



ALL FOR ONE | L'UNION FAIT LA FORCE
Collaborating | la collaboration et
and Innovating for | l'innovation au service des
Person-Centred Care | soins axés sur la personne

CARO-COMP-CAMRT 2018
ACRO-OCPM-ACRTM 2018

MONTREAL, QC • September 12-15

Le Centre Sheraton Montreal Hotel

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CONFERENCE OBJECTIVES

At the end of this conference, the attendees will be able to:

- Discuss the indications, patient outcomes, technical aspects and cost-benefits analysis of proton therapy, from both the Radiation Oncology and Medical Physics perspectives.
- Understand quality control of radiation treatments, including exploring and discussing the new Canadian Partnership for Quality Radiotherapy (CPQR) mandate on equitable access to care, patterns of care, patient-reported outcomes, and also challenges related to the peer-review process of radiation therapy.
- Describe and initiate research by radiation oncologists, medical physicists and radiation therapists within Canada.
- Highlight inter-professional collaboration and improve patient care.

ACCREDITATION

- This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification program of The Royal College of Physicians and Surgeons of Canada, and approved by McGill University, Office of Continuing Professional Development. Participants can claim up to a maximum 21 Category 1 Credits Category 1 Credits
- Canadian Association of Medical Radiation Technologists (CAMRT) up to 16 Category A Credits – RCEEM Reference Number: CCC-2018-192
- Medical Dosimetrist Certification Board (MDCB) – 4.5 CE credits
- This meeting has applied to CAMPEP for approval of 32.25 MPCEC hours.

PRESENTATIONS

All oral presentations in this program contain 25% for interactivity.

- 90-minute presentations include 60-minute talk, 30-minute question and answer period.
- 60-minute presentations include 45-minute talk, 15-minute question and answer period.
- 10-minute presentations include 7-minute talk, 3-minute question and answer period.

CARO-COMP-CAMRT 2018

ALL FOR ONE – COLLABORATING AND INNOVATING FOR PERSON-CENTRED CARE

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Opening Keynote

Thomas Bortfeld

CARO Lecturer

Thomas DeLaney

Gordon Richards Lecturer

Laura Dawson

COMP Gold Medal Presentation

Anna Cellar

Jean Roy Lecturer

Luc Beaulieu

Radiation Therapy Exchange Lecturer

Melanie Dempsey

Joint Theme Symposium Speakers

Michael Brundage
Leigh Conroy
John Kildea
Brian Liszewski
Michael Milosevic
Michelle Nielsen
Tino Piscione

CARO-ESTRO Symposium Speakers

Wouter van Elmpt
Benjamin Haibe-Kains
Jan Seuntjens

Resident Refresher Course Speakers

Fabio Cury
Kristopher Dennis
Tarek Hijal
Brian O'Sullivan
Valerie Panet-Raymond
William Parker

Young Professional Workshop Speakers

Crystal Angers
Thomas Bortfeld
Claire Cohalan
Gino Fallone
Ives Levesque
Lorna MacEachern
Malcolm McEwen
Francois Therriault-Proulx

JOINT SCIENTIFIC MEETING ORGANIZING COMMITTEE

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Pencilla Lang
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Marija Popovic
Kim O'Hearn
Ericka Wiebe

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CARO-COMP-CAMRT 2018

ALL FOR ONE – COLLABORATING AND INNOVATING FOR PERSON-CENTRED CARE



MICHAEL BRUNDAGE
CARO PRESIDENT



MICHELLE HILTS
COMP PRESIDENT



GAILYNE MACPHERSON
CAMRT PRESIDENT

Dear Colleagues,

Welcome to Montréal and the first Joint Scientific Meeting among our three sister organizations, the Canadian Association of Radiation Oncology (CARO), the Canadian Organization of Medical Physicists (COMP), and the Canadian Association of Medical Radiation Technologists (CAMRT). Together, under the guidance and leadership of our scientific committee co-chaired by Fabio Cury and Boyd McCurdy, we have created an exceptional scientific program, under the theme *All for One – Collaborating and Innovating for Person-Centred Care*. The program includes symposia that will be broadly applicable across disciplines, themed oral and poster sessions, helpful workshops, and opportunities to network as well as engage with our industry partners. Join us on Thursday for the welcome reception at 1909 Taverne, it's a perfect mix of lively atmosphere, made-from-scratch food and thirst-quenching beverages and Friday's cocktail reception at the brand new design of the Fairmont Queen Elizabeth Hotel, Agora.

As always, we are very grateful for the extraordinary help of our meeting organizer, the administrative

support of our respective organizations, and the generous support of our corporate sponsors — without each of these elements a meeting of this quality would not be possible! We are grateful to all those on the Planning Committee who have voluntarily contributed countless hours and remarkable efforts to bring this meeting to its fruition. We are also delighted with the engagement and scientific contributions from members of each of the three professional groups that promise to make the meeting a success.

Please take this opportunity to enjoy cross-disciplinary opportunities and also to engage with the board members of each of our groups. We look forward to feedback about how we can continue to improve our scientific meetings and our activities in general.

I hope you didn't forget your runners for the Pamela Catton Memorial Fun Run/Walk, in addition to the new YO-GO for RO (Yoga Session)!

In the meantime enjoy CARO-COMP-CAMRT 2018 JSM!

Michael Brundage

Michelle Hilts

Gaillyne MacPherson

CARO-COMP-CAMRT Presidents

ACRO-OCPM-ACTRM 2018

L'UNION FAIT LA FORCE - LA COLLABORATION ET L'INNOVATION AU SERVICE DES SOINS AXÉS SUR LA PERSONNE



MICHAEL BRUNDAGE
ACRO PRÉSIDENT



MICHELLE HILTS
OCPM PRÉSIDENTE



GAILYNE MACPHERSON
ACTRM PRÉSIDENTE

Chers collègues,

Bienvenue à Montréal pour la première Réunion scientifique conjointe entre nos trois organisations sœurs, l'Association canadienne de radio-oncologie (ACRO), l'Organisation canadienne des physiciens médicaux (OCPM) et l'Association canadienne des technologues en radiation médicale (ACTRM). Ensemble, sous la direction de notre comité scientifique coprésidé par Fabio Cury et Boyd McCurdy, nous avons créé un programme scientifique exceptionnel, sous le thème « *L'union fait la force – la collaboration et l'innovation au service des soins axés sur la personne* ». Le programme comprend des symposiums largement applicables aux différentes disciplines, des séances orales et par affiches, des ateliers utiles, ainsi que des occasions de faire du réseautage et de rencontrer nos partenaires de l'industrie.

Joignez-vous à nous le jeudi pour la réception d'accueil au restaurant 1909 Taverne Moderne, offrant un mélange parfait d'ambiance vivante, de nourriture préparée à partir de produits frais et de boissons désaltérantes, et le vendredi pour le cocktail organisé dans l'Agora rénovée de l'hôtel Fairmont Le Reine Elizabeth.

Comme toujours, nous sommes très reconnaissants d'avoir pu compter sur l'aide extraordinaire de notre coordonnatrice du congrès, sur le soutien administratif

de nos organisations respectives et sur le soutien généreux de nos sociétés commanditaires — sans qui un événement de cette qualité n'aurait pas été possible! Nous sommes reconnaissants envers le comité de planification dont les membres ont donné bénévolement de nombreuses heures et déployé des efforts magistraux pour donner vie à ce congrès. Nous sommes également ravis de la participation et des contributions scientifiques des membres des trois groupes professionnels qui feront assurément de ce congrès une grande réussite.

J'espère que ce congrès vous permettra de profiter d'occasions interdisciplinaires et de discuter avec les membres du conseil d'administration de chacun de nos groupes. Nous avons hâte d'entendre vos commentaires sur les façons de continuer à améliorer nos congrès scientifiques et nos activités en général.

J'espère que vous n'avez pas oublié vos chaussures de course pour la course/marche amicale commémorative Dre Pamela Catton, en plus du nouvel événement YO-GO pour la RO (séance de yoga)!

D'ici là, profitez bien de la Réunion scientifique conjointe de l'ACRO, de l'OCPM et de l'ACTRM de 2018!

Michael Brundage

Michelle Hiltz

Gaillyne MacPherson

Président et présidentes de l'ACRO, de l'OCPM et de l'ACTRM



FABIO CURY
JSM CO-CHAIR



BOYD McCURDY
JSM CO-CHAIR

Dear Colleagues

The 2018 Joint Scientific Meeting is held in partnership with the Canadian Organization of Medical Physicists (COMP) and the Canadian Association of Medical Radiation Technologists (CAMRT), celebrating the collaboration and cooperation between the professionals working in therapeutic radiation sciences. Despite so many technological innovations in the field, teamwork remains the mainstay of our practice. With that in mind, the JSM Committee planned this year's meeting with the theme *All for One – Collaborating and Innovating for Person-Centred Care*.

We commence on Wednesday with the CARO Resident Refresher Course, COMP Young Professional Workshop and a Joint ESTRO-CARO-RANZCR Course on Foundations in Leadership in Radiation Oncology, followed by the Opening Keynote at 6:30pm. Thomas Bortfeld, a Professor at Harvard Medical School will present economic arguments for proton therapy in Canada. All participants are encouraged to attend.

We re-convene on Thursday with the Joint Theme Symposium which explores themes related to quality assurance, with emphasis on peer-review, and the new mandates of the CPQR, bringing to the table

several experts, including Tino Piscione from the CMPA for a provocative discussion. Feel free to send in your questions in advance! Guest lecturers include Thomas Bortfeld and Thomas DeLaney both from Harvard Medical School; Laura Dawson, University of Toronto; Luc Beaulieu, Laval University and Melanie Dempsey from University of North Carolina-Chapel Hill. The program also includes peer-reviewed, top scored oral presentations, Resident/ Young Investigator and Fellow competitions, as well as high quality workshops on a variety of interesting and timely topics.

Participants will have more than one opportunity to recharge their batteries while contributing to the Canadian Radiation Oncology Foundation: the Dr. Pamela Catton Memorial Run/Walk for CROF on Saturday morning and the new Yo-GO for RO on Friday morning. So...let's Run! Walk! Yo-GO for RO! Pledge! Cheer!

We hope you enjoy the program which includes practice-changing information, technical innovations, and many opportunities for networking and socializing.

Welcome to Montreal!

Fabio Cury

Boyd McCurdy

Co-Chairs, Joint Scientific Meeting Committee

ACRO-OCPM-ACTRM 2018

L'UNION FAIT LA FORCE - LA COLLABORATION ET L'INNOVATION AU SERVICE DES SOINS AXÉS SUR LA PERSONNE



FABIO CURY
CO-PRÉSIDENT



BOYD McCURDY
CO-PRÉSIDENT

Chers collègues,

La Réunion scientifique conjointe (RSC) de 2018 est organisée en partenariat avec l'Organisation canadienne des physiciens médicaux (OCPM) et avec l'Association canadienne des technologues en radiation médicale (ACTRM) pour souligner la collaboration et la coopération entre les professionnels œuvrant dans le domaine des sciences de la radiothérapie thérapeutique. Malgré les nombreuses innovations technologiques qui ont été réalisées dans notre domaine, c'est le travail d'équipe qui demeure la pierre angulaire de nos activités. C'est dans cette optique que le comité de la RSC a planifié le congrès de cette année sur le thème « L'union fait la force – la collaboration et l'innovation au service des soins axés sur la personne ».

Le congrès débute mercredi avec le Cours de recyclage destiné aux résidents de l'ACRO, l'Atelier à l'intention des jeunes professionnels de l'OCPM et un cours offert conjointement par l'ESTRO, l'ACRO et le RANZCR, intitulé « Foundations of Leadership in Radiation Oncology », le tout suivi par le discours liminaire d'ouverture à 18 h 30. Thomas Bortfeld, professeur à la Harvard Medical School, présentera des arguments économiques en faveur de la protonthérapie au Canada. Tous les participants sont encouragés à y assister.

Nous reprenons jeudi avec le symposium thématique conjoint, qui se penchera sur des thèmes liés à l'assurance de la qualité, avec emphase sur les examens par les pairs, et sur les nouveaux mandats du Partenariat canadien pour la

qualité en radiothérapie (PCQR), et qui réunira plusieurs experts, dont Tino Piscione de l'Association canadienne de protection médicale (ACPM), dans le cadre d'une discussion dynamique. N'hésitez pas à envoyer vos questions à l'avance.

Parmi les conférenciers invités, citons Thomas DeLaney et Thomas Bortfeld, de la Harvard Medical School; Laura Dawson, de l'Université de Toronto; Luc Beaulieu, de l'Université Laval, et Melanie Dempsey, de la University of North Carolina-Chapel Hill. Le programme prévoit aussi les présentations orales examinées par les pairs ayant reçues le meilleur pointage; des compétitions destinées aux résidents, aux jeunes chercheurs et aux boursiers; ainsi que des ateliers de qualité supérieure sur divers sujets à la fois intéressants et pertinents.

Les participants auront plusieurs occasions de refaire le plein d'énergie, tout en contribuant à la Fondation canadienne de radio-oncologie (FCRO) : la course/marche amicale commémorative Dre Pamela Catton le samedi matin et le nouvel événement de yoga « Yo-Go pour la RO » le vendredi matin. Donc... courez! Marchez! Faites du yoga! Versez des dons! Encouragez!

Nous espérons que ce programme, qui vise à vous présenter des renseignements susceptibles de transformer votre pratique, des innovations techniques et de nombreuses occasions de faire des contacts et de socialiser, vous plaira.

Bienvenue à Montréal!



Fabio Cury



Boyd McCurdy

Co-présidents, Réunion scientifique conjointe

Wednesday, September 12, 2018 - PRECONFERENCE

FOUNDATIONS OF LEADERSHIP IN RADIATION ONCOLOGY A JOINT ESTRO-CARO-RANZCR COURSE Facilitator: Meredith Giuliani <i>Level 4 East Ballroom</i>	CARO RESIDENT REFRESHER COURSE Facilitator: Jennifer Croke <i>Level 4 Centre Ballroom</i>	COMP YOUNG PROFESSIONAL WORKSHOP Facilitator: Marija Popovic <i>Level 3 Drummond</i>
7:45-5:00	8:00-4:00	11:00 to 5:00
7:45-8:15 REGISTRATION 8:15-9:00 INTRODUCTIONS TO FACULTY AND PARTICIPANTS Sandra Turner, All 9:00-9:30 RECAP OBJECTIVES Sandra Turner 9:30-10:30 BASICS OF LEADERSHIP THEORY & STYLES Sandra Turner 10:30-11:00 <i>Refreshment Break</i> 11:00-12:30 SELF-AWARENESS & PERSONALITY EMOTIONAL INTELLIGENCE (BASED ON SELF-ASSESSMENT) Barbara-Ann Millar	8:00-8:25 BREAKFAST AND REGISTRATION 8:25-8:30 WELCOME AND INTRODUCTIONS 8:30-9:15 NASOPHARYNX Khalil Sultanem 9:15-10:15 PALLIATIVE RADIOTHERAPY Kristopher Dennis 10:15-10:45 <i>Refreshment Break</i> 10:45-11:45 LOCALLY ADVANCED BREAST CANCER Tarek Hijal 11:45-12:30 PRIMARY CNS TUMOURS Valerie Panet-Raymond	11:00-12:30 EXPLORING CAREER OPPORTUNITIES IN MEDICAL PHYSICS FROM DIFFERENT PERSPECTIVES Panel: Crystal Angers, Claire Cohalan, Ives Levesque, Malcolm McEwen, Francois Therriault-Proulx
12:30-1:15 <i>Lunch</i> 1:15-2:15 TEAM BUILDING AND ENGAGEMENT Meredith Giuliani 2:15-3:00 LEADING AND MANAGING CHANGE Alessandro Cortese 3:00-3:30 <i>Refreshment Break</i> 3:30-4:45 CREATING A VISION Sandra Turner, Lucinda Morris 4:45-5:00 CLOSING	12:30-1:30 <i>Lunch</i> 1:30-2:15 SKIN Fabio Cury 2:15-2:30 <i>Refreshment Break</i> 2:30-4:00 RADIATION TREATMENT PLANNING EVALUATION William Parker 5:00 RESIDENT CAREER COUNSELLING SOCIAL EVENT <i>Bier Markt 1221 René Levesque Blvd W</i>	12:30-1:30 <i>Lunch</i> 12:45 COMP INTRODUCTORY COMMENTS 1:00 STUDENT COUNCIL UPDATES AND VOTE 1:30-3:00 HOW TO PLAN YOUR LIFE: IDENTIFYING YOUR CAREER GOALS Lorna MacEachern 3:00-3:30 <i>Networking Coffee Break</i> 3:30-4:15 EXPLORING THE LANDSCAPE OF MEDICAL PHYSICS Thomas Bortfeld 4:15-5:00 PURSUEING A CAREER IN DIAGNOSTIC IMAGING PHYSICS: THE ROLE OF RESIDENCY TRAINING Gino Fallone
Thursday, September 14, 2018		
12:30-2:15 DAY 2 LUNCHTIME SESSION <i>Level 2 Salon 2</i> QI PROJECT AND STEP-BACK CONSULTATION Kim Benstead, Barbara-Ann Millar, Lucinda Morris		8:00pm COMP STUDENT NIGHT OUT <i>Brutopia Brewpub 1219 Crescent Street</i>

Wednesday, September 12, 2018

PRECONFERENCE *Schedule on page 6*

7:45-5:00 **FOUNDATIONS OF LEADERSHIP IN RADIATION ONCOLOGY**
A JOINT ESTRO-CARO-RANZCR COURSE *Level 4 East Ballroom*

Facilitator: Meredith Giuliani

OBJECTIVES: Upon completion of the course, successful learners will be able to:

- Examine and reflect on their own behaviors, reactions and interactions with team members.
- Describe basic leadership theory and styles as they might apply to practical situations.
- Describe the foundations of effective change management and negotiation.
- Explore strategies to establish and lead effective teams.
- Apply basic quality improvement tools to approach an improvement process.

8:00-4:00 **CARO RESIDENT REFRESHER COURSE** *Level 4 Centre Ballroom*

Facilitator: Jennifer Croke

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Review the principles of management of common cancers, including the role of radiotherapy.
- Review the principles of palliative radiotherapy and planning.
- Review dosimetry concepts and the principles of treatment plan evaluation.

11:00-5:00 **COMP YOUNG PROFESSIONAL WORKSHOP** *Level 3 Drummond*

Facilitator: Marija Popovic

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Become familiar with career choices available to Medical Physicists with advanced degrees.
- Clarify job values in order to effectively consider the trade-offs among career choices.
- Help you reflect on your academic and professional goals, and begin the process of creating an individual development plan.



CARO-COMP-CAMRT JOINT SCIENTIFIC MEETING *Level 4 Centre Ballroom*

6:00-7:00pm **WELCOME AND INTRODUCTIONS** Boyd McCurdy

OPENING KEYNOTE

Introduction: Michelle Hilts

Proton Therapy for One – And For All? Thomas Bortfeld

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Discuss the rapid evolution of proton and particle therapy systems, which leads to smaller, cheaper, and better systems for the benefit of many (if not all) patients.

8:00 pm **COMP STUDENT NIGHT OUT** *Brutopia Brewpub 1219 Crescent Street*

Get your ticket at YPW from COMP Student Council and network with fellow COMP students; there will be food, drinks and music!

Thursday, September 13, 2018

6:45-7:45	BREAKFAST AND REGISTRATION <i>Level 4 West Ballroom/Foyer</i>
6:45-7:45	MEET AND GREET <i>Level 2 Salon 4/5</i>
7:45-8:00	WELCOME AND INTRODUCTIONS <i>Level 4 Centre/East Ballroom</i>
8:00-9:30	JOINT THEME SYMPOSIUM Facilitator: Ross Halpern
8:00-8:05	CPQR STRATEGIC DIRECTIONS Brian Liszewski
8:05-8:15	PEER REVIEW OVERVIEW Michael Brundage
8:15-8:30	MEDICAL LEGAL OVERVIEW Tino Piscione
8:30-8:40	FUTURE OF ARTIFICIAL INTELLIGENCE Leigh Conroy
8:40-8:50	PATTERNS OF PRACTICE John Kildea
8:50-9:30	DISCUSSION PANEL Michael Brundage, Leigh Conroy, John Kildea, Brian Liszewski, Michael Milosevic, Michelle Nielsen, Tino Piscione
	<p>OBJECTIVES: Upon completion of this session, the learner will be able to:</p> <ul style="list-style-type: none"> ■ Appreciate the current status of the Pan-Canadian Peer Review Project. ■ Appreciate the CMPA perspectives on peer review practice in Canada. ■ Appreciate future directions of peer review, particularly regarding artificial intelligence applications. ■ Understand the potential for patterns of practice studies regarding radiotherapy planning specifically. ■ Understand the new strategic directions of the CPQR.
9:30-10:00	Refreshment Break <i>Level 4 West Ballroom</i>
10:00-11:00	CARO LECTURE Introduction: Michael Brundage

Charged Particle Radiation for Bone and Soft Tissue Sarcomas Thomas DeLaney

- OBJECTIVES: Upon completion of this session, the learner will be able to:
- Review the physical dosimetric differences between proton and heavier charged particles versus photons.
 - Discuss the potential clinical advantages for the use of charged particle radiation for treatment of bone and soft tissue sarcomas.
 - Review clinical results with the charged particle radiation for treatment of sarcomas.

11:00-12:30 RESIDENT AND YOUNG INVESTIGATOR COMPETITION

Moderators: Thomas Bortfeld, Thomas DeLaney

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Discuss Resident and Young Investigator research projects in radiation oncology and physics across Canada.

1 NON-INVASIVE POSITRON DETECTOR FOR THE MONITORING OF THE ARTERIAL INPUT FUNCTION IN PET

Vincent Turgeon¹, Gustavo Kertzscher², Shirin A Enger¹; ¹McGill University, Montreal, QC; ²Aarhus University Hospital, Aarhus, DK

2 INTRA-ARC BINARY COLLIMATION ALGORITHM FOR THE OPTIMIZATION OF STEREOTACTIC RADIOTHERAPY TREATMENT OF MULTIPLE METASTASES WITH MULTIPLE PRESCRIPTIONS

Lee MacDonald, Alasdair Syme, Christopher Thomas; Dalhousie University, Halifax, NS

3 CAN DOSE PROXIMAL TO THE PTV INFLUENCE THE RISK OF DISTANT METASTASES IN EARLY STAGE LUNG CANCER PATIENTS TREATED WITH SBRT?

André Diamant¹, Avishek Chatterjee¹, Sergio Faria¹, Issam El Naqa², Houda Bahig³, Edith Filion³, Clifford Robinson⁴, Hani Al Halabi¹, Jan Seuntjens¹; ¹McGill University, Montreal, QC; ²Michigan University, Ann Arbor, MI; ³Centre Hospitalier de l'Université de Montréal, Montreal, QC; ⁴University of Washington in St. Louis, St. Louis, MO

4 SYNTHETIC-CT FROM 3D GRADIENT-ECHO MRI

Véronique Fortier, Ives R Levesque; McGill University, Montréal, QC

5 INTRAOPERATIVE VERIFICATION OF NEEDLE PLACEMENT USING 360-DEGREE 3D TRANSVAGINAL ULTRASOUND DURING HIGH-DOSE-RATE INTERSTITIAL GYNECOLOGIC BRACHYTHERAPY

Jessica Rodgers¹, Jeffery Bax², Vikram Velker², Kathleen Surry², Eric Leung³, David D'Souza², Aaron Fenster²; ¹Robarts Research Institute, London, ON; ²University of Western Ontario, London, ON; ³University of Toronto, Toronto, ON

6 STEREOTACTIC BODY RADIOTHERAPY (SBRT) FOR SPINAL METASTASES AT THE EXTREMES OF THE SPINE: IMAGING-BASED OUTCOMES FOR CERVICAL AND SACRAL METASTASES

K Liang Zeng, Hany Soliman, Sten Myrehaug, Chia-Lin Tseng, Eshetu Atenafu, Mikki Campbell, Salman Faruqi, Young Lee, Mark Ruschin, Leodante da Costa, Victor Yang, Julian Spears, Chris Heyn, Pejman Jabehdar Maralani, Cari Whyne, Albert Yee, Arjun Sahgal; University of Toronto, Toronto, ON

7 FEASIBILITY AND CONSISTENCY OF ON-TREATMENT CONE BEAM CT FEATURE EXTRACTION USING AN AUTOMATED DEFORMABLE REGISTRATION RADIOMICS PIPELINE

Pencilla Lang¹, Tirth Patel¹, Uffe Bernchou², Carsten Brink², Douglas J Moseley¹, Nathan Becker¹, Tony Tadic¹, Andrew J Hope¹; ¹Princess Margaret Cancer Centre, Toronto, ON; ²Odense University Hospital, Odense, DK

8 A POPULATION-BASED STUDY OF MELANOMA BRAIN METASTASIS TREATMENT: HAVE ADVANCES IN RADIOTHERAPY AND SYSTEMIC THERAPY IMPROVED OUTCOMES?

Harry Brastianos¹, Paul Nguyen¹, Elizabeth Eisenhauer¹, Timothy Hanna¹, Arjun Sahgal²; ¹Queen's University, Kingston, ON; ²University of Toronto, Toronto, ON

9 ANALYSIS OF RADIOTHERAPY PEER REVIEW: COSTING HUMAN RESOURCE SUPPORTS

Adam Mutsaers¹, Robert Dinniwell¹, Grace Lee², Gabriel Boldt¹; ¹University of Western Ontario, London, ON; ²University of Toronto, Toronto, ON

10 PRIMARY ORGAN PRESERVATION VERSUS TOTAL LARYNGECTOMY FOR T4 LARYNX CANCER

Justin Oh, Eitan Prisman, Robert Olson, Eric Berthelet, John Wu, Eric Tran, Sarah Hamilton; University of British Columbia, Vancouver, BC

12:30-2:30 **Lunch** Level 4 West Ballroom

COMMITTEE MEETINGS See committee meeting schedule.

12:30-2:15 **FOUNDATIONS OF LEADERSHIP IN RADIATION ONCOLOGY – A JOINT ESTRO-CARO-RANZCR COURSE FOLLOW-UP** Level 2 Salon 2

12:45-2:15 **WOMEN IN PHYSICS LUNCHEON MEETING** Level 2 Salon 4/5

CONCURRENT ORAL SESSIONS

2:30-3:30 **CARO ORAL SESSION 1 – BREAST CANCER** Level 4 Centre Ballroom

Moderators: Jennifer Croke, Grace Lee

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Recognize important aspects of treatment planning and delivery for breast cancer.
- Review current practices and outcomes of radiation therapy for breast tumours.

11 RESULTS OF A PROSPECTIVE COHORT TRIAL: STEREOTACTIC IMAGE-GUIDED NEOADJUVANT ABLATIVE RADIATION THEN LUMPECTOMY (SIGNAL) FOR EARLY-STAGE BREAST CANCER

Brian Yaremko¹, Stewart Gaede¹, Michael Lock¹, Keegan Guidolin¹, Kalan Lynn², Matthew Moawad¹, Edward Yu¹, Tracy Sexton¹, Robert Dinniwell¹, Anat Kornecki¹, Giulio Muscedere¹, Ilanit BenNachum¹, Olga Shmuilovich¹, Neil Gelman¹, Muriel Brackstone¹; ¹University of Western Ontario, London, ON; ²St. Joseph Healthcare, London, ON

12 CANCER-SPECIFIC OUTCOMES OF HYPOFRACTIONATED LOCO-REGIONAL RADIOTHERAPY FOR PATIENTS WITH STAGE I-III BREAST CANCER

Theodora A Koulis¹, Robert Olson², Alan Nichol³, Scott Tyldesley³, Pauline Truong³, Caroline Speers³, Lovedeep Gondara³, Lebo Kolisang¹, Maha Almahmudi⁴; ¹University of British Columbia, Kelowna, BC; ²University of British Columbia, Prince George, BC; ³University of British Columbia, Vancouver, BC; ⁴University of British Columbia, Abbotsford, BC

13 LOCAL RELAPSE AFTER BREAST CONSERVING THERAPY VERSUS MASTECTOMY FOR EXTENSIVE PURE DUCTAL CARCINOMA IN-SITU >4 CM

Sarah Hamilton¹, Alan Nichol¹, Lovedeep Gondara¹, Elaine Wai², Caroline Speers¹, Rekha Diocee¹, Pauline Truong²; ¹British Columbia Cancer Agency, Vancouver, BC; ²British Columbia Cancer Agency, Victoria, BC

14 A SINGLE PRE-OPERATIVE RADIATION THERAPY (SPORT) PHASE 1 TRIAL FOR LOW RISK BREAST CANCER

Catherine Pembroke¹, Michael Yassa², Christine Lambert³, Sardis Meterissian³, Francine Trembley³, Dawn Anderson³, John Kerserling³, Peter Vasilis⁴, Valerie Panet-Raymond³, Tarek Hijal³; ¹Velindre Cancer Centre, Cardiff, UK; ²Universite de Montreal, Montreal, QC; ³McGill University, Montreal, QC

15 CORRELATION OF PATHOLOGIC RESPONSE FOR BREAST CANCER AFTER NEOADJUVANT CHEMOTHERAPY ASSESSED BY MULTIPLE METHODS AND OUTCOMES FOLLOWING ADJUVANT RADIOTHERAPY

Jonathan Klein¹, Elyse Watkins², William Tran², Elzbieta Slodkoska², Gregory Czarnota²; ¹Albert Einstein College of Medicine, New York, NY; ²University of Toronto, Toronto, ON

16 WHAT TARGET VOLUME SHOULD BE CONSIDERED WHEN IRRADIATING THE REGIONAL NODES IN BREAST CANCER? RESULTS OF A NETWORK – META-ANALYSIS

Christiane Matuschek, Jan Haussmann, Wilfried Budach, Balint Tamaskovics, Freddy Djiepmo, Edwin Boelke; Heinrich Heine University, Dusseldorf, DE

2:30-3:30 CARO ORAL SESSION 2 – OUTCOMES/SURVIVAL Level B Salon A/B

Moderators: Brian Liszewski, Shaun Loewen

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Discuss specific topics in radiation medicine including cancer outcomes, quality of life after treatment, and changes in practice patterns based on different principles.

17 CANCER SURVIVAL OUTCOMES IN ONTARIO: SIGNIFICANT UNEXPLAINED VARIATIONS

Michael Brundage, Patti Groome, Timothy Hanna, Weidong Kong, Tina Dyer, Paul Peng, Brenda Carter, William Mackillop; Queen's University, Kingston, ON

19 RADIOTHERAPY AT THE END-OF-LIFE: EXAMINING PRACTICE PATTERNS IN A CANADIAN PROVINCE

Jordan Stosky¹, Jackson Wu, Alysa Fairchild², Marc Kerba¹; ¹University of Calgary, Calgary, AB; ²University of Alberta, Edmonton, AB

18 A MULTICENTRE PROSPECTIVE COHORT STUDY EVALUATING QUALITY OF LIFE AFTER RADIATION OR SURGERY FOR POTENTIALLY UNSTABLE SPINAL METASTASES

Arjun Sahgal¹, Anne Versteeg², Laurence Rhines³, Daniel Sciubba⁴, James Schuster⁵, Michael Weber⁶, Peter Varga⁷, Stefano Boriani⁸, Chetan Bettgowda⁴, Michael Fehlings¹, Michelle Clark⁹, Paul Arnold¹⁰, Ziya Goskaslan¹¹, Charles Fisher¹²; AOSpine Knowledge Forum Tumour¹³; ¹University of Toronto, Toronto, ON; ²University Medical Center Utrecht, Utrecht, NL; ³The University of Texas MD Anderson Cancer Center, Houston, TX; ⁴Johns Hopkins University School of Medicine, Baltimore, MD; ⁵Hospital of the University of Pennsylvania, Philadelphia, PA; ⁶McGill University, Montreal, QC; ⁷National Center for Spinal Disorders and Buda Health Center, Budapest, HU; ⁸IRCCS Galeazzi Orthopedic Institute, Milan, IT; ⁹Mayo Clinic, Rochester, MN; ¹⁰The University of Kansas Hospital, Kansas City, KS; ¹¹The Warren Alpert Medical School of Brown University, Providence, RI; ¹²University of British Columbia, Vancouver, BC; ¹³AOSpine International, Research Department, Davos, CH

20 A PERSON-CENTRED MODEL OF CARE FOR RADIATION THERAPY SERVICES: PROOF-OF-CONCEPT STUDY

Michael Velec, Lauren Silver, Janet Hsu, Erin Velec, Rachel Zhou, Andrea Shessel, Elen Moyo; Princess Margaret Cancer Centre, Toronto, ON

21 THE IMPACT OF THE ASCO CHOOSING WISELY CAMPAIGN FOR BREAST AND PROSTATE CANCER ON PHYSICIAN BEHAVIOUR

Danielle Rodin, Pragya Kakani, Meredith Rosenthal, Anna Sinaiko; Harvard T.H. Chan School of Public Health, Boston, MA

22 COMPARISON OF PATIENT REPORTED OUTCOMES BY EGFR AND ALK MUTATION STATUS IN LUNG CANCER PATIENTS TREATED WITH PALLIATIVE RADIOTHERAPY FOR BONE METASTASES

Michelle Bale¹, Robert Olson², Vincent Lapointe¹, Neelam Minhas¹, Mary McLay¹, Fred Hsu³; ¹University of British Columbia, Vancouver, BC; ²University of British Columbia, Prince George, BC; ³University of British Columbia, Abbotsford, BC

2:30-3:30	COMP ORAL SESSION 1 – MOTION MANAGEMENT, IMMOBILIZATION, AND LIVER <i>Level 4 East Ballroom</i>
	Moderators: Darby Erler, Wendy Smith
	OBJECTIVES: Upon completion of this session, the learner will be able to:
	<ul style="list-style-type: none"> ■ Discuss motion management and immobilization techniques for a variety of treatment sites (including liver, lung, breast, and spine).
23	MOTION MANAGEMENT FOR LIVER STEREOTACTIC ABLATIVE RADIOTHERAPY (SABR) – SINGLE INSTITUTIONAL EXPERIENCE WITH RESPIRATORY GATING VERSUS DYNAMIC TUMOUR TRACKING VERSUS MOTION-ENCOMPASSING (ITV) TECHNIQUES Sheri Lomas ¹ , Richard Lee ¹ , Roy Ma ² , Devin D Schellenberg ² , Marie-Laure Camborde ¹ , Cathy Crumley ¹ , Emma Dunne ¹ , Alison Giddings ¹ , Tania Karan ¹ , Mitchell Liu ² , Ante Mestrovic ¹ , Sandy Nakano ¹ , Christine Rodgerson ¹ , Hardeep Sahota ¹ , Allison Tammark ¹ , Tania Arora ¹ , Alanah M Bergman ¹ ; ¹ British Columbia Cancer Agency, Vancouver, BC; ² University of British Columbia, Vancouver, BC
24	A FEASIBILITY STUDY OF A NOVEL BREAST SUPPORT TO REDUCE TOXICITY FROM SUPINE ADJUVANT WHOLE BREAST RADIOTHERAPY Cheryl Duzenli ¹ , Scott Young ² , Tania Arora ² , Keri Smith ² , Christina Cumayas ² , Tara Menna ² , Joel Beaudry ³ , Levi Burns ¹ , Bradford Gill ² , Peter Lim ¹ , Alan Nichol ¹ , Paris Ann Ingledew ¹ , Chan Elisa ¹ , Christina Aquino Parsons ¹ ; ¹ University of British Columbia, Vancouver, BC; ² British Columbia Cancer Agency, Vancouver, BC; ³ University of Toronto, Toronto, ON
25	INDEPENDENT VALIDATION OF THE ALBI (ALBUMIN-BILIRUBIN) GRADE IN HEPATIC CANCER PATIENTS TREATED WITH RADIATION THERAPY Jonatan Snir ¹ , Jia Sangyang ² , Jason Vickress ² , Stewart Gaede ² , Eugene Wong ² , Jeffrey Cao ² , Robert Stephens ¹ , Victoria Charron ¹ , Daegan Sit ¹ , Michael Lock ² ; ¹ London Regional Cancer Program, London, ON; ² University of Western Ontario, London, ON
26	TARGET VOLUME DELIVERY LIMITATIONS FOR LUNG SBRT Daniel Morton, Lindsay Mathew, Iulian Badragan, Marcus Sonier; British Columbia Cancer Agency, Abbotsford, BC
27	INTRAFACTION TRACKING FOR SPINAL SBRT AND MOTION ASSESSMENT ON AN ELEKTA LINAC Daniel Markel, Daniel Letourneau, Harald Keller, David Schultz; University of Toronto, Toronto, ON
94	PERFORMANCE COMPARISON BETWEEN THREE DIFFERENT IMAGE FUSION METHODS FOR THE REGISTRATION OF LIVER REGION IN PLANNING CT AND POST RADIATION THERAPY PRIMOVIST ENHANCED MRI Svetlana Kuznetsova, Petra Grendarova, Richie Sinha, Kundan Thind, Nicolas Ploquin; University of Calgary, Calgary, AB
2:30-3:30	COMP ORAL SESSION 2 – TREATMENT PLANNING <i>Level B Salon C</i>
	Moderators: Carolyn Freeman, Michael Roumeliotis
	OBJECTIVES: Upon completion of this session, the learner will be able to:
	<ul style="list-style-type: none"> ■ Investigate novel automated treatment planning techniques. ■ Review several specific treatment planning techniques and optimization methods.
29	TOTAL BODY IRRADIATION ON A LINAC COUCH? A TREATMENT PLANNING STUDY OF MOVING COUCH GANTRY AND JAWS Andrew Kerr, Stefano Peca; Queen's University, Kingston, ON
30	DEVELOPMENT OF A DVH REGISTRY FOR PLAN EVALUATION, DOSE ACCUMULATION, AND COHORT ANALYSIS Haley Patrick, John Kildea, Luis Souhami, Julia Albers; McGill University, Montreal, QC
31	ICONE-SRS: DEVELOPMENT OF SIMULATED ANNEALING INVERSE PLANNING FOR CONE-BASED STEREOTACTIC RADIOSURGERY Anthony Lausch; Trillium Health Partners, Mississauga, ON
32	IMPORTANCE OF INITIAL PLAN PARAMETERS AS PREDICTORS OF INTER-FRACTIONAL PLAN QUALITY DEGRADATION Sarah Weppeler, Harvey Quon, Kitty Huang, Colleen Schinkel, Wendy Smith; University of Calgary, Calgary, AB
85	CLINICAL EVALUATION OF A MACHINE LEARNING-BASED AUTOMATED TREATMENT PLANNING METHOD FOR PROSTATE RADIOTHERAPY Leigh Conroy, Alejandro Berlin, Michael C Tjong, Tim Craig, Peter Chung, Chris McIntosh, Thomas G Purdie; Princess Margaret Cancer Centre, Toronto, ON
87	AUTOMATED TREATMENT PLANNING FOR STEREOTACTIC BRAIN RADIOSURGERY Malik Brunet-Benkhoucha, Michael Ayles; Hôpital Maisonneuve-Rosemont, Montreal, QC

CARO-COMP-CAMRT 2018

ALL FOR ONE – COLLABORATING AND INNOVATING FOR PERSON-CENTRED CARE

3:30-5:00	POSTER VIEWING and <i>Refreshment Break</i> Level 3 Drummond, Salon 6/7, Foyer
4:30-6:30	ANNUAL GENERAL MEETINGS
4:30-6:00	CARO AGM Level 4 Centre Ballroom
4:30-5:30	CCPM AGM Level 4 East Ballroom
5:30-6:30	COMP AGM Level 4 East Ballroom
7:00	WELCOME PUB NIGHT – <i>Taverne 1909 1280 Avenue Des Canadiens-de-Montreal</i>



Friday September 14

7:00-8:00 **BREAKFAST AND REGISTRATION** *Level 4*

7:00-8:00 **YO-GO FOR RO (YOGA)** *Level B Salon A*

8:00-9:00 **GORDON RICHARDS LECTURE** *Level 4 Centre East Ballroom*

Introduction: Mary Gospodarowicz

Person-centered Liver Cancer SBRT

Laura Dawson

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Describe the spectrum of cancers that may benefit from liver SBRT.
- Rationalize the need for person-centred care and personalization in liver cancer SBRT.
- Discuss challenges and opportunities related to innovation in liver cancer SBRT.
- Discuss the need for trials and collaboration in liver cancer SBRT.

9:00-10:15 **COMP AWARDS
GOLD MEDAL PRESENTATION** Anna Celler

10:15-10:45 **Refreshment Break** *Level 4 West Ballroom*

CONCURRENT POSTER DISCUSSION SESSIONS

10:45-11:45 **POSTER DISCUSSION 1** *Level 4 Centre Ballroom*

Moderators: Jennifer Croke, Laura D'Alimonte

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Discuss a variety of projects and research conducted across the country in radiation oncology.

35 OUTCOMES OF STEREOTACTIC BODY RADIOTHERAPY FOR ABDOMINOPELVIC OLIGOMETASTASES

Jeevin Shahi¹,
Jonathan Peng¹, Elysia Donovan²,
Raimond Wong¹, Theodoros Tsakiridis¹,
Kimmen Quan¹, Anand Swaminath¹;

¹McMaster University, Hamilton, ON; ²Juravinski
Cancer Centre, Hamilton, ON

36 DOSE TOLERANCE OF THE BRACHIAL PLEXUS: A SYSTEMATIC REVIEW OF THE LITERATURE

Michael Yan, Michael
Brundage; Queen's University, Kingston, ON

37 EFFECT OF FEEDING TUBE STRATEGY ON HOSPITALIZATION RATES AND OUTCOMES IN HEAD AND NECK CANCER PATIENTS TREATED WITH CHEMORADIOTHERAPY

Gaurav
Bhattacharya¹, Josee Ivars², Samy El
Sayed¹, Libni Eapen¹, Alain Haddad¹,
Marc Gaudet¹; ¹University of Ottawa, Ottawa,
ON; ²Bishop's University, Sherbrooke, QC

38 COMPARISON OF A RADIATION SPECIFIC SCORING SYSTEM (CPI) AND ALBI TO PREDICT LIVER CANCER PATIENT OUTCOMES

Sangyang Jia, Jonatan Snir,
Laura Callan, Michael Lock; University of
Western Ontario, London, ON

39 STEREOTACTIC RADIOTHERAPY FOR PANCREATIC CANCER: A RETROSPECTIVE INSTITUTIONAL REVIEW

Rachel
Glicksman¹, Hans Chung², Sten
Myrehaug², Darby Erler², Renee Korol²,
Aliaksandr Karotki², Amandeep Taggar²,
Yee Ung²; ¹University of Toronto, Toronto, ON;
²Odette Cancer Centre, Toronto, ON

40 RE-IRRADIATION OF PRIMARY ADULT CNS TUMOURS: OUTCOMES AND TOXICITIES

Aishah Al-Qaderi, David Shultz, Fabio
Moraes, Tony Tadic, Normand Laperriere,
Barbara-Ann Millar, Alejandro Berlin;
University of Toronto, Toronto, ON

41 IS THE IMPORTANCE OF HEART DOSE OVERSTATED IN THE TREATMENT OF NON-SMALL CELL LUNG CANCER? A SYSTEMATIC REVIEW OF THE LITERATURE

Tina Wanting Zhang¹, Jonatan Snir¹, Gabe
Boldt², George Rodrigues¹, Alexander
Louie¹, Stewart Gaede¹, David Palma¹;

¹University of Western Ontario, London, ON;
²London Regional Cancer Program, London, ON

42 STEREOTACTIC BODY RADIOTHERAPY FOR METASTATIC COLORECTAL CANCER: COMPREHENSIVE REVIEW FROM A LARGE SINGLE INSTITUTION

Robert Thompson¹,
Patrick Cheung¹, William Chu¹, Sten
Myrehaug¹, Ian Poon¹, Arjun Sahgal¹,
Hany Soliman¹, Chia-Lin Tseng¹, Shun
Wong¹, Yee Ung¹, Ana Abrahao¹, Darby
Erler¹, Liying Zhang², Yoo-Joung Ko¹,
Hans Chung¹; ¹University of Toronto, Toronto,
ON; ²MacroStat Inc., Toronto, ON

- 43 OUTCOMES OF INTENSITY MODULATED IRRADIATION FOR SINONASAL CANCERS IN THE MODERN ERA** Houda Bahig, Ehab Y Hanna, Adam S Garden, Sweet Ping Ng, Theresa Nguyen, Steven J Frank, Brandon G Gunn, David I Rosenthal, David C Fuller, William H Morrison, Renata Ferrarotto, Diana Bell, Jack Phan; [The University of MD Anderson Cancer Center, Houston, TX](#)

- 44 EARLY TOXICITY AND QUALITY OF LIFE RESULTS OF TUMOUR-TARGETED DOSE ESCALATION FOR LOCALIZED PROSTATE CANCER** Noelia Sanmamed, Cynthia Menard, Jenny Lee, Alejandro Berlin, Tim Craig, Bernadeth Lao, Alex Rink, Andrew Bayley, Charles Catton, Mary Gospodarowicz, Padraig Warde, Peter Chung; [University Toronto, Toronto, ON](#)

10:45-11:45 **POSTER DISCUSSION 2** *Level 4 East Ballroom*

Moderators: Guila Delouya, Merrylee McGuffin

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Discuss a variety of projects and research conducted across the country in radiation oncology.

- 45 RETROSPECTIVE MONTE CARLO DOSE-VOLUME ANALYSIS OF A SWEEPING-BEAM TOTAL BODY IRRADIATION TECHNIQUE** Levi Burns¹, Tony Teke², Tony Popescu¹, Cheryl Duzenli¹; ¹British Columbia Cancer Agency, Vancouver, BC; ²British Columbia Cancer Agency, Kelowna, BC

- 50 RADIATION INDUCED MENINGIOMA IN ADULT SURVIVORS OF CHILDHOOD LEUKEMIA OR PRIMARY BRAIN TUMOUR TREATED WITH CRANIAL RADIOTHERAPY: INCIDENCE AND SCREENING RECOMMENDATIONS** Maryam Dosani, Jordan Tran, Jessica Conway, Karen Goddard; [British Columbia Cancer Agency, Vancouver, BC](#)

- 46 ACCOMPANYING PATIENT – AN ORGANIZATIONAL RESOURCE AS A MEANS TO IMPROVE THE EXPERIENCE OF PATIENTS WITH CANCER: A NEEDS ASSESSMENT STUDY** Israël Fortin, Valérie Lahaie, Amélie-Nina Setto, Marie-Pascale Pomey; [Université de Montréal, Montréal, QC](#)

- 51 REPORT EXPLORING THE INFLUENCE OF ABDOMINAL COMPRESSION ON DOSIMETRY OF ADJACENT GASTRO-INTESTINAL CRITICAL STRUCTURES AND TOXICITIES FOR PATIENTS TREATED WITH NON-HEPATIC ABDOMINAL SBRT** Soumyajit Roy, Svetlana Kuznetsova, Petra Grendarova, Kundan Thind, Nicolas Ploquin, Richie Sinha; [University of Calgary, Calgary, AB](#)

- 47 WORKLOAD ESTIMATES USING PAIRED DETECTORS** Robert Corns¹, Keith Henderson², Charles Schroeder³, Gurpreet Sandhu⁴, Ian McKay²; ¹East Carolina University, Greenville, NC; ²Health Canada, Ottawa, ON; ³CancerCare Manitoba, Winnipeg, MB; ⁴British Columbia Cancer Agency, Surrey, BC

- 52 PRESENTING STAGE AND RISK GROUP IN MEN WHO DIE OF PROSTATE CANCER** Scott Tyldesley¹, Sunil Parimi², Suraya Bondy³, Maria Aparicio³, Jane Cho³, Katherine Sunderland³, Francois Bachand⁴, Kim Chi³, Tom Pickles³; ¹University of British Columbia, Vancouver, BC; ²British Columbia Cancer Agency, Victoria, BC; ³British Columbia Cancer Agency, Vancouver, BC; ⁴British Columbia Cancer Agency, Kelowna, BC

- 48 ADVANCED PROSTATE IMAGING OF RECURRENT CANCER AFTER RADIOTHERAPY (PICS): INTERIM RESULTS OF A PROSPECTIVE, MULTI-CENTRE TRIAL** Wei Liu¹, Hans Chung², Peter Chung³, Katherine Zukotynski⁴, Ur Metser³, Irina Rachinsky¹, Robert Wolfson⁵, Susan Archer¹, Louise Emmett⁶, Glenn Bauman¹; ¹London Regional Cancer Program, London, ON; ²Odette Cancer Centre, Toronto, ON; ³Princess Margaret Cancer Centre, Toronto, ON; ⁴Hamilton Health Sciences Centre, Hamilton, ON; ⁵Sunnybrook Health Sciences Centre, Toronto, ON; ⁶St. Vincent's Hospital, Sydney, AU

- 54 LAYING THE GROUNDWORK FOR ACCURATE CHERENKOV EMISSION-BASED ELECTRON BEAM DOSIMETRY** Yana Zlateva¹, Bryan Muir², Issam El Naqa³, Jan Seuntjens¹; ¹McGill University, Montreal, QC; ²National Research Council of Canada, Ottawa, ON; ³University of Michigan, Ann Arbor, MI

- 49 CANNABIS UTILIZATION RATES IN THE CANCER PATIENT POPULATION** Kevin Martell¹, Alysa Fairchild², Bronwen LeGerrier², Richie Sinha¹, Sarah Baker², Hongwei Liu¹, Abhijit Ghose¹, Ivo Olivetto¹, Marc Kerba¹; ¹University of Calgary, Calgary, AB; ²University of Alberta, Edmonton, AB

- 109 MC SIMULATIONS OF MICROCT IMAGING ON THE SMALL ANIMAL RADIATION RESEARCH PLATFORM (SARRP)** Dylan Breikreutz, Chris Johnstone, Magdalena Bazalova-Carter; [University of Victoria, Victoria, BC](#)

CONCURRENT SESSIONS

11:45-12:45 **CANADIAN BRACHYTHERAPY ORAL SESSION** *Level 4 Centre Ballroom*

Moderators: Marco Carlone, Scott Tyldesley

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Recognize important aspects of treatment planning and delivery of brachytherapy.
- Review current practices and outcomes of brachytherapy.

55 A COMPARATIVE STUDY OF QUALITY OF LIFE IN PATIENTS WITH LOW-AND INTERMEDIATE-RISK PROSTATE CANCER: STEREOTACTIC RADIOTHERAPY VERSUS HIGH DOSE-RATE BRACHYTHERAPY MONOTHERAPY VERSUS HIGH DOSE-RATE BRACHYTHERAPY BOOST Joelle Helou, Gerard Morton, Andrea Bezjak, Alex Kiss, Nicole Mittmann, Ananth Ravi, Hans Chung, Melanie Davidson, Patrick Cheung, Andrew Loblaw; *University of Toronto, Toronto, ON*

Batchelar¹, Cynthia Araujo¹, Miren Gaztañaga², Michelle Hilts¹, Marie-Pierre Milette¹, Ana Ots³, Jim Rose⁴, Francois Bachand¹; ¹University of British Columbia, Kelowna, BC; ²Universidad Complutense Madrid, Madrid, SP; ³Lincoln County Hospital, Lincoln, BC; ⁴University of British Columbia, Abbotsford, BC

56 SUBCUTANEOUS SPACER INJECTION TO REDUCE SKIN TOXICITY FOR ACCELERATED PARTIAL BREAST BRACHYTHERAPY Jean-Philippe Pignol¹, Gerson Struik², Taco Klem³; ¹Dalhousie University, Halifax, NS; ²Erasmus Medical Centre, Rotterdam, NL; ³St Franciscus Gasthuis, Rotterdam, NL

59 ISODOSE SURFACE VOLUMES IN CERVIX CANCER BRACHYTHERAPY: COMPARISON OF STANDARD (POINT A) AND INDIVIDUALIZED IMAGE GUIDED ADAPTIVE (EMBRACE) BRACHYTHERAPY Monica Serban¹, Christian Kirisits², Karen Nkiwane¹, Isabelle Dumas³, Jamema Swamidas⁴, Astrid de Leeuw⁵, Robert Hudej⁶, Gerry Lowe⁷, Nicole Nesvacil², Richard Pötter², Jacob Lindegaard¹, Kari Tanderup¹; ¹Aarhus University, Aarhus, DK; ²Medical University of Vienna, Vienna, AT; ³Gustave-Roussy, Villejuif, Paris, FR; ⁴Tata Memorial Hospital, Mumbai, IN; ⁵University Medical Center Utrecht, Utrecht, NL; ⁶Institute of Oncology Ljubljana, Ljubljana, SL; ⁷Cancer Centre, Mount Vernon Hospital, London, UK

57 THE IMPACT OF INTRAPROSTATIC CALCIFICATIONS ON BIOCHEMICAL CONTROL AFTER PERMANENT PROSTATE IMPLANT Eric Vigneault¹, Khaly Mbodji¹, Andre-Guy Martin¹, Nelson Miksys², Rowan Thomson², Sylviane Aubin¹, Nicolas Varfalvy¹, Luc Beaulieu¹; ¹CHU de Québec Université Laval, Québec, QC; ²Carleton University, Ottawa, ON

60 MULTI-INSTITUTIONAL STUDY OF SALVAGE IRRADIATION WITH SINGLE-MODALITY INTERSTITIAL BRACHYTHERAPY FOR THE TREATMENT OF RECURRENT GYNECOLOGICAL TUMOURS IN THE PELVIS Hamid Raziee¹, David D'Souza², Vikram Velker², Eric Leung¹; ¹University of Toronto, Toronto, ON; ²University of Western Ontario, London, ON

58 RESULTS OF A PHASE II PROSPECTIVE STUDY ON DOSE ESCALATION TO THE DOMINANT INTRA-PROSTATIC LESIONS (DILS) WITH ULTRASOUND (US)-PLANNED HDR PROSTATE BRACHYTHERAPY Steven Tisseverasinghe¹, Juanita Crook¹, Deidre

11:45-12:45 **RADIATION THERAPY SPEAKER EXCHANGE** *Level 4 East Ballroom*

Introduction: Gaillyne MacPherson

Considering the Thyroid in Total Breast Irradiation

Melanie Dempsey

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Describe the basic function and radiosensitivity of the thyroid gland.
- Identify the breast cancer treatment techniques utilized in the study.
- Recognize the geometric and dosimetric considerations of the study.
- Discuss the impact of the findings on clinical practice.

12:45-2:45 **Lunch** *Level 4 West Ballroom***COMMITTEE MEETINGS** *See committee meeting schedule.*

CONCURRENT SESSIONS

2:45-3:45	FELLOW COMPETITION <i>Level 4 Centre Ballroom</i>	
	Moderators: Lara Best, Marc Gaudet	
	OBJECTIVES: Upon completion of this session, the learner will be able to:	
	■ Review a variety of fellow research conducted across the country in radiation oncology.	
61	COMPARISON OF LOCAL FAILURE AND RADIONECROSIS ACCORDING TO DOSE PRESCRIPTION FOR SMALL TO MEDIUM SIZED BRAIN METASTASIS TREATED WITH RADIOSURGERY Fabio Y Moraes, Jeff Winter, Archya Dasgupta, Catherine Coolens, Barbara-Ann Millar, Normand Laperriere, Derek Tsang, Tatiana Conrad, Gelareh Zadeh, Mark Bernstein, Paul Kongkham, Alejandro Berlin, David Shultz; <i>University of Toronto, Toronto, ON</i>	Normand Laperriere, Woodrow Wells, Mary Gospodarowicz; <i>University of Toronto, Toronto, ON</i>
62	COMPARISON OF THE CLINICAL BEHAVIOUR OF N3 HPV RELATED AND UNRELATED HEAD AND NECK CANCER IN THE IMRT ERA Nhu Tram Nguyen ¹ , Jie Sue ² , Eugene Yu ² , Eric Tran ³ , John Waldron ¹ , Wei Xu ² , John Kim ¹ , Jolie Ringash ¹ , Andrew Bayley ¹ , Andrew Hope ¹ , Meredith Giuliani ¹ , John Cho ¹ , Scott Bratman ¹ , Aaron Hansen ¹ , Jonathan Irish ² , John de Almeida ² , Bayardo Perez-Ordóñez ² , Ilan Weinreb ¹ , Brian O'Sullivan ¹ , Shao Hui Huang ¹ ; ¹ Princess Margaret Cancer Centre, Toronto, ON; ² University of Toronto, Toronto, ON; ³ British Columbia Cancer Agency, Vancouver, BC	64 WHAT'S THE MATTER WITH MATTED NODES? SIGNIFICANCE OF MATTED LYMPH NODES IN HPV-RELATED OROPHARYNGEAL SQUAMOUS CELL CARCINOMA: A MULTI-INSTITUTIONAL POPULATION-BASED COHORT STUDY Kitty Huang ¹ , Robyn Banerjee ¹ , Brock Debenham ² , Adarsh Patel ¹ , Farahna Sabiq ¹ , Harold Lau ¹ , David Skarsgard ¹ , John Lysack ¹ , Guanmin Chen ¹ , Harvey Quon ¹ ; ¹ University of Calgary, Calgary, AB; ² University of Alberta, Edmonton, AB
63	CHANGE OF RADIOTHERAPY PRACTICE PATTERN IN LYMPHOMA AT A LARGE ACADEMIC CENTRE Melody Qu, Richard Tsang, David Hodgson, Alexander Sun,	65 WHOLE GENOME CHARACTERIZATION OF CERVICAL CANCER Jelena Lukovic ¹ , Kathy Han ¹ , Melania Pintilie ² , Naz Chaudary ² , Julissa Tsao ² , Rene Quevedo ¹ , Richard Hill ² , Anthony Fyles ¹ , Jessica Weiss ² , Trevor Pugh ¹ , Michael Milosevic ¹ ; ¹ University of Toronto, Toronto, ON; ² Princess Margaret Cancer Centre, Toronto, ON
66	OPTIMIZING RECTAL SPACER GEL PLANNING Jacqueline Lam ¹ , Isabelle Gagné ² , Howard Pai ¹ , Jennifer Goulet ¹ , Abraham Alexander ¹ ; ¹ University of British Columbia, Victoria, BC; ² University of Victoria, Victoria, BC	66 OPTIMIZING RECTAL SPACER GEL PLANNING Jacqueline Lam ¹ , Isabelle Gagné ² , Howard Pai ¹ , Jennifer Goulet ¹ , Abraham Alexander ¹ ; ¹ University of British Columbia, Victoria, BC; ² University of Victoria, Victoria, BC
2:45-3:45	RADIATION THERAPY ORAL SESSION 1 – ADVANCEMENTS IN IMAGE GUIDANCE, TREATMENT PLANNING AND DELIVERY <i>Level B Salon A</i>	
	Moderators: Shannah Murland, Mike Velec	
	OBJECTIVES: Upon completion of this session, the learner will be able to:	
	■ Demonstrate the importance of image guidance in Radiation Therapy planning and treatment.	
	■ Describe novel techniques in the delivery of Radiation Therapy from the planning, delivery perspectives.	
67	PROSTATE OR BONE? – COMPARING THE EFFICACY OF IMAGE GUIDANCE SURROGATES FOR PELVIS & PROSTATE RADIOTHERAPY USING ACCUMULATED DELIVERED DOSE Vickie Kong, Andrew Bayley, Charles Catton, Tim Craig, Peter Chung; <i>University of Toronto, Toronto, ON</i>	69 SEMI-AUTOMATED VOLUMETRIC MODULATED ARC THERAPY PLANNING FOR POST-OPERATIVE RADIOTHERAPY IN ENDOMETRIAL CANCER: IMPROVEMENTS IN NORMAL TISSUE SPARING AND PLANNING TIME Tony Kin-Ming Lam, Jeff Winter, Tara Rosewall, Kathy Han, Michael Milosevic, Tony Tadic; <i>Princess Margaret Cancer Centre, Toronto, ON</i>
68	DOES ACCUMULATED DOSE TO PAROTID GLANDS IMPROVE PREDICTION OF PATIENT REPORTED OUTCOMES RELATED TO SALIVARY FUNCTION IN NASOPHARYNGEAL CANCER PATIENTS? Olive Wong, BeiBei Zhang, John Waldron, Joanne Moseley, Jenny Lee, Andrew Hope, Jolie Ringash, Shao Hui Huang, Brian O'Sullivan, Meredith Giuliani, Andrea McNiven; <i>Princess Margaret Cancer Centre, Toronto, ON</i>	70 ENSURING A REPRODUCIBLE PATIENT POSITION FOR PERMANENT BREAST SEED IMPLANT Michelle Brandel, Laura Vernon, Michelle Hilts, Deidre Batchelar, Danielle Anderson, Bart Robertson, Juanita Crook; <i>Sindi Ahluwalia Centre for the Southern Interior, Kelowna, BC</i>

- 71 FROM CT-GUIDED TO MR-GUIDED INTRACAVITARY BRACHYTHERAPY FOR CERVICAL CANCER: WHAT DO THE KEY STAKEHOLDERS HAVE TO SAY ABOUT THE TRANSITION?** Kitty Chan, Tara Rosewall, Angela Cashell, Anne DiTomasso, Susan Patterson, Akbar Beiki-Ardakani, Anthony Fyles, Michael Milosevic; Princess Margaret Cancer Centre, Toronto, ON

- 97 A COMPARISON OF USER EXPERIENCE AND ACCURACY OF SET-UP IN THE USE OF THERMOPLASTIC AND 3D PRINTED BEAM DIRECTIONAL SHELLS FOR EXTERNAL BEAM RADIOTHERAPY** Fiona Robertson¹, Paddy Niblock², Philip Vaughan², Robert Jackson², Scott Dunbar³; ¹Queen Margaret University, Dundee, UK; ²University of Dundee, Dundee, UK; ³Self employed, Dundee, UK

3:45-5:15 CONCURRENT WORKSHOPS

WORKSHOP 1 *Level B Salon A*

MRI-ONLY TREATMENT PLANNING: READY FOR THE CLINIC?

Ives Levesque, Cynthia Ménard, David Roberge

OBJECTIVES: By the end of this session, participants will be able to:

- List the benefits and challenges of MRI-only treatment planning.
- Describe technologies available for MRI-only treatment planning.
- Discuss potential areas of clinical applications of MRI-only treatment planning.
- Be aware of the impact on clinical workflows and administrative issues.

WORKSHOP 2 *Level B Salon B*

IMAGE-GUIDED ADAPTIVE RADIOTHERAPY: PRINCIPLES AND PRACTICES

Michael Velec, Michael Milosevic, Jean-Pierre Bissonnette, Laura Dawson

OBJECTIVES: By the end of this session, participants will be able to:

- Review the rationale and clinical evidence for adaptive radiotherapy.
- Identify key technologies and common adaptation strategies in clinical use.
- Recognize the impact on Therapists, Physicists and Oncologists and opportunities for collaboration.
- Discuss adaptation practices for several challenging patient cases.

WORKSHOP 3 *Level B Salon C*

DELIVERY SIMULATION IN PROSTATE BRACHYTHERAPY

Tyler Meyer, Luc Beaulieu, Michael Roumeliotis, Sarah Quirk, Siraj Husain, Kevin Martell, Amy Frederick, Alexandra Guebert

OBJECTIVES: By the end of this session, participants will be able to:

- Describe the process steps used for intraoperatively planned prostate brachytherapy.
- Identify tasks commonly associated with each discipline (MP, RTT, RO) during an implant.
- Develop hands-on experience in implant techniques with phantom simulation.

WORKSHOP 4 *Level 2 Salon 4/5*

USING E-TOOLS TO PUT PATIENTS AT THE CENTRE OF THEIR CARE

Tarek Hijal, Laurie Hendren, John Kildea

OBJECTIVES: By the end of this session, participants will be able to:

- Design at a high-level, a patient-centric module for a mobile app based on the patient-centric principles represented.
- Evaluate e-tools based on how they follow the design principles.

WORKSHOP 5 *Level A Hemon*

MODERN MANAGEMENT OF BRAIN METASTASES

Valerie Panet-Raymond, Arjun Sahgal, Alan Nichol, Neil Kopek, Russell Ruo, Johanna Ortiz Jimenez

OBJECTIVES: By the end of this session, participants will be able to:

- Understand the current changes to the management of brain metastases cases.

5:30-6:30 MEDICAL PHYSICS FOR WORLD BENEFIT INFORMATION MEETING *Level 2 Salon 4/5*

7:00 COCKTAIL RECEPTION *Fairmont QE Agora 900 René Levesque Blvd W*

Saturday, September 15, 2018

7:00-8:00 DR PAMELA CATTON MEMORIAL FUN RUN/WALK

Meet in the Hotel Lobby at 6:45. Ready to run at 7:00am!

8:00-9:00 BREAKFAST AND REGISTRATION Level 4

CONCURRENT ORAL SESSIONS

9:00-10:00 CARO ORAL SESSION 3 – ALL MIXED UP Level 4 Centre Ballroom

Moderators: Maroie Barkati, Rashid Dar

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Discuss specific topics in radiation medicine including total marrow irradiation, inter-observer variability on delineation, nanoparticles as radiosensitizer, immunotherapy and radiotherapy for lung cancer, peer-review in lung cancer, and use of single fraction radiotherapy for bone metastases.

73 EVALUATING DOSE-ESCALATED TOTAL MARROW IRRADIATION (TMI) FOR RELAPSED MULTIPLE MYELOMA

Rajiv Samant¹, Balazs Nyiri², Lee Gerig¹, Jamie Bahm², Steve Andrusyk², Vimoj Nair¹, Andrea Kew¹, Arleigh McCurdy¹, Amarilis Figueiredo¹, Christopher Bredeson¹, Harry Atkins¹; ¹University of Ottawa, Ottawa, ON; ²The Ottawa Hospital, Ottawa, ON

74 VARIABILITY IN EXPERT DELINEATION OF TARGETS AND ORGANS-AT-RISK IN GLIOMAS FOR CT-MRI AND MRI-ONLY WORKFLOWS

Chia-Lin Tseng¹, James Stewart¹, Gillian Whitfield², Joost Verhoeff³, Joseph Bovi⁴, Hany Soliman¹, Caroline Chung⁵, Sten Myrehaug¹, Mikki Campbell¹, Young Lee¹, Mark Ruschin¹, Arjun Sahgal¹; ¹University of Toronto, Toronto, ON; ²The University of Manchester, Manchester, UK; ³University Medical Center Utrecht, Utrecht, NL; ⁴Medical College of Wisconsin, Milwaukee, WI; ⁵The University of Texas, Houston, TX

75 AN *IN VIVO* MODEL TO STUDY THE USE OF NANOPARTICLES AS A RADIOSENSITIZER IN RADIATION BEAMS GENERATED FROM A LOW Z TARGET

Michael Ha¹, Olivia Piccolo¹, Nicole Melong¹, John Lincoln¹, David Parsons², Alexander Detappe³, Olivier Tillement⁴, Ross Berbeco⁵, Jason Berman¹, James Robar¹; ¹Dalhousie University, Halifax, NS; ²UT Southwestern, Dallas, TX; ³MIT, Boston, MA; ⁴Universite de Lyon, Villeurbanne, FR; ⁵Harvard University, Boston, MA

76 REAL WORLD IMMUNOTHERAPY RESPONSE AND PULMONARY TOXICITY IN PATIENTS TREATED WITH CHEST RADIOTHERAPY

Daniel Glick, Elaine Wai, Edward Brooks, Dave Fenton, Leathia Fiorino, Georgia Geller, Zia Poonja, Doran Ksienski; University of British Columbia, Victoria, BC

77 DEVELOPMENT OF BEST PRACTICES OF PEER REVIEW IN LUNG RADIATION THERAPY

Anand Swaminath¹, Brian Yaremko², Luluel Khan³, Carina Simniceanu⁴, Michael Brundage⁵; ¹McMaster University, Hamilton, ON; ²University of Western Ontario, London, ON; ³University of Toronto, Toronto, ON; ⁴CancerCare Ontario, Toronto, ON; ⁵Queen's University, Kingston, ON

78 PROGRAMMATIC COMPARISON AND DISSEMINATION OF SINGLE FRACTION RADIOTHERAPY PRESCRIBING PRACTICES FOR BONE METASTASES CAN RESULT IN MEANINGFUL AND LASTING CHANGE IN PRACTICE ON A POPULATION LEVEL

Robert Olson¹, Mathew Chan², Neelam Minhas¹, Gurkirat Kandola¹; ¹University of British Columbia, Prince George, BC; ²University of British Columbia, Vancouver, BC

9:00-10:00 **CARO ORAL SESSION 4 – GASTROINTESTINAL AND GENITOURINARY CANCERS** *Level 4 East Ballroom*

Moderators: Corinne Doll, Fabio Moraes

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Understand important concepts in treatment planning and delivery of modern radiation therapy for GI and GU tumours.
- Learn about costs of different modalities, and new imaging tools related to the treatment of prostate cancer.

79 IMPACT OF DOSE-CAPPING WITH CONCURRENT CHEMORADIO THERAPY IN RECTAL CANCER PATIENTS Peter (Ran) Yang, Kurian Joseph, Sunita Ghosh, Tirath Nijjar, Diane Severin, Keith Tankel, Moftah Younis, Alysa Fairchild, Jennifer Spratlin, Karen Mulder, Nawaid Usmani; University of Alberta, Edmonton, AB

80 DEFERRAL OF SURGERY POST-CHEMORADIATION FOR LOCALLY ADVANCED RECTAL CANCER: THE EXPERIENCE OF THE MCGILL UNIVERSITY HEALTH CENTRE Neil Kopek, Sergio Faria, Tarek Hijal, Patrick Charlebois, Caroline Reinhold, Giovanni Artho, Raghu Rajan, Sender Liberman; McGill University, Montreal, QC

81 RADIOBIOLOGICALLY-GUIDED RADIOTHERAPY IN LARGE PRIMARY AND METASTATIC HEPATIC LESIONS Daegan Sit¹, Jonatan Snir², Stewart Gaede¹, Michael Lock¹; ¹McMaster University, Hamilton, ON; ²University of Western Ontario, London, ON

82 A PROSPECTIVE, MULTINATIONAL COMPARISON OF MULTI-PARAMETRIC AND WHOLE BODY MAGNETIC RESONANCE IMAGING (MP-MRI AND WB-MRI) F-18 FLUORO-METHYL-CHOLINE (FCH) AND GA-68 HBED-CC- (PSMA) IN HIGH RISK MEN BEING CONSIDERED FOR SALVAGE RADIATION TREATMENT FOR BIOCHEMICAL FAILURE POST RADICAL

PROSTATECTOMY: DETECTION RATES, MANAGEMENT IMPACT AND TREATMENT RESPONSE Glenn Bauman¹, Ur Metser², Andrew Scott³, Frederic Pouliot⁴, Andrew Weickhardt⁵, Ian Davis⁶, Rod Hicks⁷, Shonit Punwani⁸, Sue Chua⁹, Louise Emmett¹⁰; ¹University of Western Ontario, London, ON; ²University of Toronto, Toronto, ON; ³University of Melbourne, Melbourne, AU; ⁴Universite Laval, Quebec City, QC; ⁵Austin Health, Melbourne, Australia; ⁶Monash University Eastern Health Clinical School, Melbourne, AU; ⁷University of Melbourne, Melbourne, Australia; ⁸University College Hospital London, London, UK; ⁹Royal Marsden Hospital, London, UK; ¹⁰St. Vincent's Hospital, Sydney, AU

83 COST-UTILITY ANALYSIS OF DIFFERENT RADIATION MODALITIES FOR INTERMEDIATE-RISK PROSTATE CANCER Najlaa Alyamani¹, Marc Gaudet¹, Sasha Van Katwyk³, Julie Renaud², Alain Haddad¹, Kednapa Thavorn³, Miller MacPherson²; ¹University of Ottawa, Ottawa, ON; ²The Ottawa Hospital, Ottawa, ON; ³Ottawa Hospital Research Institute, Ottawa, ON

84 HYPOFRACTIONATED INTENSITY MODULATED RADIATION THERAPY TO PROSTATE AND PELVIC NODES PLUS ANDROGEN SUPPRESSION IN HIGH RISK PROSTATE CANCER Sergio Faria, Fabio Cury, Marie Duclos, Luis Souhami; McGill University, Montreal, QC

9:00-10:00 **COMP ORAL SESSION 3 – DOSIMETRY/TREATMENT DELIVERY** *Level 3 Drummond*

Moderators: Annie Hsu, Colleen Schinkel

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Review dosimetry principles for several specific delivery methods/techniques.
- Discuss the implementation and evaluation of several different delivery techniques.

28 BRINGING RELIEF TO THE PRAIRIES: A SINGLE CENTRE'S EXPERIENCE IN IMPLEMENTING VOLUMETRIC MODULATED ARC THERAPY FOR LUNG SBRT USING FLATTENING FILTER-FREE BEAMS Dominique Fortin, Varun Thakur; Saskatchewan Cancer Agency, Regina, SK

33 DOSE RECONSTRUCTION FOR LUNG CANCER PATIENTS WITH GROSS ANATOMICAL CHANGES DURING RADIOTHERAPY Jeff D Winter, Tony Tadic, Andrea Shessel, Joanne Moseley, Andrea Bezjak, Jean-Pierre Bissonnette; Princess Margaret Cancer Centre, Toronto, ON

34 THE INTRABEAM DOSIMETRIC INTERREGNUM: ARE THE BREAST TARGIT PROTOCOL DOSES DELIVERED BY INTRABEAM ACCURATE? Peter Watson¹, Hamed Bekerat², Pavlos Papaconstadopoulos², Jan Seuntjens¹; ¹McGill University, Montreal, QC; ²Jewish General Hospital, Montreal, QC

53 EPID RECONSTRUCTION OF THE DELIVERED PATIENT RADIATION DOSE FOR NON-COPLANAR BEAM THERAPY Ivan Kutuzov, Boyd McCurdy; University of Manitoba, Winnipeg, MB

<p>86 THE CLINICAL CASE FOR SIMULTANEOUSLY-OPTIMIZED MIXED ELECTRON-PHOTON RADIOTHERAPY ON STANDARD RADIOTHERAPY LINACS: BREAST AND SOFT TISSUE SARCOMA IRRADIATION Marc-Andre Renaud, Monica Serban, Christine Lambert, Carolyn Freeman, George Shenouda, Jan Seuntjens; McGill University, Montreal, QC</p>	<p>90 A REVIEW OF THE CURRENT STATE OF PHYSICS AND DOSIMETRY REPORTING IN RADIATION BIOLOGY RESEARCH Yannick Poirier, Emily Draeger, Amit Sawant, Isabel-Lauren Jackson, Zeljko Vujaskovic; University of Maryland School of Medicine, Baltimore, MD</p>
<p>9:00-10:00 COMP ORAL SESSION 4 – IMAGING <i>Level B Salon A/B/C</i></p> <p>Moderators: Laura Dawson, Atiyah Yahya</p> <p>OBJECTIVES: Upon completion of this session, the learner will be able to:</p> <ul style="list-style-type: none"> ■ Understand important concepts in imaging for a variety of modalities. 	
<p>89 MICROCT IMAGING DOSE FOR A COMMERCIAL IMAGE-GUIDED SMALL ANIMAL IRRADIATOR Chris Johnstone, Magdalena Bazalova-Carter; University of Victoria, Victoria, BC</p>	<p>93 THE FEASIBILITY OF REGISTERING INTRA-OPERATIVE CONE-BEAM CT IMAGING TO RADIATION PLANNING CT IMAGES FOR HEAD AND NECK CANCER Robert Weersink¹, Sarah Aubert², Michael Daly³, Nidal Muhanna¹, Harley Chan³, BC John Cho¹, David Jaffray¹, Jonathon Irish¹; ¹University of Toronto, Toronto, ON; ²McMaster University, Hamilton, ON; ³Princess Margaret Cancer Centre, Toronto, ON</p>
<p>91 EFFECT OF REDUCED DOSE OF GADOLINIUM CONTRAST IN TUMOUR VOLUME DELINEATION AIDED BY DCE-MRI FOR SINGLE FRACTION RADIOTHERAPY IN EARLY STAGE BREAST CANCER PATIENTS Matthew Mouawad¹, Stewart Gaede², Neil Gelman³, R Terry Thompson³, Frank S Prato³, George Hajdok², Edward Yu², Tracy Sexton², Brian Yeremko², Michael Lock², Muriel Brackstone¹, Heather Biernaski³; ¹University of Western Ontario, London, ON; ²London Regional Cancer Program, London, ON; ³Lawson Health Research Institute, London, ON</p>	<p>95 TEXTURE FEATURES FROM EARLY ENHANCEMENT POST-CONTRAST MRI ARE PREDICTIVE OF METASTATIC SARCOMA Zaki Ahmed, Carolyn R Freeman, Krista Goulding, Tom Powell, Jan Seuntjens, Robert Turcotte, Ives R Levesque; McGill University, Montreal, QC</p>
<p>92 DEFINING BACKGROUND IN RECTAL CANCER FDG-PET SCANS BY DECOMPOSING DIFFERENTIAL UPTAKE VOLUME HISTOGRAMS James Schneider¹, Robert Lisbona¹, Marc Hickeson¹, Guillaume Chaussé¹, Nada Tomic¹, Té Vuong¹, François DeBlois², Jan Seuntjens¹, Slobodan Devic¹; ¹McGill University, Montreal, QC; ²L'Université de Montréal, Montreal, QC</p>	<p>96 RENAL CT PERFUSION IMAGING DURING HEMODIALYSIS: RELATING KIDNEY BLOOD FLOW TO RESIDUAL RENAL FUNCTION LOSS Raanan Marants, Claire Grant, Christopher McIntyre, Ting-Yim Lee; University of Western Ontario, London, ON</p>
<p>9:00-10:00 RADIATION THERAPY ORAL SESSION 2 – A PEAK BEHIND THE SCENES – PROGRAMMATIC RADIATION THERAPY CONSIDERATIONS <i>Level 3 Salon 6/7</i></p> <p>Moderators: Houda Bahig, Brian Liszewski</p> <p>OBJECTIVES: Upon completion of this session, the learner will be able to:</p> <ul style="list-style-type: none"> ■ Be able to describe the application of new approaches to Radiation Therapy treatment delivery and assessment. ■ Gain an appreciation of the Radiation Therapy programmatic considerations of operations, fiscal constraints, metrics, education and person centred care. 	
<p>72 EXTRACTING FROM PATIENT EXPERIENCE: ATTITUDE TOWARDS BRACHYTHERAPY IN BRITISH COLUMBIA Jenny Soo, Scott Tyldesley, John French; British Columbia Cancer Agency, Vancouver, BC</p>	<p>98 RADIATION THERAPY STAFFING LEVELS AND WORKLOAD IN CANADA Alison Giddings¹, Luminita Nica¹, John French¹, Amanda Bolderston¹, Carol-Anne Davis², Marcia Smoke³; ¹British Columbia Cancer Agency, Vancouver, BC; ²Dalhousie University, Halifax, NS; ³Juravinski Cancer Centre, Hamilton, ON</p>

99 INTEGRATING TREATMENT COMPLEXITY INTO RADIATION THERAPY CASE COSTING

James Loudon, Edwin Chan, Leslie Proctor, Linda Welham; Southlake Regional Health Centre, Newmarket, ON

100 EVALUATION OF RADIOTHERAPY PATIENT DATA COLLECTION IN BREAST CANCER PEER REVIEW ROUNDS

Grace Lee¹, Robert Dinniwell², Lucy Lu¹, Susanne Lofgren¹, Anthony Fyles¹, Fei-Fei Liu¹, Kathy Han¹, Wilfred Levin¹, Tatiana Conrad¹, Jennifer Croke¹, Joelle Helou¹, Aisling Barry¹, C Anne Koch¹; ¹University of Toronto, Toronto, ON; ²University of Western Ontario, London, ON

101**SEVEN DAY MODEL FOR RADIATION THERAPY (SMRT) - CAPACITY MANAGEMENT AT TRILLIUM HEALTH PARTNERS**

Gaylene Medlam, Raxa Sankrecha, Kristal Bozzo, Anthony Brade, Elliot Archer; Trillium Health Partners, Mississauga, ON

102**INVESTIGATING RADIATION THERAPY INCIDENTS: THE POWER OF A COLLABORATIVE INVESTIGATION**

Carol-Anne Davis¹, Nicole Harnett², Brian Liszewski²; ¹Dalhousie University, Halifax, NS; ²University of Toronto, Toronto, ON

10:00-11:00 **JEAN ROY LECTURE** *Level 4 Centre Ballroom*

Introduction: Eric Vineault

Brachytherapy: An Accurate Interventional Oncology Procedure

Luc Beaulieu

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Review of key technologies that enable better brachytherapy procedures in the last two decades.
- Overview of upcoming technologies that will move brachytherapy to the next level.

11:00-11:30 **Refreshment Break** *Level 4*11:30-12:30 **REVIEWER'S CHOICE**

Moderators: David Roberge, Jake van Dyk

OBJECTIVES: Upon completion of this session, the learner will be able to:

- Understand a variety of interesting and select topics of radiation therapy innovations, and how these impact our cancer population.
- Describe the results of innovative and practice-changing research done by Canadian peers.

103 STEREOTACTIC ABLATIVE RADIOTHERAPY FOR THE COMPREHENSIVE TREATMENT OF OLIGOMETASTATIC CANCERS (SABR-COMET): RESULTS OF A RANDOMIZED TRIAL

David Palma¹, Robert Olson², Stephen Harrow³, Stewart Gaede⁴, Alexander Louie⁴, Cornelis Haasbeek⁵, Liam Mulroy⁶, Michael Lock⁴, George Rodrigues⁴, Brian Yaremko⁴, Devin Schellenberg⁷, Belal Ahmad⁴, Gwendolyn Griffioen⁵, Sashendra Senthil⁸, Anand Swaminath⁹, Neil Kopek¹⁰, Mitchell Liu¹¹, Karen Moore³, Suzanne Currie³, Glenn Bauman⁴, Andrew Warner⁴, Suresh Senan⁵; ¹University of Western Ontario, London, ON; ²British Columbia Cancer Centre for the North, Prince George, BC; ³Beatson West of Scotland Cancer Centre, Glasgow, SCT; ⁴London Health Sciences Centre, London, ON; ⁵VU University Medical Center, Amsterdam, NL; ⁶Nova Scotia Cancer Centre, Halifax, NS; ⁷British Columbia Cancer Agency, Fraser Valley Centre, Surrey, BC; ⁸Alfred Hospital, Melbourne, AU; ⁹Juravinski Cancer Centre, Hamilton, ON; ¹⁰McGill University Health Centre, Montreal, QC; ¹¹British Columbia Cancer Agency, Vancouver, BC

104**FINAL ANALYSIS OF A PHASE III COMPARISON OF PROPHYLACTIC CRANIAL IRRADIATION VERSUS OBSERVATION IN PATIENTS WITH LOCALLY ADVANCED NON-SMALL CELL LUNG CANCER: 10-YEAR UPDATE OF RTOG 0214**

Alexander Sun¹, Chen Hu², Elizabeth Gore³, Stuart Wong³, Gregory Videtic⁴, Swati Dutta⁵, Mohan Suntharalingam⁶, Yuhchayou Chen⁷, Laurie Gaspar⁸, Hak Choy⁹; ¹University of Toronto, Toronto, ON; ²Johns Hopkins University School of Medicine, Philadelphia, PA; ³Medical College of Wisconsin, Milwaukee, WI; ⁴Cleveland Clinic Foundation, Cleveland, OH; ⁵Michigan Cancer Research Consortium, Grand Rapids, MI; ⁶University of Maryland Medical System, Maryland, MD; ⁷University of Rochester, Rochester, NY; ⁸University of Colorado, Denver, CO; ⁹UT Southwestern Medical Center, Dallas, TX

105 LONG TERM OUTCOMES OF A PHASE II TRIAL OF NEOADJUVANT TEMOZOLOMIDE (TMZ) FOLLOWED BY ACCELERATED HYPOFRACTIONATED RADIOTHERAPY (AHRT) AND CONCOMITANT TMZ FOLLOWED BY ADJUVANT TMZ IN PATIENTS WITH NEWLY DIAGNOSED GLIOBLASTOMA (GBM) George Shenouda, Luis Souhami, Kevin Petrecca, Scott Owen, Valerie Panet-Raymond, Tatiana Carvalho, Marie-Christine Guiot, Bassam Abdulkarim; [McGill University, Montreal, QC](#)

106 COMPETING CAUSES OF DEATH IN PATIENTS WITH EARLY STAGE SEMINOMA: A POPULATION BASED MORTALITY ANALYSIS COMPARING RADIATION THERAPY VERSUS CHEMOTHERAPY Gaurav Bahl, Rima Pathak, Jenny Ko, Michael Sia, Scott Tyldesley; [University of British Columbia, Vancouver, BC](#)

107 STEREOTACTIC BODY RADIOTHERAPY FOR THE TREATMENT OF VENTRICULAR TACHYCARDIA REFRACTORY TO CATHETER ABLATION: PRELIMINARY RESULTS Raphael Jumeau, Esat-Mahmut Ozsahin, Juerg Schwitter, Frederic Duclos, Veronique Vallet, Michele Zeverino, Raphael Moeckli, Etienne Pruvot, Jean Bourhis; [Université de Lausanne, Lausanne, FR](#)

108 DEEP NEURAL NETWORK FOR MR-TO-CT IMAGE TRANSLATION APPLIED TO H&N PATIENT DATA Mostafa Shahabinejad, Timothy Chan, Ali Hosni, Andrea McNiven, Shao Hui Huang, Andrew Bayley, Scott Bratman, John Cho, Meredith Giuliani, Andrew Hope, John Kim, Brian O'Sullivan, Jolie Ringash, John Waldron, David Jaffray, Teo Stanescu; [University of Toronto, Toronto, ON](#)

12:30-2:00 CARO ESTRO SYMPOSIUM

Facilitator: Michael Brundage

Radiomics Symposium

RADIOMICS: WHAT IS IT, HOW DOES IT WORK AND WHY SHOULD YOU CARE?

Wouter van Elmpt

MACHINE LEARNING APPROACHES FOR RADIOMICS IN HEAD-AND-NECK CANCER

Benjamin Haibe-Kains

PROMISES AND PITFALLS OF RADIOMICS

Jan Seuntjens

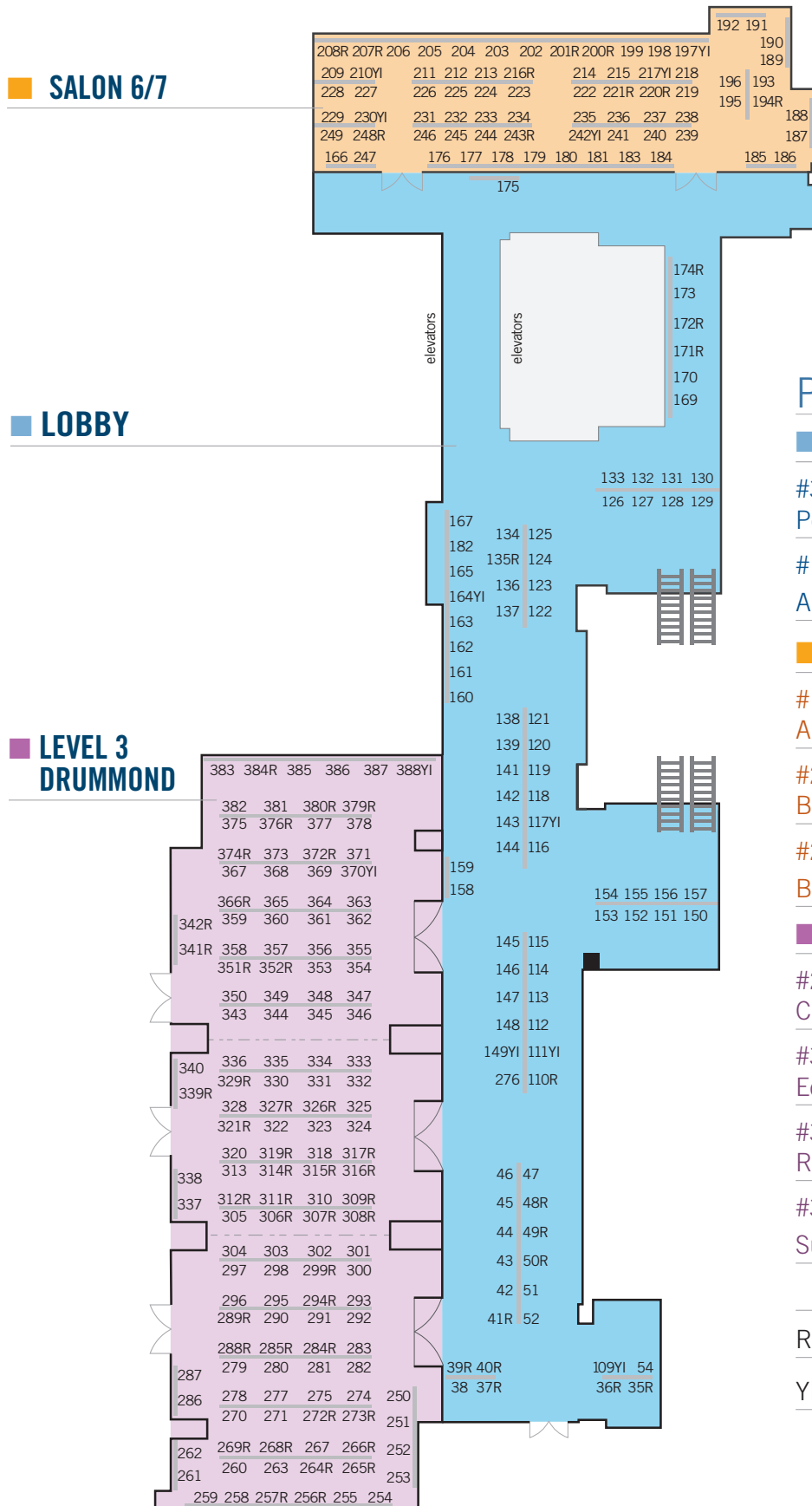
OBJECTIVES: Upon completion of this session, the learner will be able to:

- Understand what is encompassed in the term “Radiomics”.
- Appreciate how Radiomics can be applied to radiotherapy from the perspectives of the radiation oncologist, medical physicist, and medical radiation technologist.
- Appreciate how artificial intelligence can uniquely inform the development of new Radiomics techniques.

2:00-2:30 **AWARDS AND CLOSING REMARKS** Fabio Cury, Boyd McCurdy

CARO-COMP-CAMRT 2018

ALL FOR ONE - COLLABORATING AND INNOVATING FOR PERSON-CENTRED CARE



Poster Abstracts

LOBBY

#35-54, 109

Poster Discussion

#100-175, 178

Applied Physics and Technology

SALON 6/7

#166, 176-205

Applied Physics and Technology

#206-218

Basic and Translational Biology

#219-249

Brachytherapy

LEVEL 3 DRUMMOND

#250-316

Clinical Services

#317-344

Education

#345-373

Radisurgery

#375-388

Survivorship

R Residents

YI Young Investigators

Poster Abstracts

- 109 MC SIMULATIONS OF MIRCOCCT IMAGING ON THE SMALL ANIMAL RADIATION RESEARCH PLATFORM (SARRP)** Dylan Breitzkreutz, Chris Johnstone, Magdalena Bazalova-Carter; University of Victoria, Victoria, BC
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- 204** **EVALUATION OF MIXED ENERGY PARTIAL ARCS FOR VOLUMETRIC MODULATED ARC THERAPY FOR PROSTATE CANCER** Shadab Momin¹, James Grafe¹, Rao Khan²; ¹Ryerson University, Toronto, ON; ²Washington University, St Louis, MI
- 205** **INTEGRATION OF RADIOBIOLOGICAL MODELLING AND SUMMARY INDICES IN COMPARATIVE PLAN EVALUATION: A STUDY COMPARING VMAT AND 3D-CRT IN PATIENTS WITH LOCALLY ADVANCED NSCLC USING INDIGENOUS SOFTWARE** Soumyajit Roy, Iulian Badrigan, Sheikh Nisar Ahmed, Michael Sia, Jorawur Singh, Gaurav Bahl; University of British Columbia, Abbotsford, BC
- 206** **PSA BOUNCE AFTER STEREOTACTIC BODY RADIOTHERAPY FOR PROSTATE CANCER: POOLED ANALYSIS FROM FOUR SBRT TRIALS EVALUATING DIFFERENT TIME-DOSE-FRACTION SCHEDULES** Soumyajit Roy¹, Andrew Loblaw², Patrick Cheung², William Chu², Hans Chung², Danny Vesprini², Aldrich Ong³, Amitava Chowdhury³, Dilip Panjwani⁴, Geordi Pang², Renee Korol², Melanie Davidson², Ananth Ravi², Boyd McCurdy³, Joelle Helou², Liying Zhang², Alexandre Mamedov², Andrea Deabreu³, Harvey Quon¹; ¹University of Calgary, Calgary, AB; ²University of Toronto, Toronto, ON; ³University of Manitoba, Winnipeg, MB; ⁴University of British Columbia, Abbotsford, BC
- 207** **NOVEL RADIATION-ACTIVATED PHOTODYNAMIC (RADIOPDT) NANOPARTICLES FOR TREATING PROSTATE CANCER** Deepak Dinakaran, Hua Chen, Brad Warkentin, Piyush Kumar, Nawaid Usmani, Ravin Narain, John Lewis, Ronald Moore; University of Alberta, Edmonton, AB

- 208 OCULAR BRACHYTHERAPY FOR INTRA-OCULAR MELANOMA: EXPERIENCE AND OUTCOMES IN THE PROVINCE OF ALBERTA** Deepak Dinakaran, Matthew Larocque, Kelsey Roelofs, Parampal Grewal, Steven Lapere, Albert Murtha, Ezekiel Weis; University of Alberta, Edmonton, AB
- 209 ON THE GEOMETRICAL AND DOSIMETRIC ACCURACY OF SMALL ANIMAL IRRADIATIONS PERFORMED WITH A CONVENTIONAL MEDICAL LINAC** Louis Archambault¹, Josée Langevin², Josée Galarneau², François Thériault-Proulx¹, Julie Fradette¹; ¹CHU de Québec, Université Laval, Québec City, QC; ²Cégep de Sainte-Foy, Québec, QC
- 210 MOLECULAR TARGETING TO EXPAND THE THERAPEUTIC RATIO IN WOMEN WITH CURABLE CERVICAL CANCER** Naz Chaudary¹, Magali Lecavalier-Barsoum², Pratibha Thapa¹, Meegan Larsen¹, Melania Pintilie¹, Kathy Han¹, Richard Hill¹, Michael Milosevic¹; ¹University of Toronto, Toronto, ON; ²Jewish General Hospital, Montreal, QC
- 211 A NEW COMBINATION OF PRO-APOPTOTIC AGENTS AND RADIOTHERAPY FOR TREATMENT OF SOFT TISSUE SARCOMAS** Philip Wong, Julie Lafontaine, Francis Rodier; Centre Hospitalier de l'Université de Montréal, Montreal, QC
- 212 QUALITY OF LIFE: A PROSPECTIVE RANDOMIZED TRIAL OF PALLIATIVE VOLUMETRIC ARC THERAPY (VMAT) VERSUS CONFORMAL RADIATION THERAPY (CRT)** Philip Wong, Louise Lambert, Phengsavanh Thanomsack, Genevieve Coulombe, Carole Lambert, Anne-Marie Charpentier, Maroie Barkati, Israel Fortin, David Roberge; Centre Hospitalier de l'Université de Montréal, Montreal, QC
- 213 EXTERNAL BEAM RADIATION-SENSITIVE BIOPOLYMER FOR TARGETED DRUG DELIVERY** Shannon Yoo¹, Zi-Hua Justin Jiang², Wilson Roa¹; ¹Cross Cancer Institute, Edmonton, AB; ²Lakehead University, Thunder Bay, ON
- 214 GENETIC PROFILING OF OLIGODENDROGLIOMAS (IDH MUTATED AND 1P19Q CO-DELETED) TREATED WITH ADJUVANT RADIOTHERAPY OR OBSERVATION INFORMS PROGNOSIS** Fabio Y Moraes¹, Jonathan So¹, Yasin Mamatjan², Gelareh Zadeh², Ken Aldape²; ¹University of Toronto, Toronto, ON; ²Princess Margaret Cancer Centre, Toronto, ON
- 215 INTERNATIONAL MULTI-CENTER VALIDATION OF AN INTERMEDIATE-RISK SUBCLASSIFICATION OF MEN TREATED WITH RADICAL TREATMENT WITHOUT HORMONE THERAPY** Fabio Y Moraes¹, Noelia Salgado¹, Alexander Koven¹, Haiyan Jiang¹, Rachel Glicksman¹, Elton T T Leite², Rafael Gadia², Joao Luis F Silva², Neil Fleshner¹, Peter Chung¹, Charles Catton¹, Zachary Zumsteg³, Todd Morgan⁴, Jason Hearn⁴, Rohit Mehra⁴, Robert Dess⁴, Felix Fang⁵, Antonio Finelli¹, Daniel Spratt⁴, Alejandro Berlin¹; ¹University of Toronto, Toronto, ON; ²Hospital Sirio-Libanes, Sao Paulo, BR; ³Cedars Sinai Medical Center, Los Angeles, CA; ⁴University of Michigan, Ann Arbor, MI; ⁵UCSF San Francisco, CA
- 216 PLASMA METABOLOMIC PROFILES IN PATIENTS WITH HEPATOCELLULAR CARCINOMA BEFORE AND AFTER SBRT** Sylvia Ng¹, Irwin Kurland², Chandan Guha², Yunping Qiu², Laura Dawson¹; ¹University of Toronto, Toronto, ON; ²Albert Einstein College of Medicine, Bronx, NY
- 217 MONITORING RADIATION RESISTANCE AND RESPONSE OF NON-SMALL CELL LUNG CANCER USING RAMAN SPECTROSCOPIC SIGNATURES OF TUMOUR HYPOXIA** Samantha Van Nest¹, Leah Nicholson², Alexandre Brolo¹, Julian Lum², Andrew Jirasek³; ¹University of Victoria, Victoria, BC; ²British Columbia Cancer Agency, Victoria Centre, Victoria, BC; ³University of British Columbia Okanagan, Kelowna, BC
- 218 EVALUATION OF 18F-EF5 SUITABILITY FOR DETECTION OF HYPOXIA IN LOCALIZED ADENOCARCINOMA OF THE PROSTATE** Brennan Wadsworth¹, Kevin Bennewith², Francois Benard², Michael McKenzie², Lorenz Yeung², Donald Yapp², Don Wilson², Carlos Villamil¹; ¹University of British Columbia, Vancouver, BC; ²British Columbia Cancer Agency, Vancouver, BC
- 219 INVESTIGATION OF THE PTV MARGIN IN PERMANENT BREAST SEED IMPLANT (PBSI) BRACHYTHERAPY: A PILOT STUDY** Alexandra Guebert, Michael Roumeliotis, Elizabeth Watt, Amy Frederick, Tiana Trumpour, Tyler Meyer, Sarah Quirk; University of Calgary, Calgary, AB
- 220 T2-WEIGHTED MRI-DERIVED RADIOMIC FEATURE CHANGES IN THE DOMINANT INTRAPROSTATIC LESION FOR PATIENTS TREATED WITH FOCAL SALVAGE HDR PROSTATE BRACHYTHERAPY** Sangjune Lee, Ananth Ravi, Gerard Morton, Andrew Loblaw, Chia-Lin Tseng, Alexandru Nicolae, Mark Semple, Hans Chung; University of Toronto, Toronto, ON
- 221 AUTOMATIC CONTOUR PROPAGATION OF ORGANS-AT-RISK ON SERIAL MRI AND DOSIMETRIC IMPLICATIONS IN GLIOBLASTOMA PATIENTS UNDERGOING CHEMO-RADIATION** Sangjune Lee, James Stewart, Young Lee, Sten Myrehaug, Arjun Sahgal, Mark Ruschin, Chia-Lin Tseng; University of Toronto, Toronto, ON
- 222 NEOADJUVANT RADIOTHERAPY AND BRACHYTHERAPY IN ENDOMETRIAL CANCER WITH GROSS CERVICAL INVOLVEMENT: A CHIRENDO RESEARCH GROUP STUDY** Melica Nourmoussavi, Vanessa Samouelian, Israel Fortin, Béatrice Cormier, Thomas Warkus, Yohann Dabi, Marie-Claude Beauchemin, Maroie Barkati; Université de Montréal, Montreal, QC

- 223 NON-UNIFORM LOADING OF EPISCLERAL PLAQUES IN TREATMENT OF UVEAL MELANOMA: A CONFORMAL AND COST-EFFECTIVE APPROACH** Akbar Beiki-ardakani¹, Robert Weersink², Ivan Yeung², Jette Borg², John Jezioranski¹, Alex Vitkin², Alexandra Rink², David Jaffray², Filiberto Altomare², Hatem Krema², Rand Simpson², John Waldron², Normand Laperriere²; ¹Princess Margaret Cancer Centre, Toronto, ON; ²University of Toronto, Toronto, ON
- 224 RESULTS OF A PHASE I RANDOMIZED-CONTROLLED TRIAL EVALUATING CONVENTIONAL VERSUS MACHINE LEARNING TREATMENT PLANNING FOR PROSTATE LOW-DOSE-RATE BRACHYTHERAPY** Alexandru Nicolae, Mark Semple, Lin Lu, Mackenzie Smith, Hans Chung, Andrew Loblaw, Gerard Morton, Lucas Castro Mendez, Chia-Lin Tseng, Melanie Davidson, Ananth Ravi; University of Toronto, Toronto, ON
- 225 PERIOPERATIVE BRACHYTHERAPY FOR MARGIN CONTROL IN ORAL TONGUE CANCER** Boris Bahoric, Ilia Ianovski, Michael P Hier, Alex M Mlynarek, Martin J Black, Khalil Sultanem; McGill University, Montreal, QC
- 226 IMPLEMENTATION AND VALIDATION OF IPSA ON GPU ARCHITECTURE FOR FAST MULTI-CRITERIA OPTIMIZATION FOR HDR BRACHYTHERAPY** Cédric Bélanger¹, Yunzhi Ma², Loïc Paradis-Lapierrière¹, Adam Cunha³, Luc Beaulieu¹; ¹Université Laval, Québec, QC; ²Centre de Recherche du CHU de Québec, Québec, QC; ³University of California San Francisco, San Francisco, CA
- 227 SEXUAL FUNCTION AFTER PROSTATE SEED BRACHYTHERAPY-LONG-TERM SINGLE CENTRE EXPERIENCE** Daniel Taussky, Guila Delouya; Centre Hospitalier de l'Université de Montréal, Montreal, QC
- 228 RISK FACTORS FOR BIOCHEMICAL RECURRENCE AFTER A TISSUE-ABLATIVE PSA** Daniel Taussky, Guila Delouya, Jean-Paul Bahary, Carole Lambert, Nissan Meissner; Centre Hospitalier de l'Université de Montréal, Montreal, QC
- 229 CAN A DOMINANT INTRAPROSTATIC LESION (DIL) BOOST WITH PERMANENT I-125 PROSTATE IMPLANTS, ALTERED OUTCOMES AND IMPROVE BIOCHEMICAL DISEASE-FREE SURVIVAL (BDFS) IN INTERMEDIATE RISK PROSTATE CANCER?** Elizabeth Guimond, Marie-Claude Lavalée, William Foster, Eric Vigneault, Karolan Guay, Andre-Guy Martin; Laval University, Quebec, QC
- 230 SHOULD BONES BE CONSIDERED AS ORGANS AT RISK FOR INTERMEDIATE ENERGY BRACHYTHERAPY SOURCES?** Gabriel Famulari, Joanne Alfieri, Shirin A Enger; McGill University, Montreal, QC
- 231 AUTOMATIC OPTIMIZATION OF TREATMENT DOSIMETRY TO IMPROVE VISUAL OUTCOMES IN EPISCLERAL PLAQUE BRACHYTHERAPY** Gawon Han, Matthew Larocque, Geetha Menon; University of Alberta, Edmonton, AB
- 232 OCULAR BRACHYTHERAPY TUMOUR APEX AND SCLERAL DOSES DURING CONCURRENT SILICONE OIL VITRECTOMY TREATMENT** Hali Morrison¹, Matthew P Larocque², Ezekiel Weis², Geetha Menon², Ron S Sloboda²; ¹University of Calgary, Calgary, AB; ²University of Alberta, Edmonton, AB
- 233 TRUEBEAM EDGE VMAT SRS TREATMENT PROCESS OF A PINEAL PARENCHYMAL TUMOUR** Hali Morrison¹, Pamela Leco², Gerald Lim¹, Nicolas Ploquin¹, Kundan Thind¹; ¹University of Calgary, Calgary, AB; ²Tom Baker Cancer Centre, Calgary, AB
- 234 PRIMARY-SCATTER SEPARATED DOSE COMPARISON OF THE ADVANCED COLLAPSED CONE ENGINE FOR AN I-125 BRACHYTHERAPY SOURCE** Hali Morrison¹, Steven Nich¹, Geetha Menon², Matthew P Larocque², Bob van Veelen³, Yury Niatetski³, Ezekiel Weis², Ron S Sloboda²; ¹University of Calgary, Calgary, AB; ²University of Alberta, Edmonton, AB; ³Elekta Brachytherapy, Veenendaal, NL
- 235 LONG-TERM TUMOUR CONTROL IN A PROSPECTIVE SINGLE ARM STUDY OF POST-OPERATIVE ADJUVANT PARTIAL BREAST IRRADIATION UTILIZING HIGH DOSE RATE INTERSTITIAL BRACHYTHERAPY** Hosam Kader; University of British Columbia, Victoria, BC
- 236 A PERMANENT BREAST SEED IMPLANT PILOT STUDY: MEDIUM-TERM DISEASE CONTROL OUTCOMES** Hosam Kader; University of British Columbia, Victoria, BC
- 237 MECHANICAL PERTURBATION ENHANCED POWER DOPPLER ULTRASOUND IMAGING FOR IMPROVED INTRA-OPERATIVE LOCALIZATION OF INTERSTITIAL BRACHYTHERAPY NEEDLES** Jonatan Snir¹, Nathan Orlando², John Patrick¹, Kathleen Surry², Vikram Velker², Douglas Hoover²; ¹London Regional Cancer Program, London, ON; ²University of Western Ontario, London, ON
- 238 TREATMENT RELATED CERVICAL NECROSIS IN THE SETTING OF IMAGE GUIDED ADAPTIVE BRACHYTHERAPY (IGABT): A CASE SERIES WITH DOSIMETRIC ANALYSIS** Kara Schnarr, Robert Hunter, Thomas Farrell, Malti Patel, James Wright, Iwa Kong; McMaster University, Hamilton, ON
- 239 RESPONDING TO THE BREAKDOWN OF THE SOLE RADIOTHERAPY MACHINE IN UGANDA** Ndinawe Kateera¹, Joda Kuk², Kara Schnarr³, Farrok Karsan⁴, Rajendra Chauhan⁴; ¹Road to Care, Kampala, UG; ²Grand River Regional Cancer Centre, Kitchener, ON; ³McMaster University, Hamilton, ON; ⁴Aga Khan University Hospital, Nairobi, KE
- 240 QUALITY ASSURANCE ASSESSMENT FOR THE TREATMENT OF LOCALLY ADVANCED CERVICAL CANCER USING DELPHI CONSENSUS GUIDELINE QUALITY-OF-CARE INDICATORS: A SINGLE-INSTITUTIONAL EXPERIENCE** Kitty Huang, Corinne Doll, Tien Phan, Laurel Traptow, Robyn Banerjee; University of Calgary, Calgary, AB

- 241 MONTE CARLO DOSE CALCULATIONS MODELLING EDEMA RESOLUTION IN PERMANENT IMPLANT PROSTATE BRACHYTHERAPY** Luke McCooey¹, Gavin Hurd¹, Luc Beaulieu², Emily Heath¹, Rowan Thomson¹; ¹Carleton University, Ottawa, ON; ²Université Laval, Quebec City, QC
- 242 PROSTATE BRACHYTHERAPY INTRAOPERATIVE DOSIMETRY BASED ON TRANSRECTAL-ULTRASOUND PROSTATE CONTOURS THAT HAVE BEEN DEFORMED TO ACCOUNT FOR PROBE REMOVAL** Maryam Golshan, Ingrid Spadinger, Sara Mahdavi, Golnoosh Samei, James Morris, Tom Pickles, Tim Salcudean; University of British Columbia, Vancouver, BC
- 243 BRACHYTHERAPY IN THE MANAGEMENT OF ESOPHAGEAL CANCER: A SINGLE INSTITUTION EXPERIENCE** Nikitha Moideen, Conrad Falkson, Aamer Mahmud, Wilma Hopman; Queen's University, Kingston, ON
- 244 DOSE TO THE BLADDER NECK: IMPACT ON URINARY TOXICITY AFTER MRI-GUIDED HDR PROSTATE BRACHYTHERAPY** Noelia Sanmamed¹, Peter Chung¹, Alejandro Berlin¹, Jette Borg¹, Bernadeth Lao¹, Robert Weersink¹, Akbar Beiki-Ardakani¹, Anna Simenov¹, Alex Rink¹, Cynthia Menard², Joelle Helou¹; ¹Princess Margaret Cancer Centre, Toronto, ON; ²McGill University, Montreal, QC
- 245 DEVELOPING A QUALITY CONTROL TOOL FOR CLINICAL ULTRASOUND-GUIDED HDR PROSTATE BRACHYTHERAPY BASED ON PATIENT-SPECIFIC GEOMETRIC BY USING STOCHASTIC FRONTIER ANALYSIS** Reza Moosavi Askari¹, Luc Beaulieu¹, Louis Archambault¹, Éric Poulin²; ¹Université Laval, Québec, QC; ²CHU de Québec, Quebec, QC
- 246 CNSC EXPECTATIONS FOR THE SECURITY OF PRESCRIBED EQUIPMENT CONTAINING RADIOACTIVE SOURCES, WITH EMPHASIS TOWARDS THE HIGH DOSE RATE (HDR) BRACHYTHERAPY UNITS** Rick Kosierb; Canadian Nuclear Safety Commission, Ottawa, ON
- 247 SURFACE MOULD BRACHYTHERAPY FOR SKIN CANCERS: THE BRITISH COLUMBIA CANCER EXPERIENCE** Stephanie Casey, Joseph Awotwi-Pratt, Gaurav Bahl; University of British Columbia, Vancouver, BC
- 248 THREE-DIMENSIONAL-GUIDED PERINEAL-BASED INTERSTITIAL BRACHYTHERAPY IN PRIMARY VAGINAL CANCER: A SYSTEMATIC REVIEW OF LOCAL CONTROL AND TOXICITIES** Yonatan Weiss¹, Lucas Mendez¹, David D'Souza², Ananth Ravi¹, Lisa Barbera¹, Eric Leung¹; ¹University of Toronto, Toronto, ON; ²University of Western Ontario, London, ON
- 249 A MONTE-CARLO STUDY OF CELLULAR DOSIMETRY OF RADIOACTIVE GOLD-PALLADIUM NANOPARTICLES BASED ON *IN VIVO* AND *EX VIVO* DISTRIBUTIONS** Yunzhi Ma, Myriam Laprise-Pelletier, Jean Lagueux, Marie-France Côté, Marc-André Fortin, Luc Beaulieu; Université Laval, Quebec, QC
- 250 RISKS OF SECONDARY CANCER FOR WHOLE BREAST AND PARTIAL BREAST IRRADIATIONS – A PROPOSAL FOR A MEAN LUNG DOSE CONSTRAINT** Jean-Philippe Pignol¹, Nienke Hoekstra², Mischa Hoogeman²; ¹Dalhousie University, Halifax, NS; ²Erasmus Medical Center, Rotterdam, NL
- 251 COST-EFFECTIVENESS ANALYSIS COMPARISON OF LINAC AND ROBOTIC BASED SBRT FOR EARLY STAGE NON-SMALL CELL LUNG CANCER** Jean-Philippe Pignol¹, Michael Frelinghuysen², Joost Jan Nuytens²; ¹Dalhousie University, Halifax, NS; ²Erasmus Medical Center, Rotterdam, NL
- 252 ONE-YEAR COSMESIS AND FIBROSIS FROM ACCEL: ACCELERATED PARTIAL BREAST IRRADIATION (APBI) USING 27 GY IN FIVE DAILY FRACTIONS** Petra Grendarova, Mark Lesiuk, Peter Craighead, Hongwei Liu, Jane Wilson¹, Sarah Quirk¹, James Pinilla, Katelyn Bignell, Tien Phan, Michael Roumeliotis, Ivo A Olivotto; University of Calgary, Calgary, AB
- 253 THE ROLE OF ADJUVANT RADIO CHEMOTHERAPY FOR GASTRIC CANCER: RESULTS OF A META-ANALYSIS** Edwin Boelke, Christiane Matuschek, Jan Haussmann, Wilfried Budach, Balint Tamaskovics, Freddy Djiepmo; Heinrich Heine University, Dusseldorf, DE
- 254 PLANNING STUDY: FROM VMAT ON A CONVENTIONAL LINAC TO DYNAMIC-TRACKING IMRT ON VERO - THE IMPACT ON RILD RISK CALCULATIONS FOR HEPATOCELLULAR CARCINOMA OF THE LIVER** Marie-Laure Camborde¹, Tania Karan¹, Robert Kosztyla¹, Alanah Bergman¹, Roy Ma², Devin Schellenberg², Tania Karan¹, Mitchell Liu², Ante Mestrovic¹, Steven Thomas¹; ¹British Columbia Cancer Agency, Vancouver, BC; ²University of British Columbia, Vancouver, BC
- 255 VERO TRACKING QA IMPLEMENTATION: FROM GATING TO TRACKING** Alanah Bergman, Marie-Laure Camborde, Tania Karan, Richard Lee; British Columbia Cancer Agency, Vancouver, BC
- 256 AN INSTITUTIONAL RETROSPECTIVE REVIEW OF LOCALLY ADVANCED ESOPHAGEAL CANCER PATIENTS TREATED WITH PERIOPERATIVE CHEMOTHERAPY AND CHEMORADIOOTHERAPY FOLLOWED BY SURGERY** Justin Owen, Naseer Ahmed, Koroush Madani, Suha Kakki, Zoann Nugent, Gordon Buduhan; University of Manitoba, Winnipeg, MB
- 257 MACHINE LEARNING PREDICTION OF EARLY DISTANT PROGRESSION FOR OLIGOMETASTATIC AND OLIGOPROGRESSIVE COLORECTAL CANCER PATIENTS TREATED WITH STEREOTACTIC BODY RADIOTHERAPY** Pencilla Lang¹, Mohammad Kayvanrad¹, Rob D Thompson², Patrick Cheung¹, Efsthios D Gennatas³, Gilmer Valdes³, Hans T Chung¹; ¹University of Toronto, Toronto, ON; ²Saint John Regional Hospital, Saint John, NB; ³University of California San Francisco, San Francisco, CA

- 258 PATIENT-REPORTED QUALITY OF LIFE FOLLOWING STEREOTACTIC BODY RADIATION THERAPY FOR PRIMARY KIDNEY CANCER: RESULTS FROM A PROSPECTIVE COHORT STUDY** Anand Swaminath¹, Mark Niglas², Patrick Cheung², Darby Erler², Renee Korol², Julie Blain¹, Himanshu Lukka¹, Danny Vesprini², William Chu²; ¹McMaster University, Hamilton, ON; ²University of Toronto, Toronto, ON
- 259 PROSTATE CANCER UPSTAGING BY PLANNING MRI AND ITS IMPACT ON TREATMENT DECISIONS** Gary Mok, Danny Duplan, Anne-Sophie Gauthier-Paré, Levon Igdashian, Yves Benabu, Vahid Khairi, Moein Alizadeh; Cité de la Santé et Services Sociaux de Laval, Laval, QC
- 260 SMALLER PLANNING TARGET VOLUME IN BLADDER RADIATION THERAPY IS POSSIBLE WHEN USING DAILY CBCT AS METHOD FOR AN IMAGE GUIDED TREATMENT DELIVERY** Khaled Adil, Marija Popovic, Fabio Cury, Sergio Faria, Marie Duclos, Luis Souhami; McGill University, Montreal, QC
- 261 DOSIMETRIC AND CLINICAL PREDICTORS OF RENAL TOXICITY AFTER STEREOTACTIC BODY RADIOTHERAPY FOR PRIMARY RENAL CELL CARCINOMA** Mark Niglas¹, Patrick Cheung¹, Anand Swaminath², Renee Korol¹, Darby Erler¹, Danny Vesprini¹, William Chu¹; ¹University of Toronto, Toronto, ON; ²McMaster University, Hamilton, ON
- 262 OUTCOMES AND TOXICITY OF STEREOTACTIC RADIOTHERAPY FOR METASTATIC BREAST CANCER – A RETROSPECTIVE COHORT STUDY** Motasem Hanaqta, Mark Niglas, Collier Jiang, Patrick Cheung, William Chu, Hans Chung, Sten Myrehaug, Ian Poon, Sahgal Arjun, Hany Soliman; University of Toronto, Toronto, ON
- 263 PATHOLOGICALLY NODE POSITIVE CARCINOMA PROSTATE- PREVALENCE, PATTERN OF CARE AND OUTCOME FROM A POPULATION BASED STUDY** Michael Sia¹, Soumyajit Roy¹, Scott Tyldesley², Gaurav Bahl¹, Katherine Sunderland²; ¹University of British Columbia, Abbotsford, BC; ²University of British Columbia, Vancouver, BC
- 264 FREE PSA RATIO AS A PREDICTOR OF ADVERSE OUTCOMES AFTER CURATIVE-INTENT EXTERNAL BEAM RADIATION THERAPY FOR PROSTATE CANCER: A NOVEL APPLICATION OF AN "OLD" BIOMARKER** Rachel Glicksman, Hanan Goldberg, Neil E Fleshner, Dixon TS Woon, Zachary Klaassen, Thenappan Chandrasekar, Jaime O Herrera-Caceres, Noelia S Sanmamed, Melody Qu, Fabio Y Moraes, Girish S Kulkarni, Robert J Hamilton, Peter Chung, Charles Nicholas Catton, Antonio Finelli, Alejandro Berlin; University of Toronto, Toronto, ON
- 265 SABR IN PATIENTS WITH A SOLITARY KIDNEY: AN INDIVIDUAL-PATIENT POOLED ANALYSIS FROM THE INTERNATIONAL RADIOSURGERY ONCOLOGY CONSORTIUM FOR KIDNEY (IROCK)** Rohann Correa¹, Shankar Siva², Michael Staehler³, Andrew Warner¹, Senthilkumar Gandhidasan², Lee Ponsky⁴, Rodney Ellis⁴, Irving Kaplan⁵, Anand Mahadevan⁵, William Chu⁶, Anand Swaminath⁷, Hiroshi Onishi⁸, Bin Teh⁹, Simon Lo¹⁰, Alexander Muacevic³, Alexander Louie¹; ¹London Regional Cancer Program, London, ON; ²Peter MacCallum Cancer Center, Melbourne, AU; ³University of Munich Hospitals, Munich, Germany; ⁴University Hospitals Seidman Cancer Center, Cleveland, OH; ⁵Beth Israel Deaconess Medical Center and Harvard University, Boston, MA; ⁶Odette Cancer Centre, Toronto, ON; ⁷McMaster University, Hamilton, ON; ⁸University of Yamanashi, Yamanashi, Japan; ⁹Cancer Center and Research Institute, Houston, TX; ¹⁰University of Washington School of Medicine, Seattle, WA
- 266 HYPOFRACTIONATED INTENSITY MODULATED RADIATION THERAPY PLUS WEEKLY GEMCITABINE FOR BLADDER PRESERVATION IN PATIENTS WITH INVASIVE BLADDER CANCER** Saad Alrashidi, Luis Souhami, Fabio Cury, Wassim Kassouf, Sergio Faria, Marie Vanhuysse, Marie Duclos; McGill University, Montreal, QC
- 267 PROSTATE RADIOTHERAPY IS ASSOCIATED WITH IMPROVED SURVIVAL IN NEWLY-DIAGNOSED METASTATIC HORMONE-SENSITIVE PROSTATE CANCER** Scott Morgan¹, Oliver Holmes², Julia Craig¹, Scott Grimes¹, Libni Eapen¹, Shawn Malone¹; ¹University of Ottawa, Ottawa, ON; ²Memorial University of Newfoundland, St John's, NL
- 268 PATTERNS OF ADJUVANT RADIOTHERAPY AMONG LOW-, INTERMEDIATE-, AND HIGH-RISK GROUPS IN EARLY-STAGE ENDOMETRIAL CANCER** Jiheon Song, Tien Le, Choan E, Marc Gaudet, Krystine Lupe, Rajiv Samant; University of Ottawa, Ottawa, ON
- 269 IMPACT OF EXTENDED FIELD AND/OR INTEGRATED BOOST USING VMAT ON ACUTE HEMATOLOGICAL TOXICITY IN PATIENTS WITH LOCALLY ADVANCED CERVICAL CANCER UNDERGOING RADIOCHEMOTHERAPY** Kate Johnson¹, Stéphanie Smet², Alina Sturdza³, Martin Buschmann³, Elena Umbrescu⁴, Yvette Seppenwoolde³, Maximilian Schmid³, Pascal Lambert⁵; ¹University of Manitoba, Winnipeg, MB; ²University Hospital Leuven, Leuven, BE; ³Medical University of Vienna, Vienna, AT; ⁴Hospital Santa Creu i Sant Pau, Barcelona, SP; ⁵CancerCare Manitoba, Winnipeg, MB
- 270 AN MRI-BASED RADIOMIC SIGNATURE FOR DISEASE-FREE SURVIVAL IN LOCALLY ADVANCED CERVICAL CANCER** Kathy Han, Mattea Welch, Jessica Weiss, Melania Pintilie, Anthony Fyles, Michael Milosevic; Princess Margaret Cancer Centre, Toronto, ON
- 271 OF MONSEL'S AND MRI: CAUTION REQUIRED FOR IMAGE QUALITY** Keith Wachowicz, Fleur Huang, Geetha Menon; University of Alberta, Edmonton, AB

- 272 PATTERNS OF RECURRENCE BY TYPE OF ADJUVANT RADIOTHERAPY FOR STAGE II ENDOMETRIAL CANCER: A PROVINCIAL REVIEW** Kim Paulson¹, Natalie Logie², Gawon Han¹, Derek Tilley,³ Geetha Menon¹, Tien Phan⁴, Gregg Nelson⁴, Brad Murray¹, Sunita Ghosh¹, Robert Pearcey¹, Fleur Huang¹, Ericka Wiebe¹; ¹University of Alberta, Edmonton, AB; ²University of Miami, Miami, FL; ³Alberta Health Services, Calgary, AB; ⁴University of Calgary, Calgary, AB
- 273 EVALUATION OF LARYNX PRESERVATION ON PATIENTS WITH LOCALLY ADVANCED LARYNGEAL CANCER IN THE ERA OF IMRT: RESULTS FROM A SINGLE TERTIARY CANCER CENTRE** Jiheon Song, Ionut Busca, Dylan Yegendorf, Libni Eapen, Samy El-Sayed, Marc Gaudet, Alain Haddad; University of Ottawa, Ottawa, ON
- 274 INFLUENCE OF COMORBIDITY ON THERAPEUTIC DECISION-MAKING AND IMPACT ON OUTCOMES IN PATIENTS WITH HEAD AND NECK SQUAMOUS CELL CANCERS: RESULTS FROM A PROSPECTIVE COHORT STUDY** Jai Prakash Agarwal, Monali Swain, Deepanjali Adulkar, Santam Chakraborty, Tejpal Gupta, Ashwini Budrukhar, Sarbani Ghosh-Laskar, Vedang Murthy; Tata Memorial Hospital, Mumbai, IN
- 275 A COLLABORATIVE APPROACH TO CARE: THE DEVELOPMENT OF A MULTIDISCIPLINARY CLINIC FOR HEAD AND NECK CANCER PATIENTS IN NOVA SCOTIA** Natasha McMaster¹, Lorianne MacLean¹, Carol-Anne Davis², Joy Tarasuk¹, Karen Woodworth¹, Joy Calkin¹, Dr Nathan Lamond², Jill Petrella¹, Dr Matthew Rigby², Helmut Hollentorst²; ¹Nova Scotia Cancer Care Program, Halifax, NS; ²Dalhousie University, Halifax, NS
- 276 A BIOIMPEDANCE ANALYSIS OF HEAD AND NECK CANCER PATIENTS** Robert Corns¹, Kirpal Kohli², Krishna Vinnakota³, Winkle Kwan², Anand Karvat², Devon Schellenberg², Peter Steiner², Craig Elith²; ¹East Carolina University, Greenville, NC; ²British Columbia Cancer Agency, Surrey, BC; ³University College Dublin, Dublin, IRL
- 277 PATIENT REPORTED OUTCOMES DURING RADIOTHERAPY FOR HEAD AND NECK CANCER: A PROSPECTIVE OUTCOMES AND SUPPORT INITIATIVE** Sarah Hamilton¹, Eric Tran¹, Vincent Lapointe¹, Julianna Caon², Angela Bowman¹, Cindy Reynolds¹, Minette Lagman¹, Cheryl Ho¹, Erika Brown³, Robert Olson³; ¹British Columbia Cancer Agency, Vancouver, BC; ²British Columbia Cancer Agency, Victoria, BC; ³British Columbia Cancer Agency, Prince George, BC
- 278 DOCUMENTATION AND INCIDENCE OF LATE EFFECTS AND SCREENING RECOMMENDATIONS FOR ADOLESCENT AND YOUNG ADULT HEAD AND NECK CANCER SURVIVORS TREATED WITH RADIOTHERAPY** Sarah Hamilton¹, Omair Arshad², Jaime Kwok², Eric Tran¹, Fuschia Howard², Karen Goddard¹; ¹British Columbia Cancer Agency, Vancouver, BC; ²University of British Columbia, Vancouver, BC
- 279 LATE TOXICITY FOR EARLY GLOTTIS CANCERS TREATED WITH HYPOFRACTIONATED RADIOTHERAPY** Steven Tisseverasinghe¹, Samy El-Sayed², Michelle Thomas², Helene Vanasse², Tinghua Zhang², Sarang Gupta²; ¹University of British Columbia, Kelowna, BC; ²University of Ottawa, Ottawa, ON
- 280 EARLY STAGE GLOTTIS CANCER: OUTCOMES AND EARLY TOXICITY** Steven Tisseverasinghe¹, Samy El-Sayed², Helene Vanasse², Tinghua Zhang², Sarang Gupta²; ¹University of British Columbia, Kelowna, BC; ²University of Ottawa, Ottawa, ON
- 281 COMPARISON BETWEEN POSTOPERATIVE TRUS-CT FUSION WITH MRI-CT FUSION FOR POSTIMPLANT QUALITY ASSURANCE IN PROSTATE LDR PERMANENT SEED BRACHYTHERAPY** Steven Tisseverasinghe, Juanita Crook, David Petrik, Ross Halperin, David Kim, Francois Bachand, Cynthia Araujo; University of British Columbia, Kelowna, BC
- 282 OUTCOMES OF STEREOTACTIC ABLATIVE RADIOTHERAPY FOR PRESUMED EARLY-STAGE LUNG CANCER: THREE-YEAR RESULTS IN A 119 PATIENT COHORT** Antoine Dautruche, Edith Filion, Dominique Mathieu, Louise Lambert, Toni Vu, David Roberge, Marie-Pierre Campeau; Université de Montreal, Montreal, QC
- 283 CAN THE NEUTROPHIL-TO-LYMPHOCYTE RATIO AND PLATELET-TO-LYMPHOCYTE RATIO PREDICT SURVIVAL IN PATIENTS TREATED WITH STEREOTACTIC BODY RADIATION THERAPY FOR NON-SMALL CELL LUNG CANCER? A SYSTEMATIC REVIEW** Daegan Sit¹, Thomas Raissi², Meredith Giuliani³, Percy Lee⁴, Narek Shaverdian⁴, Cindy Walker-Dilks¹, Anand Swaminath¹; ¹McMaster University, Hamilton, ON; ²University of Western Ontario, London, ON; ³University of Toronto, Toronto, ON; ⁴University of California, Los Angeles, CA
- 284 PROSPECTIVE EVALUATION OF QUALITY OF LIFE AND PULMONARY FUNCTION IN EARLY-STAGE NON-SMALL CELL LUNG CANCER PATIENTS TREATED WITH ROBOTIC SBRT: 5-YEAR RESULTS** Dominique Mathieu¹, Marie-Pierre Campeau¹, Houda Bahig¹, Toni Vu¹, Louise Lambert¹, Stéphane Bedwani¹, Caroline Lavoie², David Roberge¹, François Brouillette¹, Andrei Gorgos¹, Édith Filion¹; ¹Université de Montréal, Montréal, QC; ²Université Laval, Québec, QC
- 285 DOSIMETRIC IMPACTS OF VARIATIONS IN ORGAN AT RISKS DELINEATION DURING LUNG SABR** Dominique Mathieu, Laurent Bilodeau, Vincent Cousineau Daoust, Édith Filion, Stéphane Bedwani, Alexis Lenglet, David Roberge, Houda Bahig, Toni Vu, Nicolas Côté, Marie-Pierre Campeau; Université de Montréal, Montréal, QC

- 286 THE IMPACT OF TUMOUR SIZE ON LOCAL TUMOUR CONTROL FOR PERIPHERAL LUNG LESIONS TREATED WITH STEREOTACTIC ABLATIVE BODY RADIOTHERAPY (SABR): A MULTI-INSTITUTIONAL STUDY** Eman Khawandanh¹, Robert Corns², Devin Schellenberg², Liu Mitchell¹, Susan Zhang¹, Maryam Dosani¹, Alanah Bergman¹, Derek Hyde³, Tony Teke³, Vicky Huang², Emma Dunne¹, Steven Thomas¹; ¹British Columbia Cancer Agency, Vancouver, BC; ²British Columbia Cancer Agency, Surrey, BC; ³British Columbia Cancer Agency, Kelowna, BC
- 287 A DOSIMETRY COMPARISON AND LOCAL TUMOUR CONTROL ANALYSIS OF 3DCRT-SABR VERSUS VMAT-SABR FOR PERIPHERAL LUNG LESIONS** Eman Khawandanh¹, Devin Schellenberg², Robert Corns², Liu Mitchell¹, Maryam Dosani¹, Alanah Bergman¹, Steven Thomas¹, Vicky Huang², Derek Hyde³, Tony Teke³, Susan Zhang¹; ¹British Columbia Cancer Agency, Vancouver, BC; ²British Columbia Cancer Agency, Surrey, BC; ³British Columbia, Centre for the Southern Interior, Kelowna, BC
- 288 ARE HIGHER RADIATION DOSES BENEFICIAL IN LIMITED-STAGE SMALL-CELL LUNG CANCER? A PROPENSITY SCORE-MATCHED ANALYSIS** Hanbo Chen, Emma Ali, David Palma, George Rodrigues, Alexander Louie; University of Western Ontario, London, ON
- 289 A NOVEL AND PRACTICAL PROGNOSTIC MODEL FOR LIMITED-STAGE SMALL CELL LUNG CANCER** Hanbo Chen, Andrew Warner, Emma Ali, George Rodrigues, Alexander Louie; University of Western Ontario, London, ON
- 290 STEREOTACTIC ABLATIVE RADIOTHERAPY FOR A RARE CASE OF EARLY LUNG CANCER FOLLOWING DOUBLE LUNG TRANSPLANTATION** Hanbo Chen¹, Jussi Tikkanen², R Gabriel Boldt¹, Alexander Louie¹; ¹University of Western Ontario, London, ON; ²University of Toronto, Toronto, ON
- 291 RADIOTHERAPY NEAR END OF LIFE IN A RAPID ACCESS LUNG CANCER CLINIC COMPARED TO STANDARD PRACTICE** Ian Fraser¹, Robert Olson², Jackie Regan¹, Michael McKenzie¹, Shilo Lefresne¹; ¹University of British Columbia, Vancouver, BC; ²University of British Columbia, Prince George, BC
- 292 PALLIATIVE RADIOTHERAPY NEAR THE END OF LIFE IN LUNG CANCER PATIENTS: A POPULATION-BASED ANALYSIS** Ian Fraser¹, Jackie Regan¹, Shilo Lefresne¹, Robert Olson²; ¹University of British Columbia, Vancouver, BC; ²University of British Columbia, Prince George, BC
- 293 FINANCIAL TOXICITY PREDICTS SURVIVAL FOLLOWING CHEMORADIOTHERAPY FOR LOCALLY ADVANCED NON-SMALL CELL LUNG CANCER IN A SOCIOECONOMICALLY DIVERSE POPULATION** Jonathan Klein, William Bodner, Madhur Garg, Shalom Kalnicki, Nitin Ohri; Albert Einstein College of Medicine, New York, NY
- 294 ACCELERATED HYPOFRACTIONATED RADIOTHERAPY FOR CENTRALLY LOCATED LUNG TUMOURS NOT SUITABLE FOR STEREOTACTIC BODY RADIOTHERAPY (SBRT) OR CONCURRENT CHEMORADIOTHERAPY (CRT)** K Liang Zeng, Ian Poon, Yee Ung, Liying Zhang, Patrick Cheung; University of Toronto, Toronto, ON
- 295 UPSTAGING RATE IN LOCALLY ADVANCED LUNG CANCER PATIENTS AS A FUNCTION OF DELAY FROM DIAGNOSTIC IMAGING** Andrew Bang, Mohammad Hasan, Eli Lechtman, Eshetu Atenafu, Alex Sun, Jean-Pierre Bissonnette; University of Toronto, Toronto, ON
- 296 A PROSPECTIVE STUDY OF MRI ASSESSMENT OF POST-RADIATION CHANGES FOLLOWING STEREOTACTIC BODY RADIATION THERAPY FOR NON-SMALL CELL LUNG CANCER** Pablo Munoz-Schuffenegger, Sonja Kandel, Zishan Allibhai, Andrew Hope, Andrea Bezjak, Alexander Sun, Anna Simeonov, John Cho, Meredith Giuliani; University of Toronto, Toronto, ON
- 297 CLINICAL IMPACT OF INCREASED COMPLEXITY OF TOTAL MARROW IRRADIATION TREATMENTS** Amanda Cherpak, Mammo Yewondwossen, Liam Mulroy; Dalhousie University, Halifax, NS
- 298 TREATMENT OUTCOMES OF PATIENTS WITH LOW GRADE LYMPHOMA OF THE ORBIT OR CONJUNCTIVAE** Elaine Wai¹, Caroline Holloway¹, Tom Pickles²; ¹University of British Columbia, Victoria, BC; ²University of British Columbia, Vancouver, BC
- 299 EFFICACY OF PALLIATIVE RADIATION THERAPY (RT) FOR DIFFUSE LARGE B-CELL LYMPHOMA: A POPULATION-BASED RETROSPECTIVE REVIEW** Jordan Wong, Tom Pickles, Joseph Connors, Christina Aquino-Parsons, Laurie Sehn, Ciara Freeman, Andrea Lo; University of British Columbia, Vancouver, BC
- 300 OUTCOME AND ROLE OF RADIOTHERAPY IN STAGE I-II MESENTERIC DIFFUSE LARGE B-CELL LYMPHOMA** Melody Qu, Michael Jones, Richard Tsang, David Hodgson, Alexander Sun, Michael Crump, Mary Gospodarowicz; University of Toronto, Toronto, ON
- 301 PERSONALIZED SKIN CANCER RADIATION THERAPY FROM REFERRAL TO FIRST TREATMENT** Michelle Nielsen, Ann Foo, Glenn LouHing, Marisa Finlay; Trillium Health Partners, Mississauga, ON
- 302 IMPLEMENTING A NEW TREATMENT OPTION; RADIOTHERAPY FOR EARLY STAGE DUPUYTREN'S CONTRACTURE** Stephanie Berkelaar, Amber Bardock; British Columbia Cancer Agency, Kelowna, BC
- 303 QUANTIFYING OPERATOR VARIABILITY IN CONTOURING MALE BOWEL BAG ON TREATMENT PLANNING AND CONE BEAM CT WITH EXPANDED AND REFINED RTOG GUIDELINES** Elizabeth Orton, Kristopher Dennis, Elsayed S M Ali; University of Ottawa, Ottawa, ON
- 304 BEHIND THE CURTAIN – ESTABLISHING MODELS OF CARE IN RT** Fiona Mitchell¹, Gillian Graham², Shannon Eberle¹; ¹University of Alberta, Edmonton, AB; ²University of Calgary, Calgary, AB

- 305 REASONS FOR SCREEN FAILURE AMONG PATIENTS IDENTIFIED AS CANDIDATES FOR A PHASE 2 STUDY OF 5-FRACTION STEREOTACTIC BODY RADIATION THERAPY (SBRT) FOR OLIGOMETASTATIC CANCER** Jan Ponichtera, Anthony Brade, John Kim, Andrew Hope, Alex Sun, Meredith E Giuliani, James Brierley, Christine A Koch, Bernard J Cummings, Zahra Kassam, Mojgan Taremi, Jolie G Ringash, Rebecca Wong, Pablo Munoz-Schuffenegger, Patricia Lindsay, Tony Panzarella, Laura A Dawson, Andrea Bezjak; *University of Toronto, Toronto, ON*
- 306 RADIOTHERAPY IN THE LAST MONTH OF LIFE: CASE SERIES INCLUDING CAUSE OF DEATH** Ziad Simon Fawaz, Tarek Hijal, Joanne Alfieri, Sergio Faria, Marc David, Neil Kopek; *McGill University, Montreal, QC*
- 307 THE DEVELOPMENT OF A PREDICTION MODEL USING DEEP LEARNING FOR SHORT TERM PROGNOSIS IN PATIENTS SEEN IN A PALLIATIVE RAPID ACCESS CLINIC** Chan-Kyung Jane Cho¹, Ehsan Vahedi², Jonn Wu¹; ¹University of British Columbia, Vancouver, BC; ²Redmond, WA
- 308 PATTERNS OF PRACTICE SURVEY: RADIOTHERAPY FOR EXTREMITY SOFT TISSUE SARCOMA** Chan-Kyung Jane Cho¹, Charles Catton², Caroline Holloway³, Karen Goddard¹; ¹University of British Columbia, Vancouver, BC; ²University of Toronto, Toronto, ON; ³University of British Columbia, Victoria, BC
- 309 RADIOTHERAPY FOR EXTREMITY SOFT TISSUE SARCOMA: THE ROLE OF NORMAL SOFT TISSUE STRIP IN VMAT PLANNING** Chan-Kyung Jane Cho¹, Nevin McVicar², Robynn Ferris², Kerry James², Karen Goddard¹, Steven Thomas¹; ¹University of British Columbia, Vancouver, BC; ²British Columbia Cancer Agency, Vancouver, BC
- 310 UTILIZATION RATES OF PALLIATIVE SINGLE FRACTION RADIOTHERAPY (SFRT) VERSUS MULTIPLE FRACTION RADIOTHERAPY (MFRT) FOR BONE METASTASES IN MANITOBA AND IDENTIFICATION OF RISK FACTORS ASSOCIATED WITH RECEIPT OF MFRT: A RETROSPECTIVE, POPULATION-BASED, COHORT STUDY** Youn Tae Chung, Aldrich Ong, Bashir Bashir, James Beck, Rashmi Koul, Andrew Cooke, Maged Nashed, Arbind Dubey, Julian Kim; *University of Manitoba, Winnipeg, MB*
- 311 END OF LIFE CARE DISCUSSIONS IN PRACTICE: SURVEY OF CANADIAN RADIATION ONCOLOGISTS** Justin Oh¹, Kristopher Dennis², Shilo Lefresne¹, Michael McKenzie¹; ¹University of British Columbia, Vancouver, BC; ²University of Ottawa, Ottawa, ON
- 312 WHITE MATTER HYPERINTENSITIES ON MAGNETIC RESONANCE IMAGING AND THEIR EFFECT ON COGNITIVE FUNCTION AFTER WHOLE BRAIN RADIOTHERAPY (WBRT)** Matthew Chan¹, Elaine Ni Mhurchu², David Ferguson², Ren Yuan², David Li¹, Lovedeep Gondara², Alan Nichol²; ¹University of British Columbia, Vancouver, BC; ²British Columbia Cancer Agency, Vancouver, BC
- 313 CLOSING THE LOOP: WOULD A POST-TREATMENT PHONE CALL IMPROVE THE PERCEPTIONS ABOUT QUALITY OF CARE FOR PALLIATIVE RADIATION THERAPY OUTPATIENTS?** Nareesa Ishmail, Christine Zywine, Tara Rosewall; *University of Toronto, Toronto, ON*
- 314 FUNCTIONAL CRANIO-SPINAL IRRADIATION: A DOSIMETRIC COMPARISON AND EFFICIENCY ANALYSIS** Jack Zheng¹, Saif Aljabab², Patricia Lacasse³, Jamie Bahm², Katie Lekx-Toniolo¹, Ralph P Ermoian², Laval Grimard¹; ¹University of Ottawa, Ottawa, ON; ²University of Washington, Seattle, WA; ³The Ottawa Hospital Cancer Centre, Ottawa, ON
- 315 DOSIMETRIC COMPARISON OF VMAT AND 3D CONFORMAL TECHNIQUES FOR CRANIO-SPINAL IRRADIATION IN PEDIATRIC PATIENTS WITH SCOLIOSIS** Wei Ning (Will) Jiang, Sarah Quirk, Alana Hudson, Che Hsuan (David) Wu, Daphne Irwin, Daren Graham, Natalie Clements, Casey Bojchko, Robert Nordal, Shaun Loewen; *University of Calgary, Calgary, AB*
- 316 THE PROGNOSTIC IMPACT OF PD-L1 AND CD8 EXPRESSION IN ANAL CANCER PATIENTS TREATED WITH CHEMORADIOTHERAPY** Wei Ning (Will) Jiang¹, Angela Man Yui Chan², Gloria Roldan Urgoiti¹, Elizabeth N Kornaga², Peter Mathen³, Rosanna Yeung⁴, Mie Konno², Sandra Lee¹, Alan Box¹, Martin Köbel¹, Kurian Jones Joseph⁵, Corinne M Doll¹; ¹University of Calgary, Calgary, AB; ²Tom Baker Cancer Centre, Calgary, AB; ³National Institute of Health, Bethesda, MD; ⁴University of Washington, Seattle, WA; ⁵University of Alberta, Edmonton, AB
- 317 RESEARCH PRODUCTIVITY OF CANADIAN RADIATION ONCOLOGY RESIDENTS: A TIME-TREND ANALYSIS** Adam Mutsaers¹, David Palma¹, Sangyang Jia², Timothy Nguyen³, Andrew Warner³; ¹University of Western Ontario, London, ON; ²Schulich School of Medicine, London, ON
- 318 DO CANADIAN RADIATION ONCOLOGISTS CONSIDER GERIATRIC ASSESSMENT IN THE DECISION-MAKING PROCESS FOR TREATMENT OF NON-METASTATIC PROSTATE CANCER PATIENTS 80 YEARS OF AGE AND OLDER? - NATIONAL SURVEY** Arman Zereskian¹, Xingshan Cao², Martine Puts¹, Krista Dawdy², Lisa Di Prospero¹, Shabbir Alibhai³, Ewa Szumacher²; ¹University of Toronto, Toronto, ON; ²Sunnybrook Health Sciences Centre, Toronto, ON; ³University Health Network, Toronto, ON
- 319 RADONC RESIDENT GUIDE: PLACING RADIATION ONCOLOGY IN THE PALM OF YOUR HAND** Arpita Sengupta, Lara Best, Arjav Gupta; *Dalhousie University, Halifax, NS*
- 320 HUDDLE UP: CULTIVATING A CULTURE OF QUALITY IMPROVEMENT** Brian Liszewski¹, Francois Gallant², Glen Gonzales², Aisha Sheikh¹, Guna Budrevics², Laura D'Alimonte¹; ¹University of Toronto, Toronto, ON; ²Sunnybrook Health Sciences Centre, Toronto, ON

- 321 ALIGNING REQUIREMENTS OF TRAINING AND ASSESSMENT IN RADIATION PLANNING IN THE ERA OF COMPETENCY-BASED MEDICAL EDUCATION** Nikitha Moideen, Eleftherios Soleas, Maria Kalyvas, Catherine de Metz, Nancy Dalgarno, Rylan Egan; Queen's University, Kingston, ON
- 322 CREATION OF AN EDUCATIONAL QUALITY IMPROVEMENT PROGRAM FOR RADIATION ONCOLOGY RESIDENTS** Catherine Pembroke¹, Joanne Alfieri², Alain Biron², Carolyn Freeman², Tarek Hijal²; ¹Cardiff University, Cardiff, UK; ²McGill University, Montreal, QC
- 323 COMMUNICATING THE EXTERNAL BEAM RADIATION EXPERIENCE (CEBRE): A NOVEL GRAPHIC NARRATIVE PATIENT EDUCATION TOOL** Daniel Golden¹, Ritu Arya¹, Brian Callender¹, Marina De Pablo¹, Kira Novak², Shanyanyan Li², Apoorva Shenoy², Andrea Everman², Sarah Braunstein², Isabel Dec², Sonia Lala², Yachu Feng², Laura Biltz², Anne McCall¹, Tomoko Ichikawa²; ¹University of Chicago, Chicago, IL; ²Illinois Institute of Technology, Chicago, IL
- 324 YOU AIN'T SEEN NOTHING YET: INTEGRATING THERAPEUTIC MRI INTO RADIATION THERAPY PRACTICE** Darby Erler¹, Laura D'Alimonte¹, Mikki Campbell²; ¹University of Toronto, Toronto, ON; ²University of Waterloo, Waterloo, ON
- 325 IMPROVING RESIDENT SELECTION PRACTICES IN RADIATION ONCOLOGY USING A MULTIPLE MINI INTERVIEW FORMAT** David Bowes, Karen Watts, Holly Campbell, Trisha Daigle-Maloney; Dalhousie University, Halifax, NS
- 326 BURNOUT AND RESILIENCY IN CANADIAN ONCOLOGY RESIDENTS: A NATIONWIDE RESIDENT AND PROGRAM DIRECTOR SURVEY** Hannah Dahn, Angela McGibbon, David Bowes; Dalhousie University, Halifax, NS
- 327 DESIGN OF A "TRANSITION TO PRACTICE" ROTATION FOR RADIATION ONCOLOGY RESIDENTS** Hannah Dahn, Karen Watts, Lara Best, David Bowes; Dalhousie University, Halifax, NS
- 328 DEVELOPING A GLOBAL HEALTH SCHOLARSHIP FOR YOUNG LEADERS IN RADIATION ONCOLOGY: RESULTS OF A PILOT PROGRAM** Horia Vulpe¹, Jean-Marc Bourque², Fleur Huang³, Ian Pereira⁴, Jenna Adleman¹, Danielle Rodin¹, Joda Kuk⁵, Timothy Hanna⁴; ¹University of Toronto, Toronto, ON; ²The Ottawa Hospital, Ottawa, ON; ³University of Alberta, Edmonton, AB; ⁴Queen's University, Kingston, ON; ⁵Grand River Regional Cancer Centre, Kitchener, ON
- 329 CREATION AND IMPLEMENTATION OF HIGH-FIDELITY COMPUTER-BASED SIMULATION TO IMPROVE RESIDENT COMPETENCY IN RADIOTHERAPY TREATMENT PLAN EVALUATION** Jenna Adleman, Jeff Winter, Thomas Purdie, Andrea McNiven, Jennifer Croke; University of Toronto, Toronto, ON
- 330 EVOLVING MENTORSHIP NEEDS FOR RADIATION ONCOLOGY RESIDENTS DURING TRAINING: IMPLICATIONS FOR PROGRAM DESIGN** Jennifer Croke¹, Emily Milne¹, Andrea Bezjak¹, Sylvia Heeneman², Meredith Giuliani¹; ¹University of Toronto, Toronto, ON; ²Maastricht University, Maastricht, NL
- 331 EXPLORING THE EDUCATIONAL NEEDS OF WOMEN WITH GYNECOLOGICAL CANCERS POST-BRACHYTHERAPY** Anet Julius, Jodi-Ann Manhertz, Carol Heck, Kitty Chan, Jennifer Croke, Janet Papadakos; University of Toronto, Toronto, ON
- 332 EXTRACTING FROM PATIENT EXPERIENCE: THE USE OF VIRTUAL SOFTWARE FOR RADIATION THERAPY EDUCATION FOR BREAST CANCER PATIENTS** Jenny Soo¹, Christina Aquino-Parsons², Paris-Ann Ingledew²; ¹British Columbia Cancer Agency, Vancouver, BC; ²University of British Columbia, Vancouver, BC
- 333 PRE-LAUNCH FEEDBACK FOR EFFECTIVE TRANSITION TO PRACTICE TRAINING WITH COMPETENCY-BASED MEDICAL EDUCATION IN RADIATION ONCOLOGY** Lara Best¹, Arpita Sengupta¹, Joan Sargeant¹, René JL Murphy², Catherine de Metz³, Paris-Ann Ingledew⁴, Shaun K Loewen⁵, Theresa Trotter⁵; ¹Dalhousie University, Halifax, NS; ²Acadia University, Wolfville, NS; ³Queen's University, Kingston, ON; ⁴University of British Columbia, Vancouver, BC; ⁵University of Calgary, Calgary, AB
- 334 EMPATHIC PATIENT-ORIENTED COMMUNICATION IN CANCER CARE COURSE: PROGRAM DESIGN AND EVALUATION** Meredith Giuliani, Janet Papadakos, Caitlin Gillan, Anna D'souza, Jennifer Croke, Raymond Jang, Kim Miller, Kirsten Wentlandt, Tina Papadakos; Princess Margaret Cancer Centre, Toronto, ON
- 335 EXPLORING THE ROLE OF PROSTATE CANCER SURVIVORS IN MANAGING SURVIVORSHIP CARE** Meredith Giuliani¹, Naa Kwarley Quartey¹, Charles Catton¹, Anna D'souza¹, Edward Kucharski², Manjula Maganti¹, Andrew Matthew¹, Janet Papadakos¹; ¹Princess Margaret Cancer Centre, Toronto, ON; ²CancerCare Ontario, Toronto, ON
- 336 THE PREVALENCE AND NATURE OF UNMET SURVIVORSHIP NEEDS OF PROSTATE CANCER PATIENTS** Janet Papadakos¹, Naa Kwarley Quartey¹, Charles Catton¹, Anna D'souza¹, Edward Kucharski², Manjula Maganti¹, Andrew Matthew¹, Meredith Giuliani¹; ¹Princess Margaret Cancer Centre, Toronto, ON; ²University of Toronto, Toronto, ON
- 337 LEARNING IN 360 DEGREES: A PILOT STUDY ON THE USE OF VIRTUAL REALITY FOR RADIATION THERAPY PATIENT EDUCATION** Merrylee McGuffin¹, Kalaina Johnson², Brian Liszewski¹; ¹University of Toronto, Toronto, ON; ²The Michener Institute for Applied Health Sciences, Toronto, ON

- 338 MONITORING THE SITUATION: IMPLEMENTATION OF A PATIENT INFORMATION MONITOR IN A RADIATION THERAPY DEPARTMENT WAITING ROOM** Merrylee McGuffin¹, Brian Liszewski¹, Ruby Bola², Stephanie Kulczynski², Nikolas Gregor², Fatima Hashmi², Dilshad Nathoo², Helen Su², Romeo Tirona², Angela Turner¹, Laura D'Alimonte¹; ¹University of Toronto, Toronto, ON; ²Sunnybrook Health Sciences Centre, Toronto, ON
- 339 RESULTS FROM THE 2017 SURVEY OF RADIATION ONCOLOGY RESIDENTS IN CANADA** Michael Wang¹, Shaun Loewen², Meredith Giuliani³, Alys Fairchild¹, Don Yee¹, Brock Debenham¹; ¹Cross Cancer Institute, Edmonton, AB; ²Tom Baker Cancer Centre, Calgary, AB; ³Princess Margaret Cancer Centre, Toronto, ON
- 340 DISTRACTED DRIVING? AN EXAMINATION OF CONSOLE INTERRUPTIONS DURING RADIATION THERAPY TREATMENT** Sarah Kristensen¹, Alison Giddings², John French², Amanda Bolderston², Lindsey Baker³; ¹British Columbia Cancer Agency, Surrey, BC; ²British Columbia Cancer Agency, Vancouver, BC
- 341 BREAST CANCER PATIENTS' PERCEPTIONS OF ADJUVANT RADIOTHERAPY: AN ASSESSMENT OF PRE-TREATMENT KNOWLEDGE AND INFORMATIONAL NEEDS** Sonja Murchison¹, Jenny Soo², Aneeta Kassam², Paris-Ann Ingledew¹, Sarah Hamilton¹; ¹University of British Columbia, Vancouver, BC; ²British Columbia Cancer Agency, Vancouver, BC
- 342 ESTABLISHING A ROLE FOR TUMOUR GENOMICS IN RADIATION MEDICINE: AN ANALYSIS OF HEAD AND NECK CANCER PATIENTS ENROLLED IN THE PERSONALIZED ONCO-GENOMICS (POG) INITIATIVE** Sonja Murchison¹, Laura Williamson², Jasleen Grewal², Eric Zhao², Tony Ng¹, Stephen Yip¹, Steven Jones², Marco Marra², Janessa Laskin¹, Sarah Hamilton¹; ¹University of British Columbia, Vancouver, BC; ²Canada's Michael Smith Genome Sciences Centre, Vancouver, BC
- 343 PROMOTING CAREER SELECTION THROUGH A COMPREHENSIVE ENRICHMENT EXPERIENCE: A REVIEW OF THE CARO-CROF SUMMER STUDENTSHIP** Stella Kang¹, Amanda Caissie¹, Zahra Kassam², Paris-Ann Ingledew³, Joanne Alfieri⁴, Matthew Parliament⁵, Meredith Giuliani²; ¹Dalhousie University, Saint John, NB; ²University of Toronto, Toronto, ON; ³University of British Columbia, Vancouver, BC; ⁴McGill University, Montreal, QC; ⁵University of Alberta, Edmonton, AB
- 344 BUILDING COMMUNITY AMONG PROVINCES, PROFESSIONS AND PATIENTS THROUGH THE DEVELOPMENT OF PATIENT AND CAREGIVER RESOURCES** Stephanie Freire; Dalhousie University, Charlottetown, PEI
- 345 THE ROLE OF PARTIAL BREAST IRRADIATION IN THE PREVIOUSLY IRRADIATED BREAST** Korzets Yasmin¹, Barry Aisling¹, Anthony Fyles¹, Grace Lee¹, Osvaldo Espin Garcia², Thomas Purdie¹, Ann Christine Koch¹, David Hodgson¹; ¹Princess Margaret Cancer Centre, Toronto, ON; ²MMath, Toronto, ON
- 346 MANAGEMENT OF LOCO-REGIONAL RECURRENT BREAST CANCER AFTER PRIOR RADIATION TO THE BREAST OR CHEST WALL** Barry Aisling¹, Anthony Fyles¹, Yasmin Korzets¹, Grace Lee¹, Osvaldo Espin Garcia², Shagun Misra¹, Thomas Purdie¹, Ann Christine Koch¹; ¹University of Toronto, Toronto, ON; ²MMath, Toronto, ON
- 347 THE HUMAN SIDE OF ARTIFICIAL INTELLIGENCE IN HEALTHCARE: DO WE KNOW WHAT'S COMING AND WHAT TO DO ABOUT IT?** Caitlin Gillan, Nicole Harnett, Tom Purdie, David Jaffray, Brian Hodges; University of Toronto, Toronto, ON
- 348 PHYSICIAN AND FACILITY DRIVERS OF SPENDING VARIATION IN LOCALIZED PROSTATE CANCER** Danielle Rodin¹, Alyn Chien², Chad Ellimootil³, Paul Nguyen⁴, Pragya Kakani¹, Matthew Mossanen⁵, Meredith Rosenthal¹, Mary Beth Landrum⁶, Anna Sinaiko⁵; ¹Harvard TH Chan School of Public Health, Boston, MA; ²Boston Children's Hospital, Boston, MA; ³University of Michigan, Ann Arbor, MI; ⁴Dana Farber/Brigham and Women's Cancer Center, Boston, MA; ⁵Brigham and Women's Hospital, Boston, MA; ⁶Harvard Medical School, Boston, MA
- 349 IMPROVING CLINICAL QUALITY BASED ON PATIENT'S PERSPECTIVE** Etienne Letourneau, Annie Houle, Julie Héon, Marie-André Fortin; Université de Montréal, Laval, QC
- 350 TARGETING THE AREAS OF CARE THAT REQUIRED IMPROVEMENT IN PARTNERSHIP WITH PATIENTS** Etienne Letourneau, Annie Houle, Moein Alizadeh; Université de Montréal, Laval, QC
- 351 DISPARITIES IN ACCESSIBILITY TO RADIOTHERAPY IN A HIGH-INCOME COUNTRY: THE CASE OF CANADA** Jessica Chan¹, Alfredo Polo², May Abdel-Wahab², Daichi Hirata³, Jean-Marc Bourque⁴, Eduardo Zubizarreta²; ¹University of Ottawa, Ottawa, ON; ²International Atomic Energy Agency, Vienna, AT; ³Hiroshima University, Hiroshima, JP; ⁴The Ottawa Hospital, Ottawa, ON
- 352 ACCESS TO RADIOTHERAPY AMONG INDIGENOUS POPULATIONS IN CANADA** Jessica Chan¹, Alfredo Polo², May Abdel-Wahab², Daichi Hirata³, Jean-Marc Bourque¹, Eduardo Zubizarreta²; ¹University of Ottawa, Ottawa, ON; ²International Atomic Energy Agency, Vienna, AT; ³Hiroshima University, Hiroshima, JP
- 353 EVALUATION OF A WEB-BASED TOOL HELPING PROSTATE CANCER PATIENTS BECOME ACTIVE PARTNERS IN THEIR CARE A PILOT STUDY** Marie-Andrée Fortin¹, Marie-Thérèse Lussier¹, Moein Alizadeh¹, Claude Richard¹, Israel Fortin², Binta Fatoumata Diallo¹; ¹Université de Montréal, Laval, QC; ²Université de Montréal, Montreal, QC
- 354 LYMPH NODE RATIO AS A PREDICTOR OF DISTANT METASTASES IN MAJOR SALIVARY GLAND CARCINOMAS** Nhu-Tram Nguyen, Shao Hui Huang, Wei Xu, Yi Wen Zhang, Andrew Bayley, Scott V Bratman, John Cho, Meredith Giuliani, Andrew Hope, John Kim, Brian O'Sullivan, Jolie Ringash, John Waldron, Aaron Hansen, John R de Almeida, Eric Monteiro, Douglas Chapeha, Jonathan Irish, David P Goldstein, Ali Hosni; University of Toronto, Toronto, ON

- 355** **EVALUATING THE NECESSITY OF RADIOTHERAPY DOSE ESCALATION FOR INFLAMMATORY BREAST CANCER (IBC) IN THE CONTEXT OF MODERN MULTI-MODALITY TREATMENT: A MULTI-INSTITUTION RETROSPECTIVE REVIEW, 2000-2011** Sunand Kannappan, Rahul Arora, Tien Phan; University of Calgary, Calgary, AB
- 356** **HIGH DOSE STEREOTACTIC ABLATIVE RADIOTHERAPY (HD-SABR) FOR RADIORESISTANT LUNG METASTASIS: ASSESSING THE ACCURACY OF COMMERCIAL DOSE ALGORITHMS FOR A FUTURE CLINICAL TRIAL** Brandon Disher¹, Sergei Zavgorodni², George Hajdok³, Stewart Gaede³, Julian Kim¹, Boyd McCurdy¹, Jerry Battista³; ¹University of Manitoba, Winnipeg, MB; ²University of Victoria, Victoria, BC; ³University of Western Ontario, London, ON
- 357** **HIGH DOSE STEREOTACTIC ABLATIVE RADIOTHERAPY (HD-SABR) FOR DOSE ESCALATION OF RADIORESISTANT LUNG METASTASIS** Brandon Disher¹, George Hajdok², Stewart Gaede², Julian Kim¹, Boyd McCurdy¹, Jerry Battista²; ¹University of Manitoba, Winnipeg, MB; ²University of Western Ontario, London, ON
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- 364** **CONSENSUS GUIDELINES FOR TARGET VOLUME DEFINITION OF THE SACRUM IN SPINAL STEREOTACTIC BODY RADIATION THERAPY (SBRT)** Emma Maria Dunne¹, Arjun Sahgal², Simon S Lo³, Alanah Bergman¹, Robert Kosztyla¹, Eric L Chang⁴, UngKyu Chang⁵, Samuel T Chao⁶, Amol J Ghia⁷, Kristin J Redmond⁸, Scott G Soltys⁹, Salman Faruqi², Mitchell C Liu¹; ¹British Columbia Cancer Agency, Vancouver, BC; ²University of Toronto, Toronto, ON; ³University of Washington, Seattle, WA; ⁴University of Southern California Keck School of Medicine, Los Angeles, CA; ⁵Korea Institute of Radiological and Medical Sciences, Seoul, KOR; ⁶Tauissig Cancer Centre, Cleveland Clinic, Cleveland, OH; ⁷The University of Texas MD Anderson Cancer Centre, Houston, TX; ⁸Johns Hopkins University School of Medicine, Baltimore, MD; ⁹Stanford Cancer Institute, Stanford, CA
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- 384 INTEGRATION OF ONGOING QUALITY ASSURANCE MEASURES IN COLORECTAL CANCER SURVIVORSHIP CARE PLANS** Samantha Sigurdson¹, James Biagi¹, Hugh Langley¹, Kardi Kennedy², Jordan Beattie², Aamer Mahmud¹; ¹Queen's University, Kingston, ON; ²Cancer Centre of Southeastern Ontario, Kingston, ON
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- 388 AN EXAMINATION OF NEEDLE DEFLECTION IN HIGH DOSE RATE PROSTATE CANCER BRACHYTHERAPY** Nathan Orlando, Douglas Hoover, Chandima Edirisinghe, David D'Souza, Eugene Wong, Aaron Fenster; University of Western Ontario, London, ON

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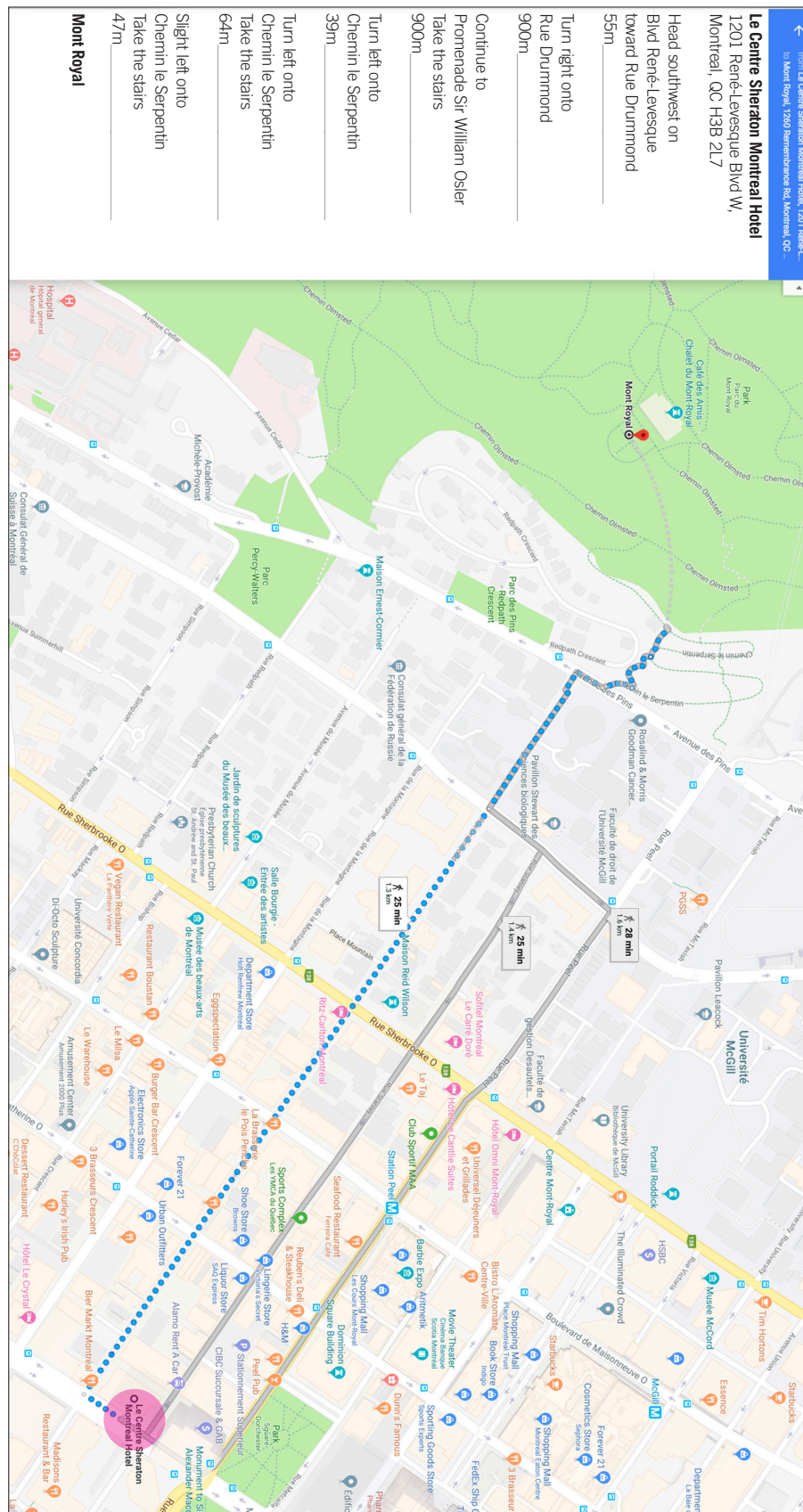
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Saturday, September 15, 2018

Meet in the Hotel Lobby at 6:45am.

Ready to Run at 7:00!

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