EVENT DETAILS

Reception and Registration (Sunday) 6/21/09

6:00 - 8:00 PM at Hampton Inn, Diehl Road, Naperville
Hors d'oeuvres, beverages, and cash bar. Distribute conference program and materials.

Day 1 (Monday) 6/22/09

8:00 Continental Breakfast

8:30 Welcome Messages
Bill Foster, U.S. Congressman, 14th District (Invited)
John Lewis, Ph. D., Northern Illinois University

9:00 Keynote Address
History and future of proton therapy: the clinical perspective
Rich Levy, M.D.

9:45 Morning Plenary Talk
History and future of proton therapy: the physics perspective and an introduction to the NIU proton therapy project
George Coutrakon, Ph. D., Northern Illinois University

10:30 Coffee Break

Session 1 - Current Clinical Issues in Proton Therapy

11:00 The status of proton therapy and future proton research
Allan Thornton, M.D., Midwest Proton Radiotherapy Institute

11:30 Current controversies in pediatric proton therapy: On the risk of second cancer
Wayne Newhauser, Ph. D., University of Texas M. D. Anderson Cancer Center

12:00 Northwestern University's interest in proton therapy
Bharat Mittal, M. D., Northwestern University

12:30 Lunch (Provided)

Session 2 - Current Research Issues in Proton Therapy

1:30 Afternoon Plenary Talk
International initiatives to harmonize the practice of proton therapy with conventional radiation therapy
Paul DeLuca, Ph. D., University of Wisconsin

2:00 The role of proton therapy in pediatric malignancies
John Kalapurakal, M.D., Northwestern University

2:45 Coffee break

3:15 Medical physics aspects of clinical trials involving proton therapy
Wayne Newhauser, Ph. D., University of Texas M. D. Anderson Cancer Center

4:00 Panel Discussion
Moderator: John Lewis
Panelists: Paul DeLuca, Bharat Mittal, George Coutrakon, Allan Thornton, Rich Levy, Wayne Newhauser, John Kalapurakal

5:00 BBQ / informal social event at NIU Naperville

7:30 Buffet style, cash bar, seating inside and out

Day 2 (Tuesday) 6/23/09

8:30 Continental Breakfast

9:15 Management of second cancer risks for patients receiving proton therapy for prostate cancer
Phillip Taddei, Ph. D., University of Texas M. D. Anderson Cancer Center

Session 3 - Recent Developments in Dose Calculations

9:45 Advances in calculating radiation dose to patients receiving proton therapy
Wayne Newhauser, Ph. D., University of Texas M. D. Anderson Cancer Center

10:10 Advances in fast dose calculations using a track repeating algorithm: Applications in adaptive image-guided proton therapy
Pablo Yepes, Ph. D., Rice University

10:35 Coffee Break

11:00 Monte Carlo simulations to estimate second cancer risks for patients receiving proton therapy for liver cancer
Phillip Taddei, Ph. D., University of Texas M. D. Anderson Cancer Center

11:20 Monte Carlo simulations for ocular proton therapy
Sharmalee Randeniya, Ph. D., University of Texas M.D. Anderson Cancer Center

11:45 Lunch (Provided)

Session 4 - Scanning Proton Beams

1:30 Afternoon Plenary Talk
The NIU proton therapy facility: an introduction to the technical features
George Coutrakon, Ph. D., Northern Illinois University

2:00 First 2 years of clinical experience with the scanned-beams at MPRI
Markus Fitzek, M. D., Midwest Proton Radiotherapy Institute

2:30 Monte Carlo simulations for scanned proton beams: treatment planning
Uwe Titt, Ph. D., University of Texas M. D. Anderson Cancer Center

3:00 Laser-controlled proton beam for medical imaging
Carol Johnstone, Ph. D., Fermi National Accelerator Laboratory

3:30 Adjournment

4:00 Fermi National Accelerator Laboratory and NIU Institute for Neutron Therapy - tour and dinner at Fermilab. Buffet style, cash bar. (optional - $35.00)

Day 3 (Wednesday) 6/24/09

7:30 Continental Breakfast

Session 5: Imaging and Informatics

8:00 Morning Plenary Talk
Imaging in Radiation Oncology
Peter Balter, Ph. D., University of Texas M. D. Anderson Cancer Center

8:45 Advanced imaging techniques for radiotherapy
Chuck Pelizzari, Ph. D., University of Chicago

9:15 Proton Computed Tomography
Reinhard Schulte, M. D., M. S., Loma Linda University Medical Center
Hartmut Sadrozinski, Ph. D., University of California Santa Cruz

10:00 Resolution limits of proton CT
Bela Erdelyi, Ph. D., Northern Illinois University

10:15 Coffee Break

10:30 MV Photon CT for proton therapy: Management of proton range uncertainties for patients with metal implants
Wayne Newhauser, Ph. D., University of Texas M. D. Anderson Cancer Center

10:45 The M. D. Anderson experience in developing proton therapy software
Dragan Mirkovic, Ph. D., University of Texas M. D. Anderson Cancer Center

11:00 Applications of supercomputing in radiotherapy
Ravi Madduri, Applications of Grid Computing in Bio-Informatics

Session 6 - Young Investigators' Symposium

11:20 Accurate dose per monitor unit predictions: The bread and butter of proton medical physics
Annelise Giebeler, M. S., The University of Texas Graduate School of Biomedical Sciences

11:30 Application of proton therapy for treating challenging tumors of the central nervous system
Laura Broaded, B. S., The University of Texas Graduate School of Biomedical Sciences

11:40 Radiogenic second cancers: uncertainties associated with nuclear models
Mark Harvey, Ph. D., University of Texas M. D. Anderson Cancer Center

11:50 Water equivalence of tissue and tissue substitutes in proton therapy beams
Rui Zhang, M. S., The University of Texas Graduate School of Biomedical Sciences

12:00 Lunch (Provided)

1:00 Simulation of neutron radiation absorbed dose for scattered proton beams
Angelica Perez-Andujar, Ph. D., University of Wisconsin

1:10 Particle transmission trajectory optimization for proton computed tomography
Kent Wong, M.S., Northern Illinois University

1:20 Young Investigator Award Ceremony

2:00 Workshop: Practical Radiobiology for the Radiation Oncologist and Physicist

Robert D. Stewart, School of Health Sciences, Purdue University
Research topic: Proton Relative Biological Effectiveness (RBE) Determined using a Monte Carlo DNA Damage Simulations

Eleanor Blakely, PhD, Senior Staff Biophysicist, Lawrence Berkeley Laboratories at the University of California, Berkeley
Research topic: Space Radiation and Cataracts

Markus Fitzek, MD, Midwest Proton Radiotherapy Institute
Research topic: gene expression profiles in parents of children with Rb

Reinhard Schulte, MD, MS, Loma Linda University Medical Center
Research topic: Nanodosimetry applications in biologically weighted proton treatment planning

Marcelo Vazquez, Assistant Scientist, Brookhaven National Laboratory
Research topic: protons and neurotoxicity in neural explants

Gayle Woloschak, PhD, Northwestern University Medical School
Research topic: Late Tissue Toxicities Following Exposure to Ionizing Radiation

Linda Yasui, PhD, Northern Illinois University
Research topic: Radiation induced cell death in Glioblastoma multiforme

3:00 Coffee break

5:00 Adjournment of Radiobiology Workshop