
- Chief’s Choice Chair’s Award for Academic Excellence in Research by a Postgraduate Trainee, University of Toronto Department of Radiation Oncology, 2011

Dr. Philip Wong
- 2011 ASCO Young Investigator Award.

Dr. Matt Wronski
- J.R. Cunningham Award for Academic Excellence in Research by a Physics Resident, University of Toronto Department of Radiation Oncology, 2011

Research Day – May 7, 2011

Oral Presentations

Zishan Allibhai, Radiation Oncology Fellow
Impact of tumour size and volume on outcomes following stereotactic body radiation therapy for early-stage non-small-cell-lung cancer
Supervisors: J. Cho, A. Bezjak

John Bracken, Physics Resident
Volumetric 4D computer tomography with 320-detector row scanner for radiotherapy simulation
Supervisor: C. Coolens, D. Jaffray

Tatiana Conrad, Radiation Oncology Resident
Active breath control to reduce normal tissue dose in patients receiving mediastinal radiotherapy for Hodgskin lymphoma
Supervisor: D. Hodgson

Kathy Han, Radiation Oncology Resident
Prospective evaluation of IMRT for anal and perianal cancer
Supervisor: J. Kim

Meredith Johnston, Radiation Oncology Fellow
Salivary duct carcinoma: Treatment, outcomes and clinico-pathological review
Supervisor: J. Kim

Sharlyn Kang, Radiation Oncology Fellow
Patterns of practice, outcomes and selection of treatment modalities for patients with localized esophageal (E) and gastroesophageal junction (GEJ) cancer
**Supervisor:** R. Wong

**Eric Leung, Radiation Oncology Resident**
Targeting tumour metabolism through HIF-1 inhibition enhances radiation response in cervix and head and neck xenograft tumours
**Supervisors:** M. Milosevic, R. Hill, B. Wilson

**Gary Mok, Radiation Oncology Fellow**
A comparison of conventional and hypofractionated radiotherapy schedules in the treatment of localized prostate cancer
**Supervisor:** C. Catton

**Nichola Naidoo, Radiation Oncology Fellow**
The role of specialized palliative radiotherapy (RT) programs – a decade of the palliative radiation oncology (PROP) experience at PMH
**Supervisor:** R. Wong

**Julia Skliarenko, Radiation Oncology Resident**
Evaluation of set-up reproducibility with and without customized vacuum immobilization device in rectal cancer patients treated with preoperative pelvic radiation therapy
**Supervisors:** J. Kim, T. Craig

**Albert Tong, Radiation Oncology Fellow**
Outcomes for T2N0M0 glottic squamous cell carcinoma treated with IMRT compared with conventional parallel opposed fields
**Supervisor:** J. Waldron

**Michael Velec, IMS MSc Student**
Impact and implementation guidelines for liver SBRT delivery with deformable registration and dose accumulation
**Supervisor:** K. Brock

**Francine Voncken, Visiting Resident**
Degree of tumor shrinkage following neoadjuvant chemoradiotherapy: A potential predictor for complete pathological response in esophageal cancer
**Supervisor:** R. Wong

**Lorraine Walsh, Radiation Oncology Fellow**
Patterns of fatigue, serum cytokines, and hematopoietic stem cells during breast cancer radiotherapy
**Supervisor:** F-F Liu

**Matt Wronski, Physics Resident**
Dose to implantable cardiac devised from cone beam CT
**Supervisor:** G. Pang

**Poster Presentations**
Eman AlDuhaiby, Radiation Oncology Resident
A national survey of the availability of intensity-modulated radiation therapy and stereotactic radiosurgery in Canada
Supervisor: D. Hodgson

Amanda Caissie, Radiation Oncology Resident
Code Status Documentation: Everyone’s Responsibility
Supervisor: C. Zimmerman

Kristopher Dennis, Radiation Oncology Fellow
International patterns of practice in the prophylaxis of radiation-induced nausea and vomiting (RINV)
Supervisors: E. Chow, M. Tsao, L. Holden, S. Wong

Ali Fatemi-Ardekani, Physics Resident
Identifying prostate brachytherapy seeds at MRI: A study in phantom
Supervisor: J. Borg

Meredith Giuliani, Radiation Oncology Resident
Correlation of dosimetric factors in the development of esophagitis and radiation pneumonitis in patients with limited stage small cell lung carcinoma
Supervisors: A. Hope, P. Lindsay

Michael Lamey, Physics Resident
Safety systems and failure modes and effects analysis for a linear accelerator – magnetic resonance imager- brachytherapy system
Supervisor: M. Carlone

Claudia Leavens, Physics Resident
Comparison of two NTCP models in terms of impact on the maximum prescription dose which can be prescribed in NSCLC dose escalation protocols
Supervisors: JP Bissonnette, D. Jaffray

Marita Morgia, Radiation Oncology Fellow
Dosimetric Changes During Daily MR-Guided Pulse-Dose-Rate Brachytherapy for Cervix Cancer
Supervisors: A. Fyles, M. Milosevic

Hany Soliman, Radiation Oncology Fellow
Stereotactic hypofractionated intensity modulated radiotherapy (SHIMIR) to the surgical cavity following resection of brain metastases
Supervisor: A. Sahgal

Robert Weersink, Physics Resident
The role of quantitative endoscopy in radiation therapy: Improved target delineation and radiation dose/PET signal display during endoscopy
Supervisors: S. Breen, D. Jaffray
Philip Wong, Radiation Oncology Fellow  
Clinical outcomes of pelvic soft-tissue sarcomas treated with surgery and radiotherapy  
Supervisor: C. Catton

Huan Yu, Physics Resident  
Towards MR-only simulation: A QA phantom for coalescing consecutive MR scans of the head and neck  
Supervisor: K. Mah