Fourth Annual NIRS – CSU – CU Joint Symposium

*Photon, Proton, and Carbon Ion Radiotherapy: Advances in Basic, Translational, and Clinical Research*

University of Colorado Anschutz Medical Campus – July 31 – August 1, 2014

**Thursday, July 31, 2014**

7:30 am  Coffee and refreshments

8:00 am  Welcome

**Session 1: Radiotherapy Clinical Experience and Human Clinical Trials**

8:30 am  Heavy Ion Cancer Treatment in Japan - Hirohiko Tsujii, MD, PhD; NIRS

9:00 am  IMRT vs Carbon Ion Clinical Trials – Stephanie Combs, University of Münich

9:30 am  Proton vs IMRT Randomized Trial in Prostate Cancer – Jason Efstathiou, MD, DPhil; Massachusetts General Hospital, Harvard University

10:00 am  Group Pictures

10:15 am  Break

10:30 am  Clinical Experience at SAGA HIMAT – Makoto Shinoto, MD, PhD; Ion Beam Therapy Center, SAGA HIMAT

11:00 am  Update: Expanding Patient Options for Advanced Cancer Therapy – Miho Scott, MD; Medical Oncology University of Colorado Health

11:30 am  Lunch (provided)

**Session 2: Translating Molecular Biology, Radiobiology and Cancer Biology to Clinical Practice**

12:30 pm  Modulating DNA Damage Responses for Clinical Benefit – Michael Kastan, MD, PhD; Duke University Cancer Center

1:00 pm  The Tumor Microenvironment, Metastasis and Radiotherapy Outcomes – Dietmar Siemann, PhD; University of Florida, Radiation Oncology

1:30 pm  High Dose Radiation Effects on Tissue Perfusion – Richard Kolesnick, PhD; Sloan Kettering Cancer Center

2:00 pm  Role of HIF-1 in Governing Cancer Therapeutic Response – Mark Dewhirst, DVM, PhD; Duke University Radiation Oncology

2:30 pm  Break

**Session 3: Medical Physics Research and Clinical Practice**

3:00 pm  Status and Future Plans for the NIRS-HIMAC – Koji Noda, PhD; NIRS Accelerator and Medical Physics

3:30 pm  Patient-Specific Motion During Stereotactic Body Radiation Therapy for Pancreatic Cancer – Moyed Miften, PhD; University of Colorado
4:00 pm  Clinical Impact of Monte Carlo Dose Calculation in Proton Therapy – Harald Paganetti, PhD; Massachusetts General Hospital, Harvard University

4:30 pm  Medical Physics Research with Ion Beam – Oliver Jäkel, PhD; Heidelberg Ion Beam Therapy Center and Department of Medical Physics in Radiation Oncology, DKFZ, Heidelberg, Germany

5:00 pm  Adjourn

**Friday, August 1, 2014**

7:30 am  Coffee and refreshments

**Session 4: Translational Research to Clinical Practice I**

8:00 am  Cu-64-ATSM, a Theranostic for PET Imaging / Internal Radiation Therapy: Collaborative Research Between NIRS and CSU – Yasuhisa Fujibayashi, PhD; NIRS Molecular Imaging Center

8:30 am  Normal Tissue Effects after High Dose Per Fraction Photon Radiation – Brian Kavanagh, MD, MPH; University of Colorado, Radiation Oncology

9:00 am  Altered Tissue Perfusion after High Dose Radiation: Translational Studies in Dogs – Susan LaRue, DVM, PhD; CSU Flint Animal Cancer Center

9:30 am  Break

**Session 5: Carbon Ion Radiotherapy at the NIRS**

9:45 am  Carbon Ion Therapy of Bone and Soft Tissue Sarcomas – Tadashi Kamada, MD, PhD; NIRS

10:15 am  Carbon Ion Therapy of Prostate Cancer – Hiroshi Tsuji, MD, PhD; NIRS

10:45 am  Carbon Ion Therapy of Head and Neck Cancer – Masahi Koto, MD, PhD; NIRS

11:15 am  Carbon Ion Therapy of Lung Cancer – Mio Nakajima, MD; NIRS

11:45 am  Carbon Ion Therapy of Pancreatic and Rectal Cancer – Makoto Shinoto, MD, PhD; SAGA HIMAT

12:15 pm  Lunch (provided)

1:15 pm  Discussion of future venues, symposium format

**Session 6: Translational Research to Clinical Practice II**

1:30 pm  Pre-clinical and Clinical Translational Studies for Particle Therapy – Paul Okunieff, MD; University of Florida Cancer Center

2:00 pm  Rethinking the Appropriateness of Conventional Radiotherapy and Chemotherapy Applications in an Era of Dramatic Evolution and Improvements in Technology - Robert Timmerman, MD; University of Texas Southwestern Medical School

2:30 pm  Pediatric Radiation Oncology – Thomas Merchant, DO, PhD; St. Jude Children’s Research Hospital

3:00 pm  Radiation Therapy for Early Stage Lung Cancer – What’s Behind, What’s Ahead - Anna Simeonova, MD; University of Heidelberg

3:30 pm  Functional Imagining, High Risk Tumor Volume & Predicting Long Term Outcomes – Nina Mayr, MD, FASTRO, FAAA; University of Washington

4:00 pm  Adjourn

Website: [http://csu-cvmbs.colostate.edu/academics/erhs/Pages/radiotherapy-symposium.aspx](http://csu-cvmbs.colostate.edu/academics/erhs/Pages/radiotherapy-symposium.aspx)

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