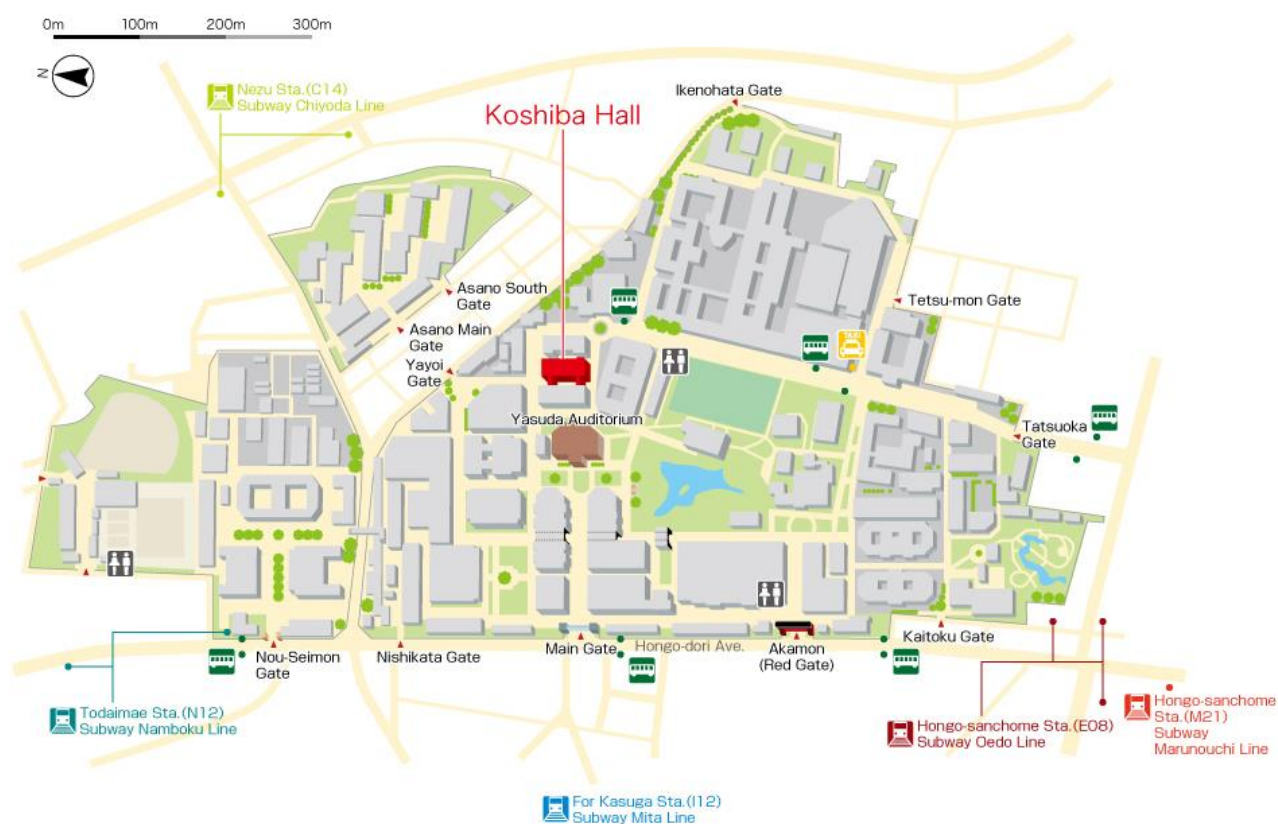


3rd International Symposium on Nanomedicine Molecular Science Toward Medical Biophysics

Date: November 25-26, 2015

Venue: Koshiba Hall, Science Bld. 1, Hongo Campus, The University of
Tokyo, Bunkyo-ku, Hongo 7-3-1, Japan

Map



Program

November 25th

10 :30 -10:40		Opening Remarks Kazuhiko Ishihara (The University of Tokyo)
Session 1		Chairman Hiroo Iwata (Kyoto University)
10:40-11:30	I-01	Invited talk James Kah (National University of Singapore) Engineering Nanoscale Interface to Biology
11:30 -11:50	O-01	Eiji Nakata (Kyoto University)
	P-01	The rational design of latent ratiometric fluorescent pH probes based on self-assembled SNARF derivatives
11:50-12:10	O-02	Madoka Suzuki (Waseda University)
	P-02	Nanoparticles to stimulate and probe single living cells
12:10-13:20		Lunch
Session 2		Chairman Kohsuke Gonda
13:20-14:00	PL-01	Plenary lecture Stefan Seeger (University of Zurich) Ultrasensitive probing of protein-biomembrane interactions: Technologies and the impact on neurodegenerative disease research
14:00-14:20	O-03	Kazuhiko Ishihara, Yuuki Inoue (The University of Tokyo)
	P-03	Cell membrane-permeable and cytocompatible phospholipid polymer nanoparticles and nanoprobe
14:20-14:40	O-04	Hiroo Iwata (Kyoto University)
	P-04	Biomedical applications of ssDNA-PEG-lipid conjugate.
14:40-15:00	O-05	Takao Yasui ¹ , Takeshi Yanagida ^{2,3} , Noritada Kaji ¹ , Masaki Kanai ² , Kazuki Nagashima ² ,
	P-05	Tomoji Kawai ³, and Yoshinobu Baba ^{1,4} (1,Nagoya University,2,Kyusyu University,4,AIST) Nanodevices for exosome analysis towards cellular function elucidation
15:00-15:20		Coffee Break
Session 3		Chairman Kazuhiko Ishihara
15:20-16:00	I-02	Invited talk Takeshi Imamura (Ehime University) Development and application of advanced intravital imaging technique in cancer research
16:00-16:20	O-06	Yohsuke Imai (Tohoku University)
	P-06	A numerical simulation of the rolling motion of red blood cells infected by <i>Plasmodium falciparum</i> in microcirculation
16:20-16:40	O-07	Kohsuke Gonda (Tohoku University)
	P-07	Pathological diagnosis of cancer by single-particle quantum dot imaging
Session 4		
16:40 -17:40		Poster viewing
18:00- 20:00		Banquet at Italian Capo PELLICANO

November 26th

Session 5	Chairman Hideo Higuchi	
9:30-10:10	I-03	Invited talk Tomonobu Watanabe ,Taro Ichimura and Hideaki Fujita (QBiC) Single cell <i>Non-invasive</i> spectroscopy
10:10-10:30	O-08	Yan Xu (Osaka Prefecture University)
	P-08	Nanofluidic Single Molecule Detection Towards Single Cell Omics
10:30-10:50	O-09	Takakazu Nakabayashi (Tohoku University)
	P-09	Intracellular sensing using fluorescence lifetime imaging
10:50-11:10	O-10	Atsushi Maruyama ,Tomoya Oyanagi, Jueyuan Gao, Naohiko Shimada(Tokyo Institute of Technology)
	P-10	MNAzyme-catalyzed nucleic acid detection enhanced by a cationic copolymer
Session 6		
11:10-12:00	Poster viewing	
12:00-13:00	Lunch	
Session 7	Chairman Norio Fukuda	
13:00-13:50	PL-02	Plenary lecture Toshio Yanagida (QBiC,Oaka University, NICT) Single Molecule Imaging and Nanometry: Fluctuation and Function of Life
13:50 -14:10	O-11	Hideo Higuchi (the University of Tokyo)
	P-11	<i>In vivo</i> and <i>In vitro</i> imaging to elucidate the dynamic function of cells
14:10-14:30	O-12	Jun Miyake , Satoshi Asatani and Hirohiko Niioka (Osaka University)
	P-12	Spectroscopy, Mechanics and Informatics for Cell Analysis
14:30-14:50	O-13	Hiromu Kashida , Hiroyuki Asanuma (Nagoya University)
	P-13	Development of a highly-sensitive nucleic acid probe for sensitive RNA imaging
14:50-15:10	Coffee Break	
Session 8	Chairman Atsushi Maruyama	
15:10-15:50	I-04	Invited talk Takumi Washio (The University of Tokyo) Beating heart simulation based on a stochastic biomolecular model
15:50-16:10	O-14	Norio Fukuda ,Fuyu Kobirumaki-Shimozawa, Kotaro Oyama (The Jikei University)
	P-14	Cardiac Nano-physiology: from cells to the heart
16:10-16:30	O-15	Nobuhiko Yui ,Atsushi Tamura(Tokyo Medical and Dental University)
	P-15	Therapeutic approach to lysosomal storage disorders based on acid-labile polyrotaxanes
16:30-16:40	Closing Remark	

Poster Session

- P-16 **Yoshiyuki Konishi**, Takeshi Seno, Tatsuki Ikeno, Kousuke Mennya, Masayuki Kurishita, Narumi Sakae, Hiroki Takada (University of Fukui)
Local regulation of molecular reactions in maintaining axonal integrity
- P-17 **Takashi Ohtsuki**^{1,‡}, Shunya Miki¹, Shouhei Kobayashi², Tokuko Haraguchi², Eiji Nakata³, Kazutaka Hirakawa⁴, Kensuke Sumita¹, Kazunori Watanabe¹, Shigetoshi Okazaki⁵ (1, Okayama University. 2, NICT. 3, Kyoto University. 4, Shizuoka University. 5, Hamamatsu University)
Molecular mechanism of photochemical internalization of cell penetrating peptide-cargo-photosensitizer conjugates
- P-18 **Yosuke Okamura**, Ami Masuda, Riku Saito, Hong Zhang (Tokai University)
Water-repellent ultra-thin films to protect from drying and blurring for tissue imaging
- P-19 **Tatsuro Goda** (Tokyo Medical and Dental University)
Detection of Molecularly Sized Pores on Plasma Membranes
- P-20 **Kentaro Kogure**¹, Mahadi Hasani¹, Akinori Nishimoto¹, Takashi Ohgita¹, Susumu Hama¹, Hiromu Kashida², Hiroyuki Asanuma² (1, Kyoto Pharmaceutical University, 2, Nagoya University)
Faint electric treatment-enhanced cellular uptake and cytoplasmic delivery of functional macromolecules
- P-21 **Yasuhiko Iwasaki**, Shunsuke Sugimoto (Kansai University)
Metabolic glycoengineering of macrophages for tumor cell capture
- P-22 **Daisuke Miyoshi** (Konan University)
Cell-mimicking system with naturally-occurring osmolytes and chemically-synthesized polymers
- P-23 **Noriaki Minakawa** and Noriko Tarashima (Tokushima University)
Efficient preparation of a dumbbell-shaped minimal vector for short hairpin RNA expression using an unnatural base pair system
- P-24 **Atsushi Harada** (Osaka Prefecture University)
Creation of nanocapsules recognizing environmental change in cellular uptake process for