



SCHEDULE

Rev. September 9, 2019 – Schedule subject to change.

DAY 1 - Monday, October 14, 2019

07:00 *Registration, Continental Breakfast, Visit Exhibits and Posters*

07:45 **Welcome and Opening Remarks** | Eugen Hug, Michael Chuong

08:00 **KEYNOTE LECTURE 1 - GI Oncology: An Emerging Frontier** | Michael Chuong

EDUCATIONAL SESSION 1 - Toxicity Is The Difference-Maker

Moderator | Hesham Gayar

08:30 **Proton Therapy Is All About Reducing Late Toxicity**

- **The Pediatric Experience** | Torunn Yock
- **At the Heart of the Matter** | Rachel Jimenez

09:30 *Break, Visit Exhibits and Posters*

10:00 **Proton Therapy Is All About Reducing Acute Toxicities**

- **Head and Neck** | Steven Frank
- **Bowel and GI Toxicities** | C. Nichols

11:00 **PANEL SESSION: Challenges of Incorporating Proton Therapy into Cooperative Group Clinical Trials and Practical Hurdles of Proton Studies** | William Hartsell, Nancy Mendenhall, Daniel Ma
Moderator | William Hartsell

12:00 *Lunch, Visit Exhibits and Posters*
Industry Product Theater (30 minutes) - Optional session concurrent with lunch

ORIGINAL CONTRIBUTION SESSION 1 – Breast and Genitourinary

Moderators | Lisa McGee, Samantha Hedrick

- 13:00 Should We Contour to the Skin? The Evaluation of Skin Dose During Pencil Beam Proton Therapy for the Chest Wall
- 13:10 Clinical Outcomes After Proton Partial Breast Radiotherapy for Early Stage, Hormone Receptor Positive Breast Cancer: Three-Year Outcomes of a Phase II Trial
- 13:20 Insurance Coverage for Adjuvant Proton Therapy in the Definitive Treatment of Breast Cancer
- 13:30 Patterns of Care and Referral for Proton Therapy in Breast, Lung and Prostate Cancer
- 13:40 Initial Clinical Outcomes for Prostate Cancer Patients Undergoing Adjuvant or Salvage Post-Prostatectomy Proton Therapy (PT)
- 13:50 Postoperative or Salvage Proton Radiotherapy for Prostate Cancer Following Radical Prostatectomy
- 14:00 Ten-Year Outcomes from Three Prospective Clinical Trials of Image-Guided Proton Therapy in Prostate Cancer
- 14:10 Evaluation of U-net Based Synthetic CT for MRI-only Treatment Planning of Prostate Cancer Proton Therapy
- 14:20 The Impact of Dose Algorithms on Tumor Control Probability in Intensity-Modulated Proton Therapy for Breast Cancer

- 14:30 **KEYNOTE LECTURE 2 – Improving Dosimetric Precision: Clinical Implementation of Dual Energy CT for PT Planning** | Kevin Teo
- 15:00 **INVITED LECTURE – Multi-Organ Toxicity Prediction Approach for Proton Planning** | Soren Bentzen
- 15:30 *Adjourn and Closing Remarks – Day 1 Educational Session* | Michael Chuong
- 15:30 *Break, Visit Exhibits and Posters*
- 16:00 **Mentor-led Poster Walk (Non-CME segment)** | Charles Simone, Chris Beltran
- 17:00 Depart for Miami Cancer Institute (*15 minute walk*)
- 17:30 – 19:00 **Reception and Tour – Miami Cancer Institute Proton Therapy Center**

DAY 2 - Tuesday, October 15, 2019

- 07:00 *Registration, Continental Breakfast, Visit Exhibits and Posters*
Industry Product Theater (30 minutes) - Optional session concurrent with breakfast
- 07:00 *PTCOG-NA Executive Committee Meeting - by invitation only*
- 07:55 **Welcome and Opening Remarks** | Craig McKenzie
- 08:00 **RBE/LET Planning: A Realistic Assessment, Pros and Cons** | Chris Beltran and Daniel Indelicato
- ORIGINAL CONTRIBUTION SESSION 2 – Other Topics**
Moderators | Eugen Hug, Soren Bentzen
- 08:45 Average Let of X-rays and Gamma Radiation for Radiobiological Modeling
- 08:55 Evaluating Proton Relative Biological Effectiveness for Spinal Cord Toxicity
- 09:05 Concurrent Pencil Beam Scanning Proton Therapy and Hyperthermia: Growing Experience with Promising Results
- 09:15 The Impact of Dual Energy CT Scans on TPS Calculated Dose Accuracies for Biological and Non-Biological Samples
- 09:25 Comparative Effectiveness of Proton Therapy Versus Photon Therapy as Part of Concurrent Chemo-Radiotherapy for Locally Advanced Cancer: Analysis of Patients with Private Health Insurance
- 09:35 Impact of Proton Technology Evolution on Patient Volumes at a Large Academic Medical Center
- 09:45 Treatment Planning Strategies to Mitigate the Relative Biological Effectiveness Uncertainty in Proton Therapy for Targets in the Brain
- 09:55 Improving Proton Plan Robustness Evaluation Standardization and Efficiency Through Scripting
- 10:05 Carbon Ion Dose Constraints for Organs at Risk at MedAustron
- 10:15 *Break, Visit Exhibits and Posters*
- EDUCATIONAL SESSION 2 - Emerging Clinical Data**
Moderator | Carl Rossi
- 10:45 **Protons and Cognition** | Rupesh Kotecha
- 11:15 **Lung Cancer Conundrum** | Charles Simone
- 11:45 *Lunch, Visit Exhibits and Posters*
Industry Product Theater (30 minutes) - Optional session concurrent with lunch

ORIGINAL CONTRIBUTION SESSION 3 – CNS and Pediatrics

Moderators | Matthew Hall, Chris Beltran

- 12:45 Outcomes After Proton Therapy for Skull-Base Chordoma: A Prospective Study
- 12:55 Pilot Study on Critical Structure Dosing for Ocular Melanoma Radiation Techniques: An Analysis of 1-125 Brachytherapy Plaque and Dedicated Proton Eye Beamline Treatment Planning Dosimetry
- 13:05 Routine Neurocognitive Testing of Patients Treated with Proton Therapy on a Prospective Registry Study - Feasibility and First Results
- 13:15 Outcomes of Intracranial High-Grade Glioma Treated with Proton Therapy
- 13:25 What's Gone Wrong in Head and Neck Rhabdomyosarcoma?
- 13:35 Proton Therapy for Pediatric Bladder Rhabdomyosarcoma
- 13:45 Computer-Based Assessment of Neurocognitive Decline in Pediatric Patients Treated with Proton Therapy: A Prospective Study
- 13:55 Organ Sparing with Proton Radiation Therapy for Pediatric Hodgkin Lymphoma
- 14:05 Proton Irradiation Using Pencil Beam Scanning (PBC) Correlates with Taste/Odor Changes Identified by the Layer Defined Dose and Bragg Peak Delivery to the Olfactory Structure (OS) for Brain Tumors
- 14:15 **Challenging Cases with Audience Participation – Miami Cancer Institute: *Protons Are Not a Panacea*** | Michael Chuong, Marcio Fagundes, Alonso Gutierrez, Minesh Mehta, Craig McKenzie
Moderator | Minesh Mehta
- 15:00 *Break, Visit Exhibits and Posters*

ORIGINAL CONTRIBUTION SESSION 4 – Physics

Moderators | Mark Pankuch, Alonso Gutierrez

- 15:30 Clinical Sensitivity of a Prototype Proton Radiography System
- 15:40 Deep Learning Based Relative Stopping Power Mapping Generation for CBCT-Guided Adaptive Proton Radiotherapy
- 15:50 Clinical Workflow to Evaluate and Incorporate a High-Density Implant into Pencil Beam Scanning Proton Therapy Planning
- 16:00 Real-Time, Patient-Specific Quality Assurance
- 16:10 Evaluations of a Flat-Panel Based Compact Daily QA Device for Proton Pencil Beam Scanning (PBS) System
- 16:20 Status on Carbon Ion Commissioning at MedAustron Ion Therapy Center
- 16:30 Reducing Pencil Beam Proton Lateral Penumbra by Using Layer-by-Layer Adaptive Aperture, Bolus and Smaller Air Gap
- 16:40 A Sub-Cubic Millimeter Single Particle Sensor for In Vivo Dosimetry
- 16:50 Feasibility of Predicting Proton Stopping Power Ratio Using the MRI-Measured Material Hydrogen Density
- 17:00 **INVITED LECTURE - Hyperthermia and Protons: Is This the Safe Way to Get the “Carbon Effect”?** | Zeljko Vujaskovic
- 17:30 *Adjourn and Closing Remarks – Day 2 Educational Session* | Michael Chuong
- 18:00 **Depart - City Night Miami** (*please arrive 15 minutes before departure time*)

DAY 3 – Wednesday, October 16, 2019

- 07:00 *Registration, Continental Breakfast, Visit Exhibits and Posters*
- 07:25 **Welcome and Opening Remarks** | Anita Mahajan
- 07:30 **KEYNOTE LECTURE 3 – FLASH** | Jim Metz
- 08:00 **PTCOG-NA General Assembly Meeting, All Members**

ORIGINAL CONTRIBUTION SESSION 5 – Lung and Motion

Moderators | Jing Zeng, Paige Taylor

- 08:45 A University of Florida and Proton Collaborative Group Phase I/II Study of Hypofractionated Proton Therapy with Concurrent Chemotherapy for Stage II-III NSCLC
- 08:55 Interplay Evaluation of High-Frequency Percussive Ventilation (HFPV) for Motion Greater than 10 MM During Proton Beam Scanning
- 09:05 Image-Guided Hypofractionated Proton Therapy in the Management of Early Stage Non-Small Cell Lung Cancer
- 09:15 Using Breath Hold at the End of Exhale for Lung Treatment in Pencil Beam Scanning Proton Therapy
- 09:25 Clinical Outcomes Following Proton Beam Therapy for Locally Advanced Non-Small Cell Lung Cancer: Analysis of a Multi-Institutional Prospective Registry
- 09:35 Dual-Energy CT-Based Accurate Relative Stopping Power Mapping Using Deep Learning
- 09:45 Evaluation of the Gain in Using Higher Order Components of the Thoraco-Abdominal Surface to Estimate Volumetric Tidal Flow
- 09:55 Evaluation of Stopping Power Ratio Prediction of Lung Tissue from Dual-Energy CT
- 10:05 Effectiveness of Motion Interplay Effect Mitigation Using Spot-Scanning Proton Arc (SPArc) Therapy in Lung Stereotactic Body Radiotherapy (SBRT): A Quantitative Comparison Study Based on a Digital Phantom
- 10:15 *Break, Visit Exhibits and Posters*

ORIGINAL CONTRIBUTION SESSION 6 – Head & Neck and Gastrointestinal

Moderators | Adeel Kaiser, Jen Yu

- 10:30 Intensity Modulated Proton Therapy Using Dose-Painting Pencil Beam Scanning for High-Risk Hepatocellular Carcinomas
- 10:40 Re-irradiation with Proton Therapy for Recurrent Malignancies of the Esophagus and Gastroesophageal Junction: Results of the Proton Collaborative Group Multi-Institutional Prospective Registry Trial
- 10:50 Early Results of Re-irradiation for Rectal Cancer Using Pencil-Beam Scanning Proton Therapy Are Promising
- 11:00 Minimal Severe Acute Toxicity in Anal Cancer Patients Treated with Proton Beam Therapy
- 11:10 Estimating the Individual Quality of Life Benefit and Cost Effectiveness of Proton Therapy for Patients with Oropharyngeal Cancer
- 11:20 Quantification and Verification of Skin Dose for Patients with Head and Neck Cancer Receiving Intensity Modulated Proton Therapy
- 11:30 Spot-Scanning Proton Arc Therapy (SPArc) for Improved Optic Pathway Sparing in Paranasal Sinus and Nasal Cavity Cancer Treatment
- 11:40 The Importance of Verification Computed Tomography Quality Assurance Scans in Patients Treated with Spot-Scanning Intensity Modulated Proton Therapy for Head and Neck Cancers
- 11:50 Enhancing LET in Proton Beam Therapy for Pancreas Cancer
- 12:00 **Closing Remarks and Adjourn | Eugen Hug**
- 12:30 *PTCOG-NA Post-Conference Executive Committee Meeting – by Invitation only*