

Program of 10th GCB Summer School for Medical Physics

On Site

As of 2023/8/19

Monday, August 21					
Chapter	Japan Standard Time		Title	Lecturer	Place
-	8:30 AM	9:00 AM	Introduction	Prof. Yuji Kuge	EN5-205
1	9:00 AM	9:45 AM	Emerging Trends for Radio-Immunotherapy in Solid Tumors	Dr. Rodney Cheng-En Hsieh	
15 min. break					
2	10:00 AM	10:45 AM	Artificial intelligence for clinical decision support: development and deployment	Dr. Michael Gensheimer	
15 min. break					
3	11:00 AM	11:45 AM	Recognition and destruction of cancer by the immune system: a brief history of success and failure	Dr. Anusha Kalbasi	
75 min. break					
4	1:00 PM	1:45 PM	Functional connectivity MRI and applications to preoperative brain mapping	Dr. Haris Sair	EN5-205
15 min. break					
5	2:00 PM	2:45 PM	Hypofractionated RT coupled with advanced technologies and new concepts	Prof. Yong Chan Ahn	
15 min. break					
6	3:00 PM	3:45 PM	Overview of radiation therapy (Therapeutic Window in New Era)	Prof. Hidefumi Aoyama	
Tuesday, August 22					
Chapter	Japan Standard Time		Title	Lecturer	Place
7	9:00 AM	9:45 AM	Overview of Medical AI	Prof. Kohsuke Kudo	EN5-205
15 min. break					
8	10:00 AM	10:45 AM	Interaction of therapeutic radiations with matter	Dr. Sodai Tanaka	EN4-205
15 min. break					
9	11:00 AM	11:45 AM	Boron Neutron Capture Therapy and its measurement device development	Prof. Masayori Ishikawa	
75 min. break					
10	1:00 PM	1:45 PM	Introduction to Geant4 for particle therapy	Dr. Kenneth Lee Sutherland	
15 min. break					
11	2:00 PM	2:45 PM	Patient setup and image guidance technique in proton therapy	Dr. Seishin Takao	
15 min. break					
12,13	3:00 PM	4:30 PM	Hands-on Practical Training: 4DRT	Dr. Naoki Miyamoto Dr. Kohei Yokokawa	
Wednesday, August 23					
Chapter	Japan Standard Time		Title	Lecturer	Place
14	9:00 AM	9:45 AM	Hands-on Practical Training: QA	Dr. Takahiro Kanehira	EN4-205
10 min. break					
15	9:55 AM	10:40 AM	Deep learning for advanced radiation therapy	Dr. Yusuke Nomura	
10 min. break					
16	10:50 AM	11:35 AM	Role of radiotherapy in cancer treatment	Dr. Kentaro Nishioka	
10 min. break					
17	11:45 AM	12:30 PM	Treatment machines of particle beam therapy: toward ultra-high dose rate irradiation	Dr. Takuto Miyoshi	
Thursday, August 24					
Chapter	Japan Standard Time		Title	Lecturer	Place
18,19	1:00 PM	2:30 PM	Dose calculation algorithms for spot scanning proton therapy Hands-on Practical Training: Treatment Planning	Dr. Taeko Matsuura Dr. Seishin Takao	EN4-205
30 min. break					
20	3:00 PM	3:45 PM	Introduction to AI with Keras	Dr. Kenneth Lee Sutherland	EN5-205
15 min. break					
21	4:00 PM	4:45 PM	Quality assurance of four-dimensional radiation therapy system	Dr. Naoki Miyamoto	EN4-205
15 min. break					
22	5:00 PM	5:45 PM	Physics and Disease	Prof. Burcin Unlu	EN5-205
15 min. break					
23	6:00 PM	6:45 PM	Facility Tour	Dr. Takahiro Kanehira	
Friday, August 25					
Chapter	Japan Standard Time		Title	Lecturer	Place
24	9:00 AM	9:45 AM	Fractionation based on dose distribution and classical radiation biology	Prof. Masahiro Mizuta	EN4-205
15 min. break					
25	10:00 AM	10:45 AM	Theranostics in Nuclear Medicine	Dr. Shiro Watanabe	EN5-205
15 min. break					
26	11:00 AM	11:45 AM	Clinical application of proton beam therapy	Dr. Takayuki Hashimoto	EN4-205
75 min. break					
27,28	1:00 PM	2:30 PM	Presentation by Summer School Participants	Prof. Masayori Ishikawa	EN5-205
15 min. break					
29	2:45 PM	3:30 PM	Clinical and biological evaluation metrics and biomarker in silico in radiation oncology	Dr. Keiji Kobashi	
15 min. break					
30	3:45 PM	4:30 PM	Self-evaluation & Certificate	Prof. Yuji Kuge	

* Schedule is subject to change.

Joint lectures with Molecular Biomedical Science and Diagnosis
 [Place] EN4-205 is on the fourth floor of the Northeast Research Building, School of Medicine
 EN5-205 is on the fifth floor of the Northeast Research Building, School of Medicine