

## 【第2日目12月2日(水)】

2S2 第2会場(神戸ポートピアホテル 本館地下1階 個室1)

9:00-11:30 [E]

**Organelle biology: New pictures of cellular structures and functions**

Organizers : Toshiya Endo (Kyoto Sangyo University)  
 Gia Voeltz (University of Colorado Boulder)

2S2-1

[9:00]

**Protein and lipid trafficking for mitochondrial biogenesis**

Toshiya Endo (Fac. of Life Sci., Kyoto Sangyo Univ.)

2S2-2

[9:25]

**New insights into the molecular mechanisms and the molecular evolution of chloroplast protein import**

Masato Nakai (Inst. Prot. Res., Osaka Univ.)

2S2-3

[9:50]

**Import and assembly of mitochondrial proteins**

Nikolaus Pfanner (Institute of Biochemistry and Molecular Biology, University of Freiburg, Germany)

2S2-4

[10:15]

**Relationship between mitochondrial quality control and Parkinson's disease**

Noriyuki Matsuda (Ubiquitin project, TMIMS)

2S2-5

[10:40]

**Analysis of ultrastructure and molecular mechanism of the mitochondrion and peroxisome dividing machineries**

Yuuta Imoto<sup>1</sup>, Yuichi Abe<sup>1</sup>, Masanori Honsho<sup>1</sup>, Kanji Okumoto<sup>2</sup>, Masaki Yoshida<sup>3</sup>, Haruko Kuroiwa<sup>4</sup>, Tsuneyoshi Kuroiwa<sup>4</sup>, Yukio Fujiki<sup>1,2</sup> (<sup>1</sup>Med. Inst. of Bioregulation, Kyushu Univ., <sup>2</sup>Dept. of Biol. & Grad. Sch. of Sys. Life Sci., Kyushu Univ., <sup>3</sup>Grad. Sch. of Life and Environmental Sci., Univ. of Tsukuba, <sup>4</sup>Dept. of Sci., Japan Woman's Univ.)

2S2-6

[11:05]

**A tale of two dynamins during mitochondrial division**

Gia Voeltz, Jason Lee (MCD Biology University of Colorado Boulder)

2S3 第3会場(神戸ポートピアホテル 本館地下1階 個室2)

9:00-11:30 [E]

**For those with crystallophobia**

Organizers : So Iwata (Kyoto University/Riken )  
 Mikako Shirouzu (RIKEN )

**Introduction**

[9:00]

Mikako Shirouzu (RIKEN )

2S3-1

[9:05]

**Solid-state NMR of membrane proteins**

Toshio Yamazaki, Toshio Nagashima (CLST, RIKEN )

2S3-2

[9:35]

**Electron 3D crystallography and single particle analysis of membrane proteins**

Koji Yonekura (RIKEN Spring-8 Center)

2S3-3

[10:05]

**DIFFRACTION BEFORE DESTRUCTION: IMAGING SINGLE PARTICLES WITH X-RAY LASERS**

Janos Hajdu<sup>1,2</sup>, Filipe R.N.C. Maia<sup>1,2</sup>, Tomas Ekeberg<sup>1,2</sup> (<sup>1</sup>Laboratory of Molecular Biophysics, Uppsala University, Sweden, <sup>2</sup>The European XFEL, Hamburg, Germany)

2S3-4

[10:55]

**Role of lipid molecules on the proton antiport in MATE multidrug transporter**

Yuji Sugita (RIKEN Theoretical Molecular Science Labo.)

**Conclusion**

[11:25]

So Iwata (Kyoto University/Riken )

**2S4 第4会場(神戸ポートピアホテル 本館地下1階 偕楽3)**

9:00-11:30 [E]

**New technologies for imaging and regulation of cellular proteins: from subcellular region to whole bodies**Organizers : Itaru Hamachi (Kyoto University)  
Shigeki Kiyonaka (Kyoto University)**Introduction**

[9:00]

Itaru Hamachi (Kyoto University)

**2S4-1**

[9:00]

**Synthetic molecules that control the location of proteins in living cells**Shinya Tsukiji<sup>1,2</sup> (<sup>1</sup>Dept. of Sci. Technol. Innov., Nagaoka Univ. of Technol., <sup>2</sup>Dept. of Bioeng., Nagaoka Univ. of Technol.)**2S4-2**

[9:30]

**Visualization of native AMPA receptors in central nervous systems using a novel chemical labeling technique**Shigeki Kiyonaka<sup>1,2</sup>, Sho Wakayama<sup>2</sup>, Michisuke Yuzaki<sup>3</sup>, Itaru Hamachi<sup>2,4</sup> (<sup>1</sup>Dept. Tech. Ecol., GSGES, Kyoto Univ., <sup>2</sup>Dept. Synth. Chem. & Biol. Chem., Grad. Sch. Eng., Kyoto Univ., <sup>3</sup>Dept. Physiol., Sch. Med., Keio Univ., <sup>4</sup>CREST, JST)**2S4-3**

[10:00]

**Molecular and viral approaches to elucidate structure and function of neural circuits**Fumitaka Osakada<sup>1,2,3</sup> (<sup>1</sup>Lab. of Cell. Pharmacol., Grad. Sch. of Pharm. Sci., Nagoya Univ., <sup>2</sup>Lab. of Neural Information Processing, Inst. for Adv. Res., Nagoya Univ., <sup>3</sup>PRESTO, JST)**2S4-4**

[10:30]

**Regulatory mechanism of neural stem cells revealed by optical manipulation of gene expressions**Itaru Imayoshi<sup>1,2,3,4</sup>, Ryōichiro Kageyama<sup>2,3,5</sup> (<sup>1</sup>The Hakubi Center, Kyoto University, <sup>2</sup>Institute for Virus Research, Kyoto University, <sup>3</sup>CeMS, Kyoto University, <sup>4</sup>Japan Science and Technology Agency, Precursory Research for Embryonic Science and Technology (PRESTO), <sup>5</sup>Japan. 5Japan Science and Technology Agency, Core Research for Evolutional Science and Technology (CREST))**2S4-5**

[11:00]

**CUBIC: whole-organ, whole-body imaging with single-cell resolution using chemical cocktails**Kazuki Tainaka<sup>1,2</sup>, Etsuo A Susaki<sup>1,2</sup>, Shimppei I. Kubota<sup>1</sup>, Hiroki Ueda<sup>1,2</sup> (<sup>1</sup>Dept. of Sys. Pharmacol., Grad. Sch. of Med., Univ. of Tokyo, <sup>2</sup>Lab. for Syn. Biol., RIKEN QBiC)**2S14 第14会場(神戸国際会議場 1階 メインホール)**

9:00-11:30 [E]

**The life sciences elucidated by the analysis of angio/lymphangiogenesis**Organizers : Kohei Miyazono (The University of Tokyo)  
Nobuyuki Takakura (Osaka University)**2S14-1**

[9:00]

**Molecular and cellular mechanisms for the regulation of juxtapositional alignment of arteries and veins**

Hiroyasu Kidoya, Nobuyuki Takakura (Dept. of Signal Transduction, RIMD, Osaka University)

**2S14-2**

[9:25]

**Neuro-vascular crosstalk in the central nervous system**

Yoshiaki Kubota (Dept of Vascular Biology, Keio Univ.)

**2S14-3**

[9:50]

**Mechanotransduction in regulation of vascular homeostasis and remodeling**

Jincai Luo (Institute of Molecular Medicine, Peking University)

2S14-4

[10:15]

**Molecular mechanism underlying directional migration of endothelial tip cells during sprouting angiogenesis**

Shigetomo Fukuhara, Naoki Mochizuki (Dept. of Cell Biol., Natl. Cereb. &amp; Cardiovasc. Res. Inst.)

2S14-5

[10:40]

**Semaphorin/Plexin signaling pathway in lymphatic vascular patterning**

Masanori Hirashima (Div. of Vasc. Biol., Grad. Sch. of Med., Kobe Univ.)

2S14-6

[11:05]

**New regulators of vascular sprouting and remodeling**

Young-guen Kwon (Yonsei University)

2S15 第15会場(神戸国際会議場3階 国際会議室)

9:00-11:30 [E]

**Life driven by RNAs**

Organizers : Mikiko C. Siomi (The University of Tokyo)

Kiyokazu Agata (Kyoto University)

Introduction

[9:00]

Kiyokazu Agata (Kyoto University)

2S15-1

[9:03]

**A long noncoding RNA regulates an environmental sex determination in the crustacean *Daphnia magna***

Yasuhiko Kato, Hajime Watanabe (Dept. Biotech., Grad. Sch. Eng., Osaka Univ.)

2S15-2

[9:25]

**Regulation of female fertility by lncRNA Neat1**

Shinichi Nakagawa (RNA Biology Laboratory, RIKEN)

2S15-3

[9:47]

**RNA-directed Genome Rearrangement in the Ciliate Oxytricha**

Laura F. Landweber (Princeton University)

2S15-4

[10:17]

**Multiple regulations of pluripotent stem cell by PIWI in planarians**Norito Shibata<sup>1</sup>, Makoto Kashima<sup>1</sup>, Kuniaki Saito<sup>2</sup>, Haruhiko Siomi<sup>2</sup>, Mikiko C. Siomi<sup>3</sup>, Kiyokazu Agata<sup>1</sup> (<sup>1</sup>Dept. of Biophysics, Grad. Sch. of Sci., Kyoto Univ., <sup>2</sup>Dept. of Mol. Biol., Keio Univ. Sch. of Med., <sup>3</sup>Dept. of Biol. Sci., Grad. Sch. of Sci., Univ. of Tokyo)

2S15-5

[10:39]

**Male Infertility Caused by Ubiquitination-deficient Mutations in Human Piwi (Hiwi)**

Lantao Gou, Junyan Kang, Peng Dai, Xin Wang, Feng Li, Mofang Liu (State Key Laboratory of Molecular Biology, Institute of Biochemistry and Cell Biology, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences)

2S15-6

[11:09]

**PIWI-interacting RNA; its function and biogenesis**

Mikiko C. Siomi (Dept. of Biol. Sci., Grad. Sch. of Sci., Univ. of Tokyo)