

## Program Day 1: March 13, 2020

### 13:00-13:10 Opening Ceremony

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### 13:10-14:10 Oral Session 1

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*Chairs:* **Mutsumi Tashiro** (Gunma University Heavy Ion Medical Center)  
**Shinsuke Katoh** (Yokohama University of Pharmacy)

### 14:10-14:50 Keynote Lecture 1

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*Chair:* **Takashi Nakano** (Quantum and Radiological Science and Technology)

KL-1 Prevention of cranial neurotoxicity by radiotherapy  
**Shogo Ishiuchi** (University of the Ryukyus)

### 14:50-15:50 Poster Session, Coffee Break, Exhibition browse

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### 15:50-17:10 Symposium 1:

#### **Cutting edge of diagnostic and therapeutic radiology of CNS**

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*Chairs:* **Masataka Uetani** (Nagasaki University)  
**Hirokazu Hirai** (Gunma University)

S1-1 Advancing Chemogenetic & Optogenetic Technologies via Multimodal Imaging (20min.)  
**Michael Michaelides** (Drug Abuse Intramural Research Program, Baltimore)

S1-2 Visualization and manipulation of neural and glial pathways in homeostasis and pathogenesis (20min.)  
**Makoto Higuchi** (National Institutes for Quantum, Japan)

S1-3 Gamma- and cyber-knife for skull base benign tumors and arteriovenous malformation: efficacy, adverse effects and comparison between these modalities (20min.)  
**Masahito Kobayashi** (Saitama medical university hospital, Japan)

S1-4 Adaptive Staged Gamma Knife radiosurgery for large brain metastases: a multi-institutional retrospective study (JLGK1601) (20min.)

**Toru Serizawa** (Tokyo Gamma Unit Center, Japan)

**17:10-18:10 Plenary Lecture (in Japanese)**

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*Chair:* **Yuko Sekino** (The University of Tokyo, Japan)

PL Development of surgical simulation using AI

**Nobuhito Saito** (The University of Tokyo, Japan)

**18:10- Banquet / Conference social party**

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## Program Day 2: March 14, 2020

### 09:10-09:30 Morning Seminar

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*Chair:* **Tatsuya Ohno** (Gunma University, Japan)

MS Development of a novel treatment for malignant brain tumors with a Japan-oriented radioactive drug

**Yukie Yoshii** (Quantum and Radiological Science and Technology, Japan)

### 09:30-10:30 Workshop: (in Japanese) Brand-new treatment and technique

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*Chair:* **Akihisa Takahashi** (Gunma University Heavy Ion Medical Center, Japan)

WS-1 Radiation induced anti-tumor immunity and its importance in radiotherapy clinic

**Yoshiyuki Suzuki** (Fukushima Medical University, Japan)

WS-2 Observing heterogeneity in cell society

**Asako Sakaue-Sawano** (RIKEN, CENTER FOR BRAIN SCIENCE, Japan)

### 10:30-11:30 Oral Session 2

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*Chairs:* **Hiro Sato** (Gunma University Heavy Ion Medical Center, Japan)

**Yuta Shibamoto** (Nagoya City University, Japan)

### 11:30-12:00 Poster Session, Coffee Break, Exhibition browse

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### 12:00-13:00 Luncheon Seminar (in Japanese)

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*Chair:* **Katsuyuki Shirai** (Jichi Medical University Saitama Medical Center, Japan)

LS Recent Development of MR Imaging with/without Contrast Agents for Brain Tumor

**Toshinori Hirai** (University of Miyazaki, Japan)

**13:00-13:20    Poster Session, Coffee Break, Exhibition browse**

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**13:20-13:30    ISRN General Meeting**

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**13:30-14:10    Keynote Lecture 2**

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*Chair:* **Koji Tsuboi** (Tsukuba Central Hospital, Japan)

KL-2 Towards reducing the side effects of radiation therapy: basic research on the effects of radiation on neurological function

**Tomoaki Shirao** (Gunma University, Japan)

**14:10-15:50    Symposium 2:  
Neuroprotective mechanisms and future treatments for radiation  
- induced brain injury**

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*Chairs:* **Yasuki Ishizaki** (Gunma University, Japan)

**Yukari Yoshida** (Gunma University Heavy Ion Medical Center, Japan)

S2-1 Specific Recruitment of Brain Immune Cell of Microglia Following Irradiation-Induced Brain Injury in Embryonic Medaka Model (20min.)

**Takako Yasuda** (The University of Tokyo, Japan)

S2-2 Interplanetary Travels' Limit : Space Radiation (25min.)

**Walter Tinganelli** (GSI Helmholtzzentrum für Schwerionenforschung GmbH Germany)

S2-3 Hibernation for radiation: reducing metabolism to reduce damage (25min.)

**Matteo Cerri** (Biomedical and NeuroMotor Sciences – University, Italy)

S2-4 Microglia prune synapses to modulate brain function (30min.)

**Ryuta Koyama** (The University of Tokyo, Japan)

**15:50-15:55    The 10th ISRN excellent presentation award**

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**15:55-16:00    Closing Ceremony**

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