# (Joint Sessions for Japan Radiology Congress)

#### **Opening Ceremony**

· Opening Ceremony: April 15 (Fri.) 13:15-14:10 (National Convention Hall)

Keynote Lecture

President: Takamichi Murakami (Kobe University)

The 81st Annual Meeting of the Japan Radiological Society (JRS)

President: Junji Shiraishi (Kumamoto University)

The 78th Annual Meeting of the Japanese Society of Radiological Technology (JSRT)

President: Teiji Nishio (Osaka University)

The 123rd Scientific Meeting of the Japan Society of Medical Physics (JSMP)

Chairman: Akio Yamamoto

Japan Medical Imaging and Radiological Systems Industries Association

(JIRA)

## **Honorary Member Award Ceremony**

· Honorary Member Award Ceremony: April 15 (Fri.) 14:10-14:30 (National Convention Hall)

## Joint Special Lecture

· Joint Special Lecture: April 15 (Fri.) 14:30-15:15 (National Convention Hall)

Chairperson: Kobe University Murakami Takamichi

CSL. Making Dreams Come True – The Story behind 62 Consecutive Grand Slam Appearances

Sports Commentator, Former Professional Tennis Player Ai Sugiyama

## Joint Symposium

· Joint Symposium 1: April 15 (Fri.) 16:15-18:15 (National Convention Hall)

The Post-pandemic World - A Key for the Paradigm Shift

Chairperson: Keio University Masahiro Jinzaki

Hiroshima University Kazuo Awai

CSY1-1. COVID-19 Up-To-Date

Osaka University Satoshi Kutsuna

CSY1-2. Trends and Changes in the Future of Radiology

Kohnodai Hospital Akihiro Machitori

CSY1-3. Trends and Innovation in Radiological Technology Toward the Future

Kumamoto University Junji Shiraishi

CSY1-4. Smart Cyber Operating Theater (SCOT) Developing into Remote Treatment

Tokyo Women's Medical University Yoshihiro Muragaki

CSY1-5. The Role of the Airline Industry in the Pandemic and Expectations for the Post-pandemic

Peach Aviation Limited Takeaki Mori

CSY1-6. Special Remarks

The House of Councilors Seishi Kumano

· Joint Symposium 2: April 16 (Sat.) 9:30-11:30 (National Convention Hall)

The Next Generation with MR-Linac: The Quest for a New Era

Chairperson: Osaka Metropolitan University Hospital Takao Ichida

Miyakojima IGRT Clinic Daisaku Tatsumi

CSY2-1. Strategy for Introduction as the Hospital Administration

Osaka Metropolitan University Hospital Kazuto Hirata

CSY2-2. Actions toward the Establishment of the Guideline for MRI-guided Radiation Therapy

National Cancer Center Hospital Hiroshi Igaki

CSY2-3. "Visualization", a Paradigm Shift in Image Guidance

Chiba University Takashi Uno

CSY2-4. To Improve Radiotherapy (2) - Not Use Wasted Bullets -

Tohoku University Keiichi Jingu

CSY2-5. To Improve Radiotherapy-Next Challenge to the Most Lethal Malignancies-

Osaka Metropolitan University Keiko Shibuya

CSY2-6. From Radiological Technology and Medical Physics Perspectives

Miyakojima IGRT Clinic Daisaku Tatsumi

CSY2-7. Experience of the Introduction of MR-Linac -MR-RT Operating and Linac Version Installing at National Cancer Center Hospital-

National Cancer Center Hospital Tatsuya Sakasai

CSY2-8. Experience of the Introduction of MR-Linac -Role Evolution of Royal Marsden Team in United Kingdom- Royal Marsden NHS Foundation Trust Trina Herbert

· Joint Symposium 3: April 16 (Sat.) 13:30-15:30 (National Convention Hall)

Transformation of Radiation Therapy Technology - Signpost to the Future

Chairperson: Hokkaido University Masayori Ishikawa

Tokushima University Akihiro Haga

CSY3-1. Expectations for Clinical Application of FLASH Therapy

Nagoya City University West Medical Center Hiromitsu Iwata

CSY3-2. Verification of the Treatment Effectiveness of FLASH Radiotherapy

NIRS, QST Satoshi Kodaira

CSY3-3. Radiology for Near-infrared Photoimmunotherapy

Kushiro City General Hospital Takeshi Soyama

CSY3-4. Development of Comprehensive and High-accuracy System for Photo-immunotherapy

Hokkaido University Masayori Ishikawa

CSY3-5. Current Status and Future Needs for Improving the Dosimetry System Applicable to Targeted Radionuclide Therapy

Osaka University

Tatsuhiko Sato

CSY3-6. Radiation Biology in the Targeted Alpha-Radionuclide Therapy

NIRS, QST Tetsuya Sakashita

## JRS · JSRT · JSMP Joint Project Hands-on Seminar

1. Hands-on Seminar

April 15 (Fri.) 8:30-11:30 (315)

April 16 (Sat.) 8:30-11:30 (315)

April 16 (Sat.) 13:30-16:30 (315)

Postmortem Image Interpretation Workshop

General Manager: Hokkaido University Kohsuke Kudo

Instructor, Coordinator: Hokkaido University Hideki Hyodoh

CHS1-1. Normal Postmortem Image Changes (Lecture)

Hokkaido University Taisuke Harada

CHS1-2. Image Interpretation (Hands on)

Niigata University

Naoya Takahashi

CHS1-3. Forensic Postmortem Image Findings (Lecture) Tokyo University Yohsuke Makino

CHS1-4. Image Interpretation (Hands on)

Nagasaki University Tomonori Murakami

2. Hands-on Seminar

April 14 (Thu.) 13:30-16:30 (315)

April 15 (Fri.) 15:30-18:30 (315)

Dosimetry for Targeted Isotope Therapy

CHS2-1. Basics of MIRD Formalism Used in Targeted Radionuclide Therapy

NIRS, QST Tetsuya Sakashita

CHS2-2. Demonstration of Computational Dosimetry for Nuclear Medicine Based on RT-PHITS and PARADIM

Osaka University Tatsuhiko Sato

CHS2-3. Global Trends on Targeted Radionuclide Therapy

Fukushima Medical University Kohshin Washiyama

CHS2-4. Dosimetry Practice from Nuclear Medicine Imaging

Fukushima Medical University Naoyuki Ukon

### Joint Members Ceremony

Joint Members Ceremony: April 17 (Sun.) 13:15-13:50

(National Convention Hall)

#### Joint Closing Ceremony

Joint Closing Ceremony: May 16 (Mon.) 16:00-17:00

(On demand broadcasting)

# [JSRT-JSMP Joint Session]

## The 1st ICRPT Opening Ceremony

April 15 (Fri.) 11:20-11:50 (502)

The 1st ICRPT Special Invited Lecture

April 15 (Fri.) 12:10-13:00 (502)

Chairperson: Kanazawa University Rie Tanaka

TPS. The Future Of Medical Physics Duke University Ehsan Samei

JSRT-JSMP Joint Program

April 16 (Sat.) 11:55-13:05 (502)

Aiming to Become the World's Popular RPT Journal: The Importance of Impact Factor (IF)

Chairperson: Tsukuba International University Noriyuki Yanagawa

Kyushu University Akihiro Nohtomi

TPR-1. RPT Journal's Efforts to Obtain Impact Factor and Our Request to the Members

NIRS, QST Nobuyuki Kanematsu

TPR-2. Impact Factor and How It Works

Springer Yoko Arai

TPR-3. Scientific Journals and Impact Factors

Teikyo University Shigehiko Katsuragawa

TPR-4. What Is the Cited Papers?

Association for Nuclear Technology in Medicine Masahiro Endo

Award Ceremony for Doi-Prize and Most Citation Award, and Award Lectures

April 16 (Sat.) 10:55–11:45 (502)

Chairperson: NIRS, QST Nobuyuki Kanematsu

Tsukuba International University Noriyuki Yanagawa

1) Most Citation Award Ceremony

- 2) Outstanding Reviewer Award Ceremony
- 3) RPT Editing Achievement Award Ceremony
- 4) Doi-Prize Award Lectures
- A) Diagnostic Imaging

Chairperson: Teikyo University Shigehiko Katsuragawa

RPT Vol. 14, No. 3

TPA-1. Effects of Sample Size and Data Augmentation on U-net-based Automatic Segmentation of Various Organs

Keio University Takafumi Nemoto

B) Nuclear Medicine / Magnetic Resonance Imaging

Chairperson: NIRS, QST Taiga Yamaya

RPT Vol. 13, No. 4

TPA-2. Iterative Framework for Image Registration and Partial Volume Correction in Brain Positron Emission Tomography

Akita Cerebrospinal and Cardiovascular Center Keisuke Matsubara

C) Radiation Metrology / Radiation Therapy Physics

Chairperson: University of Tsukuba Takaji Sakae

RPT Vol. 14, No. 3

TPA-3. Investigation of Clinical Target Volume Segmentation for Whole Breast Irradiation Using Threedimensional Convolutional Neural Networks with Gradient-weighted Class Activation Mapping Juntendo University Megumi Oya

## JSRT Radiation Safety Management / JSMP Radiological Protection Joint Forum

April 16 (Sat.) 15:20–16:20 (414+415)

On-site Actual Conditions and Countermeasures for Non-uniform Exposure Management

Chairperson: National Hospital Organization Kanagawa Hospital Katsuya Fujita

Japanese Red Cross Saitama Hospital Sanae Kitayama

TPF-1. Overview and Status of Legal Revisions

Ministry of Health, Labour and Welfare

TPF-2. Current Status on Occupational Radiation Management in a Medical Institution Regarding Personnel Protective Equipment

Japanese Red Cross Musashino Hospital Kazumasa Arai

TPF-3. Achievements of the Recent Study Supported by Industrial Disease Clinical Research Grants

Gunma Paz Unidersity Hiroshi Watanabe

#### JSRT-JSMP Joint Special Lecture

April 17 (Sun.) 12:10-13:10 (502)

Chairperson: Osaka University Teiji Nishio

TPL. X-ray and Gamma-ray Imaging for the Near Future: Bridging the Frontiers of Space Physics and Radiation Therapy

Waseda University Jun Kataoka

# [JSMP Program]

#### **Educational Lecture**

Educational Lecture 1

April 14 (Tue.) 13:00–13:50 (418) Chairperson: Juntendo University Chie Kurokawa

PEL-1. Application of cross-reality technology to medical radiation protection education

Kyushu University Toshioh Fujibuchi

Educational Lecture 2

April 15 (Fri.) 8:00-8:50 (418)

Chairperson: Japanese Red Cross Wakayama Medical Center Yoshitomo Ishihara

PEL-2. Revision of medical fee - information required for proposing new technology -

Tokyo Bay Advanced Imaging & Radiation Oncology Makuhari Clinic Naoki Tohyama

Educational Lecture 3

April 15 (Fri.) 17:00-17:50 (418)

Chairperson: Tokushima University Akihiro Haga

PEL-3. Current status and potential applications of quantum computers and quantum technology

Osaka University Keisuke Fujii

**Educational Lecture 4** 

April 16 (Sat.) 8:00-8:50 (418)

Chairperson: Teikyo University Jun'ichi Kotoku

PEL-4. Scattering field imaging theory and principle of microwave mammography

Kobe University Kenjiro Kimura

Educational Lecture 5

April 16 (Sat.) 15:50–16:50 (418)

Chairperson: Fujita Health University Naoki Hayashi

PEL-5. Targeted alpha radionuclide therapies for cancer

University of South Australia, Australia Eva Bezak

Educational Lecture 6

April 17 (Sun.) 8:00-8:50 (418)

Chairperson: Niigata University Satoru Utsunomiya

PEL-6. Writing an effective title and abstract for your research paper

U-English Corporation Yukiko Nakayama

Radiological Protection Committee Program

April 14 (Thu.) 17:10–18:10 (418)

Handling of radioactive substances from Linac

Chairperson: NIRS, QST Shunsuke Yonai

PCP1-1. Preparation of "the manual of measurement and evaluation of activation for decommissioning of accelerator facilities"

High Energy Accelerator Research Organization (KEK) Hiroshi Matsumura

PCP1-2. The possibility of reducing radioactive waste from the perspective of the pre-owned medical equipment flow in the world

M-solutions Inc.

Tetsushi Kuwano

## **Dosimetry Committee Program**

April 15 (Fri.) 12:00-13:00 (418)

Traceability of Brachytherapy

Chairperson: Kinki University Atomic Energy Research Institute Takahiro Yamada

Teikyo University Shinji Kawamura

PCP2-1. Latest topics on measurements of brachytherapy sources

Japan Radioisotope Association Takahiro Mikamoto

PCP2-2. Proposal of a new measurement method for 60Co source measurement

Jichi Medical University Hospital Mikio Nemoto

PCP2-3. Dosimetric traceability and practical assays for I-125 seed sources.

Saitama Cancer Center Toru Kojima

## International Affairs Committee Program

April 15 (Fri.) 15:50-16:50 (418)

Education and professionality for medical physicists: Activities of IOMP and AFOMP

Chairperson: Fujita Health University

Naoki Hayashi

University of South Australia, Australia Eva Bezak

PCP3-1. Professional and CPD programs for medical physicists in the AFOMP region

Taylor's University, Malaysia Chai Hong Yeong

PCP3-2. Overviews of medical physics education courses, accreditation and certification in the world

Rajasthan University of Health Sciences, India Arun Chougule

## QA/QC Committee Program

April 16 (Sat.) 9:00–9:50 (418)

Questionnaire survey report

Chairperson: Osaka International Cancer Institute Yoshihiro Ueda

PCP4. Survey on patient-specific QA for IMRT in Japan based on questionnaire survey in 2021

Kansai Medical University Yusuke Anetai

## JSMP Special Symposium

April 16 (Sat.) 10:00-12:00 (418)

Paradigm shift in Japanese medical physics research in the field of radiotherapy

Chairperson: Nagoya Proton Therapy Center Toshiyuki Toshito

PSL1-1. Current status and future prospects of medical physics research in photon therapy

Kyoto University Mitsuhiro Nakamura

PSL1-2. Present status and future development of proton therapy physics research in Hokkaido University

Hokkaido University Taeko Matsuura

PSL1-3. Present status and future perspective of medical physics research on heavy-ion radiotherapy

NIRS, QST Taku Inaniwa

PSL1-4. Current status and future prospects of medical physics research in boron neutron capture therapy

Kyoto University Hiroki Tanaka

JSMBE-JSMP Joint Session

April 16 (Sat.) 12:10-13:00 (418)

Chairperson: National Defense Medical College Yuji Morimoto

NIRS, QST Shigekazu Fukuda

PJP-1. A new horizon in haptics technologies in the time of COVID-19

-Unconstraint haptics to touch without contact and possibility of new medicine and healthcare-

University of Tsukuba Yoshihiro Kuroda

PJP-2. Panel Discussion University of Tsukuba Yoshihiro Kuroda

PJP-3. Panel Discussion University of Tsukuba Tomonori Isobe

JSMP Special Lecture

April 16 (Sat.) 17:00–18:00 (418)

Chairperson: QST Hospital, QST Shigekazu Fukuda

PSL2. Invitation to "space medicine"

Gunma University Heavy Ion Medical Center Akihisa Takahashi

JSMP Special Session

April 17 (Sun.) 9:00–10:50 (418)

What veterans want from young people & What young people want from veterans

Chairperson: Aomori Shintoshi Hospital Yuichiro Narita

National Cancer Center Hospital Hiroyuki Okamoto

PSL3-5. Messages to young generation researchers in nuclear medicine

NIRS, QST Taiga Yamaya

PSL3-6. Expectations for professionals in nuclear medicine

NIRS, QST Go Akamatsu

PSL3-1. Encouragement for younger generation medical staff in radiotherapy department

Kyoto University Hospital Manabu Nakata

PSL3-2. What we need to do for radiotherapy in the next 10 years

Kyoto university hospital Yusuke Tsuruta

PSL3-3. Expectations for young investigators in the age of AI in diagnostic field

Kyushu University Hidetaka Arimura

PSL3-4. Expectations for experts in the field of diagnostic radiology

Komazawa University Taiki Magome

Education and Training Commitee Program (During Web period)

PCP5. Information exchange meeting on medical physics education course

HIPRAC Shuichi Ozawa