

# CARO-COMP 2007

---

## schedule and program

---

### TUESDAY, OCTOBER 9

---

9:00–5:00 **CCPM Fellowship Exams**

*Wentworth, Kenora*

### WEDNESDAY, OCTOBER 10

---

9:00–12:30 **CCPM Fellowship Exams**

*Wentworth*

#### ■ **Preconference Events**

#### **CARO Resident Refresher Course**

*Dominion North*

Chair: Libni Eapen

7:00–8:00 Breakfast and Registration

8:00–8:10 **Introduction**

8:10–8:50 **Soft Tissue Sarcoma** Charles Catton

8:50–9:30 **Non Small Cell Lung Cancer** James Wright

9:30–9:50 Break

9:50–11:00 **Educational Seminar**

*Dominion South*

**Basic MRI Physics for Clinicians**

Walter Kucharczyk

11:00–12:00 **Jean Roy Memorial Lecture**

*Simcoe/Dufferin*

**Quality: Reflections from South of the Border**

W Robert Lee, Duke University Medical Center in North Carolina

12:00–1:15 **Interactive Discussion with Vincent Gregoire** (Lunch Provided)

1:15–1:30 Break

1:30–2:10 **To Err is Human: Lessons Learned from Accidents in Radiation Therapy** Jake Van Dyk

2:10–2:50 **Skin Cancer** Olga Vujovic

2:50–3:10 Break

3:10–3:50 **Breast Cancer** Peter Cross

3:50–4:30 **Prostate Cancer** Andrew Loblaw

4:30–4:45 Closing Remarks and Evaluation

## Symposium

Dominion South

### Magnetic Resonance Comes of Age in Radiation Oncology

Chair: Cynthia Ménard

Objectives: Upon completion of this symposium, attendees should be able to:

- understand the evidence and rationale supporting the use of MRI in radiation oncology
- recognize the role of NMR methods in clinical trials and molecular cancer imaging
- describe and compare strategies for the integration of MRI in radiotherapy
- gain a basic understanding of MRI physics

7:00–8:00 Registration and Breakfast

8:00–8:30 **Introduction and Overview**

Cynthia Ménard

8:30–9:30 **Scientific Session 1**

**Planning for External Beam Radiotherapy**

Moderator: Marco van Vulpen

8:40–8:50 **1 Automatic Segmentation of Pelvic Structures from MRI Images for Prostate Cancer Radiotherapy** N Betrouni<sup>1</sup>, D Pasquier<sup>2</sup>, M Vermandel<sup>1</sup>, J Rousseau<sup>1</sup>; Université de Lille, Lille, FR<sup>1</sup>, Centre O Lambret, Université Lille, Lille, FR<sup>2</sup>

8:50–9:00 **2 MRI Target Definition Requirements for Radiation Therapy of Dominant Intraprostatic Lesions** T Craig, C Ménard, H Keller, K Brock, M Sharpe, DA Jaffray; Princess Margaret Hospital, Toronto, ON

9:00–9:10 **3 Comparison of 1.5T versus 3T MRI of Brain for Target Delineation in Glioblastoma Multiforme (GBM) Patients** N Pervez, N Al-Dhaibani, T Stanescu, G Fallone; Cross Cancer Institute, University of Alberta, Edmonton, AB

9:10–9:20 **4 Three Dimensional Motion of Liver Tumours Using Cine-MRI Compared to Liver Motion Assessed at Fluoroscopy** A Kirilova, N Bana, P Cho, K Brock, M Haider, G Lockwood, C Eccles, LA Dawson; Princess Margaret Hospital, Toronto, ON

9:20–9:30 **5 Assessment of Non-Respiratory Stomach Motion in Fasting and Postprandial States** B Wysocka, J Moseley, G Lockwood, G Wilson, A Kirilova, M Haider, C Ménard, J-P Bissonnette, K Brock, L Dawson, J Ringash; Princess Margaret Hospital, Toronto, ON

9:30–9:50 Break

9:50–11:00 **Educational Seminar**

**Basic MRI Physics for Clinicians**

Walter Kucharczyk

11:00–12:00 **Scientific Session 2**

**MR Systems and Physics for Radiotherapy**

Moderator: Brian Rutt

11:10–11:20 **6 MRI Quality Assurance for Gamma Knife Stereotactic Radiosurgery** AZ Damyanovich<sup>1</sup>, B Zhang<sup>1</sup>, D Mikulis<sup>2</sup>, J-P Bissonnette<sup>1</sup>, M Bernstein<sup>2</sup>, C Ménard<sup>1</sup>, DA Jaffray<sup>1</sup>; Princess Margaret Hospital, University of Toronto, Toronto, ON<sup>1</sup>; Toronto Western Hospital, University of Toronto, Toronto, ON<sup>2</sup>

11:20–11:30 **7 Addressing the Geometric Integrity of 3T MRI for Gamma Knife Stereotactic Radiosurgery** B Zhang<sup>1</sup>, AZ Damyanovich<sup>1</sup>, J Stainsby<sup>2</sup>, D Mikulis<sup>3</sup>, C Ménard<sup>1</sup>; Princess Margaret Hospital, Toronto, ON<sup>1</sup>; GE Healthcare Technologies, Diagnostic Imaging, Applied Sciences Laboratory, Mississauga, ON<sup>2</sup>; Toronto Western Hospital, Toronto, ON<sup>3</sup>

11:30–11:40 **8 Noise Bias Correction Improves the Accuracy of Low-SNR Dynamic Contrast-Enhanced Perfusion MRI** C Footti<sup>1</sup>, GO Cron<sup>2</sup>, A Cardenas-Blanco<sup>2</sup>, M Nezamzadeh<sup>2</sup>, IG Cameron<sup>2</sup>; Carleton University, Ottawa, ON<sup>1</sup>; The Ottawa Hospital and the Ottawa Health Research Institute, Ottawa, ON<sup>2</sup>

11:40–11:50	<b>9</b>	<b>Development of a Small Bore Linac-MRI System for Real Time Image Guided Radiotherapy</b> BG Fallone, M Carlone, B Murray, S Rathee, T Stanescu, S Steciw, C Kirkby, B Tomanek, J Sharp; Cross Cancer Institute, Edmonton, AB
11:50–12:00	<b>10</b>	<b>Designing a Linac to Operate Near an MRI</b> B Murray, G Fallone, M Carlone, S Steciw, T Stanescu, S Rathee; Cross Cancer Institute, University of Alberta, Edmonton, AB
12:00–1:15	Lunch and Poster Viewing	
	<b>328</b>	<b>Development of an Image-Centered Database Containing MRI and Pet Data, and Examples of its Application in the Treatment of Glioma Patients</b> A Murtha <sup>1</sup> , J Levesque <sup>2</sup> , D Cobzas <sup>2</sup> , B Hoehn <sup>2</sup> , M Brown <sup>2</sup> , M Heydari <sup>2</sup> , J Sander <sup>2</sup> , M Jagersand <sup>2</sup> , N Leong <sup>1</sup> , W Roa <sup>1</sup> , B Abdulkarim <sup>1</sup> , D Fulton <sup>1</sup> , M Smerdely <sup>1</sup> , R Greiner <sup>2</sup> ; Cross Cancer Institute, Edmonton, AB <sup>1</sup> ; University of Alberta, Edmonton, AB <sup>2</sup>
	<b>329</b>	<b>MRS/I Assessment of Metabolic Response to Chemo/Radiotherapy in Patients with Glioblastoma Multiforme</b> A Damyanovich, C Ménard, E-S Koh, B-A Millar, A Kirilova, A Kassner, K Brock, J Hoisak, A Keller, E Yu, N Laperriere; Princess Margaret Hospital, Toronto, ON
	<b>330</b>	<b>Development of a Phantom to Assess the Imaging Performance of Magnetic Resonance Spectroscopic Imaging</b> AA Heikal, K Wachowicz, SD Thomas, G Fallone; Cross Cancer Institute, Edmonton, AB
	<b>331</b>	<b>Hypofractionated Radiotherapy in High-Risk Prostate Cancer using Helical Tomotherapy</b> N Pervez, R Pearcey, M Parliament, D Yee, J Amanie, A Murtha, J Pederson, A Mihai, M Mackenzie, K Wachowicz, G Fallone; Cross Cancer Institute, University of Alberta, Edmonton, AB
	<b>332</b>	<b>Integration of MRI in Radiotherapy Treatment Planning in the UMC Utrecht: Data and Approach</b> M van Vulpen, JJW Legendijk, BW Raaijmakers, CAT van den Berg, JJ Battermann, UA van der Heide; University Medical Center Utrecht, Utrecht, Netherlands
	<b>333</b>	<b>Methods to Eliminate RF Interference Between a Linear Accelerator and MRI to Allow Concurrent Use</b> M Carlone, BG Fallone, B Murray, S Rathee, S Steciw, M Lamey; Cross Cancer Institute, Edmonton, AB
	<b>334</b>	<b>A Phantom Based Framework for MR Distortion Detection and Correction in 3D</b> H Alasti <sup>1</sup> , J Qiu <sup>1</sup> , J Near <sup>2</sup> , A Kirilova <sup>1</sup> , D Jaffray <sup>1</sup> ; Princess Margaret Hospital, Toronto, ON <sup>1</sup> ; Robarts Research Institute, University of Western Ontario, London, ON <sup>2</sup>
	<b>335</b>	<b>Implementation of a Dedicated Cylindrical MRI Simulator for Radiotherapy</b> C Ménard <sup>1</sup> , A Kirilova <sup>1</sup> , M Haider <sup>1</sup> , A Damyanovich <sup>1</sup> , J Stainsby <sup>2</sup> , L Dawson <sup>1</sup> , J Crook <sup>1</sup> , M Gospodarowicz <sup>1</sup> , D Jaffray <sup>1</sup> ; Princess Margaret Hospital, Toronto, ON <sup>1</sup> ; GE Medical Systems, Toronto, ON <sup>2</sup>
1:15–2:00	<b>Scientific Session 3</b> <b>MRI-Guided Brachytherapy</b> Moderator: Juanita Crook	
1:30–1:40	<b>11</b>	<b>3D MR Image Guidance for Brachytherapy in Cervical Cancer</b> JC Lindegaard, K Tanderup, SK Nielsen, C Grau; Aarhus University Hospital, Aarhus, Denmark
1:40–1:50	<b>12</b>	<b>Localization of Prostate Brachytherapy Seeds in MRI Using Magnetic Distortion Patterns</b> K Wachowicz, SD Thomas, BG Fallone; Cross Cancer Institute, University of Alberta, Edmonton, AB
1:50–2:00	<b>13</b>	<b>A Supine System for Needle-Based Prostate Interventions in a Cylindrical MRI Scanner</b> C Ménard <sup>1</sup> , G Bootsma <sup>1</sup> , C Piron <sup>2</sup> , G Sela <sup>2</sup> , J Richmond <sup>2</sup> , D Gallop <sup>2</sup> , M Filletti <sup>1</sup> , C Rocca <sup>1</sup> , A Kirilova <sup>1</sup> , I Iaordachita <sup>3</sup> , A Kriger <sup>3</sup> , D Jaffay <sup>1</sup> , M Haider <sup>1</sup> ; Princess Margaret Hospital, University of Toronto, Toronto, ON <sup>1</sup> ; Sentinelle Medical Inc, Toronto, ON <sup>2</sup> ; Johns Hopkins University, Baltimore, Maryland <sup>3</sup>
2:00–3:00	<b>Keynote Address</b> <b>MRI in Oncology: Opportunities for Translational Research</b> Robert Gillies	
3:00–3:20	Break	

3:20–4:30	<b>Scientific Session 4</b> <b>Biology, Physiology, &amp; Response to Radiotherapy</b> Moderator: Robert Gillies
3:20–3:30	<b>14 Correlating Radiation-Induced Volumetric and DWI-ADC Changes in Major Salivary Glands Using CT/MR</b> L Divanbeigi, G Studer, SH Huang, B Cummings, L Dawson, J Kim, J Ringash, B O'Sullivan, D Jaffray; Princess Margaret Hospital, Toronto, ON
3:30–3:40	<b>15 Preliminary Evaluation of Diffusion MRI to Assess Liver Radiotherapy</b> C Eccles, E Haider, M Haider, L Dawson; University of Toronto, Toronto, ON
3:40–3:50	<b>16 Utility of Standard MRI in Differentiating Therapeutic Response versus Pseudoprogression During Chemoradiation for Glioblastoma Multiforme</b> ES Koh, C Ménard, J Hoisak, K Brock, J Moseley, E Yu, BA Millar, A Kassner, A Damyranovich, A Kirilova, A Keller, N Laperriere; Princess Margaret Hospital, Toronto, ON
3:50–4:00	<b>17 Multiparametric MR Tissue Classification of Glioblastoma Multiforme: Identification Of Spatio-Temporal Patterns of Tumour Progression and Treatment Response</b> JDP Hoisak, E-S Koh, N Laperriere, C Ménard, DA Jaffray; Princess Margaret Hospital, Toronto, ON
4:00–4:10	<b>18 A Comparison Between Quantitative Dynamic Contrast Enhanced CT and MRI of the Prostate</b> M van Vulpen, CA van den Berg, AE Boeken Kruger, MA van den Bosch, UA van der Heide; University Medical Center Utrecht, Utrecht, Netherlands
4:10–4:20	<b>19 A Modified PRESS Sequence Designed for Glutathione Editing</b> A Yahya, G Fallone; Cross Cancer Institute, University of Alberta, Edmonton, AB
4:20–4:30	<b>20 Hyperpolarized Helium-3 Magnetic Resonance Imaging for the Prediction, Reduction, and Assessment of Radiation-Induced Lung Injury</b> G Rodrigues <sup>1</sup> , G Parraga <sup>2</sup> , B Yaremko <sup>1</sup> ; London Regional Cancer Program, London, ON <sup>1</sup> ; Robarts Research Institute, London, ON <sup>2</sup>
4:30–5:10	<b>Round Table Discussions</b> <b>Are we equipped to integrate and support MR technology in the RT setting?</b> David Jaffray, Industry Partners <b>How do we foster collaboration with experts in MRI?</b> Masoon Haider, Brian Rutt <b>Where will MRI have the biggest impact in radiotherapy outcomes?</b> Cynthia Ménard <b>What could the ideal MR image tell us about radiobiology?</b> Michael Milosevic, Robert Gillies
5:10–5:50	Feedback from Round Table
5:50–6:00	Closing Remarks and Evaluation

# Canadian Brachytherapy Group Symposium

Simcoe/Dufferin

Chair: Gerard Morton

Objectives:

- To learn about brachytherapy-related research taking place in Canada.
- To learn how to perform a HDR brachytherapy prostate implant.
- To be challenged on the need for quality in current medical practice.

---

7:00–8:00 Registration and Breakfast

---

8:00–8:05 **Welcome Remarks** Jim Morris

---

## 8.05–9.45 Paper Session

Moderators: Gad Perry and Marjory Jolicoeur

---

8:05–8:17 **21 The Impact of 3D Image Guided Intraoperative Treatment Planning and Seeds Insertion in I-125 Prostate Brachytherapy** E Vigneault<sup>1</sup>, W Foster<sup>1</sup>, A-G Martin<sup>1</sup>, L Beaulieu<sup>2</sup>, F Harel<sup>2</sup>; l'Hôtel-Dieu de Québec, Quebec, QC<sup>1</sup>; Centre Hospitalier Universitaire de Quebec (CHUQ), Quebec, QC<sup>2</sup>

---

8:17–8:29 **22 The Nature and Extent of Urinary Morbidity in Relation to Prostate Brachytherapy Urethral Dosimetry** J Crook<sup>1</sup>, M Neill<sup>2</sup>, L Le<sup>1</sup>, G Studer<sup>1</sup>, M McLean<sup>1</sup>, G Pond<sup>3</sup>; Princess Margaret Hospital, Toronto, ON<sup>1</sup>; University Health Network, Toronto, ON<sup>2</sup>

---

8:29–8:41 **23 Real Time Intraoperative Planned (RTIOP) Boost within a Permanent Seed Implant (PSI) is a form of Image Guided Adaptive Brachytherapy: A Toxicity Analysis** A-G Martin<sup>2</sup>, S Aubin<sup>2</sup>, N Varfalvy<sup>2</sup>, É Lessard<sup>3</sup>, J Pouliot<sup>3</sup>, F Hare<sup>2</sup>, E Vigneault<sup>2</sup>, L Beaulieu<sup>1,2</sup>, Université Laval, Québec, QC<sup>1</sup>; CHUQ pavillon de l'Hôtel-Dieu de Québec, Quebec, QC<sup>2</sup>; University California of San Francisco, San Francisco, CA<sup>3</sup>

---

8:41–8:53 **24 A Comparison of Critical Organ Dosimetry and Toxicity Between Loose Seeds and Stranded Seeds in 125I Permanent Implant for Low-Risk Prostate Cancer** J Crook, EP Saibishkumar, I Yeung, J Borg, C Cummins-Holder, A Landon; Princess Margaret Hospital, Toronto, ON

---

8:53–9:05 **25 Computing Pre- to Post-Plan Source Correspondences in Stranded Implants for Prostate Brachytherapy Dosimetry** N Chng, I Spadinger, T Salcudean; British Columbia Cancer Agency, University of British Columbia, Vancouver, BC

---

9:05–9:17 **26 Radiation Dose to Penile Bulb in 125I Permanent Implant for Low-Risk Prostate Cancer: A Dosimetric Comparison of Stranded Seeds and Loose Seeds** EP Saibishkumar, J Borg, I Yeung, C Cummins-Holder, A Landon, J Crook; Princess Margaret Hospital, Toronto, ON

---

9:17–9:29 **27 Evaluation of a Prototype for Online Gamma-Camera Imaging of Permanent Seed Implantation (OGIPSI) for Breast Brachytherapy Quality Assurance** A Ravi, J-P Pignol, C Caldwell; Odette Cancer Centre, Toronto, ON

---

9:29–9:41 **28 Image-Guided HDR Brachytherapy Treatment Planning: Does Custom CT Planning for Each Insertion Provide Better Conformal Avoidance of Organs at Risk?** J Yuen<sup>1</sup>, MTM Davidson<sup>2</sup>, DP D'Souza<sup>1</sup>, DL Batchelar<sup>3</sup>; London Regional Cancer Program, University of Western Ontario, London, ON<sup>1</sup>; London Regional Cancer Program, London, ON<sup>2</sup>; Odette Cancer Centre, Toronto, ON<sup>3</sup>

---

9:45–10:00 Break

---

## 10:00–11:00 Prostate HDR Clinic — the Nuts and Bolts

Gerard Morton and Eric Vigneault

---

## 11:00–12:00 Jean Roy Memorial Lecture

**Quality: Reflections from South of the Border**

W Robert Lee, Duke University Medical Center in North Carolina

---

12:00–12:15 Closing Remarks and Evaluation

---

3:30–4:30 **CBG Annual Meeting**

Simcoe/Dufferin

## Brachytherapy Posters

- 146** **Pulmonary Seed Embolization After Transperineal Interstitial Prostate Brachytherapy: Does Small Prostate Gland or Seed Placement Outside Prostate Capsule Increase Frequency of Seed Loss?**  
B Bashir, T Dufan, J Yousuf, K Malkoske, J Bews, G Schroeder, P Cho, D Drachenberg, A Chowdhury;  
CancerCare Manitoba, Manitoba, Winnipeg, MB
- 147** **TURP and Prostate Brachytherapy: Effect on Urinary Function** J Wong, N Fleshner, I Yeung,  
M McLean, J Crook; Princess Margaret Hospital, Toronto, ON
- 197** **High Dose Rate Intraluminal Brachytherapy (HDRILBT) in Lung Cancer: A Review of Two Years**  
R Sur<sup>1</sup>, L Zychla<sup>1</sup>, S Puksa<sup>2</sup>, A McLellan<sup>2</sup>, B Donde<sup>3</sup>, G Jones<sup>4</sup>; Juravinski Cancer Centre, McMaster University,  
Hamilton, ON<sup>1</sup>; Henderson General Hospital, McMaster University, Hamilton, ON<sup>2</sup>; Johannesburg Hospital, University  
of the Witwatersrand, Johannesburg, South Africa<sup>3</sup>; Credit Valley Hospital, McMaster University, Hamilton, ON<sup>4</sup>
- 235** **Endoscopic-Guided Brachytherapy (EGB) for the Palliation of Advanced Esophageal Cancers**  
R Singh, V Naina, A Timotin, L Zychla, R Wong, R Sur; Juravinski Cancer Centre, McMaster University, Hamilton, ON
- 251** **Orthogonal Shifts Using Non-Orthogonal Visualization of Fiducials** D Panjwani, A Fleck; Grand River  
Regional Integrated Cancer Program, Kitchener, ON
- 252** **IMVI-RT: Intensity Modulated versus Interstitial Radiation Therapy** N Usmani, WJ Morris; British  
Columbia Cancer Agency, Vancouver Cancer Centre, Vancouver, BC
- 253** **A Compact Robotic Apparatus and Method for 3D Ultrasound Guided Prostate Therapy** J Bax,  
L Gardi, J Montreuil, D Smith, A Fenster; Robarts Research Institute, London Biomedical Engineering,  
University of Western Ontario, London, ON
- 254** **Is Body Mass Index a Predictor for Rectal Dosimetry and Toxicity in 125I Permanent Implant for  
Low-Risk Prostate Cancer?** J Crook, EP Saibishkumar, G Pond, M Aneja; Princess Margaret Hospital, Toronto, ON

# THURSDAY, OCTOBER 11

7:30–8:30	Breakfast and Registration	<i>Dominion Foyer, 2nd Floor</i>
8:30–9:00	<b>Joint CARO-COMP Presidential Address</b> Tom Pickles and Stephen Pistorius	<i>Dominion Ballroom</i>
9:00–10:00	<b>CARO Lecture</b> Moderator: Tom Pickles <b>Radiation Medicine: Engineering the Cure</b> David Jaffray, Toronto, Ontario	<i>Dominion Ballroom</i>
10:00–10:30	Break	
10:30–12:40	<b>CCPM/CARO Symposium</b> <b>Image Guided Radiation Therapy Opportunities</b> Moderators: David Wilkins and Laura A Dawson <b>please note time change for speakers 1 and 3</b>	<i>Dominion Ballroom</i>
10:30–10:55	<b>Adaptive Radiotherapy: The Head and Neck Cancer Model</b> Vincent Grégoire, Brussels, Belgium	
10:55–11:20	<b>Adaptive Radiotherapy: Physics Perspective</b> Lei Dong, Houston, Texas	
11:20–11:45	<b>Image Guided Stereotactic Body Radiotherapy</b> Bob Timmerman, Dallas, Texas	
11:45–12:10	<b>Theragnostic Imaging in Radiation Oncology</b> Søren M Bentzen, Madison, Wisconsin	
12:10–12:40	<b>Panel Discussion</b>	
12:40–2:00	Lunch on your own	
2:00–3:24	<b>COMP Paper Session 1</b> Moderators: Doug Moseley and Jason Schella	<i>Dominion South</i>
2:00–2:12	<b>29 The Case for Daily Prostate Imaging: A Diachronic Study Based on Megavoltage Computed Tomography</b> M MacPherson, M Thomas, K Carty, L Gerig, L Montgomery, B. Clark; The Ottawa Hospital Regional Cancer Centre, Ottawa, ON	
2:12–2:24	<b>30 The Feasibility of Cone-Beam CT for Assessment of Changes in Volume and Dose Parameters for Salivary Glands During Head and Neck IMRT</b> UV Elstroem, S Buus, LP Muren, JB Petersen, C Grau (presenting author); Aarhus University Hospital, Department of Oncology and Department of Medical Physics, Denmark	
2:24–2:36	<b>31 Variability in Identification of Positive Nodes for Head and Neck Cancers: Comparison of CT Alone with PET/CT</b> K Mah, C Caldwell, I Poon, J Balogh, B MacKenzie, R Tirona, R Chong; Odette Cancer Centre, Toronto, ON	
2:36–2:48	<b>32 Inter-Observer Precision of Cone-Beam CT Soft Tissue Matching and Contouring for Gynaecological Malignancies</b> Y-B Cho, K Lim, W Li, V Kelly, M Pintilie, M Milosevic, F Herrera, D Jaffray, A Fyles; Princess Margaret Hospital, Toronto, ON	
2:48–3:00	<b>33 Verification of Respiratory-Gated IMRT Delivery with Electronic Portal Imaging Acquired During Treatment</b> S Gaede <sup>1</sup> , C MacDonald <sup>2</sup> , E Yu <sup>1</sup> ; London Regional Cancer Program, London, ON <sup>1</sup> ; Northeastern Ontario Regional Cancer Centre, Sudbury, ON <sup>2</sup>	
3:00–3:12	<b>34 Five Years of Experience with Helical Tomotherapy</b> E Soisson, M Mehta, P Harari, M Ritter, J Welsh, D Khuntia, R Patel, B Paliwal, W Tome, H Jaradat, J Limmer, L Schubert, D Westerly, A Gutierrez, S Bentzen, R Jeraj, T Mackie; University of Wisconsin, Madison, WI	
3:12–3:24	<b>35 Development of Diagnostic Tools for Clinical Portal Dose Image Comparison</b> M Tran, B McCurdy, S Pistorius; CancerCare Manitoba, Winnipeg, MB	

2:00–3:24

## CARO Paper Session 1

*Dominion North*

Moderators: George Rodrigues and Gad Perry

2:00–2:12

**36 Report of a Multicentre Canadian Phase III Randomized Trial of Three Months versus Eight Months Neoadjuvant Androgen Deprivation Prior to Standard Dose Radiotherapy for Clinically Localized Prostate Cancer** J Crook<sup>1</sup>, C Ludgate<sup>2</sup>, S Malone<sup>3</sup>, J Lim<sup>4</sup>, L Eapen<sup>3</sup>, J Bowen<sup>5</sup>, G Lockwood<sup>1</sup>; Princess Margaret Hospital, Toronto, ON<sup>1</sup>; Vancouver Island Cancer Centre, Victoria, BC<sup>2</sup>; Ottawa Cancer Centre, Ottawa, ON<sup>3</sup>; Vancouver Island Cancer Centre, Victoria, BC<sup>4</sup>; Northeastern Ontario Cancer Centre, Sudbury, ON<sup>5</sup>

2:12–2:24

**37 How Does Prostate High Dose Rate (HDR) Brachytherapy Combined with Supplemental External (SEB) Affect Patients' Quality of Life? Results from a Prospective Canadian Multicentre Study** G Morton<sup>1</sup>, T Lim<sup>1</sup>, DA Loblaw<sup>1</sup>, R Sankrecha<sup>1</sup>, E Vigneault<sup>2</sup>, C Springer<sup>3</sup>, L Zhang<sup>1</sup>; Odette Cancer Centre, University of Toronto, Toronto, ON<sup>1</sup>; Centre Hospitalier Universitaire de Quebec (CHUQ) Hôtel-Dieu de Quebec, Quebec, QC<sup>2</sup>; Windsor Regional Cancer Centre, Windsor, ON<sup>3</sup>

2:24–2:36

**38 Prostate-Specific Antigen Bounce After Permanent Radioiodine (I-125) Seed Implants for Clinically Localized Prostate Cancer** J Yousef, K Malkoske, J Bews, G Schroeder, P Cho, D Drachenberg, A Chowdhury; CancerCare Manitoba, University of Manitoba, Winnipeg, MB

2:36–2:48

**39 Comparing Gleason Scores (GS) between Initial and Follow-up (F/U) Biopsy in Untreated, Low to Intermediate Grade, Clinically Localized Prostate Adenocarcinoma (CLPA)** R Choo<sup>1</sup>, C Danjoux<sup>2</sup>, G Morton<sup>2</sup>, E Szumacher<sup>2</sup>, L Sugar<sup>2</sup>, S Gardner<sup>2</sup>, A Loblaw<sup>2</sup>, P Cheung<sup>2</sup>, C Choo<sup>2</sup>, L Klotz<sup>2</sup>; Mayo Clinic, Mayo College of Medicine, Rochester, USA<sup>1</sup>; Odette Cancer Centre, Sunnybrook Health Sciences Centre, University of Toronto, Toronto, ON<sup>2</sup>

2:48–3:00

**40 A Comparison of Dosimetric and Biological Effective Dose (BED) Parameters for the Prostate and Urethra using Cs-131 and I-125 for Prostate Brachytherapy** A Sahgal, J Chen, M Roach, B Pickett, I-Chow Hsu, J Pouliot; UCSF Comprehensive Cancer Centre, University of California San Francisco, San Francisco, CA

3:00–3:12

**41 MRSI-Observed Metabolic Activity in Prostate During PSA-“Bounce” Following 125I Brachytherapy** AZ Damyanovich, A Kirilova, J Crook; Princess Margaret Hospital, University of Toronto, Toronto, ON

3:12–3:24

**42 The Use of XVI During Bladder Radiotherapy—Bony Anatomy or Soft Tissue Match?** V Kong, P Chung, T Rosewall, R Bristow, M Milosevic; Princess Margaret Hospital, Toronto, ON

2:00–3:24

## CARO Paper Session 2

*Conference Room D & E, Mezzanine Level*

Moderators: Lee Manchul and Carol-Anne Jessiman

2:00–2:12

**43 Improving Access to Radiotherapy Services in the Simcoe-Muskoka Region of Ontario: A Needs Assessment Study** E Szumacher<sup>1</sup>, L Barbera<sup>1</sup>, T Barnes<sup>1</sup>, T Keighley-Clarke<sup>2</sup>, B Pressnail<sup>2</sup>, Y Matyas<sup>1</sup>, C Danjoux<sup>1</sup>, L Zhang<sup>1</sup>, J Nyhof-Young<sup>3</sup>; Odette Cancer Centre, Toronto, ON<sup>1</sup>; Royal Victoria Hospital, Barrie, ON<sup>2</sup>; Princess Margaret Hospital, Toronto, ON<sup>3</sup>

2:12–2:24

**44 Beam Them Onboard! Presenting a Web-Based Virtual Experience in Radiation Oncology (VERO) for Undergraduate Medical Students** J Nyhof-Young<sup>1</sup>, L Holden<sup>2</sup>, C Gillies<sup>2</sup>, C Hayter<sup>2</sup>, J Kamra<sup>2</sup>; Princess Margaret Hospital, Toronto, ON<sup>1</sup>; Odette Cancer Centre, Toronto, ON<sup>2</sup>

2:24–2:36

**45 Development and Clinical Implementation of a Quality Assurance (QA) Procedure for Automated Couch Movement** W Li, D Moseley, B Norrlinger, S Foxcroft, J Smale, D Jaffray; Princess Margaret Hospital, Toronto, ON

2:36–2:48

**46 Developing Advanced Practice Roles in Radiation Therapy: Letting the Evidence Speak** N Harnett<sup>1</sup>, A Bolderston<sup>1</sup>, P Catton<sup>1</sup>, M Gospodarowicz<sup>1</sup>, DD Lewis<sup>2</sup>, M Smoke<sup>3</sup>, J Wenz<sup>1</sup>, A Whitton<sup>4</sup>; Princess Margaret Hospital, Toronto, ON<sup>1</sup>; Odette Cancer Centre, Toronto, ON<sup>2</sup>; Juravinski Cancer Centre, Hamilton, ON<sup>3</sup>; Cancer Care Ontario, Toronto, ON<sup>4</sup>

2:48–3:00	<b>47 Evidence to Support Improving Cancer Patient Supportive Care Through Community Nursing: Results of a Prospective Study</b> J Sussman <sup>1</sup> , D Howell <sup>2</sup> ; Juravinski Cancer Centre, McMaster University, Hamilton, ON <sup>1</sup> ; University Health Network, University of Toronto, Toronto, ON <sup>2</sup>	
3:00–3:12	<b>48 Self-Assessment of Communication Skills and Shared Decision-Making Among Oncology Trainees</b> I Aivas, JM Bourque, R Samant, T Tucker; The Ottawa Hospital Regional Cancer Centre, University of Ottawa, Ottawa, ON	
3:12–3:24	<b>49 The Use of Simulation Modeling to Improve Radiation Therapy Planning Processes</b> J French <sup>1</sup> , G Werker <sup>2</sup> , A Saure <sup>2</sup> , S Shechter <sup>2</sup> ; British Columbia Cancer Agency, Vancouver Centre, Vancouver, BC <sup>1</sup> ; University of British Columbia, Vancouver, BC <sup>2</sup>	
3:24–3:54	Break	
4:00–5:00	<b>CCPM Annual General Meeting</b>	<i>Conference Room D &amp; E, Mezzanine Level</i>
4:00–5:00	<b>CARO Annual General Meeting</b>	<i>Dominion North</i>
5:30–6:30	<b>CARO-COMP Joint Public Lecture</b> Moderator: Peter O'Brien <b>Innovative Radiation Treatments for Breast Cancer Patients</b> Jean-Philippe Pignol Isabelle Dusastre Suzy Cayley	<i>Dominion South</i>
7:00	<b>Welcome Reception</b>	<i>The Carlu, 444 Yonge Street, 7th Floor</i>

# FRIDAY, OCTOBER 12

7:30–8:00	Breakfast and Registration	<i>Dominion Foyer, 2nd Floor</i>
8:00–9:36	<b>CARO-COMP Joint People's Choice</b> Moderators: Tom Pickles and Stephen Pistorius	<i>Dominion Ballroom</i>
8:00–8:12	<b>50 Improving the Results of Intermediate Risk Prostate Cancer Treated with High Dose Rate (HDR) Brachytherapy and Hypofractionated External Beam Radiation Therapy</b> F Cury, M Duclos, A Aprikian, G Shenouda; S Faria, M David, H Patrocinio, M Evans, L Souhami; McGill University Health Centre, Montreal, QC	
8:12–8:24	<b>51 Targeting Accuracy of a Deep Inspiration Breath-Hold Technique for Locoregional Breast Radiotherapy</b> D Wells <sup>1,2</sup> , E Wai <sup>1,3</sup> , B Bendorffe <sup>1</sup> , M Bardutz <sup>1</sup> , A Rose <sup>2</sup> , D Norn <sup>2</sup> , R Peterson <sup>1</sup> , R McDonald <sup>1</sup> , H Cunningham <sup>1</sup> , D Sayers <sup>1</sup> , J Runkel <sup>1</sup> , S Cooper <sup>1</sup> , C Popescu <sup>1</sup> , W Beckham <sup>1,2</sup> , I Olivotto <sup>1,3</sup> ; British Columbia Cancer Agency, Vancouver Island Centre, Victoria, BC <sup>1</sup> ; University of Victoria, Victoria, BC <sup>2</sup> ; University of British Columbia, Vancouver, BC <sup>3</sup>	
8:24–8:36	<b>52 Implementation of HDR Brachytherapy for Cervix Carcinoma: Multi-Modality Image-Guidance for Efficient Workflow</b> D Batchelar <sup>1</sup> , M Davidson <sup>2</sup> , J Yuen <sup>2</sup> , JA Hammond <sup>2</sup> , J Radwan <sup>2</sup> , D D'Souza <sup>2</sup> ; Odette Cancer Centre, Toronto, ON <sup>1</sup> ; London Regional Cancer Program, London, ON <sup>2</sup>	
8:36–8:48	<b>53 Evaluation of the Positioning Accuracy of the BrainLab Frameless SRS System</b> E Gete, R Lee, V Moiseenko; British Columbia Cancer Agency, Vancouver, BC	
8:48–9:00	<b>54 Long Term Urinary Sequelae Following Iodine 125 Prostate Brachytherapy</b> J Crook, N Fleshner, C Roberts, G Pond; Princess Margaret Hospital, Toronto, ON	
9:00–9:12	<b>55 A Clinical Megavoltage Cone-Beam Digital Tomosynthesis (MV-CBDT) System for Image-Guided Radiotherapy</b> G Pang <sup>1</sup> , A Bani-Hashemi <sup>2</sup> , P Au <sup>1</sup> , PF O'Brien <sup>1</sup> , JA Rowlands <sup>1</sup> , G Morton <sup>1</sup> , T Lim <sup>1</sup> , P Cheung <sup>1</sup> , A Loblaw <sup>1</sup> ; Odette Cancer Centre, Toronto, ON <sup>1</sup> ; Siemens Medical Solutions USA, Inc. <sup>2</sup>	
9:12–9:24	<b>56 Preoperative Capecitabine and Pelvic Radiation in Locally Advanced Rectal Cancer—Is It Equivalent to 5FU Infusion, Leucovorin, and Radiotherapy?</b> A Chan, A Wong, D Jenken; Tom Baker Cancer Centre, University of Calgary, Calgary, AB	
9:24–9:36	<b>57 CT Imaging in Cervical Cancer: Determination of Dose Delivered to Bladder and Rectum During Intracavitary Brachytherapy</b> K Lekx, M Patel, S Voruganti, R Hunter, T Farrell, K Dhamanaskar; Juravinski Cancer Centre, Hamilton, ON	
9:36–10:00	Break	
10:00–12:30	<b>CARO-COMP Joint Resident/Young Investigators Paper Competition</b> Moderators: Jean-Pierre Bissonnette and Libni Eapen	<i>Dominion Ballroom</i>
10:00–10:15	<b>58 Cutting the Fat: Reducing Periprostatic Lipid Contamination in Prostate MRSI</b> N Venugopal <sup>1</sup> , B McCurdy <sup>1</sup> , L Ryner <sup>2</sup> ; CancerCare Manitoba, Winnipeg, MB <sup>1</sup> ; Institute for Biodiagnostics, National Research Council, Winnipeg, MB <sup>2</sup>	
10:15–10:30	<b>59 Biopsy and PSA Outcome with HDR Prostate Brachytherapy: A Seven-Year Clinical Experience</b> F Bachand, L Beaulieu, F Harel, A-G Martin, E Vigneault; l'Hôtel-Dieu de Québec, Quebec, QC	
10:30–10:45	<b>60 Development of an Intensity Modulated ARC Therapy Optimization Environment</b> M Oliver <sup>1</sup> , A Gladwish <sup>1</sup> , J Craig <sup>1</sup> , J Chen <sup>1</sup> , E Wong <sup>2</sup> ; University of Western Ontario, London, ON <sup>1</sup> ; London Regional Cancer Program, London, ON <sup>2</sup>	

- 10:45–11:00 **61 Pseudo-Progression Following Concurrent Temozolomide and Radiotherapy in Patients with Glioblastoma: A Retrospective Study** D Duplan, J-F Carrier, B Fortin, J-P Bahary, C Lambert, K Belanger, A Liu, V Desroches, M-A Fortin; University of Montreal, Montreal, QC
- 11:00–11:15 **62 Developments in MRI Simulation of Intracranial Lesions** T Stanescu, H Jans, N Pervez, P Stavrev, GB Fallone; Cross Cancer Institute, Edmonton, AB
- 11:15–11:30 **63 Predictive Significance of the Temporal Evolution of Serial Magnetic Resonance Spectroscopies During Radiotherapy for Patients with Malignant Gliomas** H Quon<sup>1</sup>, A Alexander<sup>2</sup>, A Murtha<sup>1</sup>, B Abdulkarim<sup>1</sup>, V Mehta<sup>1</sup>, M Wheatley<sup>1</sup>, D Fulton<sup>1</sup>, B Murray<sup>1</sup>, S Ghosh<sup>1</sup>, R Urtasun<sup>1</sup>, G Fallone<sup>1</sup>, S Vidakovic<sup>1</sup>, AJB McEwan<sup>1</sup>, W Roa<sup>1</sup>; Cross Cancer Institute, Edmonton, AB<sup>1</sup>; British Columbia Cancer Agency, Vancouver Island Centre, Victoria, BC<sup>2</sup>
- 11:30–11:45 **64 Quantification of Carotid Vessel Atherosclerosis Using 3D Ultrasound Images** B Chiu, M Egger, JD Spence, G Parraga, A Fenster; Robarts Research Institute London, ON
- 11:45–12:00 **65 Adjuvant Locoregional Radiotherapy Using Helical Tomotherapy for Stage IIB-III Breast Cancer: Dosimetric Comparison to a Standard Technique** S Morgan, L Montgomery, M Lacelle, M MacPherson, B Nyiri, J-M Caudrelier; The Ottawa Hospital Regional Cancer Centre, Ottawa, ON
- 12:00–12:15 **66 A Mathematical Model of Radiochromic Film Response to Ionizing Radiation** A Rink, A Vitkin, D Jaffray; Princess Margaret Hospital, Toronto, ON
- 12:15–12:30 **67 A Prospective Evaluation of Seroma Formation and Clip Placement for Radiotherapy in Patients with Segmental Mastectomies Requiring Radiotherapy** Z Gabos, S Chafe, S Ghosh; Cross Cancer Institute, Edmonton, AB
- 12:30–2:00 Lunch on your own
- 2:00–3:24 **COMP Paper Session 2** *Dominion South*  
Moderators: Brenda Clark and Michael Sharp
- 2:00–2:12 **68 Characterization of Deformation and Treatment Response in Cervical Cancer Patients** K Brock, JL Moseley, J Stewart, K Lim, J Xie, P Chan, R Dinniwel, Y-B Cho, A Fyles, M Milosevic, DA Jaffray; Princess Margaret Hospital, Toronto, ON
- 2:12–2:24 **69 Optimal Adaptive IMRT Strategy for Cervix Cancer** Y-B Cho<sup>1</sup>, K Lim<sup>1</sup>, A Lundin<sup>2</sup>, V Kelly<sup>1</sup>, J Xie<sup>1</sup>, H Rehbinder<sup>2</sup>, K Brock<sup>1</sup>, J Moseley<sup>1</sup>, J Stewart<sup>1</sup>, A Fyles<sup>1</sup>, M Milosevic<sup>1</sup>; Princess Margaret Hospital, Toronto, ON<sup>1</sup>; RaySearch Laboratories, Stockholm, Sweden<sup>2</sup>
- 2:24–2:36 **70 Assessment of an Efficient New Intensity-Modulated Single-Arc Delivery Technique** W Ansbacher, L Drever, W Beckham, S Larsson, I Olivotto, K Otto; British Columbia Cancer Agency, Vancouver Island Centre, Victoria, BC
- 2:36–2:48 **71 Linac Based Helical Intensity Modulated Total Body Irradiation** A Popescu<sup>1</sup>, C Duzenli<sup>1</sup>, M Beasley<sup>1</sup>, K Goddard<sup>1</sup>, T Teke<sup>2</sup>, Y Qiu<sup>2</sup>, S Thomas<sup>1</sup>, C Yuen<sup>1</sup>, K Otto<sup>1</sup>; British Columbia Cancer Agency, Vancouver, BC<sup>1</sup>; University of British Columbia, Vancouver, BC<sup>2</sup>
- 2:48–3:00 **72 A CT-based Enhanced Dosimetry Total Body Irradiation Technique for Conventional Linear Accelerators** R Heaton, F Cheung, M van Prooijen, N La Macchia, N Amin, R Tsang, B-A Millar, D Hodgson, M Islam; Princess Margaret Hospital, Toronto, ON
- 3:00–3:12 **73 Treatment of Large Fields for Head and Neck IMRT** F Vallejo, O Ostapiak, T Farrell; Juravinski Cancer Centre, McMaster University, Hamilton, ON
- 3:12–3:24 **74 Experimental Validation of Conjugant Gradient Based Inverse Treatment Planning System for Cobalt-60 Tomotherapy** S Dhanesar<sup>1</sup>, N Chng<sup>1</sup>, M Rogers<sup>2</sup>, C Joshi<sup>1</sup>, J Darko<sup>1</sup>, G Salomons<sup>1</sup>, A Kerr<sup>1</sup>, J Schreiner<sup>1</sup>; Queen's University, Kingston, ON<sup>1</sup>; Cancer Centre of Southeastern Ontario, Kingston, ON<sup>2</sup>

2:00–3:24

### CARO Paper Session 3

*Dominion North*

Moderators: Christina Parsons and Eileen Rakovitch

- 2:00–2:12 **75** **Intervals Longer than Twenty Weeks from Breast Conserving Surgery (BCS) to Radiation Therapy (RT) are Associated with Inferior Outcomes for Patients with Early-Stage Breast Cancer Not Receiving Chemotherapy** I Olivotto<sup>1</sup>, M Lesperance<sup>2</sup>, T Berrang<sup>1</sup>, C Speers<sup>3</sup>, A Nichol<sup>4</sup>, S Tyldesley<sup>4</sup>, F Germain<sup>1</sup>, E Wai<sup>1</sup>, C Holloway<sup>5</sup>, W Kwan<sup>6</sup>, P Truong<sup>4</sup>; British Columbia Cancer Agency, Vancouver Island Centre, Victoria, BC<sup>1</sup>; University of Victoria, Victoria, BC<sup>2</sup>; British Columbia Cancer Agency, Breast Cancer Outcomes Unit, Vancouver, BC<sup>3</sup>; British Columbia Cancer Agency, Vancouver Centre, Vancouver, BC<sup>4</sup>; British Columbia Cancer Agency, Centre Southern Interior, Kelowna, BC<sup>5</sup>; British Columbia Cancer Agency, Fraser Valley Centre, Surrey, BC<sup>6</sup>
- 2:12–2:24 **76** **Are Patients with T1-2 Breast Cancer with 1-3 Positive Nodes Suitable Candidates for Partial Breast Radiotherapy (PBRT) Trial Enrollment?** PT Truong, SO Jones, AS Alexander, CH Speers, HA Kader, ES Wai, IA Olivotto; British Columbia Cancer Agency, Vancouver Island Centre, Radiation Therapy Program, Breast Cancer Outcomes Unit, University of British Columbia, BC
- 2:24–2:36 **77** **Impact of Two Different Types of Radiotherapy on Mood, Perceived Stress, Fatigue, Quality of Life and Immune Function in Women with Breast Cancer— Prospective Trial** K Albuquerque, L Janusek, L Millbrandt, P Lobo, S Gabram, H Matthews; Loyola University Medical Center and Cardinal Bernadin Cancer Center, Maywood, IL
- 2:36–2:48 **78** **The Impact of Acute Skin Toxicity and Breast Radiation Technique on Quality of Life: Results of a Phase III Trial** TTT Vu<sup>1</sup>, I Olivotto<sup>2</sup>, E Rakovitch<sup>3</sup>, A Beznak<sup>4</sup>, S Gardner<sup>3</sup>, J-P Pignol<sup>3</sup>; Centre Hospitalier Universitaire de Montreal (CHUM), Pavillon Notre-Dame, Université de Montreal, Montreal, QC<sup>1</sup>; British Columbia Cancer Agency, Vancouver Island Cancer Centre, University of Victoria, Victoria, BC<sup>2</sup>; Sunnybrook Health Sciences Centre, University of Toronto, Toronto, ON<sup>3</sup>; Princess Margaret Hospital, University of Toronto, Toronto, ON<sup>4</sup>
- 2:48–3:00 **79** **Patterns of Treatment and Recurrence After Breast Conserving Surgery for Women with Ductal Carcinoma In Situ** ES Wai, CS Alexander, M Culp, P Moccia, M Mackinnon, S Moore, IA Olivotto; British Columbia Cancer Agency, University of British Columbia, Victoria, BC
- 3:00–3:12 **80** **Credentialing of Radiation Oncologists' Seroma Contouring for the Randomized Trial of Accelerated Partial Breast Irradiation (RAPID)** A Nichol<sup>1</sup>, I Olivotto<sup>2</sup>, W Beckham<sup>2</sup>, P Truong<sup>2</sup>, R Petersen<sup>2</sup>, D-H Kim<sup>3</sup>, T Whelan<sup>3</sup>; British Columbia Cancer Agency, University of British Columbia, Vancouver, BC<sup>1</sup>; British Columbia Cancer Agency, University of British Columbia, Victoria, BC<sup>2</sup>; Juravinski Cancer Centre, McMaster University, Hamilton, ON<sup>3</sup>
- 3:12–3:24 **81** **Acceptance of Extended Hormonal Therapy with Letrozole After Five Years of Adjuvant Tamoxifen in Post-Menopausal Breast Cancer Patients in Calgary, Alberta** T Trotter, C Railton, M Webster, AHG Paterson; Tom Baker Cancer Centre, Calgary, AB

2:00–3:24

### CARO Paper Session 4

*Conference Room D & E, Mezzanine Level*

Moderators: Matthew Parliament and Bernard Cummings

- 2:00–2:12 **82** **Determination of PTV Margins for Enlarged Cervical Lymph Nodes Based on Changes Observed in Volume and Location with Daily On-Line Cone-Beam CT During a Course of Radiation Therapy** D Hwang, M Vakilha, S Breen, C Thomas, L Dawson, A Bayley, J Ringash, J Kim, B Cummings, B O'Sullivan, J Waldron; Princess Margaret Hospital, Toronto, ON
- 2:12–2:24 **83** **Brachytherapy for T1-T2 Tonsillar Carcinoma: Long-Term Results on Thirty-Eight Patients** J Harvey, L Grimard, B Esche, T Alandejani, A Lamothe, J Spaan; The Ottawa Hospital, University of Ottawa, Ottawa, ON
- 2:24–2:36 **84** **Dosimetric Evaluation of Normal Structure Sparing with Partial Laryngeal Radiation for T1A Glottic Cancer: Effect of Varying PTV Margins and Radiation** J Roussos, JN Waldron, SL Breen, A Bayley, B Cummings, LA Dawson, JJ Kim, J Ringash, B O'Sullivan; Princess Margaret Hospital, University of Toronto, Toronto, ON

- 2:36–2:48 **85 Postoperative Radiotherapy in Head and Neck Squamous Cell Carcinomas: Comparison of Two Different Doses** M Malik, T Puri, BK Mohanti, GK Rath; All India Institute of Medical Sciences, New Delhi, India
- 
- 2:48–3:00 **86 Randomized Trial Evaluating Inter- and Intra-Fraction Setup Error of Two Theromplastic Masks for Head and Neck Cancer IMRT Evaluated with Cone-Beam CT Image Guidance** M Velec, D Hwang, JN Waldron, B O’Sullivan, A Bayley, B Cummings, JJ Kim, J Ringash, SL Breen, L Johnson, G Lockwood, LA Dawson; Princess Margaret Hospital, Toronto, ON
- 
- 3:00–3:12 **87 Toxicity and Initial Clinical Response of Intensity-Modulated Radiation Therapy with Concurrent Chemotherapy for Locally Advanced Oropharyngeal Carcinoma: A Comparison with Conventional Techniques** DHA Nguyen, B Fortin, M Barkati, G Coulombe, D Donath, D Soulières, J-C Tabet, L Guertin, M-J Olivier, PF Nguyen-Tan; CHUM, Notre-Dame Hospital, University of Montreal, Montreal, QC
- 
- 3:12–3:24 **88 Dose-Guided Radiation Therapy for Head and Neck Treatments Using Megavoltage Cone-beam CT: A Pilot Study** J-F Aubry<sup>1</sup>, L Millender<sup>2</sup>, O Morin<sup>2</sup>, M Aubin<sup>2</sup>, L Beaulieu<sup>3</sup>, J Pouliot<sup>2</sup>; UCSF Comprehensive Cancer Center, University of California San Francisco, San Francisco and Centre Hospitalier Universitaire de Quebec, Université Laval, Quebec, QC<sup>1</sup>; UCSF Comprehensive Cancer Center, University of California San Francisco, CA<sup>2</sup>; Centre Hospitalier Universitaire de Quebec, Université Laval, Quebec, QC<sup>3</sup>
- 
- 3:24–4:00 Break
- 
- 4:00–5:30 **COMP Paper Session 3** *Conference Room D & E, Mezzanine Level*  
Moderators: Wayne Beckham and Luc Beaulieu
- 
- 4:00–4:12 **103 The Identification and Analysis of Ionizing Radiation-Induced Damage In DNA with the Use of UV Resonance Raman Spectroscopy** C Shaw, A Jirasek; British Columbia Cancer Agency, Vancouver Island Centre, University of Victoria, Victoria, BC
- 
- 4:12–4:24 **104 A Novel Algorithm for Calculation of Dynamic Rectal NTCP** G Grigorov<sup>1</sup>, J Chow<sup>2</sup>; Grand River Regional Cancer Centre, Kitchener, ON<sup>1</sup>; Princess Margaret Hospital, Toronto, ON<sup>2</sup>
- 
- 4:24–4:36 **105 The Use of Normal Tissue Equivalent Uniform Dose (EUD) Objective in IMRT Optimization for Liver Cancer Treatment** X Wu, J-P Bissonnette, C Eccles, M Taremi, T Craig, L Dawson; Princess Margaret Hospital, Toronto, ON
- 
- 4:36–4:48 **106 Calibration Method for Improved IMRT MLC Field Junctions with Siemens MLC** B Nyiri, R Studinski; The Ottawa Hospital Regional Cancer Centre, Ottawa, ON
- 
- 4:48–5:00 **107 Development of a Comprehensive Fluence for Portal Dose Image Prediction** K Chytyk, B McCurdy; CancerCare Manitoba, Winnipeg, MB
- 
- 5:00–5:12 **108 Postimplant Dosimetric Assessment of Transperineal Interstitial Permanent Prostate Brachytherapy: Improvement in Quality of Implant Over Time in a Single Institution** K Malkoske, J Bews, G Schroeder, P Cho, D Drachenberg, A Chowdhury; CancerCare Manitoba, Winnipeg, MB
- 
- 5:12–5:24 **109 Changes in Image Quality Parameters Within the Screening Mammography Program of British Columbia (SMPBC)** R Rajapakshe<sup>1</sup>, L Watts<sup>1</sup>, A Bergman<sup>2</sup>, S MacMahon<sup>2</sup>, M Schmuland<sup>2</sup>; British Columbia Cancer Agency, Kelowna, BC<sup>1</sup>; British Columbia Cancer Agency, Vancouver, BC<sup>2</sup>

4:00–5:30

## CARO Paper Session 5

*Dominion South*

Moderators: David Hodgson and Dorianne Rheume

- 
- 4:00–4:12 **96** **An Examination of Changes in Radiotherapy Workload at a Canadian Cancer Centre Between 2001 and 2007** M Kerba<sup>1</sup>, K Schulze<sup>2</sup>, C Tremblay<sup>2</sup>, N Fueurstake<sup>2</sup>, L Jackson<sup>2</sup>, L Barbera<sup>3</sup>, G Delaney<sup>4</sup>, M Brundage<sup>2</sup>; Tom Baker Cancer Centre, University of Calgary, Calgary, AB<sup>1</sup>; Cancer Centre of South-Eastern Ontario, Queen's University, Kingston, ON<sup>2</sup>; Odette Cancer Centre, University of Toronto, Toronto, ON<sup>3</sup>; Liverpool Hospital Cancer Therapy Centre, Liverpool, New South Wales, Australia<sup>4</sup>
- 
- 4:12–4:24 **97** **Reirradiation Following Radical Radiation Treatment: A Survey of Patterns of Practice Among Canadian Radiation Oncologists** Z Al-Mandhari<sup>1</sup>, K Joseph<sup>1</sup>, N Pervez<sup>1</sup>, M Parliament<sup>1</sup>, J Wu<sup>2</sup>, S Gosh<sup>1</sup>, P Tai<sup>3</sup>, J Lian<sup>1</sup>, W Levin<sup>4</sup>; Cross Cancer Institute, University of Alberta, Edmonton, AB<sup>1</sup>; Tom Baker Cancer Center, University of Calgary, Calgary, AB<sup>2</sup>; Allan Blair Cancer Centre, University of Saskatchewan, SK<sup>3</sup>; Princess Margaret Hospital, University of Toronto, ON<sup>4</sup>
- 
- 4:24–4:36 **98** **What Is Adequate Radiotherapy Quality Assurance in Phase III Clinical Trials Involving Radiation Therapy?** T M Niazi<sup>1</sup>, W Parulekar<sup>1</sup>, M Parliament<sup>2</sup>, B Cakir<sup>1</sup>, T Whelan<sup>3</sup>, MD Brundage<sup>4</sup>; National Cancer Institute of Canada, Clinical Trials Group (NCIC-CTG), Kingston, ON<sup>1</sup>; Cross Cancer Institute, University of Alberta, Edmonton, AB<sup>2</sup>; Juravinski Cancer Centre, McMaster University, Hamilton, ON<sup>3</sup>; Queen's University, Kingston, ON<sup>4</sup>
- 
- 4:36–4:48 **99** **Patterns of End of Life Cancer Care: Health Service Use and Predictors** L Barbera<sup>1</sup>, J Sussman<sup>2</sup>, R Viola<sup>3</sup>, A Husain<sup>4</sup>, D Howell<sup>5</sup>, L Paszat<sup>6</sup>, H Walker<sup>7</sup>, C Chartier<sup>6</sup>; Odette Cancer Centre, University of Toronto, Toronto, ON<sup>1</sup>; Hamilton Regional Cancer Centre, University of Toronto, Toronto, ON<sup>2</sup>; Division of Cancer Care and Epidemiology, Queen's University Cancer Research Institute, Kingston, ON<sup>3</sup>; Temmy Latner Centre for Palliative Care, University of Toronto, Toronto, ON<sup>4</sup>; Princess Margaret Hospital, University of Toronto, Toronto, ON<sup>5</sup>; Institute for Clinical Evaluative Sciences, University of Toronto, Toronto, ON<sup>6</sup>; Walker Economics, Queen's University, Kingston, ON<sup>7</sup>
- 
- 4:48–5:00 **100** **Utilization of Palliative Radiation Therapy for Breast Cancer in Alberta** B Danielson, M Winget, B Murray, R Pearcey; Cross Cancer Institute, University of Alberta, Edmonton, AB
- 
- 5:00–5:12 **101** **Audit of a Standardized Nomenclature System for Head and Neck (HN) IMRT Contouring, Planning, and Quality Assurance** C Liu, J Kim, S Breen, J Waldron, A Bayley, B Cummings, J Ringash, L Dawson, SH Huang, M Ryan, L Chau, I Kaminsky; Princess Margaret Hospital, University of Toronto, Toronto, ON
- 
- 5:12–5:24 **102** **Lung Cancer Wait Times: A Single Institution Retrospective Review** E Kurien<sup>1</sup>, E Artuso<sup>2</sup>, C Newcomb<sup>1</sup>; Tom Baker Cancer Centre, Calgary, AB<sup>1</sup>; Royal Roads University, Victoria, BC<sup>2</sup>
- 

4:00–5:30

## ■ Refresher Course 1 Review of Limited-Stage Lymphoma Management, and Modern RT Volume Definition of the Involved Field

*Dominion North*

Richard Tsang

Objectives

- To review and update current role of RT in stage I/II HL and NHL
- To illustrate with cases, CTV definition of modern involved field treatments

4:00–5:30 ■ **Workshop 1** *Conference Room G, Mezzanine Level*  
**Image Guidance and Adaptive Radiation Therapy with Tomotherapy: Canadian Experience**  
 Glenn Bauman  
 Objectives

- To understand the role of the on-board megavoltage CT studies performed immediately before radiation delivery.
- To evaluate the significance of set up corrections for various immobilization options and different disease sites. To learn the possibilities of adaptive radiation therapy from the experiences of cancer centres in London, Edmonton, Ottawa, Sunnybrook.

4:00–5:30 ■ **Workshop 2** *Spindrift/Spring Song, 4th Floor*  
**Quality Assurance in NCIC CTG Clinical Trials: Current Capabilities and Future Directions**  
 Colin Field  
 Objectives

- Become familiar with NCIC CTG infrastructure to support 2D and 3D data submissions and review processes.
- Describe quality assurance needs for current and future radiation technologies.
- Review PMH structure naming conventions and discuss implantation for clinical trials.

4:00–5:30 ■ **Workshop 3** *Conference Room H, Mezzanine Level*  
**Making Radiation Therapy Safer**  
 Jean-Pierre Bissonnette  
 Objectives

- Understanding the need of a new paradigm for quality assurance in radiation therapy including processes and human interactions in addition to devices and software.
- Learn how to use practical tools, including taxonomies, reporting mechanisms, learning and feedback strategies, which help to make radiation therapy safer.

4:00–5:30 ■ **Workshop 4** *Conference Room F, Mezzanine Level*  
**Image-Guided HDR Brachytherapy for Cervical Cancer—Why and How?**  
 Corinne Doll  
 Objectives

- Understand the rationale for using image guidance and 3D planning for HDR brachytherapy of cervical cancer.
- Learn available methods of image guided brachytherapy.
- Learn how to implement a program of image-guided brachytherapy for cervix.

5:30–6:30	<b>CARO-COMP Joint Poster Viewing</b>	
	<b>Abstract #180–206, 221–228</b>	<i>Wentworth</i>
	<b>Abstract #207–220, 308–327</b>	<i>Kenora</i>
	<b>Abstract #177–179, 229–261</b>	<i>Huron</i>
	<b>Abstract #262–295</b>	<i>Kent</i>
	<b>Abstract #131–176, 296–307, 328–335</b>	<i>Simcoe/Dufferin</i>

# SATURDAY, OCTOBER 13

7:45–8:15	Breakfast and Registration	<i>Dominion Foyer, 2nd Floor</i>
8:15–9:15	<b>Gordon Richards Lecture</b> Moderator: Tom Pickles	<i>Dominion Ballroom</i>
	<b>Try Harder: Clinical Implementation of IGRT/ART</b> Glenn Bauman, London, Ontario	
9:15–10:00	<b>Gold Medal Presentation</b> Moderator: Stephen Pistorius John C.F. MacDonald, London, Ontario	<i>Dominion Ballroom</i>
10:00–10:30	Break	
10:30–12:00	<b>CARO-COMP Joint Poster Discussion Session 1</b> Moderator: Carolyn Freeman	<i>Dominion North</i>
10:30–12:00	<b>CARO-COMP Joint Poster Discussion Session 2</b> Moderator: Glenn Bauman	<i>Dominion South</i>
10:30–12:00	<b>CARO-COMP Joint Poster Discussion Session 3</b> Moderators: Katarina Sixel and John Schreiner	<i>Conference Room D &amp; E, Mezzanine Level</i>
12:00–1:30	Lunch on your own	
1:30–2:54	<b>COMP Paper Session 4</b> Moderators: Jerry Battista and Milton Woo	<i>Dominion North</i>
1:30–1:42	<b>110 Clinic Based Transfer and Long-Term Constancy Checks of the NDW Calibration Coefficient Using a Linear Accelerator</b> MDC Evans <sup>1</sup> , W Abdel-Rahman <sup>1</sup> , J McCaffrey <sup>2</sup> , EB Podgorsak <sup>1</sup> , J Seuntjens <sup>1</sup> ; McGill University Health Centre, Montreal, QC <sup>1</sup> ; INMS, National Research Council of Canada, Ottawa, ON <sup>2</sup>	
1:42–1:54	<b>111 Characterization of FX-Sucrose Dosimeter Properties: Potentials for In Vivo Dosimetry</b> MTM Davidson, KJ Jordan; London Regional Cancer Program, London, ON	
1:54–2:06	<b>112 Measured Electron Scattering Distributions in the MEV Range and Comparison to Calculations</b> A McDonald <sup>1</sup> , M McEwen <sup>1</sup> , C Ross <sup>1</sup> , B Faddegon <sup>2</sup> ; Ionizing Radiation Standards, National Research Council, Ottawa, ON <sup>1</sup> ; University of California San Francisco, San Francisco, CA <sup>2</sup>	
2:06–2:18	<b>113 Evaluation of a Commercial OSL Dosimetry System for In Vivo Measurements</b> , AV Marin <sup>1</sup> , L R da Rosa <sup>2</sup> , LA Buckley (presenting author) <sup>3</sup> , A Cherpak <sup>4</sup> , JE Cygler <sup>3</sup> ; INCA, MS, Rio de Janeiro, Brasil <sup>1</sup> ; Instituto de Radioprotecao e Dosimetria, Rio de Janeiro, Brasil <sup>2</sup> ; Ottawa Hospital Regional Cancer Centre, Ottawa, ON <sup>3</sup> ; Carleton University, Ottawa, ON <sup>4</sup>	
2:18–2:30	<b>114 Fluoroscopic System "Dose Efficiency": Laying the Foundations of a Spatiotemporal Approach to Noise</b> SN Saul, N Friedman, R Akbarpour, IA Cunningham; Imaging Research Laboratories, London, ON	
2:30–2:42	<b>115 Off-Focal Radiation in X-Ray Tubes: An EGSnrc/BEAMnrc Investigation</b> E Ali, D Rogers; Carleton University, Ottawa, ON	
2:42–2:54	<b>116 MRI Distortion Correction using Phase Difference Mapping</b> L Baldwin, K Wachowicz, G Fallone; Cross Cancer Institute, University of Alberta, Edmonton, AB	

1:30–2:54	<b>CARO Paper Session 6</b>	<i>Dominion South</i>
	Moderators: Yee Ung and Elaine Wai	
1:30–1:42	<b>119 Symptom Clusters in Patients with Bony Metastatic Pain</b>	S Hadi, G Fan, A Hird, A Kirou-Mauro, L Filipczak, E Chow; Odette Cancer Centre, Toronto, ON
1:42–1:54	<b>117 A Phase I Trial of Helical Tomotherapy (HT) Simultaneous Infield Boost (SIB) Treatment for Patients with Brain Metastases</b>	G Bauman, G Rodrigues, F Perera, R Dar, R Ash, E Yu, A Hammond, B Yaremko, L Bailey, S Yartsev; London Regional Cancer Program, University of Western Ontario, London, ON
1:54–2:06	<b>118 Utilization of Radiotherapy for Palliation of Bone Metastases (Bone Mets): A Three-Year Patterns of Practice Study at a Regional Cancer Centre</b>	J Wu, M Kerba, K Cheetham, B Eigl, N Hagen; Tom Baker Cancer Centre, University of Calgary, Calgary, AB
2:06–2:18	<b>120 Brain Metastases in Staged III NSCLC Patients Treated with Radical Radiation and Chemotherapy</b>	F Germain, E Berthelet, ES Wai; British Columbia Cancer Agency, Vancouver Island Centre, Victoria, BC
2:18–2:30	<b>121 A Phase I Study of Concurrent Pemetrexed/Cisplatin/Radiation for Unresectable Stage IIIA/B Non-Small Cell Lung Cancer</b>	A Brade <sup>1</sup> , A Bezzak <sup>1</sup> , R MacRae <sup>2</sup> , S Laurie <sup>2</sup> , G Pond <sup>1</sup> , A Afinec <sup>1</sup> , N Iscoe <sup>3</sup> , F Shepherd <sup>1</sup> ; Princess Margaret Hospital, University of Toronto, Toronto, ON <sup>1</sup> ; Ottawa Regional Cancer Centre, University of Ottawa, Ottawa, ON <sup>2</sup> ; Odette Cancer Centre, University of Toronto, Toronto, ON <sup>3</sup>
2:30–2:42	<b>122 A Retrospective Comparison of Carina and Bone as Registration Landmarks for Volumetric Image-Guided Lung Radiotherapy (RT)</b>	J Higgins, A Bezzak, K Franks, D Payne, J Cho, L Le, J-P Bissonnette; Princess Margaret Hospital, Toronto, ON
2:42–2:54	<b>123 Image-Guided Lung Stereotactic Body Radiation Therapy (SBRT): A Short, Safe, and Effective Treatment for Inoperable Early Stage Lung Cancer</b>	K Franks, S Pearson, T Purdie, J-P Bissonnette, D Payne, J Cho, G Kane, A Sun, A Brade, D Jaffray, A Bezzak; Princess Margaret Hospital, Toronto, ON
1:30–2:54	<b>CARO Paper Session 7</b>	<i>Conference Room D &amp; E, Mezzanine Level</i>
	Moderators: Anthony Fyles and Lorraine Portelance	
1:30–1:42	<b>124 Impact of Inter-Fraction motion and Dose Accumulation in Adaptive Whole Pelvic IMRT for Cervix Cancer</b>	K Lim <sup>1</sup> , A Fyles <sup>1</sup> , Y-B Cho <sup>1</sup> , V Kelly <sup>1</sup> , J Moseley <sup>1</sup> , J Stewart <sup>1</sup> , K Brock <sup>1</sup> , J Xie <sup>1</sup> , A Lundin <sup>2</sup> , H Reh binder <sup>2</sup> , M Milosevic <sup>1</sup> ; Princess Margaret Hospital, University of Toronto, Toronto, ON <sup>1</sup> ; RaySearch Laboratories, Stockholm, Sweden <sup>2</sup>
1:42–1:54	<b>125 Retrospective Study of the Addition of Carbogen Inhalation Therapy to Chemo-Radiation Therapy in Patients with Cervical Cancer</b>	C Aquino-Parsons <sup>1</sup> , P Lim <sup>1</sup> , A Green <sup>1</sup> , A Minchinton <sup>2</sup> , P Olive <sup>2</sup> ; British Columbia Cancer Agency, Vancouver Cancer Centre, University of British Columbia, Vancouver, BC <sup>1</sup> ; British Columbia Cancer Agency, British Columbia Cancer Research Centre, University of British Columbia, Vancouver, BC <sup>2</sup>
1:54–2:06	<b>126 Expression of MGMT in Cervical Cancer: A Potential Biomarker for Response to Radiation in Cervical Cancer</b>	C Doll <sup>1</sup> , P Craighead <sup>1</sup> , S Lees-Miller <sup>2</sup> , D Demetrick <sup>2</sup> , M Eliasziw <sup>2</sup> , A Magliocco <sup>1</sup> ; Tom Baker Cancer Centre, University of Calgary, Calgary, AB <sup>1</sup> ; University of Calgary, Calgary, AB <sup>2</sup>
2:06–2:18	<b>127 Expression of MDM2, P16, and HPV Status is Associated with Survival After Radiotherapy in Patients with Carcinoma of the Cervix</b>	C Doll <sup>1</sup> , P Craighead <sup>1</sup> , S Lees-Miller <sup>2</sup> , D Demetrick <sup>2</sup> , M Eliasziw <sup>2</sup> , A Magliocco <sup>1</sup> ; Tom Baker Cancer Centre, University of Calgary, Calgary, AB <sup>1</sup> ; University of Calgary, Calgary, AB <sup>2</sup>
2:18–2:30	<b>128 The Management of Inoperable Stage I Endometrial Cancer Utilizing Intracavitary Brachytherapy: A Twenty-Year Institutional Review</b>	C Shenfield, S Ghosh, R Pearcey, G Dundas; Cross Cancer Institute, Edmonton, AB

- 2:30–2:42 **129 Late Adverse Events Following Abdominal Radiation** Z Kassam, B Wysocka, J Brierley, L Dawson, M Gospodarowicz, C Catton, G Lockwood, J Ringash; Princess Margaret Hospital, University of Toronto, Toronto, ON
- 
- 2:42–2:54 **130 Variability in the Amplitude of Liver Motion in Patients Undergoing Cone-Beam CT Image-Guided Free Breathing Stereotactic Body Radiotherapy** R Case, D Moseley, J-P Bissonnette, J Kim, L Dawson; Princess Margaret Hospital, University of Toronto, Toronto, ON
- 
- 2:54–3:30 Break
- 
- 3:30–5:00 **CARO-COMP Resident/Young Investigator General Paper Session** *Dominion North*  
Moderator: Kathy Mah
- 
- 3:30–3:42 **89 Can an Ultrasound Replace Fiducial Markers for Prostate Image-Guided Radiation Therapy?** H Johnston<sup>1</sup>; M Hilts<sup>2</sup>; W Beckham<sup>2</sup>; E Berthelet<sup>3</sup>; University of Victoria, Victoria, BC<sup>1</sup>; British Columbia Cancer Agency, Vancouver Island Centre, University of Victoria, Victoria, BC<sup>2</sup>; British Columbia Cancer Agency, Vancouver Island Centre, Victoria, BC<sup>3</sup>
- 
- 3:42–3:54 **90 To Demonstrate the Acute Toxicity Profile for Computer-Assisted Ultrasound-Guided Intra-Operative Prostate Brachytherapy** S Smith<sup>1</sup>; S Husain<sup>1</sup>; M Anyalifi<sup>2</sup>; S Angyalfi<sup>1</sup>; I Kay<sup>1</sup>; D Radford-Evans<sup>1</sup>; P Dunscombe<sup>1</sup>; Tom Baker Cancer Centre, University of Calgary, Calgary, AB<sup>1</sup>; University of Calgary, Calgary, AB<sup>2</sup>
- 
- 3:54–4:06 **91 High Frequency Ultrasound Imaging of Cell Structural Changes Following Radiation Therapy** RM Vlad<sup>1,3</sup>; A Giles<sup>3</sup>; MC Kolios<sup>1,2</sup>; GJ Czarnota<sup>1,3</sup>; University of Toronto, Toronto, ON<sup>1</sup>; Ryerson University, Toronto, ON<sup>2</sup>; Sunnybrook Health Sciences Centre, Toronto, ON<sup>3</sup>
- 
- 4:06–4:18 **92 Obesity Predicts Inferior Biochemical Disease-Free Survival and Cancer-Specific Survival After Treatment of Prostate Cancer with Radiotherapy and Androgen Deprivation Therapy** D Palma<sup>1</sup>; T Pickles<sup>1</sup>; Y Wang<sup>2</sup>; S Tyldesley<sup>1</sup>; British Columbia Cancer Agency, Vancouver, BC<sup>1</sup>; Princess Margaret Hospital, Toronto, ON<sup>2</sup>
- 
- 4:18–4:30 **93 Ultrasound Microbubble Potentiated Sensitization of Cells and Tumours to Radiotherapy** R Karshafian<sup>1</sup>; A Giles<sup>2</sup>; PN Burns<sup>1</sup>; GJ Czarnota<sup>1</sup>; University of Toronto, Sunnybrook Health Sciences Centre, Toronto, ON<sup>1</sup>; Sunnybrook Health Sciences Centre, Toronto, ON<sup>2</sup>
- 
- 4:30–4:42 **94 Improved Organ Sparing in the Treatment of Anal Canal Cancer: A Dosimetric Comparison of Dynamic IMRT, Seven-Field IMRT, and 3D Conformal Radiation Therapy Techniques** H Quon, KJ Joseph, A Syme, N Pervez, M Mackenzie, C Field; Cross Cancer Institute, University of Alberta, Edmonton, AB
- 
- 4:42–4:54 **95 Hypofractionated Radiotherapy and Adjuvant Chemotherapy Do Not Increase Radiation-Induced Dermatitis in Breast Cancer Patients** A Al Hamad, T Hijal, K Sultanem, S Faria, T Muanza; McGill University Health Centre, McGill University, Montreal, QC
- 

- 3:30–5:00 **Refresher Course 2** *Dominion South*  
**Registration for Image-Guided and Adaptive Radiation Therapy**  
Kristy Brock  
Attendees will learn basic concepts of image registration, from manual rigid registration to automated deformable registration, including the advantages and disadvantages of each. Clinical cases will be presented and attendees will learn how to interpret registration results, validate the accuracy, and optimize the integration of multiple images into their practice.

3:30–5:00	<p>■ <b>Workshop 5</b> <i>Conference Room D &amp; E, Mezzanine Level</i>  <b>Partial Breast RT—Planning and Treatment Issues</b> Ivo Olivotto</p> <p>Objectives</p> <ul style="list-style-type: none"> <li>■ To review and propose solutions to practical challenges in PBRT planning.</li> <li>■ To review dose-volume constraints as part of the RAPID trial.</li> <li>■ To review PBRT target volume definition issues.</li> <li>■ To enhance consistency of PBRT on RAPID.</li> </ul>
3:30–5:00	<p>■ <b>Workshop 6</b> <i>Spindrift/Spring Song, 4th Floor</i>  <b>Exploring Interprofessional and Collaborative Roles for Patient-Centered Care</b>  Ewa Szumacher</p> <p>At the end of the session participants will be able to:</p> <ul style="list-style-type: none"> <li>■ Explain how interprofessional education is related to collaborative patient-centered practice.</li> <li>■ Explain the importance of: stereotypes, professional role, understanding, role blurring and its negotiation and their impact on collaborative patient-centered practice.</li> <li>■ Describe innovative strategies for facilitating interprofessional education.</li> <li>■ Develop an idea for an interprofessional education initiative in the participants' own settings.</li> </ul>
3:30–5:00	<p>■ <b>Workshop 7</b> <i>Conference Room H, Mezzanine Level</i>  <b>6MV versus 18MV and Heterogeneity Corrections in Lung Cancer. Does it Matter?</b>  Sergio Faria</p> <p>Objectives</p> <ul style="list-style-type: none"> <li>■ To understand the differences between these two photon energies in the treatment of lung cancer with radiation.</li> <li>■ To analyze clinical relevance and specific recommendations in treatment protocols.</li> <li>■ To discuss the issues of heterogeneity corrections in lung.</li> </ul>
3:30–5:00	<p>■ <b>Workshop 8</b> <i>Conference Room F, Mezzanine Level</i>  <b>Imaged-Guided Adaptive Radiotherapy for Gynecologic Cancer: Development of a Pan-Canadian Strategy</b>  Michael Milosevic</p> <p>Objectives</p> <ul style="list-style-type: none"> <li>■ To discuss tumor movement and regression during radiotherapy, and the implications for IMRT and brachytherapy.</li> <li>■ To develop a strategy for image-guided brachytherapy.</li> <li>■ To discuss adaptive IMRT for cervix cancer.</li> <li>■ To develop a common nomenclature for identifying relevant targets and organs at risk in the treatment of gynecology malignancies.</li> </ul>
3:24–5:00	<p>■ <b>Workshop 9</b> <i>Conference Room G, Mezzanine Level</i>  <b>Radiation Proctitis—Towards Developing Ideas for Research and Guidelines for Treatment</b>  Wilfred Levin</p> <p>Objectives</p> <ul style="list-style-type: none"> <li>■ Gain an understanding of the patient and treatment factors associated with the development of radiation proctitis.</li> <li>■ Understand the rationale for available treatment options for radiation proctitis.</li> <li>■ Be aware of the opportunities for clinical and biological research.</li> </ul>
5:10–6:10	<p>■ <b>COMP Annual General Meeting</b> <i>Dominion North</i></p>
7:00	<p>■ <b>CARO-COMP Joint Awards Dinner</b> <i>Arcadian Court, 408 Bay Street, 8th Floor</i></p>

- 131 Risk of Locoregional Recurrence in Post-Mastectomy Breast Cancer Patients with 1-3 Positive Nodes**  
T Owen, A El-Guptan, Z Nugent, A Cooke; CancerCare Manitoba, University of Manitoba, Winnipeg, MB
- 132 Radiation-Induced Brachial Plexopathy (RIBP) Following Locoregional Irradiation with Short Fractionation for Breast Cancer: Neurological Assessment, Electrophysiological Testing and Quality of Life (QoL)**  
C Chung, K Chapman, L Weir; University of British Columbia, Vancouver, BC
- 133 Increased 1 Integrin is Associated with Decreased Survival and Trastuzumab Resistance in Metastatic Breast Cancer**  
J Thoms, B Abdulkarim, J Deschenes, S Sabri, D Murray, J Mackey; Cross Cancer Institute, University of Alberta, Edmonton, AB
- 134 The Prognostic Significance of HER-2/neu Over-expression for the Development of Local Recurrence after Newly Diagnosed Breast Cancer**  
Z. Gabos, B. Abdulkarim, S. Ghosh; Cross Cancer Institute, University of Alberta, Edmonton, AB
- 135 Regional Breast Radiotherapy: Are We Covering All Nodes at Risk?**  
SJ Rauth, C Bell, M Doherty; Odette Cancer Centre, University of Toronto, Toronto, ON
- 136 Apoptotic Cell Death Detection by High-Frequency Ultrasound Spectroscopy: Monitoring of Photodynamic Therapy In Vivo**  
B Banihashemi<sup>1</sup>, A Giles<sup>1</sup>, B Debeljevic<sup>2</sup>, R Vlad<sup>1</sup>, M Kolios<sup>2</sup>, GJ Czarnota<sup>1</sup>; Odette Cancer Centre, University of Toronto, Toronto, ON<sup>1</sup>; Ryerson University, Toronto, ON<sup>2</sup>
- 137 A Novel Poly (ADP-ribose) Polymerase Inhibitor, ABT-888, Sensitizes Malignant Human Cell Lines to Ionizing Radiation under both Oxia and Hypoxia**  
SK Liu, CCoackley, RG Bristow; Spatio-Temporal Targeting and Amplification of Radiation Response (STTARR) Program, University of Toronto, Toronto, ON
- 138 Using High-Frequency Spectroscopic Ultrasound to Monitor Radiation and Chemotherapy Effects in Lymphomas**  
C Cho<sup>1</sup>, W Chu<sup>1</sup>, A Giles<sup>1</sup>, R Vlad<sup>1</sup>, MC Kolios<sup>2</sup>, G Czarnota<sup>2</sup>; Sunnybrook Health Sciences Centre, University of Toronto, Toronto, ON<sup>1</sup>; Ryerson University, Toronto, ON<sup>2</sup>
- 139 Interobserver Variation in the Delimitation of the Optic Chiasma and Its Dosimetric Impact in the Stereotactic Radiotherapy Treatment of Intracranial Tumour**  
GL Masucci, M-A Fortin, C Lambert, J-P Bahary, G Coulombe, L Grand, M Belair, R Doucet, J-F Carrier, B Fortin; CHUM, Hopital Notre-Dame, University of Montreal, Montreal, QC
- 140 Treatment Outcomes in Adult Medulloblastoma**  
D Hauerstock<sup>1</sup>, C Ang<sup>1</sup>, D Roberge<sup>1</sup>, P Kavan<sup>1</sup>, M-C Guiot<sup>2</sup>, T Muanza<sup>1</sup>; McGill University, Montreal, QC<sup>1</sup>; Montreal Neurological Institute, Montreal, QC<sup>2</sup>
- 141 Hypofractionated Radiotherapy (XRT) Plus Concurrent and Adjuvant versus Salvage Temozolomide (TMZ) in Elderly Patients with Glioblastoma Multiforme: A Retrospective Review**  
J Cao, G Bauman, B Fisher, D Macdonald, J Megyesi, C Watling; London Health Sciences Centre, University of Western Ontario, London, ON
- 142 Gamma Knife Radiosurgery for Treatment of Choroidal Melanomas**  
A Ong<sup>1</sup>, A Mis<sup>2</sup>, A Kaufmann<sup>3</sup>, G Schroeder<sup>1</sup>; CancerCare Manitoba, Winnipeg, MB<sup>1</sup>; Misericordia Health Centre, Winnipeg, MB<sup>2</sup>; Health Sciences Centre, Winnipeg, MB<sup>3</sup>
- 143 Functional Outcome Following Treatment of Primary and Recurrent Pigmented Villonodular Synovitis with Radiotherapy**  
J Alfieri, C Freeman, R Turcotte, D Roberge; McGill University Health Centre, Department of Radiation Oncology, McGill University, Montreal, QC
- 144 Self-Directed Learning Module for Radiation Therapy Treatment Planning**  
L Lambert, E Fillion, M-P Campeau, C Lambert, S Lassalle, M-A Fortin, TT Vu, H Bouchard, R Doucet, Y Hervieux, A Carbonneau; CHUM Notre-Dame Hospital, University of Montreal, Montreal, QC
- 145 Guideline Development for the Delineation of the Femoral Head and Neck Anatomy**  
D Bowes<sup>1</sup>, D Wilke<sup>1</sup>, J Robar<sup>2</sup>, R Sandeski<sup>1</sup>, J Wells<sup>1</sup>, T Day<sup>1</sup>; Dalhousie University, Halifax, NS<sup>1</sup>; Queen Elizabeth II Health Sciences Centre, Halifax, NS<sup>2</sup>

- 146 Pulmonary Seed Embolization After Transperineal Interstitial Prostate Brachytherapy: Does Small Prostate Gland or Seed Placement Outside Prostate Capsule Increase Frequency of Seed Loss?** B Bashir, T Dufan, J Yousef, K Malkoske, J Bews, G Schroeder, P Cho, D Drachenberg, A Chowdhury; CancerCare Manitoba, Manitoba, Winnipeg, MB
- 147 TURP and Prostate Brachytherapy: Effect on Urinary Function** J Wong, N Fleshner, I Yeung, M McLean, J Crook; Princess Margaret Hospital, Toronto, ON
- 148 Small Cell Carcinoma of the Urinary Bladder: Manitoba Experience** B Bashir, S Ahmed; CancerCare Manitoba, University of Manitoba, Winnipeg, MB
- 149 Relationships Between PSA Bounce and Definitions of Biochemical Failure Following I-125 Brachytherapy for Localized, Low-Risk Prostate Cancer** A Swaminath, I Dayes, J Sathya; Juravinski Cancer Centre, McMaster University, Hamilton, ON
- 150 Inter-Observer Variability in Defining Treatment Volumes for a Patient Receiving Adjuvant Radiotherapy after Radical Prostatectomy** M Bernard<sup>1</sup>, D Blais<sup>1</sup>, J-F Carrier<sup>1</sup>, P Perrotte<sup>2</sup>, M-A Fortin<sup>1</sup>, C Lambert<sup>1</sup>, J-P Bahary<sup>1</sup>; Hôpital Notre-Dame, Université de Montreal, Montreal, QC<sup>1</sup>; Hôpital St-Luc, Université de Montreal, Montreal, QC<sup>2</sup>
- 151 Evaluating Daily Cone-Beam CT Image-Guided Radiotherapy after Prostatectomy: Can We Reduce the PTV Margin?** W Chu, T Craig, D Moseley, K Brock, A Bayley, C Catton, P Chung, M Gospodarowicz, M Milosevic, P Warde, C Ménard; Princess Margaret Hospital, University of Toronto, Toronto, ON
- 152 Recommendations by Canadian Urologists and Radiation Oncologists for the Treatment of Clinically Localized Prostate Cancer** A Pearce, C Newcomb, S Husain; Tom Baker Cancer Centre, University of Calgary, Calgary, AB
- 153 Hypofractionated Radiotherapy for Low-Risk Prostate Cancer: Early Report on Acute Toxicity of a Phase I/II Trial** DHA Nguyen<sup>1</sup>, C Menkarios<sup>2</sup>, E Vigneault<sup>3</sup>, N Brochet<sup>4</sup>, J-P Bahary<sup>1</sup>, M Jolicoeur<sup>1</sup>, M-A Fortin<sup>1</sup>, TV Nguyen<sup>1</sup>, B Fortin<sup>1</sup>, J-P Guay<sup>1</sup>, C Lambert<sup>1</sup>; CHUM, Notre-Dame Hospital, University of Montreal, Montreal, QC<sup>1</sup>; Maisonneuve-Rosemont Hospital, University of Montreal, Montreal, QC<sup>2</sup>; CHUQ, Hôtel-Dieu de Québec, Université Laval, Quebec City, QC<sup>3</sup>; Complexe Hospitalier de la Sagamie, Chicoutimi, QC<sup>4</sup>
- 154 Interfraction Motion of Pelvic Iliac Blood Vessels in Men Undergoing Radical Radiotherapy for Prostate Cancer** J Wong<sup>1</sup>, P Basran<sup>2</sup>, R Tirona<sup>2</sup>, CT Lee<sup>3</sup>, DA Loblaw<sup>2</sup>, P Cheung<sup>2</sup>; Princess Margaret Hospital, University of Toronto, Toronto, ON<sup>1</sup>; Odette Cancer Centre, University of Toronto, Toronto, ON<sup>2</sup>; Lawrence Bloomberg Faculty of Nursing, University of Toronto, Toronto, ON<sup>3</sup>
- 155 The Empty Rectum is Not the Worst Case Dosimetric Scenario for Conventional Prostate Radiotherapy** R Alwassia, D Wilke, H Hollenhorst, R Rutledge, J Meng, J Clancy, H Edstrom; Nova Scotia Cancer Centre, Queen Elizabeth Hospital, Dalhousie University, Halifax, NS
- 156 Evaluation of a Novel CT-Based Planning Protocol for Whole Abdominal Radiation Therapy** S Miller, C Marlowe, C Shields, M Fong, P Lim, C Aquino-Parsons; British Columbia Cancer Agency, Vancouver Cancer Centre, Vancouver, BC
- 157 Swallowing Quality of Life (QOL) in Advanced Larynx and Hypopharynx Cancer (ALHC) Treated with Organ Preservation versus Surgery** K Chu, N Read, E Winquist, I Zhang, V Venkatesan, J Yoo, J Franklin, A Hammond; University of Western Ontario, London, ON
- 158 Comparison of Free-Breathing and Breath-Held Positron Emission Tomography (PET) and Computer Tomography (CT) Imaging for Patients with Non-Small-Cell Lung Cancer (NSCLC)** K Chu<sup>1</sup>, J Ramcharan<sup>2</sup>, D Robinson<sup>2</sup>, T Riauka<sup>2</sup>, E Postema<sup>2</sup>, S Ghosh<sup>2</sup>, A McEwan<sup>2</sup>, W Roa<sup>2</sup>; London Regional Cancer Program, University of Western Ontario, London, ON<sup>1</sup>; Cross Cancer Institute, University of Alberta, Edmonton, AB<sup>2</sup>
- 159 A Planning Study of Three-Dimensional Conformal Radiation Therapy Guided by Free-Breathing and Breath-Held PET Imaging in Patients with Non-Small Cell Lung Cancer** C Shenfield, D Robinson, T Riauka, B Murray, T Nijjar, N Pervez, R Scrimger, K Tankel, AJB McEwan, W Roa; Cross Cancer Institute, Edmonton, AB

- 160** **Incorporation of Pulmonary Functional Status into the Inverse Radiotherapy Planning of Lung Cancer** C Lavoie, J St-Hilaire, F Beaulieu, L Diaz De Bedoya, L Beaulieu, A Dagnault; Hôtel-Dieu de Québec, Centre Hospitalier Universitaire de Québec, Laval University, QC
- 161** **Total Body Irradiation-Based (TBI) versus Chemotherapy-Based Preparative Regimens Before Autologous Stem Cell Transplant for Non-Hodgkin's Lymphoma** H Liu, M Softel, A Demers, Z Nugent, G Schroeder, J Butler, M Rubinger; CancerCare Manitoba, University of Manitoba, Winnipeg, MB
- 162** **Radiation Pneumonitis (RP) in Hodgkin's Lymphoma (HL) Patients who Received Involved Field Radiation Therapy (IFRT) to the Mediasternum Between 1999 and 2005 and 2005** B Brunet<sup>1</sup>, D Stewart<sup>1</sup>, M Eliasziw<sup>2</sup>, A Balogh<sup>1</sup>; Tom Baker Cancer Centre, University of Calgary, Calgary, AB<sup>1</sup>; University of Calgary, Calgary, AB<sup>2</sup>
- 163** **Single Institution Outcomes for Early Stage Indolent Follicular Lymphoma Treated with Radiation Alone as Initial Therapy** T Owen, Z Nugent, G Williams, N Ahmed; CancerCare Manitoba, University of Manitoba, Winnipeg, MB
- 164** **Secondary Malignancies among Survivors of Hodgkin's Lymphoma: An Institutional Review of the Current Screening Practices for Breast Cancer Following Thoracic Irradiation** L Pan<sup>1</sup>, Jonathan Sussman<sup>1</sup>, M Sur<sup>2</sup>, L Elavathil<sup>2</sup>; Juravinski Cancer Centre, McMaster University, Hamilton, ON<sup>1</sup>; Hamilton Health Sciences, McMaster University, Hamilton, ON<sup>2</sup>
- 165** **Can We Standardize Steroid Dose in Patients with Brain Metastases? A Prospective Study** A Sturdza, A Bezzak, G Pond, K Burrows, B-A Millar, C Garraway, N Laperriere, L Dawson, R Wong; Princess Margaret Hospital, University of Toronto, Toronto, ON
- 166** **Feasibility Study of the Montreal Cognitive Assessment (MoCA) in Patients with Brain Metastases** R Olson, T Chhanabhai, M McKenzie; British Columbia Cancer Agency, University of British Columbia, Vancouver, BC
- 167** **Gamma Knife Radiosurgery for Patients with Brain Metastases** F Iqbal<sup>1</sup>, G Schroeder<sup>1</sup>, M West<sup>2</sup>; CancerCare Manitoba, University of Manitoba, Winnipeg, MB<sup>1</sup>; Health Sciences Centre, University of Manitoba, Winnipeg, MB<sup>2</sup>
- 168** **Single Fraction, Single Isocentre Intensity-Modulated Radiosurgery (IMRS) for Multiple Brain Metastases: Dosimetric and Early Clinical Experience** L VanderSpek<sup>1</sup>, J-Z Wang<sup>1</sup>, J Alksne<sup>2</sup>, KT Murphy<sup>2</sup>; London Regional Cancer Program, University of Western Ontario, London, ON<sup>1</sup>; Moores Cancer Center, University of California, San Diego, La Jolla, CA<sup>2</sup>
- 169** **Malignant Spinal Cord Compression: A Retrospective Analysis of Diagnosis, Treatment, and Outcomes** A Pahl, C de Metz; Cancer Centre of Southeastern Ontario, Queen's University, Kingston, ON
- 170** **Expert Opinion in Treatment Approaches for Illustrative Cases of Thymomas** S Myrehaug, G Liu, S Keshavjee, A Bezzak; Princess Margaret Hospital, University of Toronto, Toronto, ON
- 171** **18F-FDG PET/CT Impact on the Management of Papillary Thyroid Carcinoma** KEB JH Hay, DC Wilson; British Columbia Cancer Agency, Vancouver Cancer Centre, University of British Columbia, Vancouver, BC
- 172** **Multi-Criteria Treatment Planning Assessment: Emulating The Radiation Oncologist's Thought Process** P Charland, E Osei, R Jiang, B Schaly, A Fleck, D Panjwani, D Gopaul, R Barnett; Grand River Regional Cancer Centre, Kitchener, ON
- 173** **CBCT for 3D Image Guided Brachytherapy** S Devic, B Reniers, M Evans, EB Podgorsak, T Vuong; McGill University Health Centre, Montreal, QC
- 174** **A Quality Assurance Phantom for Motion Adaptive Radiation Therapy** C Gallagher<sup>1</sup>, J Van Dyk<sup>1</sup>, E Lechtman<sup>1</sup>, S Black<sup>1</sup>, S Gaede<sup>1</sup>, T Kron<sup>2</sup>; University of Western Ontario, London, ON<sup>1</sup>; Peter MacCallum Cancer Centre, Melbourne, Australia<sup>2</sup>
- 175** **On the Use of Non Water Equivalent Phantoms for IMRT QA** M Niedbala, J Belec, B Nyiri, M MacPherson, L Gerig; The Ottawa Hospital Regional Cancer Centre, Ottawa, ON

- 176 Technological Changes and Radiation Therapy Safety** J-P Bissonnette, G Medlam; Princess Margaret Hospital, Toronto, ON
- 
- 296 Fractionated Stereotactic Radiotherapy for Meningioma of the Skull Base** H Elhateer, R Ruo, E Eldebawy, D Roberge, C Lambert, G Shenouda, L Souhami, T Muanza; McGill University Health Centre, Montreal, QC
- 
- 297 Image-Guided Robotic Radiosurgery for Benign Spinal Tumours** A Sahgal, D Chou, C Ames, L Ma, K Lamborn, K Huang, C Chuang, A Aiken, P Petti, P Weinstein, D Larson; UCSF Comprehensive Cancer Center, University of California San Francisco, San Francisco, CA
- 
- 298 Proximity of the Spinous/Paraspinal Radiosurgery Target to the Spinal Cord versus Risk of Local Failure** A Sahgal, C Ames, D Chou, L Ma, C Chuang, K Lamborn, C Chin, K Huang, P Weinstein, D Larson; UCSF Comprehensive Cancer Center, University of California San Francisco, San Francisco, CA
- 
- 299 Fractionated Stereotactic Radiation Therapy with Daily MV Image Guidance for Benign Petroclival and Sellar Tumours** A Chan, E Yan, C Newcomb, Z Kiss, I Parney, P Craighead, D Spencer; Tom Baker Cancer Centre, University of Calgary, Calgary, AB
- 
- 300 Salivary Gland Sparing in Paediatric Patients Receiving Radiotherapy for Tumours Arising within the Posterior Fossa: Optimization of Treatment Technique to Minimize Parotid Dose** M Lau, N Laperriere, D Hodgson, B-A Millar; Princess Margaret Hospital, Toronto, ON
- 
- 301 Comparison of Intensity-Modulated Radiation Therapy versus Stereotactic Radiotherapy for Pituitary Adenoma** F Hsu, J Robar, L Mulroy, D Rheume, I Fleetwood; Nova Scotia Cancer Centre, Dalhousie University, Halifax, NS
- 
- 302 Establishing a Regional Radiation Therapy Department: A Retrospective Analysis** TC Ago<sup>1</sup>, J Grant<sup>2</sup>; M Baryluk<sup>2</sup>, Nova Scotia Cancer Centre, Halifax, NS<sup>1</sup>; Cape Breton Cancer Centre, Sydney, NS<sup>2</sup>
- 
- 303 Using Support Reflection to Increase Awareness, Understanding and Empowerment of Radiation Therapists** C-A Jessiman<sup>1</sup>, A Dansie<sup>2</sup>, C Colville<sup>2</sup>, C Saunders<sup>1</sup>; Nova Scotia Cancer Centre, Halifax, NS<sup>1</sup>; Capital District Health Authority, Halifax, NS<sup>2</sup>
- 
- 304 Development of an In-House Training Model for Cone-Beam X-Ray Volumetric Imaging** L Green, J Higgins, W Li, A Bolderston, A Cashell; Princess Margaret Hospital, Toronto, ON
- 
- 305 Impact of a Full Scope-of-Practice Model on an Image-Guided IMRT Program** L Montgomery, G Fox, K Carty, L Gerig, S Hamilton, A Patry, L Grimard, M MacPherson; The Ottawa Hospital Regional Cancer Centre, Ottawa, ON
- 
- 306 The Evolving Role of the Radiation Therapist in a Multidisciplinary Skin Cancer Management Team** D Breen, J Balogh, J Kamra, E Barnes; Odette Cancer Centre, University of Toronto, Toronto, ON
- 
- 307 Ontario Radiation Oncology Residents Needs in the PGY-1 Year — Residents' Perspective Survey** E Szumacher<sup>1</sup>, E Warner<sup>1</sup>, L Zhang<sup>1</sup>, G Kane<sup>2</sup>, I Ackerman<sup>3</sup>, J Nyhof-Young<sup>2</sup>, O Agboola<sup>3</sup>, C de Metz<sup>4</sup>, G Rodrigues<sup>5</sup>, S Voruganti<sup>6</sup>, S Rappolt<sup>7</sup>; Odette Cancer Centre, Toronto, ON<sup>1</sup>; Princess Margaret Hospital, Toronto, ON<sup>2</sup>; University of Ottawa, ON<sup>3</sup>; Queen's University, Kingston, ON<sup>4</sup>; University of Western Ontario, London, ON<sup>5</sup>; McMaster University, Hamilton, ON<sup>6</sup>; University of Toronto, ON<sup>7</sup>
- 
- 328 Development of an Image-Centered Database Containing MRI and Pet Data, and Examples of Its Application in the Treatment of Glioma Patients** A Murtha<sup>1</sup>, J Levesque<sup>2</sup>, D Cobzas<sup>2</sup>, B Hoehn<sup>2</sup>, M Brown<sup>2</sup>, M Heydari<sup>2</sup>, J Sander<sup>2</sup>, M Jagersand<sup>2</sup>, N Leong<sup>1</sup>, W Roa<sup>1</sup>, B Abdulkarim<sup>1</sup>, D Fulton<sup>1</sup>, M Smerdely<sup>1</sup>, R Greiner<sup>2</sup>; Cross Cancer Institute, Edmonton, AB<sup>1</sup>; University of Alberta, Edmonton, AB<sup>2</sup>
- 
- 329 MRS/I Assessment of Metabolic Response to Chemo/Radiotherapy in Patients with Glioblastoma Multiforme** A Damyanovich, C Ménard, E-S Koh, B-A Millar, A Kirilova, A Kassner, K Brock, J Hoisak, A Keller, E Yu, N Laperriere; Princess Margaret Hospital, Toronto, ON
- 
- 330 Development of a Phantom to Assess the Imaging Performance of Magnetic Resonance Spectroscopic Imaging** AA Heikal, K Wachowicz, SD Thomas, G Fallone; Cross Cancer Institute, Edmonton, AB

- 331 Hypofractionated Radiotherapy in High-Risk Prostate Cancer Using Helical Tomotherapy**  
N Pervez, R Pearcey, M Parliament, D Yee, J Amanie, A Murtha, J Pederson, A Mihai, M Mackenzie, K Wachowicz, G Fallone; Cross Cancer Institute, University of Alberta, Edmonton, AB
- 332 Integration of MRI in Radiotherapy Treatment Planning in the UMC Utrecht: Data and Approach**  
M van Vulpen, JJW Lagendijk, BW Raaijmakers, CAT van den Berg, JJ Battermann, UA van der Heide; University Medical Center Utrecht, Utrecht, Netherlands
- 333 Methods to Eliminate RF Interference Between a Linear Accelerator and MRI to Allow Concurrent Use**  
M Carlone, BG Fallone, B Murray, S Rathee, S Steciw, M Lamey; Cross Cancer Institute, Edmonton, AB
- 334 A Phantom Based Framework for MR Distortion Detection and Correction in 3D**  
H Alasti<sup>1</sup>, J Qiu<sup>1</sup>, J Near<sup>2</sup>, A Kirilova<sup>1</sup>, D Jaffray<sup>1</sup>; Princess Margaret Hospital, U of T, Toronto, ON<sup>1</sup>; Robarts Research Institute, University of Western Ontario, London, ON<sup>2</sup>
- 335 Implementation of a Dedicated Cylindrical MRI Simulator for Radiotherapy**  
C Ménard<sup>1</sup>, A Kirilova<sup>1</sup>, M Haider<sup>1</sup>, A Damyanovich<sup>1</sup>, J Stainsby<sup>2</sup>, L Dawson<sup>1</sup>, J Crook<sup>1</sup>, M Gospodarowicz<sup>1</sup>, D Jaffray<sup>1</sup>; Princess Margaret Hospital, University of Toronto, Toronto, ON<sup>1</sup>; GE Medical Systems, Toronto, ON<sup>2</sup>

**Abstract #262–295**

*Kent*

- 262 Multiparametric Tumour Analysis Using 9.4T MR**  
M Larocque, A Syme, J Turner, C Slupsky, A Yahya, K Wachowicz, G Fallone; University of Alberta, Edmonton, AB
- 263 Potential of Cardiac SPECT/CT with Small Gamma Cameras: Proof of Principle and Evaluation in a Clinical Population Using a Large Field of View Camera**  
E Sabondjian<sup>1,2</sup>, FS Prato<sup>1,2,3</sup>, T Belhocine<sup>4</sup>, M King<sup>5</sup>, RZ Stodilka<sup>1,2,3</sup>; Lawson Health Research Institute, London, ON<sup>1</sup>; University of Western Ontario, London, ON<sup>2</sup>; St Joseph's Health Care, London, ON<sup>3</sup>; London Health Sciences Centre, South Street Campus, London, ON<sup>4</sup>; London Health Sciences Centre, University Hospital Campus, London ON<sup>5</sup>
- 264 An Energy Dispersive Technique for Measuring X-Ray Coherent Scattering Form Factors**  
BW King, PC Johns; Carleton University, Ottawa, ON
- 265 Computational Scatter Estimation for Statistical Reconstruction Algorithms for Cone-Beam CT**  
H Ingleby, I Elbakri; CancerCare Manitoba, Winnipeg, MB
- 266 Monte Carlo Simulations for Time-Dependent Radiation Sources with General Kinematics**  
IA Popescu<sup>1</sup>, J Lobo<sup>2</sup>; British Columbia Cancer Agency, Vancouver, BC<sup>1</sup>; University of British Columbia, Vancouver, BC<sup>2</sup>
- 267 Attenuation Correction for Scatter Enhanced Computed Tomography (CT) without Segmentation,**  
JEA Aviles, S Pistorius; CancerCare Manitoba, Winnipeg, MB
- 268 Prostate Brachytherapy Seed Localization Using a Non-Isocentric C-Arm**  
T Meyer, I Kay, S Husain, S Angyalfi, P Dunscombe; Tom Baker Cancer Centre, University of Calgary, Calgary, AB
- 269 Using More or Less Seeds in Low Dose-Rate Prostate Brachytherapy: A Monte Carlo Postimplant Study on Two Patient Cohorts**  
J-F Carrier<sup>1</sup>, M D'Amours<sup>1</sup>, F Verhaegen<sup>2</sup>, B Reniers<sup>2</sup>, D Taussky<sup>1</sup>, A-G Martin<sup>1</sup>, E Vigneault<sup>1</sup>, L Beaulieu<sup>1</sup>; Centre Hospitalier Universitaire de Montreal, Montreal, QC<sup>1</sup>; Montreal General Hospital, Montreal, QC<sup>2</sup>
- 270 Non-Rigid Registration of 3D Ultrasound Images to Monitor Carotid Plaque Changes**  
ND Nanayakkara, B Chiu, A Samani, JD Spence, J Samarabandu, A Fenster; University of Western Ontario, London, ON
- 271 IMRT for Arteriovenous Malformations: Using 3-D Computed Rotational Angiography to Delineate the Nidus for Tomotherapy and Non-Coplanar IMAT Planning**  
D Hyde<sup>1</sup>, G Bauman<sup>1</sup>, D Batchelar<sup>1</sup>, J Taylor<sup>1</sup>, S Lownie<sup>2</sup>, D Holdsworth<sup>1</sup>; London Health Sciences Centre, London, ON<sup>1</sup>; Robarts Research Institute, London, ON<sup>2</sup>
- 272 Investigation of the RBE of Radiation in the Penumbra of a 6MV Photon Beam**  
A Syme, C Kirkby, R Mirzayans, M MacKenzie, C Field, G Fallone; Cross Cancer Institute, University of Alberta, Edmonton, AB

- 273** **A Simple Approach for Quantitative Imaging of Fluorescent Point Sources in Small Animals** DC Comsa, TJ Farrell, KR Diamond, MS Patterson; Juravinski Cancer Centre, McMaster University, Hamilton, ON
- 274** **Multimodality Based Diagnosis and Treatment of Breast Cancer Cells by Magnetic Nanoparticles Coated by a Gold Shell with Hyperthermia and Radiation Therapy** Y Yao, J Huang, J Yang, T McIntyre, J Chen; University of Alberta, Edmonton, AB
- 275** **Modeling Conventional Radiotherapy Clonogenic Cell Survival for a Non-specific Tumour Type Using an Iterated Birth-Death Markov Process** M Rodrigues (presenting author)<sup>1</sup>, R Costelino<sup>1</sup>, O Falou<sup>1</sup>, O Das<sup>1</sup>, A El Kaffas<sup>1</sup>, E Galiano<sup>2</sup>; Ryerson University, Toronto, ON<sup>1</sup>; Laurentian University, Sudbury, ON<sup>2</sup>
- 276** **An Analytical Approximation of First Order Scatter in Heterogeneous Medium** W Yao, K Leszczynsk; Regional Cancer Program of the Sudbury Regional Hospital, Sudbury, ON
- 277** **I Can't Find a Thing to Wear: Designing Innovative Functional Apparel and Accessories for Female Breast Cancer Survivors with Lymphedema** J Nyhof-Young<sup>1</sup>, S Tullio-Pow<sup>2</sup>, R Pai<sup>3</sup>, J Yu<sup>3</sup>, L Mok<sup>3</sup>, S Barnwell<sup>2</sup>; Princess Margaret Hospital, Toronto, ON<sup>1</sup>; School of Fashion, Ryerson University, Toronto, ON<sup>2</sup>; University of Toronto, Toronto<sup>3</sup>
- 278** **A Phase III Study of the Efficacy of Silver Leaf Nylon Dressing in the Prevention of Severe Skin Reactions in the Inframammary Skin Fold of Patients Receiving Adjuvant Whole Breast Radiotherapy** S Graham<sup>1</sup>, K Smith<sup>1</sup>, J Hayes<sup>2</sup>, S Lew<sup>2</sup>, G MacDonald<sup>3</sup>, A Bates<sup>4</sup>, C Aquino-Parsons<sup>1</sup>; British Columbia Cancer Agency, Vancouver Cancer Centre, Vancouver, BC<sup>1</sup>; British Columbia Cancer Agency, Fraser Valley Cancer Centre, Surrey, BC<sup>2</sup>; Royal Aberdeen Hospital, Aberdeen Scotland<sup>3</sup>; Southampton General Hospital, Southampton, UK<sup>4</sup>
- 279** **Acute Tolerance, Feasibility and Quality Assurance Results of a Phase I/II Clinical Trial of Permanent Breast 103Pd Seed Implant (PBSI) as Accelerated Partial Breast Irradiation** J-P Pignol, B Keller, E Rakovitch, R Sankrecha, C Chartier; Odette Cancer Centre, University of Toronto, Toronto, ON
- 280** **withdrawn Linac-Based IOERT as Boost Strategy During Breast Conserving Therapy in Limited Stage Breast Cancer: Results of an ISIORT Pooled Analysis** F Sedlmayer<sup>1</sup>, C Menzel<sup>1</sup>, R Reitsamer<sup>1</sup>, G Fastner<sup>1</sup>, C Fussl<sup>1</sup>, E Hager<sup>2</sup>, A Ciabattini<sup>3</sup>, N Willich<sup>4</sup>, R Orecchia<sup>5</sup>, V Valentini<sup>6</sup>; UC Salzburg, Austria<sup>1</sup>; General Hospital, Klagenfurt, Austria<sup>2</sup>; San Francisco Neri Hospital, Rome, Italy<sup>3</sup>; UC Muenster, Germany<sup>4</sup>; UC Milan, Italy<sup>5</sup>; UC Gemelli, Rome, Italy<sup>6</sup>
- 281** **Does HER2 Status Influence Locoregional Failure Rates in Breast Cancer Patients Treated with Mastectomy with PT1-3PNO Disease?** W Kwan, A Al-Tourah; British Columbia Cancer Agency, Fraser Valley Centre, Surrey, BC
- 282** **A Phase III Study of Silver Leaf Nylon Dressing in the Prevention of Severe Inframammary Skin Reaction in Patients Receiving Post-Operative Adjuvant Whole Breast Radiation Therapy** C Aquino Parsons<sup>1</sup>, G Macdonald<sup>2</sup>, AT Bates<sup>3</sup>, S Graham<sup>1</sup>, K Smith<sup>1</sup>, J Hayes<sup>4</sup>, S Lew<sup>1</sup>; British Columbia Cancer Agency, Vancouver Cancer Centre, University of British Columbia, Vancouver, BC<sup>1</sup>; Aberdeen Royal Infirmary, ANCHOR Unit, Aberdeen, Scotland<sup>2</sup>; Southampton General Hospital, Southampton, UK<sup>3</sup>
- 283** **A Low-Dose Ipsilateral Lung Constraint Improves Planning for Partial Breast Irradiation** T Mitchell<sup>1</sup>, L Salter<sup>1</sup>, C Graham<sup>1</sup>, J Wark<sup>1</sup>, H Gaffney<sup>1</sup>, M Goldie<sup>1</sup>, P Truong<sup>1</sup>, S Jones<sup>1</sup>, W Beckham<sup>1</sup>, T Whelan<sup>2</sup>, I Olivotto<sup>1</sup>; British Columbia Cancer Agency, Vancouver Island Centre, Victoria, BC<sup>1</sup>; Juravinski Cancer Centre, Hamilton, ON<sup>2</sup>
- 284** **Optimal Positioning and Technique in Three-Field Radiotherapy for Breast Cancer** D Panjwani, K Lee, A Fleck, D Gopaul, V Basrur, R Rachakonda; Grand River Regional Integrated Cancer Program, Kitchener, ON
- 285** **A Clinical Trial of Aloe Vera for Prophylaxis of Radiation-Induced Dermatitis** P Haddad<sup>1</sup>, S Samsami<sup>1</sup>, M Ali Oghabian<sup>2</sup>, F Amouzgar-Hashemi<sup>1</sup>, Z Tizmaghz<sup>1</sup>; Cancer Research Centre, Cancer Institute, Tehran University of Medical Sciences, Tehran, Iran<sup>1</sup>; Research Centre for Science and Technology in Medicine, Tehran University of Medical Sciences, Tehran, Iran<sup>2</sup>

- 286** **HER 2 Neu Over-Expression Predicts Invasive Recurrence Following Breast-Conserving Surgery for Ductal Carcinoma In Situ of the Breast (DCIS)** E Rakovitch<sup>1</sup>, J-P Pignol<sup>1</sup>, J Spayne<sup>1</sup>, S Nofech-Moses<sup>2</sup>, C Chartier<sup>1</sup>, L Paszat<sup>1</sup>, W Hanna<sup>2</sup>; Odette Cancer Centre, Sunnybrook Health Sciences Centre, University of Toronto, Toronto, ON<sup>1</sup>; Sunnybrook Health Sciences Centre, University of Toronto, Toronto, ON<sup>2</sup>
- 287** **The Effect of Washing with Water and Soap the Irradiated Skin During Radiotherapy in Breast Cancer Patients Imam Hospital (Cancer Institute)** F Amouzegar Hashemi, A Rahimi, M Saggadi; Cancer Institute, Tehran University of Medical Science, Tehran, Iran
- 288** **Dosimetric Effects of Immediate Post-Mastectomy Breast Reconstruction on Chest Wall Radiotherapy** K Murphy<sup>1</sup>, B Strang<sup>1</sup>, A Dal Cin<sup>3</sup>; Juravinski Cancer Centre, Hamilton, ON<sup>1</sup>; McMaster University, Hamilton, ON<sup>2</sup>; Hamilton Health Sciences, McMaster University, Hamilton, ON<sup>3</sup>
- 289** **Does Ultrasound Contribute to CT Planning to Define the Target for Partial Breast Radiation Therapy?** T Berrang<sup>1</sup>, L Drever<sup>2</sup>, C Popescu<sup>2</sup>, M Hilts<sup>2</sup>, T Mitchell<sup>2</sup>, SY Soh<sup>2</sup>, L Sands<sup>2</sup>, P Truong<sup>1</sup>, I Olivotto<sup>1</sup>; British Columbia Cancer Agency, Vancouver Island Centre, University of British Columbia, Victoria, BC<sup>1</sup>; British Columbia Cancer Agency, Vancouver Island Centre, Victoria, BC<sup>2</sup>
- 290** **Prima-1met as a Potential Prostate Cancer Radiosensitizer Under Normoxia and Hypoxia** S Supiot<sup>1</sup>, H Zhao<sup>1</sup>, K Wiman<sup>1</sup>, RP Hill<sup>2</sup>, RG Bristow<sup>1</sup>; Princess Margaret Hospital, Toronto, ON<sup>1</sup>; Karolinska Institute, Cancer Centre Karolinska, Stockholm, Sweden<sup>2</sup>
- 291** **Sorafenib Potentiates the Effect of Fractionated Radiation in Cervix Carcinoma Xenografts** SJ Lunt, D Hedley, M Milosevic, R Hill; Princess Margaret Hospital, Toronto, ON
- 292** **Functional Gold Nanoparticles Enhance Radiation Cytotoxicity in Breast and Prostate Cancer Cells** W Roa<sup>1</sup>, A Yang<sup>2</sup>, P Li<sup>1</sup>, T Kong<sup>3</sup>, J Yang<sup>2</sup>, N Pervez<sup>1</sup>, S McQuarrie<sup>1</sup>, A McEwan<sup>1</sup>, J Chen<sup>2</sup>, J Xing<sup>2</sup>; Cross Cancer Institute, Edmonton, AB<sup>1</sup>; University of Alberta, Edmonton, AB<sup>2</sup>; University of Science and Technology of China, China<sup>3</sup>
- 293** **Sorafenib (BAY 43-9006) Protects Normal Murine Gut from Radiation (RT) Damage** FG Herrera<sup>1</sup>, SJ Lunt<sup>2</sup>, A Fyles<sup>1</sup>, M Milosevic<sup>1</sup>, S Supiot<sup>1,2</sup>, J Ran<sup>2</sup>, H Zhao<sup>2</sup>, R Bristow<sup>1,2</sup>, RP Hill<sup>2</sup>; Princess Margaret Hospital, Toronto, ON<sup>1</sup>; Ontario Cancer Institute, Toronto, ON<sup>2</sup>
- 294** **Low Frequency Ultrasound Detection of Apoptosis in Response to Cancer Therapy** S Ranieri<sup>1</sup>, M Azrif<sup>2</sup>, B Debeljevic<sup>1</sup>, M Papanicolau<sup>1</sup>, A Giles<sup>1</sup>, M Kolios<sup>3</sup>, G Czarnota<sup>2</sup>; University of Toronto, Toronto, ON<sup>1</sup>; Sunnybrook Health Sciences Centre, Toronto, ON<sup>2</sup>; Ryerson University, Toronto, ON<sup>3</sup>
- 295** **DNA Damage Induces ATM-Dependent APLF Hyperphosphorylation and Leads to Impaired DNA Double-Strand Break Repair Kinetics in APLF-Deficient Human Cells** A Koch, C Macrae, R McCulloch; Princess Margaret Hospital, Ontario Cancer Institute, University of Toronto, Toronto, ON

**Abstract #177-179, 229-261**

*Huron*

- 177** **Assessing a Layperson's Disutility of Delaying Radiotherapy Treatment Using the Willingness to Pay Methodology** K Mclsaac, D Feldman-Stewart, M Lam, W Mackillop; Queen's University, Kingston, ON
- 178** **Improving Study Design to Enhance the Success of Longitudinal Survivorship Research Studies** E-S Koh, D Hodgson, J Nyhof-Young, M Milosevic, L Le, A Lau, P Catton; Princess Margaret Hospital, Toronto, ON
- 179** **Hypofractionated HDR Brachytherapy for Non-Melanoma Skin Cancers: A Viable Option for a Challenging Patient Population** D Batchelar<sup>1</sup>, J Taylor<sup>2</sup>, C Lewis<sup>2</sup>, D D'Souza<sup>2</sup>, J Gilchrist<sup>2</sup>; Odette Cancer Centre, Toronto, ON<sup>1</sup>; London Regional Cancer Program, London, ON<sup>2</sup>
- 229** **Evaluation of a Simple Belly-Board Device for Reduction of Small Bowel in Rectal Cancer Pelvic Radiotherapy Fields** P Haddad, M Vashghani, M Vakilha, Z Tizmaghz, F Amouzegar-Hashemi; Cancer Research Centre, Cancer Institute, Tehran University of Medical Sciences, Tehran, Iran
- 230** **Evaluation of CT Planning versus Conventional Simulation for Preoperative Treatment of Rectal Cancer** D Gopaul<sup>1</sup>, J Richer<sup>2</sup>, K K Powers<sup>2</sup>, KM Schneider<sup>2</sup>; Grand River Regional Cancer Centre, Kitchener, ON<sup>1</sup>; Windsor Regional Cancer Centre, Windsor, ON<sup>2</sup>

- 231** **How Much Does Experience Add to IMRT Planning? Results of an External Dosimetric Audit of IMRT for Adjuvant Chemoradiation for Gastric Cancer** HT Chung<sup>1</sup>, B Lee<sup>2</sup>, E Park-Somers<sup>1</sup>, JJ Lu<sup>1</sup>, P Xia<sup>2</sup>; The Cancer Institute, National University Hospital (NUH), Singapore, China<sup>1</sup>; University of California San Francisco (UCSF), San Francisco, CA<sup>2</sup>
- 232** **Image-Guided Upper Abdominal Radiotherapy with the Tomotherapy® HI-ART® Treatment System: Daily Set-Up Verification** M Dahele, M Skinner, Y Ung, A Lightstone, M Hunter, R Kirby; Odette Cancer Centre, Toronto, ON
- 233** **Fractionated Stereotactic Radiotherapy in the Treatment of Juxtapapillary Choroidal Melanoma: Two-Year Follow-Up** A Sahgal, S Somani, M Heydarian, H McGowan, D Payne, W Xu, H Michaels, RE Simpson, N Laperriere; Princess Margaret Hospital, University of Toronto, Toronto, ON
- 234** **Post-Operative Extended Volume External Beam Radiation Therapy is Safe for High Risk Esophageal Cancer Patients** E Yu<sup>1</sup>, P Tai<sup>2</sup>, J Younus<sup>1</sup>, R Malthaner<sup>3</sup>, L Stitt<sup>1</sup>, P Truong<sup>4</sup>, G Rodrigues<sup>1</sup>, R Ash<sup>1</sup>, R Dar<sup>1</sup>, A Tomiak<sup>5</sup>, M Vincent<sup>1</sup>, W Kocha<sup>1</sup>, B Dingle<sup>1</sup>, R Inculet<sup>1</sup>; London Regional Cancer Program, London, ON<sup>1</sup>; Allan Blair Cancer Centre, Regina, SK<sup>2</sup>; London Health Sciences Centre, London, ON<sup>3</sup>; British Columbia Cancer Agency, Vancouver Island Centre, Victoria, BC<sup>4</sup>; Kingston Regional Cancer Centre, Kingston, ON<sup>5</sup>
- 235** **Endoscopic-Guided Brachytherapy (EGB) for the Palliation of Advanced Esophageal Cancers** R Singh, V Naina, A Timotin, L Zychla, R Wong, R Sur; Juravinski Cancer Centre, McMaster University, Hamilton, ON
- 236** **Comparison of Post-implant Dosimetry Parameters for I-125 Seed Prostate Brachytherapy Determined Using MR+CT Images versus CT Images Alone** A Alexander<sup>1</sup>, R Sloboda<sup>2</sup>, J Pedersen<sup>2</sup>, B Danielson<sup>2</sup>, A Murtha<sup>2</sup>, D Yee<sup>2</sup>, N Pervez<sup>2</sup>; British Columbia Cancer Agency, Vancouver Island Cancer Centre, Victoria, BC<sup>1</sup>; Cross Cancer Institute, University of Alberta, Edmonton, AB<sup>2</sup>
- 237** **Worklife in Brachytherapy** A Clarke, L Young, M Burnside, S Balca, L Zychla, R Sur; Juravinski Cancer Centre, McMaster University, Hamilton, ON
- 238** **Simultaneous Evaluation of Daily On-Line Set-Up Errors and Organ Motion Uncertainty During Conformal Radiation Treatment of the Prostate** R Jiang, E Osei, R Barnett, K Fleming, D Panjwani; Grand River Regional Cancer Centre, Kitchener, ON
- 239** **Evaluation of Prostate IMRT Treatment Planning Incorporating Internal Organ Motion Using a Dose Gradient Analysis** R Jiang<sup>1</sup>, R Barnett<sup>1</sup>, JCL Chow<sup>2</sup>, JZY Chen<sup>3</sup>; Grand River Regional Cancer Centre, Kitchener, ON<sup>1</sup>; Princess Margaret Hospital, Toronto, ON<sup>2</sup>; University of Waterloo, Waterloo, ON<sup>3</sup>
- 240** **125-IODINE Prostate Brachytherapy in Patients with Previous Pelvic Irradiation** N Usmani, WJ Morris, M Keyes, T Pickles; British Columbia Cancer Agency, Vancouver Cancer Centre, Vancouver, BC
- 241** **Automated Conformal Avoidance Targeting for Post-Prostatectomy Patients** A Lausch, M Lock, R Ash, D D'Souza, G Rodrigues, V Venkatesan, G Bauman, E Wong; London Regional Cancer Program, London, ON
- 242** **Relationship Between Prostate Volume and Normal Tissue Dosimetric Parameters in Prostate Hypofractionated Radiotherapy** V Kong, C Catton, T Rosewall; Princess Margaret Hospital, Toronto, ON
- 243** **A Description of Computed Tomography (CT) and Magnetic Resonance (MR) Image Fusion in Radiation Treatment Planning for Prostate Cancer Patients with Unilateral or Bilateral Hip Prostheses** T K-M Lam, Y-B Cho, V Kong, A Bayley, C Catton; Princess Margaret Hospital, Toronto, ON
- 244** **The Impact of Pre-Treatment Prostate Dimensions on Toxicity from Conformal Radiotherapy for Prostate Cancer—Does Size Matter?** T Rosewall, C Catton, J Yan, L Divanbeigi, A Bayley, P Chung, V Kelly, M Skala, A Toi, P Warde; Princess Margaret Hospital, Toronto, ON
- 245** **Does IGRT Improve the Toxicity Profile in Whole Pelvic-Treated High-Risk Prostate Cancer? A Comparison Between IGRT and Non-IGRT IMRT** HT Chung<sup>1</sup>, P Xia<sup>2</sup>, L Chan<sup>2</sup>, E Park-Somers<sup>1</sup>, M Roach III<sup>2</sup>; The Cancer Institute, National University Hospital (NUH), Singapore<sup>1</sup>; University of California San Francisco (UCSF), San Francisco, CA<sup>2</sup>

- 246** **Adverse Late Effects in a Prospective Phase I-II Trial of Hypofractionated Radiotherapy (66Gy/22 Fractions) for Localized Adenocarcinoma of the Prostate** M Sia, C Menard, T Rosewall, A Bayley, R Bristow, P Chung, J Crook, M Gospodarowicz, M McLean, M Milosevic, P Warde, C Catton; Princess Margaret Hospital, University of Toronto, Toronto, ON
- 247** **Genome Level Polymorphism Screen to Identify Markers Predictive of Normal Tissue Toxicity in Prostate Cancer Patients Treated with Radiotherapy** S Damaraju, BS Sehwat, R Greiner, S Ghosh, CE Cass, M Parliament; University of Alberta, Edmonton, AB
- 248** **NCIC Pr 13 (Radicals) – An Intergroup Randomized Controlled Trial in Prostate Cancer of Optimal Timing of Radiotherapy and Duration of Hormone Therapy After Radical Prostatectomy (MRC PR10, ISRCTN40814031)** C Catton<sup>1</sup>, C Morash<sup>6</sup>, M Sydes<sup>3</sup>, H Kynaston<sup>4</sup>, J Logue<sup>5</sup>, C Murphy<sup>2</sup>, W Parulekar<sup>7</sup>, C Savage<sup>7</sup>, H Payne<sup>8</sup>, N Clarke<sup>9</sup>, C Parker<sup>2</sup> for the RADICALS Trial Management Group; Princess Margaret Hospital, Toronto, ON<sup>1</sup>; Royal Marsden Hospital and Institute Cancer Res., Sutton, UK<sup>2</sup>; MRC Clinical Trials Unit, London, UK<sup>3</sup>; University Hospital Wales, Cardiff, UK<sup>4</sup>; Christie Hospital, Manchester, UK<sup>5</sup>; The Ottawa Hospital, Ottawa, ON<sup>6</sup>; NCIC Clinical Trials Group, Kingston, ON<sup>7</sup>; University College Hospital, London, UK<sup>8</sup>; Salford Hospitals, Manchester, UK<sup>9</sup>
- 249** **Does Testosterone Recovery (TR) from Prolonged Androgen Ablation (AA) Impact on Outcome of Patients with Localized Prostate Cancer Treated by Radiotherapy (RT)?** J Bosede, L Souhami, S Jeyaganth, S Faria, G Shenouda, M David, F Cury, M Duclos; McGill University Health Centre, Montreal, QC
- 250** **Pure Hypofractionation (With Image Guidance) Reduces Acute and Late Rectal Toxicity in Prostate Radiotherapy: Early Results** D Panjwani, D Gopaul, K Fleming, C Girolametto, P Fortin, M Berry; Grand River Regional Integrated Cancer Program, Kitchener, ON
- 251** **Orthogonal Shifts Using Non-Orthogonal Visualization of Fiducials** D Panjwani, A Fleck; Grand River Regional Integrated Cancer Program, Kitchener, ON
- 252** **IMVI-RT: Intensity Modulated versus Interstitial Radiation Therapy** N Usmani, WJ Morris; British Columbia Cancer Agency, Vancouver Cancer Centre, Vancouver, British Columbia
- 253** **A Compact Robotic Apparatus and Method for 3D Ultrasound Guided Prostate Therapy** J Bax, L Gardi, J Montreuil, D Smith, A Fenster; Robarts Research Institute, London Biomedical Engineering, University of Western Ontario, London, ON
- 254** **Is Body Mass Index a Predictor for Rectal Dosimetry and Toxicity in 125I Permanent Implant for Low-Risk Prostate Cancer?** J Crook, EP Saibishkumar, G Pond, M Aneja; Princess Margaret Hospital, Toronto, ON
- 255** **The Resource Impact of Pre-Loaded versus Manually Loaded Needles for Prostate Brachytherapy** T Rose, W Webb, G Duckworth, G Murray, J Yanchuk; British Columbia Cancer Agency, Centre for the Southern Interior, Kelowna, BC
- 256** **Imaging Fusion-Guided Tomotherapy for Cervix Cancer Treatment** J Lian, N Pervez, G Dundas, D Yee, C Field, M Mackenzie, G Fallone, R Pearcey; Cross Cancer Institute, University of Alberta, Edmonton, AB
- 257** **Dosimetric Analysis of Extended-Field Radiotherapy for Stage IIIC Endometrial Cancer: Is Tomotherapy Better than Intensity-Modulated Radiation Therapy?** J Lian, M Mackenzie, K Joseph, N Pervez, G Dundas, R Urtasun, R Pearcey; Cross Cancer Institute, University of Alberta, Edmonton, AB
- 258** **Twenty-Year Review of Radiotherapy for Vaginal Cancer Treatment** J Lian, G Dundas, N Pervez, K Joseph, S Ghosh, J Hanson, R Pearcey; Cross Cancer Institute, University of Alberta, Edmonton, AB
- 259** **In Vivo Dosimetry in Cervix MDR Brachytherapy with Semiconductors** R Jaber, M Allahverdi, F Ghahramani, M Aghili; Cancer Institute, Tehran University, Tehran, Iran
- 260** **Pediatric Breast and Gynecological Malignancies: A Sixty-Five Year Review of Cases in Alberta** S Chafe, S Jessa; Cross Cancer Institute, University of Alberta, Edmonton, AB
- 261** **Difficulties Associated with Treatment Optimization of High Dose Rate Brachytherapy Distributions for Treatment of the Endometrium with Vaginal Cylinders** R Hunter, T Farrell; M Shim; Juravinski Cancer Centre, Hamilton, ON

- 180** **4D In Vivo Dosimetry in Radiotherapy** AJ Cherpak<sup>1</sup>, L Buckley<sup>2</sup>, W Ding<sup>3</sup>, R Ashton<sup>3</sup>, JE Cygler<sup>2</sup>; Carleton University, Ottawa, ON<sup>1</sup>; Ottawa Hospital Regional Cancer Centre, Ottawa, ON<sup>2</sup>; Best Medical Canada, Ottawa, ON<sup>3</sup>
- 181** **Evaluation of the Effect of Electron Beam Obliquity in the Lateral Buildup Ratio Using Monte Carlo Simulation** J Chow<sup>1</sup>, G Grigorov<sup>2</sup>; Princess Margaret Hospital, Toronto, ON<sup>1</sup>, Grand River Regional Cancer Centre, Kitchener, ON<sup>2</sup>
- 182** **Evaluation of Optically Stimulated Luminescence (OSL) Dosimetry in High Energy Electron and Photon** MM Sadeghi<sup>1</sup>, G Mardirossian<sup>2</sup>, EG Yukihara<sup>3</sup>, S Guduru<sup>3</sup>, S Ahmad<sup>1</sup>; University of Oklahoma Health Sciences Center, Oklahoma City, OK<sup>1</sup>; Mount Sinai Comprehensive Cancer Center, Miami Beach, FL<sup>2</sup>; Oklahoma State University, Stillwater, OK<sup>3</sup>
- 183** **Quality Assurance of Optical Computed Tomography for 3D Polymer Gel Dosimetry** T Olding<sup>1</sup>, O Holmes<sup>1</sup>, G Santyr<sup>2</sup>, K Nkongchu<sup>3</sup>, K MacAuley<sup>1</sup>, LJ Schreiner<sup>1</sup>; Queen's University, Kingston, ON<sup>1</sup>; Robarts Research Institute, London, ON<sup>2</sup>, Carleton University, Ottawa, ON<sup>3</sup>
- 184** **Use of EBT Film for Dose Measurement In Heterogeneous Phantoms Containing Lung and Bone Equivalent Materials for 6 MV Photon Fields in the Range 0.5 to 4cm Diameter Produced By Cyberknife** EE Wilcox, G Daskalov; Saint Francis Hospital, Hartford, CT
- 185** **MRS/MRI Characterization of GAFCHROMIC EBT Radiotherapy Film: Potential as an Absolute Dosimeter** R Holly<sup>1</sup>, B Keller<sup>1</sup>, C Lemaire<sup>2</sup>, H Peemoeller<sup>2</sup>; Odette Cancer Centre, Toronto, ON<sup>1</sup>; University of Waterloo, Waterloo, ON<sup>2</sup>
- 186** **Investigation of the Use of Gafchromic EBT Film for Routine IMRT QA** A Mahata, PB Ravindran; Christian Medical College, Vellore, India
- 187** **Optimization of Photon Beam Energy in Aperture-Based Intensity Modulated Radiation Therapy** J St-Hilaire, C Sevigny, F Beaulieu, F Germain, D Tremblay, L Beaulieu; CHUQ Hotel-Dieu de Québec, Québec, QC
- 188** **Calculation of Water and Graphite Perturbation Correction Factors for NACP-02 Plane-Parallel Ionization Chamber in High-Energy Electron Beams** E Chin<sup>1</sup>, D Shipley<sup>2</sup>, J Seuntjens<sup>1</sup>, H Palmans<sup>2</sup>, A DuSautoy<sup>2</sup>, M Bailey<sup>2</sup>, F Verhaegen<sup>1</sup>; McGill University Health Centre, Montreal, QC<sup>1</sup>; National Physical Laboratory, UK<sup>2</sup>
- 189** **An EGSnrc Investigation of Air Kerma Calibration Coefficients for Low-Energy X-Rays** D La Russa<sup>1</sup>; M McEwen<sup>2</sup>, D Rogers<sup>1</sup>; Carleton University, Ottawa, ON<sup>1</sup>; National Research Council of Canada, Ottawa, ON<sup>2</sup>
- 190** **Experimental Verification of the Breakdown of the Standard Temperature-Pressure Correction Factor for Ion Chambers in Kilovoltage X-Rays** D La Russa<sup>1</sup>; M McEwen<sup>2</sup>, D Rogers<sup>1</sup>; Carleton University, Ottawa, ON<sup>1</sup>; National Research Council of Canada, Ottawa, ON<sup>2</sup>
- 191** **Monte Carlo Calculation of Replacement Correction Factors for Plane-Parallel Chambers** L Wang, DWO Rogers; Carleton University, Ottawa, ON
- 192** **Mosfet Detectors in Quality Assurance of Tomotherapy Treatments** AJ Cherpak<sup>1</sup>, RCN Studinski<sup>2</sup>, JE Cygler<sup>2</sup>; Carleton University, Ottawa, ON<sup>1</sup>; Ottawa Hospital Regional Cancer Centre, Ottawa, ON<sup>2</sup>
- 193** **Ionization Collection Efficiency of a Prototype Carbon Nanotube-Based Dosimeter** J Ma<sup>1</sup>, JTW Yeow<sup>1</sup>, JCL Chow<sup>2</sup>, RB Barnett<sup>3</sup>; University of Waterloo, Waterloo, ON<sup>1</sup>; Princess Margaret Hospital, Toronto, ON<sup>2</sup>; Grand River Regional Cancer Centre, Kitchener, Waterloo, ON<sup>3</sup>
- 194** **Laboratory Experience with a Mechanically Cooled High Purity Germanium X-Ray Spectrometer** BW King, PC Johns; Carleton University, Ottawa, ON
- 195** **The Jacobian as a Measure of Dose Correspondence** P Charland<sup>1</sup>, L Paniak<sup>2</sup>; Grand River Regional Cancer Centre, Kitchener, ON<sup>1</sup>; Four PI Solutions Inc., Kitchener, ON<sup>2</sup>
- 196** **The Effect of X-Ray CT Dose on Normoxic Polymer Gel Dosimeters** P Baxter<sup>1</sup>, A Jirasek<sup>1</sup>, M Hilts<sup>2</sup>; University of Victoria, Victoria, BC<sup>1</sup>; British Columbia Cancer Agency, Vancouver Island Centre, Victoria, BC<sup>2</sup>

- 197 High Dose Rate Intraluminal Brachytherapy (HDRILBT) in Lung Cancer: A Review of Two Years**  
R Sur<sup>1</sup>, L Zychla<sup>1</sup>, S Puksa<sup>2</sup>, A McLellan<sup>2</sup>, B Donde<sup>3</sup>, G Jones<sup>4</sup>; Juravinski Cancer Centre, McMaster University, Hamilton, ON<sup>1</sup>; Henderson General Hospital, McMaster University, Hamilton, ON<sup>2</sup>; Johannesburg Hospital, University of the Witwatersrand, Johannesburg, South Africa<sup>3</sup>; Credit Valley Hospital, McMaster University, Hamilton, ON<sup>4</sup>
- 
- 198 Radiological-Pathological Correlation (RPC) in Non-Small Cell Lung Cancer (NSCLC): Developing Three-Dimensional (3D) Methodologies for Examining Radiation Target Volume Delineation**  
M Dahele<sup>1</sup>, D Hwang<sup>2</sup>, C Peressotti<sup>3</sup>, L Sun<sup>3</sup>, M Kusano<sup>3</sup>, S Okhai<sup>3</sup>, G Darling<sup>2</sup>, M Yaffe<sup>1</sup>, C Caldwell<sup>3</sup>, K Mah<sup>1</sup>, J Hornby<sup>2</sup>, L Ehrlich<sup>3</sup>, S Raphael<sup>3</sup>, M Tsao<sup>3</sup>, Y Ung<sup>1</sup>; Odette Cancer Centre, University of Toronto, Toronto, ON<sup>1</sup>; Toronto General Hospital, University of Toronto, Toronto, ON<sup>2</sup>; Sunnybrook Health Sciences Centre, Toronto, ON<sup>3</sup>
- 
- 199 Plasma Membrane and Cytoplasmic Activated EGF Receptor Predicts Survival and Cytoplasmic Activated Erk Predicts Tumour Response in Locally Advanced NSCLC Patients Treated with Chemo-Radiotherapy**  
T Tsakiridis<sup>1</sup>, J Wright<sup>1</sup>, J-C Cutz<sup>2</sup>, G Singh<sup>1</sup>; Juravinski Cancer Centre, McMaster University, Hamilton, ON<sup>1</sup>; St Joseph's Hospital, McMaster University, Hamilton, ON<sup>2</sup>
- 
- 200 Preliminary Results of an Escalating Dose Phase I /II Clinical Trial of the Anti-EGFR Monoclonal Antibody Nimotuzumab in Combination with External Radiotherapy in Patients Diagnosed with Stage IIB, III or IV NSCLC Unsuitable for Radical Therapy**  
A Brade<sup>1</sup>, C Smith<sup>2</sup>, I Sherman<sup>3</sup>, G Bebb<sup>4</sup>; Princess Margaret Hospital, University of Toronto, Toronto, ON<sup>1</sup>; Tom Baker Cancer Centre, University of Calgary, Calgary, AB<sup>2</sup>; YM Biosciences, Mississauga, ON<sup>3</sup>; Hunter New England Health, New South Wales, Australia<sup>4</sup>
- 
- 201 Adjuvant Hemithoracic Radiotherapy Following Extrapleural Pneumonectomy for Malignant Pleural Mesothelioma Improves Local Control**  
BCJ Cho<sup>1</sup>, M de Perrot<sup>2</sup>, A Beziak<sup>1</sup>, A Brade<sup>1</sup>, G Kane<sup>1</sup>, A Sun<sup>1</sup>, D Payne<sup>1</sup>; Princess Margaret Hospital, University of Toronto, Toronto, ON<sup>1</sup>; Toronto General Hospital, University of Toronto, Toronto, ON<sup>2</sup>
- 
- 202 Is PET Scan Useful in Differentiating Active Tumour from Fibrosis After Curative Radiotherapy Alone for Lung Cancer?**  
SL Faria<sup>1</sup>, R Lisbona<sup>1</sup>, J Stern<sup>2</sup>, W El Sheshtawy<sup>1</sup>, L Souhami<sup>1</sup>, S Devic<sup>1</sup>, CR Freeman<sup>1</sup>; McGill University Health Centre (MUHC), Montreal, QC<sup>1</sup>; Jewish General Hospital, Montreal, QC<sup>2</sup>
- 
- 203 Correlation of Clinically Significant Radiation Esophagitis with Dose-Volume Histogram Parameters in Lung Cancer**  
G Rodrigues, J Rose, M Lock, D D'Souza; London Regional Cancer Program, University of Western Ontario, London, ON
- 
- 204 Image-Guided Set-Up Verification for Thoracic Radiotherapy: A Comparison of Two Immobilization Methods**  
M Dahele, R Tirona, M Skinner, A Lightstone, Y Ung, M Hunter, P Cheung; Odette Cancer Centre, Toronto, ON
- 
- 205 Adaptive Radiotherapy Options for Treatment of Lung Cancer Patients**  
AR Dar, C Woodford, S Yartsev, G Bauman, J Van Dyk; London Regional Cancer Program, London, ON
- 
- 206 The Value of CT Imaging for Treatment Planning for Brachytherapy in Lung Cancer**  
J Skoczny<sup>1</sup>, T Farrell<sup>1</sup>, R Hunter<sup>1</sup>, J Hayward<sup>1</sup>, L Kinnon<sup>1</sup>, K Dhanamaskar<sup>2</sup>, R Sur<sup>1</sup>; Juravinski Cancer Centre, McMaster University, Hamilton ON<sup>1</sup>; Henderson General Hospital, McMaster University, Hamilton ON<sup>2</sup>
- 
- 221 Oncological Follow-Up of Soft-Tissue Sarcoma Patients After Limb-Preservation**  
BA Campbell, L Weir, Z Musra, S Peacock, P Clarkson, C Grafton, K Goddard, B Masri, M Knowing; British Columbia Cancer Agency, University of British Columbia, Vancouver, BC
- 
- 222 Co-Registered 18f-Fluorodeoxyglucose Positron Emission Tomography (PET) and Computed Tomography (CT) Imaging for Suspected Recurrent Papillary Thyroid Cancer: An Institutional Review**  
M Dahele<sup>1</sup>, Y Ung<sup>1</sup>, L Ehrlich<sup>2</sup>, J Silverberg<sup>2</sup>, J Balogh<sup>1</sup>, S Wong<sup>1</sup>; Odette Cancer Centre, University of Toronto, Toronto ON<sup>1</sup>; Sunnybrook Health Sciences Centre, University of Toronto, Toronto ON<sup>2</sup>

- 223**      **Radioiodine Treatment Complications in Mother and Child in Patients with Differentiated Thyroid Carcinoma** A Fard-Esfahani, B Fallahi, M Hadifar, D Beiki, M Eftekhari, M Saghari, A Takavar; Research Institute for Nuclear Medicine, Tehran University of Medical Sciences, Tehran, Iran
- 
- 224**      **High Incidence of Prolonged Percutaneous Tube Feeding in Patients Treated with Hyperfractionated Accelerated Radiation Therapy for Advanced Head and Neck Cancer** J Waldron, J Ringash, A Bayley, B Cummings, J Irish, J Kim, M Pintilie, S Sellmann, P Warde, B O'Sullivan; Princess Margaret Hospital, University of Toronto, Toronto, ON
- 
- 225**      **Management of Verrucous Carcinoma of Larynx: A Reappraisal of the Role of Primary Radiation** S Hui Huang, G Lockwood, J Irish, J Ringash, J Kim, J Waldron, LA Dawson, A Bayley, B Cummings, B O'Sullivan; Princess Margaret Hospital, Toronto, ON
- 
- 226**      **Benzydamine for Prophylaxis of Radiation-Induced Oral Mucositis in Head and Neck Cancers, Double-Blind Clinical Trial** S Kamian, A Kazemian, F Amouzegar Hashemi, M Aghili, P Haddad; Cancer Research Institute, Tehran University of Medical Sciences, Tehran
- 
- 227**      **Are There Dose Related Predictive Factors for Geometrical Changes in Parotid Glands During Head and Neck IMRT?** M Vakilha, D Hwang, SL Breen, LA Dawson, J Ringash, A Bayley, J Kim, B Cummings, B O'Sullivan, J Waldron; Princess Margaret Hospital, University of Toronto, Toronto, ON
- 
- 228**      **The Effect of Registration Volumes on Residual Errors Assessed Using Cone-Beam Computed Tomography in Radiation Treatment of Head and Neck Cancer** L Johnson, J Waldron, L Dawson, A Bayley, B Cummings, J Kim, B O'Sullivan, J Ringash, M Pintilie, SL Breen; Princess Margaret Hospital, Toronto, ON
- 
- Abstract #207–220, 308–327** *Kenora*
- 
- 207**      **Utilization of Radiotherapy for Palliation of Bone Metastases: Review of Fractionation and Site of Treatment over a Three-Year Period at a Regional Cancer Centre** M Kerba, K Cheetham, E Mckimmon, M Taylor, N Hagen, J Wu; Tom Baker Cancer Centre, University of Calgary, Calgary, AB
- 
- 208**      **Are Bone Metastases from Gastrointestinal Cancers Equally Radiosensitive?** A Hird, E Chow, D Yip, M Davis, S Hadi, C Flynn, E Sinclair, Y Ko; Odette Cancer Centre, Toronto, ON
- 
- 209**      **Pain Flare Following Radiotherapy for Painful Bone Metastases: A Joint Effort of Three Cancer Centres to Determine the Incidence** A Hird<sup>1</sup>, S Hadi<sup>1</sup>, A Loblaw<sup>1</sup>, R Wong<sup>2</sup>, J Wu<sup>3</sup>, E Chow<sup>1</sup>; Odette Cancer Centre, Toronto, ON<sup>1</sup>; Princess Margaret Hospital, Toronto, ON<sup>2</sup>; Tom Baker Cancer Centre, Calgary, AB<sup>3</sup>
- 
- 210**      **Review of the Rapid Response Radiotherapy Program at an Outpatient Cancer Centre** E de Sa, E Sinclair, C Danjoux, K Harris, M Patel, E Barnes, L Barbera, M Tsao, E Chow; Odette Cancer Centre, Toronto, ON
- 
- 211**      **Split-Volume Treatment Planning of Multiple Consecutive Vertebral Body Metastases for Cyberknife Image-Guided Robotic Radiosurgery** A Sahgal, C Chuang, D Larson, K Huang, P Petti, P Weinstein, L Ma; UCSF Comprehensive Cancer Center, University of California San Francisco, San Francisco, CA
- 
- 212**      **What We Should Say and How: Evaluating A Combined Story and Fact-Based Educational Booklet for Patients with Brain Metastases and their Caregivers** C Garraway, D Damaraju, D Ng, A Chung, A Bezjak, J Nyhof-Young, R Wong; Princess Margaret Hospital, Toronto, ON
- 
- 213**      **Evaluating the Use of Fact versus Story Based Educational Resources for Patients (P) and Caregivers (C) with Brain Metastases** A Chung, D Ng, C Garraway, J Nyhof-Young, R Wong; Princess Margaret Hospital, Toronto, ON
- 
- 214**      **Measuring Variations in Access to Palliative Radiation Therapy** J French, C McGahan, G Duncan, C Chu, J Soo, S Lengoc; British Columbia Cancer Agency, Vancouver, BC
- 
- 215**      **Sequential Localization and Treatment on a Varian™ Accelerator: Feasibility and Resource Implications of 2D (KV) versus 3D (CBCT) Planning** S Murland, C Herring, M Kerba, M Tambasco, M Taylor, J Wu; Tom Baker Cancer Centre, Calgary, AB

- 216**      **Feasibility Testing of a Quality Assurance Process for a Cone-Beam CT Enabled Online Planning and Treatment Model for Palliative Radiotherapy** A Vloet, D Letourneau, S Moledina, A Vavda, R Wong, D Jaffray, M Gospodarowicz; Princess Margaret Hospital, Toronto, ON
- 
- 217**      **IV Contrast 4DCT Scans for Treatment Planning of Liver Metastases** C Eccles, A Marshall, J-P Bissonnette, J Kim, R Dinniwell, R Tse, L Dawson; Princess Margaret Hospital, Toronto, ON
- 
- 218**      **Quality of Life and Symptoms of Patients Treated with Whole Brain Radiotherapy** G Mallia, J Wong, A Kirou-Mauro, E de Sa, E Sinclair, M Tsao, T Barnes, C Danjoux, E Chow; Rapid Response Radiotherapy Program, Odette Cancer Centre, Toronto, ON
- 
- 219**      **The Feasibility and Benefits of IMRT Use for the Treatment of Pelvic Bone Metastases** S Scott, N La Macchia, T Craig, M Holwell, A Parent, R Wong, W Levin; Princess Margaret Hospital, Toronto, ON
- 
- 220**      **Prospective Study of Single 8Gy Fractions for Relief of Symptoms in a Rapid Access Radiation Therapy (RT) Program** D Hoegler, T Rose; British Columbia Cancer Agency, University of British Columbia, Kelowna, BC
- 
- 308**      **Patient Dose Assessment from Online Kilovoltage Imaging System in Radiation Therapy** E Osei, B Schaly, A Fleck, P Charland, R Barnett; Grand River Regional Cancer Centre, Kitchener, ON
- 
- 309**      **Does Respiratory Gating Significantly Reduce Planning Target Volumes for Inoperable Non-Small Cell Lung Cancer?** D Wells<sup>1,2</sup>, J Lim<sup>1,3</sup>, A Kader<sup>1</sup>, D Norn<sup>2</sup>, E Wai<sup>1,3</sup>, H Joe<sup>1,3</sup>, E Berthelet<sup>1,3</sup>; British Columbia Cancer Agency, Vancouver Island Centre, Victoria, BC<sup>1</sup>; University of Victoria, Victoria, BC<sup>2</sup>; University of British Columbia, Vancouver, BC<sup>3</sup>
- 
- 310**      **Co-Registered PET/CT Based 3-D Texture Classification of Head and Neck Cancer** H Yu<sup>1</sup>, C Caldwell<sup>1</sup>, K Mah<sup>2</sup>, D Mozeg<sup>1</sup>, I Poon<sup>2</sup>, C Raymond<sup>1</sup>; Sunnybrook Health Sciences Centre, University of Toronto, Toronto, ON<sup>1</sup>; Odette Cancer Centre, University of Toronto, Toronto, ON<sup>2</sup>
- 
- 311**      **The Reliability of Skin Markers in Predicting Tumour Motion** E Ghasroddashti<sup>1</sup>, J Pantarotto<sup>2</sup>, R MacRae<sup>2</sup>, L Gerig<sup>2</sup>; London Regional Cancer Program, London, ON<sup>1</sup>; Ottawa Regional Cancer Centre, Ottawa, ON<sup>2</sup>
- 
- 312**      **A Deformable Registration Algorithm for Prostate Image Guided Adaptive Radiotherapy** R Rivest, T Riauka, A Murtha, G Fallone; Cross Cancer Institute, University of Alberta, Edmonton, AB
- 
- 313**      **A Treatment Planning Investigation into the Dosimetric Effects of Systematic Rotations on Prostate Patients Planned According to the RTOG P- 0126 Protocol** G Cranmer-Sargison; Saskatoon Cancer Centre, Saskatoon, SK
- 
- 314**      **Moving Towards Real Time Adaptive Radiation Therapy Using Modified Direct Aperture Optimization and Tomosynthesis** A Mestrovic<sup>1</sup>, M-P Milette<sup>2</sup>, A Nichol<sup>1</sup>, BG Clark<sup>3</sup>, K Otto<sup>1</sup>; British Columbia Cancer Agency, Vancouver Centre, Vancouver, BC<sup>1</sup>; British Columbia Cancer Agency, Centre for the Southern Interior, Kelowna, BC<sup>2</sup>; The Ottawa Hospital Regional Cancer Centre, Ottawa, ON<sup>3</sup>
- 
- 315**      **Field Junctions with Helical Tomotherapy** L Garcia, L Gerig, P Raaphorst, D Wilkins; The Ottawa Hospital Regional Cancer Centre, Carleton University, Ottawa, ON
- 
- 316**      **Comparison of Planning Techniques for Large Field Endometrial Radiation Therapy** KJM Surry, M Bylsma, T Coad, JZ Chen; London Regional Cancer Program, London, ON
- 
- 317**      **Dosimetric Verification of Intensity Modulated Radiation Therapy of 172 Patients Treated for Various Disease Sites: Comparison Of EBT Film Dosimetry, Ion Chamber Measurements, and Independent MU Calculations** EE Wilcox, GM Daskalov, R Shumway, B Kaplan, E VanRooy; Saint Francis Hospital and Medical Center, Hartford, CT
- 
- 318**      **Assessment of 3D Internal Motion of Markers in Image Guided Gated Stereotactic Body Radiotherapy** P Pater, F DeBlois, R Ruo, H Patrocínio; Montreal General Hospital, McGill University, Montreal, QC
- 
- 319**      **Evaluation of a 3D Ultrasound System for Image-Guided Radiation Therapy for Prostate Cancer** S Wan, H Prichard, J Bowen, D Provost, L Stillwaugh; Regional Cancer Program, Sudbury Regional Hospital, Sudbury, ON

- 320**      **Eclipse AAA versus Pinnacle Dose Prediction for Transit Dosimetry: Comparison with Monte Carlo**  
C Popescu<sup>1</sup>, P Greer<sup>2</sup>; British Columbia Cancer Agency, Vancouver Cancer Centre, Vancouver, BC<sup>1</sup>; Newcastle Mater Hospital School of Mathematical and Physical Sciences, University of Newcastle, UK<sup>2</sup>
- 
- 321**      **Commissioning and Evaluation of an Extended SSD Photon Model in Pinnacle3 for Total Body Irradiation** M-C Lavallee (presenting author), L Gingras, S Aubin, C Cote, M Chretien, L Beaulieu; CHUQ Hotel-Dieu de Quebec, Université Laval, Quebec, QC
- 
- 322**      **Improving IMRT Using the Anatomic Beam Orientation Optimization Algorithm** P Potrebko, B McCurdy, J Butler, A El-Gubtan; CancerCare Manitoba, Winnipeg, MB
- 
- 323**      **Effects of Dose and Volume Uncertainties on Radiobiological Model Predictions for Partial Volume Lung Irradiation** L Kurjewicz<sup>1</sup>, V Moiseenko<sup>2</sup>, J Van Dyk<sup>1</sup>; London Regional Cancer Program, London, ON<sup>1</sup>; British Columbia Cancer Agency, Vancouver Cancer Centre, Vancouver, BC<sup>2</sup>
- 
- 324**      **Verification of a Monte Carlo-Based Treatment Planning Tool** J Chow, M Leung; Princess Margaret Hospital, Toronto, ON
- 
- 325**      **Monte Carlo Based IMRT and IMAT Quality Assurance Using MLC Log Files** T Teke, A Bergman, W Kwa, IA Popescu; British Columbia Cancer Agency, Vancouver, BC
- 
- 326**      **Helical Tomotherapy MVCT Image Quality Comparison** S Vidakovic<sup>1</sup>, C Field<sup>1</sup>, T Monajemi<sup>1</sup>, M MacPherson<sup>2</sup>, A Lightstone<sup>3</sup>, R Crilly<sup>4</sup>, K Langen<sup>5</sup>, G Fallone<sup>1</sup>; Cross Cancer Institute, Edmonton, AB<sup>1</sup>; Ottawa Regional Cancer Centre, Ottawa, ON<sup>2</sup>; Odette Cancer Centre, Toronto, ON<sup>3</sup>; Rapid City Regional Hospital, Rapid City, SD<sup>4</sup>; MD Anderson Cancer Center, Orlando, FL<sup>5</sup>
- 
- 327**      **Electronic Portal Imaging Using Cerenkov Radiation** I Silva, G Pang; University of Toronto, Toronto, ON