

**The 60th Annual Scientific
Meeting of the Japanese
Society of Nuclear Medicine
Special Program**

1st day Thursday Nov.12

Room1

(Kobe International Conference Center 1F Main Hall)

Nuclear Medicine Educational Lecture 1

10:40-11:40

The role of nuclear imaging for the management of cerebral ischemia

Chair : Tadashi Nariai (Department of Neurosurgery, Tokyo Medical and Dental University)

The role of nuclear imaging for the management of cerebral ischemia

(Department of Neurosurgery, Tokyo Medical and Dental University, Tokyo, Japan) **Tadashi Nariai**

Nuclear Medicine Educational Lecture 2

13:30-14:30

Ethical Guidelines for Medical and Health Research Involving Human Subjects and Clinical Trials Act

Chair : Hiroshi Ito (Department of Radiology and Nuclear Medicine, Fukushima Medical University)

Ekus Shimosegawa (Department of Molecular Imaging in Medicine, Osaka University Graduate School of Medicine)

1. Ethics of Clinical Research in Nuclear Medicine

(Department of Radiology and Nuclear Medicine, Fukushima Medical University, Fukushima, Japan) **Hiroshi Ito**

2. Research in nuclear medicine under the clinical trials act

(Department of Molecular Imaging in Medicine, Osaka University Graduate School of Medicine, Suita, Osaka, JAPAN)

Ekus Shimosegawa

Room2

(Kobe International Conference Center 3F 301)

Invited Lecture 1 English

10:30-11:30

Chair : Nobuyoshi Fukumitsu (Kobe Proton Center, Department of Radiation Oncology)

Mo-99/Tc-99m supply: Current challenges and future prospects

(Radiology/Nuclear Medicine & Molecular Imaging Boston Children's Hospital/Harvard Medical School, USA)

Alan B. Packard

Room7

(Kobe International Exhibition Hall No.1 Building 2F Exhibition Hall B)

JSNM Symposium 1

9:30-11:30

Role of Nuclear Medicine in Prostate Cancer

Chair : Yuji Nakamoto (Kyoto University)

Atsushi Mizokami (Department of Urology, Kanazawa University)

1. Clinical needs in advanced prostate cancer therapeutics; bone scan and radium-223

(Department of Urology and Renal Transplantation, Yokohama City University Medical Center, Yokohama, Japan)

Yasuhide Miyoshi

2. Neuroendocrine tumore of urological carcinoma and octreoscan

(Department of Urology, Kanazawa University, Ishikawa, Japan) **Atsushi Mizokami**

3. F-18 PSMA-PET: Excellent detection sensitivity and its clinical utility

(Department of Nuclear Medicine and Tracer Kinetics, Graduate School of Medicine, Osaka University, Suita, Japan)

Tadashi Watabe

4. Handling of 68Ge/68Ga-Generators and Regulatory Issues for the Development of 68Ga-PSMA

(Central Institute of Isotope Science, Hokkaido University, Sapporo, JAPAN) **Yuji Kuge**

Nuclear Medicine Educational Lecture 3

13:30-14:30

Medical Tourism in Nuclear Medicine; the know-how to accept foreign examinees?

Chair : Seishi Jinnouchi (Atsuchi Memorial Clinic PET Center)

1. PET Cancer Screening Medical Tourism in local cities

(PET Imaging Center, Koga Hospital 21, Kurume, Japan) **Tsuyoshi Yoshida**

2. Introduction and practice of PET/CT tests for inbound visitors

(Nippon Medical School Clinical Imaging Center for Healthcare) **Yoshimitsu Fukushima**

JSNM Symposium 2

15:00-17:00

Boron Neutron Capture Therapy (BNCT) based on [¹⁸F]-FBPA PET

Chair : Yoshida (PET Imaging Center, Koga Hospital 21, Kurume, Japan)

Remote Discussion: Seishi Jinnouchi (Atsuchi Memorial Clinic PET Center)

1. Study on new synthetic method of [¹⁸F]-FBPA by "F-minus method"

(Research Center for BNCT, Osaka Prefecture University, Sakai, Osaka, Japan) **Mitsunori Kirihata**

2. The clinical aspects of Boron Neutron Capture Therapy

(Department of Neurosurgery, Osaka Medical College, Takatsuki, Osaka, Japan) **Shinji Kawabata**

3. Present status of accelerator-based BNCT system

(Institute for Integrated Radiation and Nuclear Science, Kyoto University, Osaka, Japan) **Hiroki Tanaka**

changing the order
of presentation

4. Boron neutron capture therapy based on the PET

(Research Institutes for Nuclear Physics, Osaka University, Ibaraki City, Japan) **Jun Hatazawa**

1. Present status of accelerator-based BNCT system
(Institute for Integrated Radiation and Nuclear Science, Kyoto University, Osaka, Japan) Hiroki Tanaka
2. Study on new synthetic method of [^{18}F]-FBPA by "F-minus method"
(Research Center for BNCT, Osaka Prefecture University, Sakai, Osaka, Japan) Mitsunori Kiriata
3. The clinical aspects of Boron Neutron Capture Therapy
(Department of Neurosurgery, Osaka Medical College, Takatsuki, Osaka, Japan) Shinji Kawabata
4. . Boron neutron capture therapy based on the PET
(Research Institutes for Nuclear Physics, Osaka University, Ibaraki City, Japan) Jun Hatazawa

2nd day Friday Nov.13

Room1

(Kobe International Conference Center 1F Main Hall)

JSNM Asian Research Encouragement Prize Winner's Lecture; Returnee Encouragement Prize Winner's Lecture **Partially English** 8:30-10:45

Chair : Masayuki Sasaki (Department of Medical Quantum Science, Kyushu University)

Yoshihiro Nishiyama (Department of Radiology, Faculty of Medicine, Kagawa University)

Hisada Prize Winner's Lecture 10:45-11:15

Chair : Kazunari Ishii (Kindai University Faculty of Medicine)

JSNM Symposium 4 **English** 13:30-16:45

International symposium on brain amyloid and tau PET imaging

Chair : Kenji Ishii (Tokyo Metropolitan Institute of Gerontology)

Hitoshi Shimada (National Institutes for Quantum and Radiological Science and Technology)

1. Imaging Misfolded Amyloid and Tau Proteins in Neurodegenerative Disorders
(Imaging, Avid Radiopharmaceuticals, USA) **Michael D. Devous**
2. Tau imaging in typical and atypical Alzheimer's disease
(Neurology, Neurosurgery, Psychiatry and Pharmacology, McGill University, Canada) **Pedro Rosa-Neto**
3. The Centiloid Strategy for Standardization of Amyloid and Tau PET
(Molecular Imaging, University of Melbourne and Austin Health, Australia) **Christopher C. Rowe**
4. The role of tau imaging agents in Alzheimer's Disease and non-Alzheimer's tauopathies
(Research and Development, Life-Molecular Imaging, Germany) **Andrew W. Stephens**
5. Tau PET imaging with PM-PBB3
(National Institutes for Quantum and Radiological Science and Technology, Chiba, Japan) **Makoto Higuchi**

Room5

(Kobe International Conference Center 5F 502)

Invited Lecture 2 **English** 13:30-14:30

Chair : Hiroshi Toyama (Department of Radiology, Fujita Health University)

¹⁸F-FDG PET/CT and PET/MRI for liver tumor

(Department of Nuclear Medicine Zhongshan Hospital, Fudan University, China) **Hongcheng Shi**

Room6

(Kobe International Exhibition Hall No.1 Building 2F Exhibition Hall A)

Nuclear Medicine Educational Lecture 4

10:45-11:45

Interpretation of FDG-PET/CT for the first time

Chair : Keiichiro Yamaguchi (St. Marianna University School of Medicine)

Interpretation of FDG-PET/CT for the first time

(Department of Radiology, Shonan Kamakura General Hospital) Masami Kawamoto

JSNM Symposium 5

13:30-15:35

Targeted radionuclide therapy - present status, future perspective and regulatory arrangement

Chair : Seigo Kinuya (Department of Nuclear Medicine, Kanazawa University)

Noboru Oriuchi (Advanced Clinical Research Center, Fukushima Medical University)

1. Research and development of new pharmaceuticals for targeted radioisotope therapy (TRT)

(Dept. of Molecular Imaging and Theranostics, National Institute of Radiological Sciences, QST) Tatsuya Higashi

2. Dosimetry

(Department of Radiology, Tokyo Medical University, Tokyo, Japan) Mana Yoshimura

3. Radiation regulations for nuclear medicine treatment

(Department of Nuclear Medicine, Kanazawa University, Kanazawa, Japan) Anri Inaki

4. Expectation for PSMA-Therapy (diagnosis/treatment) and movements of patient association

(Prostate Cancer Patients Club, Hyogo, Japan) Tsutomu Takeuchi

5. Basic Plan to Promote Cancer Control Programs

(Cancer and Disease Control Division, Health Service Bureau, Ministry of Health, Labour and Welfare)

Yoshiro Yukawa

Invited Lecture 3 **English**

16:00-17:00

Chair : Tohru Shiga (Advanced Clinical Research Center, Fukushima Medical University)

Theranostics in oncology: practice changing opportunities for nuclear medicine

(European Association of Nuclear Medicine; Rijnstate Hospital, Arnhem, The Netherlands; Humanitas University,

Milan, Italy; Radboud UMC, Nijmegen, The Netherlands) Wim J.G. Oyen

Room7

(Kobe International Exhibition Hall No.1 Building 2F Exhibition Hall B)

JSNM Symposium 3

8:30-10:30

Brain imaging beyond amyloid and tau in dementias

Chair : Hidehiko Okazawa (University of Fukui, Biomedical Imaging Research Center)

Yasuomi Ouchi (Hamamatsu University School Of Medicine)

1. Clinical implication of nuclear medicine in Alzheimer's disease
(Department of Neurology, Tokyo Metropolitan Geriatric Medical Center Hospital, Tokyo, Japan) **Atsushi Iwata**
2. Clinical pathophysiology and imaging in Parkinson's disease and related diseases
(Department of Neuro-pathophysiological imaging, Graduate School of Medicine, Nippon Medical School, Kawasaki, Japan)
Masahiro Mishina
3. Monoamine oxidase-B for imaging of reactive astrocytes
(Department of Pharmacology, Tohoku University Graduate School of Medicine, Miyagi, Japan) **Ryuichi Harada**
4. Impact of PET measurement of mitochondrial function in brain
(Central Research Laboratory, Hamamatsu Photonics K.K., Hamamatsu, Japan) **Hideo Tsukada**
5. Synaptic density imaging in neurodegenerative and psychiatric disorders
(PET Center, Radiology and Biomedical Imaging, Yale School of Medicine, New Haven, CT, USA)
Takuya Toyonaga

Nuclear Medicine Educational Lecture 5

10:45-11:45

Nuclear Cardiology and Ischemic Heart Disease – Recent Topic –

Chair : Takashi Kudo (Department of Radioisotope Medicine, Atomic Bomb Disease Institute, Nagasaki University)

1. Coronary intervention and nuclear cardiology
(Department of Cardiology, Nihon University Hospital, Tokyo, Japan) **Naoya Matsumoto**
2. Clinical application of CZT-SPECT for quantification of myocardial blood flow
(Department of Diagnostic Radiology, Faculty of Life Sciences Kumamoto University, Kumamoto, Japan)
Shinya Shiraishi

JSNM Working Groups Reporting Session

13:30-14:30

Chair : Yoshihiro Nishiyama (Department of Radiology, Faculty of Medicine, Kagawa University)

Masayuki Sasaki (Department of Medical Quantum Science, Kyushu University)

1. Studies on phantom test procedures and criteria for standard FDG-PET imaging
(Departments of Diagnostic Radiology and Nuclear Medicine, Tokyo Medical and Dental University, Tokyo, Japan)
Ukihide Tateishi
2. Revision of the Gamut of FDG-PET
(Radioisotope Center, Tenri Hospital, Tenri, Japan) **Takashi Misaki**

3. Prediction of response to ICI therapy by FDG-PET/CT: a multicenter study
(Department of Radiology, Hyogo College of Medicine, Hyogo, Japan) **Kazuhiro Kitajima**
4. Development of reasonable Radiation Control Standards for Ga-68/O-15 Gas PET study
(Advanced Clinical Research center, Fukushima Medical University, Fukushima, Japan) **Tohru Shiga**

PET Nuclear Medicine Workshop

15:00-17:00

Let's discuss the secret of the PET promotion together

Chair : Makoto Hosono (Department of Radiology, Kindai University Faculty of Medicine)

Kengo Ito (National Center for Geriatrics and Gerontology)

1. Multidisciplinary collaboration to promote PET research in the field of dementia
(Innovation Center for Clinical Research, National Center for Geriatrics and Gerontology, Obu, Japan) **Kengo Ito**
2. PET Cancer Screening: from the beginning to maturity
(Atsuchi Memorial Clinic PET Center) **Seishi Jinnouchi**
3. Development of a diagnostic system for breast PET
(Yamanashi PET Imaging Clinic) **Yoko Satoh**
4. Gamut of FDG-PET as a guide map of clinical PET practice
(Radioisotope Center, Tenri Hospital, Tenri, Japan) **Takashi Misaki**

3rd day Saturday Nov.14

Room1

(Kobe International Conference Center 1F Main Hall)

JSNM Symposium 6 **Partially English**

8:30-11:00

Non-ischemic application of nuclear cardiology

Chair : Kenichi Nakajima (Department of Functional Imaging and Artificial Intelligence, Kanazawa University)

Taishiro Chikamori (Department of Cardiology, Tokyo Medical University)

1. Non-ischemic application of nuclear cardiology : imaging cardiovascular infection and inflammation
(Department of Translational Research and New Technology in Medicine, University of Pisa, Italy) **Paola Anna Erba**
2. Role of FDG PET/CT in diagnosis of cardiac sarcoidosis
(Department of Radiology, Ehime University Graduate School of Medicine, Toon, Japan) **Masao Miyagawa**
3. The importance of diagnostic imaging in the management of cardiac amyloidosis
(Department of Cardiology and Geriatrics, Kochi Medical School, Kochi University) **Toru Kubo**
4. The crucial role of FDG-PET on the management of Takayasu arteritis
(Department of Cardiovascular Medicine, Tokyo Medical and Dental University) **Yasuhiro Maejima**
5. Usefulness and limitations of nuclear medicine for diagnosis of device/graft infections
(Department of Radiology, National Cerebral and Cardiovascular Center, Suita, Japan) **Keisuke Kiso**

Training for Medical radiation safety management 13:30-14:30

Chair : Masayuki Sasaki (Department of Medical Quantum Science, Kyushu University)

1. Basics of patient safety in medical radiation
(Department of Medical Quantum Sciences, Faculty of Medical Sciences, Kyushu University, Fukuoka, Japan) **Masayuki Sasaki**
2. Medical exposure management in nuclear medicine
(Department of radiology, Fujita Health University Hospital, Toyoake, Japan) **Masanobu Ishiguro**

Room2

(Kobe International Conference Center 3F 301)

The 57th Meeting of the Japanese Society of Nuclear Medicine in Oncology and Immunology / The 39th Meeting of the Respiratory Imaging Seminar 13:00-15:30

The 57th Meeting of the Japanese Society of Nuclear Medicine in Oncology and Immunology

Chair : Seigo Kinuya (Department of Nuclear Medicine, Kanazawa University, Kanazawa, Japan)

From tumor-specific PET imaging to targeted alpha therapy

(Department of Nuclear Medicine and Tracer Kinetics, Graduate School of Medicine, Osaka University, Suita, Japan)

Tadashi Watabe

The 39th Meeting of the Respiratory Imaging Seminar

Chair : Shigeki Nagamachi (Radiology, Fukuoka University, Fukuoka, Japan)

Lung Transplantation in Japan and its role of Radiology

(Department of General Thoracic, Breast and Pediatric Surgery, Fukuoka University, Fukuoka, Japan)

Takeshi Shiraishi

Room4

(Kobe International Conference Center 5F 501)

Nuclear Medicine Nursing Forum (Oral) 8:30~9:10

Chair : Akio Umebayashi (Okayama Diagnostic Imaging Center Nursing Department)

Takako Harada (Kurashiki Central Hospital)

1. Preparation of manual and rehearsal by multi-disciplinary team for RI therapy emergency

(Department of Nursing, Fukushima Medical University Hospital, Fukushima, Japan) **Yumi Koike**

2. Radiation exposure in nurses during care of ¹³¹I-MIBG therapy in neuroblastoma patients

(Division of Nursing, Kanazawa University Hospital, Kanazawa, Ishikawa, Japan) **Yuka Taniguchi**

3. The evaluation of lens exposure doses in pet nursing

(PET Imaging Diagnostics Division, Chiba Ryogo Center, National Agency for Automotive Safety and Victims' Aid, Chiba, Japan) **Haruko Henmi**

4. Activity report on networking of nuclear medical professional nurses

(PET Imaging Diagnostics Division, Chiba Ryogo Center, National Agency for Automotive Safety and Victims' Aid, Chiba, Japan) **Haruko Henmi**

Nuclear Medicine Nursing Forum

9:20-11:30

Networks in nuclear medicine nursing
The frog in the well knows nothing of the great ocean, but he knows the depth of the blue sky.

Chair : Yuko Yakushiji (Kindai University Hospital)
Noriko Mitani (Kobe City Medical Center General Hospital)

Educational Lecture How nurses respond to amended medical care act

(Kyoto Collage of Medical Science, Kyoto, Japan) **Kazuko Ohno**

1. Nursing endeavors to the Revised Medical Care Law in our institution
(Clinical Imaging Center for Healthcare, Nippon Medical School, Tokyo, Japan) **Shiori Jinushi**
2. Current status and future issues in nuclear medicine nursing
(Nursing Department, Hiroshima University Hospital, Hiroshima, Japan) **Yuko Hara**
3. Explanation about medical exposure to patients who undergo myocardial scintigraphy-actions and future tasks at our institution
(JR Hiroshima Hospital, Hiroshima, Japan) **Yuri Shimizu**
4. Nursing for the patient safety in nuclear medicine examinations-Problems and efforts
(Fukuoka University Hospital, Fukuoka, Japan) **Sayuri Imatomi**
5. Informed Consent of Medical Exposure by Medical Law Revision
(Department of Nursing, Yotsuba Circulation Clinic, Matsuyama Heart Center, Ehime, Japan) **Aya Kashima**

Room5

(Kobe International Conference Center 5F 502)

Oral and Maxillofacial Nuclear Medicine Forum

13:00-15:00

The Forum on Nuclear Medicine Imaging in Oral and Maxillofacial Disease:
Roles of Nuclear Medicine for Head and Neck Radiotherapy

Chair : Tohru Kurabayashi (Oral and Maxillofacial Radiology, Graduate School, Tokyo Medical and Dental University)

Shin Nakamura (Oral and Maxillofacial Radiology, Graduate School, Tokyo Medical and Dental University)

1. Radiation therapy planning for Head and Neck cancer with PET-CT
(Department of radiation oncology, Tokyo medical and dental university, Tokyo, Japan) **Kazuma Toda**
2. The usefulness of PET/CT in radiation therapy for head and neck cancer
(Department of Radiation Oncology, Southern Tohoku Proton Therapy Center, Koriyama, Japan)
Kanako Takayama

Room6

(Kobe International Exhibition Hall No.1 Building 2F Exhibition Hall A)

JSNM Symposium 7

8:30-10:25

Immunotherapy and nuclear medicine imaging in oncology

Chair : Hirofumi Fujii (Division of Functional Imaging, National Cancer Center)

Tomoya Uehara (Graduate School of Pharmaceutical Sciences, Chiba University)

1. Fundamental Mechanisms and Characteristics of Cancer Immunotherapies
(Division of Cancer Immunology, Research Institute/Exploratory Oncology Research & Clinical Trial Center (EPOC), National Cancer Center, Chiba, Japan) **Shohei Koyama**
2. The latest trend of immunotherapy for lung cancer
(Department of Thoracic Oncology, National Cancer Center Hospital East, Kashiwa, Japan) **Kiyotaka Yoh**
3. The treatment response to immune checkpoint inhibitor therapy using FDG-PET/CT
(Department of Radiology, Hyogo College of Medicine, Hyogo, Japan) **Kazuhiro Kitajima**
4. Targeting immune cells with nuclear medicine
(Department of Radiology, Kyoto University Hospital, Kyoto, Japan) **Sho Koyasu**

Invited Lecture 4 **English**

10:25-11:25

Chair : Jun Hatazawa (Research Institutes for Nuclear Physics, Osaka University)

FAP-ligands – a new tracer for oncological and non-oncological diseases

(Nuclear Medicine, University Hospital Heidelberg/German Cancer Research Center (DKFZ), Germany)

Frederik L. Giesel

Room7

(Kobe International Exhibition Hall No.1 Building 2F Exhibition Hall B)

JSNM Symposium 8

8:30-10:30

Strategy for development of molecular imaging agents: Disease- and target-oriented precise molecular design

Chair : Takeshi Fuchigami (Graduate School of Biomedical Sciences, Nagasaki University)

Masashi Ueda (Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University)

1. Development of PET probes for subtype-selective imaging of glutamate receptor
(Department of Advanced Nuclear Medicine Sciences National Institute of Radiological Sciences National Institutes for Quantum and Radiological Science and Technology, Chiba, Japan) **Ming-Rong Zhang**
2. Pharmacokinetic control of PET probes for cancer and ADME research for nanoparticle DDS
(Laboratory for Molecular Delivery and Imaging Technology, RIKEN Center for Biosystems Dynamics Research, Kobe, Japan) **Hidefumi Mukai**

3. Unstable atherosclerotic plaque imaging with medium- and high-molecular weight probes

(Department of Biofunctional Analysis, Osaka University of Pharmaceutical Sciences, Osaka, Japan)

Takashi Temma

4. Development of imaging agents to detect the features of BSL-3 infectious diseases

(Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Japan) **Takeshi Fuchigami**

The 21st meeting of the Japanese Council of Nuclear Neuroimaging

Partially English

12:45-15:00

Chair : Takashi Ichihara (Faculty of Radiological Technology, Fujita Health University School of Medicine)

Lecture1 Human Molecular Imaging in Clinical Research using Total-Body PET/CT scanner

(Department of Nuclear Medicine Zhongshan Hospital, Fudan University, China) **Hongcheng Shi**

Chair : Yasuyuki Kimura (Center for Development of Advanced Medicine for Dementia, National Center for Geriatrics and Gerontology)

Lecture2 Recent development of imaging neuroinflammation using PET

(Research Institute, Houston Methodist, Houston, USA) **Masahiro Fujita**

Chair : Hiroshi Ito (Department of Radiology and Nuclear Medicine, Fukushima Medical University)

Lecture3 What do neurologists expect from nuclear medicine?

(Department of Neurology, Fujita Health University) **Hirohisa Watanabe**