

International Training Course on Carbon-ion Radiotherapy

21 Nov. ~ 4 Dec. 2022

Course Program

1. Introduction	•History of Particle Therapy	•J-CROS activities	•Cost effectiveness
2. Biology	•Characteristics of Carbon ion Radiotherapy in cancer therapy	•Hypoxia in Carbon-ion radiotherapy	•Biological effects of fractionation
	•Precision Carbon Ion Radiotherapy	•Radiation and Risk of Cancer	•Anti-tumor immunity induced by heavy-ion/photon radiotherapy
			•Targeted Cancer Therapy using Radioisotopes
			•Biological Aspects of FLASH Particle Therapy
			•Immune Radiotherapy
3. Physics	•Accelerators for CiRT and Quantum Scalpel	•Beam delivery, QA (inc. J-CROS)	•Biological models (inc. Multi-ion/FLASH)
	•Treatment planning and Range uncertainty in CIRT	•Motion management & IGRT with in-room CT	•Facility commissioning at Osaka-HIMAK
			•Facility commissioning at Yamagata
			•Facility design of Yonsei Cancer Center Korea
			•Facility design of Mayo Clinic
			•What Particle Therapy Can Learn from IMRT and Other High- Precision Radiotherapies
4. Clinical	•Head & Neck Tumor	•Eye Tumor	•Lung Cancer
	•Liver Cancer	•Pancreas Cancer	•ACR Reporting and Data System (RADS) – Essential for treatment of lung, liver and prostate cancer -
5. Diagnosis			•Diagnostic PET imaging for CIRT
6. Topics	•History of particle beam therapy in Japan from the perspective of national health policy	•Overview of BNCT & Current status of Accelerated-based BNCT	•Radiation Emergency Medicine
			•Rationale and Indications for CIRT at Mayo Clinic USA
			•Reducing Toxicity and Lowering Cost with Particle Therapy
			•Risk Communication: Communicating with the Public about Radiation
7. Clinical aspect of facilities	8. Facility introduction	9. Vendor Presentation	

Organizing Committee

Hirohiko Tsujii, QST Hospital (Co-Course Director)
 Hiroshi Tsuji, QST Hospital (Co-Course Director)
 Tatsuya Ohno, Gunma University (Co-Course Director)
 Shigeru Yamada, QST Hospital
 Kenji Nemoto, East Japan Heavy Ion Center, Yamagata
 Hidefumi Aoyama, Hokkaido University PBTC
 Tomoaki Okimoto, Hyogo Ion Beam Medical Center
 Tadashi Kamada, i-ROCK, Kanagawa Cancer Center
 Teruki Teshima, Osaka Heavy Ion Therapy Center
 Hideyuki Sakurai, PMRC, University of Tsukuba
 Yoshiyuki Shioyama, SAGA HIMAT

Registration

Registration Fee : 10,000 JPY (including tax)

Website: <http://www.congre.co.jp/itccir2022/>

Inquiry for Registration

E-mail: itccir2022@congre.co.jp



Secretariate

Association for Nuclear Technology in Medicine (ANTM)

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