



The 7th Yamada Workshop on
RI Science Evolution 2018 (RISE18)
March 16-17, 2018, Icho-Kaikan Hall, Osaka University

Program

*Allocated time includes the time for discussions.

March 16th (Fri.)

Opening Session (10:00-10:15) (Chair: Prof. M. Fukuda)

Hiroyasu EJIRI (RCNP, Osaka Univ./YSF):

Opening Address

Plenary Session (10:15-11:15) (Chair: Dr. T. Higashi)

Jun HATAZAWA (School of Medicine, Osaka Univ.):

"Nuclear Medicine for Cancer Theranostics" (30m)

Chary RANGACHARYULU (Univ. Saskatchewan):

"A Prospective Isotope for a Possible New Modality of Nuclear Medical Imaging" (30m)

Session I. RI Detection Frontiers for Fundamental Physics and Life Science (11:15-12:05)

(Chair: Prof. T. Shibata)

Hiroyasu EJIRI (RCNP, Osaka Univ./YSF):

"Neutrino, Muon and Photon RI Productions for Fundamental Physics and Medical Science" (25m)

Koichi FUKASE (Graduate School of Science, Osaka Univ.):

"Collaborative research between Medical School, Research Center for Nuclear Physics, and Graduate School of Science for targeted alpha therapy in Osaka University" (25m)

(Lunch) (1h25m)

Session II. RI Applications to Cancer Therapy (13:30-14:45) (Chair: Prof. A. Shinohara)

Seigo KINUYA (Inst. Medical, Pharmaceutical and Health Sciences, Kanazawa Univ.):

"Increasing Demand of Targeted Radionuclide Therapy" (25m)

Tatsuya HIGASHI (QST, NIRS):

"Recent Progress in Target Isotope Therapy" (25m)

Yasuki NAGAI (QST, Tokai):

"Production of $^{99}\text{Mo}/^{99\text{m}}\text{Tc}$ and ^{67}Cu by Accelerator Neutrons from $C(d,n)$ " (25m)

(Coffee Break) (30m)

Session III. RI Production (15:15-16:40) (Chair: Prof. Y. Nagai)

Ghislain BOUDREAULT (CHU de Quebec - Universite Laval):

"New Facility Dedicated to Research and Clinical Use of Medical Radioisotopes: Relevancy and Challenges" (25m)

Yoshitsugu ADACHI (Sumitomo Heavy Industry/SAS):

"Overview of RI Production by Cyclotrons" (20m)

Hiromitsu HABA (Nishina Center, RIKEN):

"Production of Radioisotopes for Application Studies at RIKEN RI Beam Factory" (20m)

Hidetoshi KIKUNAGA (ELPH, Tohoku Univ.):

"RI Production at ELPH" (20m)

(Short Break) (15m)

Session III. RI Production (Part 2) (16:55-17:45) (Chair: Prof. C. Rangacharyulu)

Hiroyoshi SAKURAI (RIBF, RIKEN):

"Nuclear Reactions with LLFP in High Level Radioactive Waste" (25m)

Izyan Hazwani HASHIM (Univ. Teknologi Malaysia):

"Muon RIs Production for Neutrino Nuclear Responses" (25m)

Banquet (18:30-20:30, Sky Restaurant, Osaka University Hospital)

March 17th (Sat.)

Session IV. Molecular Basis Analyses of Radiation Effects (09:00-10:40) (Chair: TBA)

Masahiro SHIRAKAWA (Graduate School of Engineering, Kyoto Univ.):

"Cell Biology using Nanogyroscope by Optically Detected Magnetic Resonance (ODMR) Spectroscopy" (25m)

Hiroshi YASUDA (Research Inst. for Radiation Biology and Medicine, Hiroshima Univ.):

"Cosmic Radiation Protection and Emergency Dosimetry" (25m)

Hiroshi ISHIHARA (QST, NIRS):

"Biodosimetric Studies to Quantify the Effects of Internal and External Low-dose Radiation using DNA Damage-induced RNAs in White Blood Cells" (25m)

Keiji SUZUKI (Atomic Bomb Disease Institute, Nagasaki Univ.):

"Molecular Signature in Childhood Thyroid Cancer Induced by Internal Exposure to Radioactive Iodine" (25m)

(Coffee Break) (20m)

Session IV. Molecular Basis Analyses of Radiation Effects (Part 2) (11:00-12:10)

(Chair: Prof. H. Yasuda)

Teruhisa TSUZUKI (Advanced Science Research Center, Fukuoka Dental College):

"DNA Repair System as a Constituent of Mechanism Underlying Practical Threshold of Oxidative Stress-induced Tumorigenesis" (25m)

Hiroo NAKAJIMA (Graduate School of Medicine, Osaka Univ.):

"Quantitative Assessment for the Effects of Chronic Low-dose Internal Cesium-137 Radiation Exposure on Genomic, Carcinogenic and Hereditary Effects in Mice" (20m)

Satoru ENDO (Graduate School of Engineering, Hiroshima Univ.):
"External Exposure Estimation for Japanese Monkey from Contaminated Ground in Fukushima Area" (25m)

(Lunch) (1h20m)

Session V. Imaging and Elemental/Isotope Analyses (13:30-14:40) (Chair: Prof. Y. Yonekura)

Tomoko NAKANISHI (Graduate School of Agricultural and Life Sciences, U. Tokyo):
"Development of Real-Time RI Imaging for Plants" (25m)

Toru TANIMORI (Graduate School of Science, Kyoto Univ.):
"Establishment of Nuclear Gamma Imaging Spectroscopy and Exploration of Nuclear Astrophysics" (25m)

Hiroshi WATABE (CYRIC, Tohoku Univ.):
"RI for PET imaging" (20m)

(Short Break) (10m)

Session VI. Report on short-lived RI supply platform (14:50-16:10) (Chair: Prof. T. Nakanishi)

Mitsuhiro FUKUDA (RCNP, Osaka Univ.):
"Platform for Short-lived RI Supply" (20m)

Kazuma OGAWA (Kanazawa Univ.):
"An At-211-labeled Peptide for Targeted Alpha Therapy" (20m)

Aya SAKAGUCHI (Univ. Tsukuba):
"Fractionation of Zr-Hf in Ferromanganese Crusts" (20m)

Tomonori FUKUCHI (RIKEN Kobe):
"Multiple-isotope PET and Its Applications" (20m)

(Coffee Break) (20m)

Session VII. Interactions of radiations (16:30-17:40) (Chair: Prof. P. von Neumann-Cosel)

Atsushi TAMII (RCNP, Osaka Univ.):
"Development of Light-Ion Reaction Measurements with Radioactive Target" (25m)

Kensei KOBAYASHI (Faculty of Engineering, Yokohama National Univ.):
"Approaches to Origins of Life by Particles Irradiation Experiments" (25m)

Tatsushi SHIMA (RCNP, Osaka Univ.):
"Production of Radioactive Isotopes in Supernova Explosions" (20m)

Closing Session (17:40-17:50) (Chair: Prof. H. Nakajima)

Atsushi SHINOHARA (Graduate School of Science, Osaka Univ.):
Closing Remark