

Joint Symposium 2013 on Carbon Ion Radiotherapy

Fostering International Collaboration between Japan and the United States
in Carbon Ion Radiotherapy

A two day symposium sponsored by:

Mayo Clinic Department of Radiation Oncology
Japan National Institute of Radiological Sciences
Northern Illinois University Institute for Neutron Therapy at Fermilab

Double Tree Hotel, Rochester, MN – May 2-3, 2013

Thursday, May 2, 2013: *Clinical Practice, Development Opportunities, and Radiobiology*

Time	Speakers and Topics
8:00 a.m.	Breakfast and Registration Check In
8:30 a.m.	<i>Welcome and Introductions</i> 1. Mayo Welcome – <i>Robert C. Miller, M.D.</i> 2. NIRS Welcome – <i>Tadashi Kamada, M.D., Ph.D.</i> 3. NIU/Fermi Lab Welcome – <i>James S. Welsh, M.D.</i>
8:45 a.m.	<i>Presentation of Symposium Goals</i> – Michael G. Herman, Ph.D. (Mayo)
	<i>Session 1: Clinical Presentations – NIRS Experience</i> <i>Chair, Tadashi Kamada, M.D., Ph.D. (NIRS)</i>
9:00 a.m.	History of Ion Beam Therapy <i>Hirohiko Tsujii, M.D., Ph.D. (NIRS)</i>
9:30 a.m.	Overview of the Carbon Ion Therapy at HIMAC (Including Head and Neck Tumors, and Bone and Soft Tissue Sarcomas) <i>Tadashi Kamada, M.D., Ph.D. (NIRS)</i>
10:00 a.m.	<i>Break</i>
10:30 a.m.	Carbon Ion Radiotherapy in a Hypo-fractionation Regimen for Stage I Non-Small Cell Lung Cancer <i>Naoyoshi Yamamoto, M.D., Ph.D. (NIRS)</i>
11:00 a.m.	Carbon Ion Radiotherapy for Liver Cancer and Prostate Cancer <i>Hiroshi Tsuji, M.D., Ph.D. (NIRS)</i>
11:30 a.m.	Carbon Ion Radiotherapy for Patients with Locally Recurrent Rectal Cancer and Pancreas Cancer <i>Shigeru Yamada, M.D., Ph.D. (NIRS)</i>

12:00 p.m.	Lunch
	Session 2: U.S. and European Perspectives on Carbon Ion Radiotherapy & Radiobiology Chair – Robert C. Miller, M.D. (Mayo)
1:00 p.m.	Mayo Clinic Vision for Hadron therapy <i>Robert C. Miller, M.D. (Mayo)</i>
1:25 p.m.	GSI/HIT Experience with Carbon Ions <i>Stephanie E. Combs, M.D. (HIT)</i>
1:50 p.m.	ENLIGHT Vision for Hadron therapy <i>Manjit Dosanjh, Ph.D. (CERN/ENLIGHT)</i>
2:15 p.m.	Fermi/NIU Vision for Hadron therapy <i>James S. Welsh, M.D. (NIU/Fermi)</i>
2:40 p.m.	Radiobiology of Hypofractionated Radiotherapy <i>David J. Brenner, Ph.D. (Columbia)</i>
3:05 p.m.	Break
3:35 p.m.	Challenges and Opportunities in Particle Radiation Therapy Research <i>Bhadasain Vikram, M.D. (NIH)</i>
4:00 p.m.	Current Status & Future Vision: Particle Radiobiology <i>Eleanor A. Blakely, Ph.D. (Berkeley)</i>
4:30 p.m.	Conclusion of Day #1 Discussion

Friday, May 3, 2013: Technology and Physics Presentations

Time	Speakers and Topics
8:00 a.m.	Breakfast
	Session 3: NIRS Experience with Ion Beam Technologies Chair – Koji Noda, Ph.D. (NIRS)
8:30 a.m.	Overview of NIRS Accelerator Activity <i>Koji Noda, Ph.D. (NIRS)</i>
9:00 a.m.	New Particle Therapy Facility in NIRS, Present and Future Plan <i>Toshiyuki Shirai, Ph.D. (NIRS)</i>
9:30 a.m.	Modeling the Clinical and Biological Effect of Therapeutic Carbon Ion Beam <i>Naruhito Matsufuji, Ph.D. (NIRS)</i>

10:00 a.m.	NIRS Scanning System: Present Status and Future Prospects <i>Takuji Furukawa, Ph.D. (NIRS)</i>
10:30 a.m.	Break
11:00 a.m.	TPS for NIRS Scanning: Present Status and Future Prospects <i>Taku Inaniwa, Ph.D. (NIRS)</i>
11:30 a.m.	Multi-dimensional Image Guided Particle Therapy <i>Shinichiro Mori, Ph.D. (NIRS)</i>
12:00 p.m.	Lunch
	Session 4: US Ion Beam Technologies and Perspectives for the Future Chair – Michael G. Herman, Ph.D. (Mayo)
1:00 p.m.	DOE Perspective on Technology for Ion Therapy <i>Michael Zisman, M.D. (DOE)</i>
1:15 p.m.	Ion Workshop Summary Clinical/Radiobiology <i>John O'Connell, M.D. (Walter Reed)</i>
1:45 p.m.	Ion Workshop Summary Accelerator and Delivery <i>Chris J. Beltran, Ph.D. (Mayo)</i>
2:15 p.m.	Break
2:30 p.m.	Carbon/Proton CT Image-Guidance <i>George Coutrakon, Ph.D. (NIU)</i>
3:00 p.m.	Advanced Accelerator Technologies for Ion Therapy <i>Carol Johnstone, Ph.D. (Particle Accelerator Corporation)</i>
3:30 p.m.	Carbon Ion Therapy for Cardiac disease <i>Douglas L. Packer, M.D. (Mayo)</i>
4:00 p.m.	Discussion of Symposium Goals
5:00 p.m.	Tour of Mayo Clinic and Proton Beam Therapy Program Site