

# 【第4日目12月4日(金)】

### 第2会場(神戸ポートピアホテル 本館 地下1階 偕楽1) 9:00-11:30 (E) **4S2** The busy world of plant cells: dynamic organelle movements and their physiological roles Organizers: Ikuko Hara-Nishimura (Kvoto University) Kentaro Tamura (Kyoto University) Introduction [9:00] Kentaro Tamura (Kyoto University) 4S2-1 [9:05] The Unique Nucleocytoplasmic Linkage in Plants Kentaro Tamura (Dept. of Biol. Sci., Grad. Sch. of Sci., Kyoto Univ.) [9:30] A mystery of busy cytoplasmic streaming in quiet plants Motoki Tominaga (Dep. Biol., Fac. Educ. Integrated Arts and Sci., Waseda Univ.) [9:55] Molecular dynamics in chloroplast photorelocation movement Samgeun Kong<sup>12</sup> (¹Div. Struct. Biol. Med. Inst. of Bioreg. Kyushu Univ., ²Res. Cent. Live-Protein Dynamics, Kyushu Univ.) **4S2-4** [10:20] Active movements and network formation of the endoplasmic reticulum in plant cells Haruko Ueda<sup>1</sup>, Etsuo Yokota<sup>2</sup> (<sup>1</sup>Grad. Sch. of Sci., Kyoto Univ., <sup>2</sup>Grad. Sch. of Life Sci., Univ. of Hyogo) 4S2-5 [10:45] Cortical microtubule patterning in xylem cells Yoshihisa Oda<sup>12</sup>, Yoshinobu Nagashima<sup>13</sup>, Yuki Sugiyama<sup>13</sup>, Hiroo Fukuda<sup>3</sup> (<sup>1</sup>National Insitute of Genetics, <sup>2</sup>SOKENDAI, <sup>3</sup>Dept. of Biol. Sci., Grad. Sch. of Sci., Univ. of Tokyo Discussion [11:10] [11:25] Conclusion Ikuko Hara-Nishimura (Kyoto University) 483 第3会場(神戸ポートピアホテル 本館 地下1階 偕楽2) 9:00-11:30 [F] Understanding of organogenesis beyond the hierarchy of multicellular behaviors Organizers: Akira Kikuchi (Osaka University) Mototsugu Eiraku (RIKEN) Introduction [9:00] Akira Kikuchi (Osaka University) [9:01] Spatial and Temporal Regulation of the Neural Tube Pattern Formation Noriaki Sasai (Bio. Sci., NAIST) [9:26] Self-organized formation of complex tissues from stem cells Mototsugu Eiraku (RIKEN CDB) [9:50] Identification of novel stem cells by the multicolor lineage tracing method Hiroo Ueno (Dept. Stem Cell Pathology, Kansai Medical University) [10:15]

Multiscale modeling and simulation to explore the role of mechanical forces that shape living tissues and

Taiji Adachi, Yasuhiro Inoue, Yoshitaka Kameo (Dept. of Biomech., Inst Frontier Med. Sci., Kyoto Univ.)

organs



4S3-5 [10:40]

#### Fine-tuning of differentiation and morphogenesis of tubular organs by Wnt signaling

Akira Kikuchi, Shinsuke Fujii, Takayuki Kurimoto, Souji Ibuka, Shinji Matsumoto (Dept. of Molbio. Biochem., Grad. Sch. of Med., Osaka Univ.)

4S3-6 [11:04]

#### Kidney progenitor expansion and generation of vascularized glomeruli from stem cells

Ryuichi Nishinakamura, Shunsuke Tanigawa, Sazia Sharmin, Atsuhiro Taguchi (Inst. Mol. Embryol. Genet., Kumamoto Univ.)

Conclusion [11:29]

Mototsugu Eiraku (RIKEN)

#### 4S4 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 aspects of lipid biology unveiled by lipidomics –from bench to clinic–

Organizers: Hiroyuki Arai (The University of Tokyo)
Junken Aoki (Tohoku University)

4S4-1 [9:00]

#### Comprehensive lipidomics and Mass/LipidBank databases

Masanori Arita<sup>1,2</sup>, Hiroshi Tsugawa<sup>2</sup> (<sup>1</sup>Natl Instit Genet, <sup>2</sup>RIKEN CSRS)

4S4-2 [9:23]

#### Single cell lipidomics approach for diseases

Mitsutoshi Setou (Dept.of Cell Biology and Anatomy, Hamamatsu Univ. Sch. of Medicine)

494-3

#### Measuring phosphoinositides at molecular species level

Hiroki Nakanishi<sup>1,4</sup>, Satoshi Eguchi<sup>2</sup>, Masaki Ishikawa<sup>1</sup>, Akira Suzuki<sup>3</sup>, Junko Sasaki<sup>2</sup>, **Takehiko Sasaki**<sup>1,24</sup> (<sup>1</sup>Research Center for Biosignal, Akita University, <sup>2</sup>Department of Medical Biology, Graduate School of Medicine, Akita University, <sup>3</sup>Medical Institute of Bioregulation, Kyushu University, <sup>4</sup>Akita Lipid Technologies, Inc.)

484-4 [10:09]

## Function of organellar membrane lipids as a scaffold of intracellular signal integration

**Hiroyuki Arai**<sup>12</sup>, Tomohiko Taguchi<sup>2</sup> (<sup>1</sup>Department of Health Chemistry, Graduate School of Pharmaceutical Sciences, University of Tokyo, <sup>2</sup> Laboratory Pathological Cell Biology, Graduate School of Pharmaceutical Sciences, University of Tokyo)

4S4-5 [10:32]

#### Platelet-activating factor and eicosanoid regulation by LPCAT2

Hideo Shindou<sup>12</sup>, Takao Shimizu<sup>13</sup> (<sup>1</sup>NCGM Lipid Signal, <sup>2</sup>JST CREST, <sup>3</sup>Dept. of Lipid. Fac. of Med. Univ. of Tokyo)

484-6 [10:50]

#### Lipoquality regulation by the phospholipase A2 family

Makoto Murakami<sup>1,2</sup> (<sup>1</sup>Tokyo Metropolitan Institute of Medical Science, <sup>2</sup>AMED-CREST)

484-7 [11:13]

#### LPA3 signal protects the heart against ischemic injury through activation of the vagus nerve

Kuniyuki Kano<sup>12</sup>, Junken Aoki<sup>12</sup> (<sup>1</sup>Grad. Sch. of Pham. Sci., Tohoku Univ., <sup>2</sup>AMED)

# 4S14 第14会場(神戸国際会議場 1階 メインホール)

9:00-11:30 (E)

#### Maintenance and plasticity of epigenetic memory

Organizers: Yoichi Shinkai (RIKEN)

Jun-ichi Nakayama (Nagoya City University)

Introduction [9:00]

Jun-ichi Nakayama (Nagoya City University)



[9:05] 4S14-1 Epigenetic Inheritance Uncoupled from Sequence-Dependent Establishment Danesh Moazed (Harvard Medical School, HHMI) [9:30] 4S14-2 Crosstalk between histone modifications during heterochromatin assembly Jun-ichi Nakayama (Div. of Biol. Sci., Grad. Sch. of Nat. Sci., Nagoya City Univ. ) [9:50] **4S14-3** Establishment and maintenance of histone modifications Bing Zhu (Institute of Biophysics, Chinese Academy of Sciences) 4S14-4 [10:15] Protracted NP95 binding to hemimethylated DNA disrupts proviral silencing Haruhiko Koseki, Jafar Sharif (RIKEN-IMS) [10:40] 4S14-5 A histone mimic within DNA Ligase 1 recruits UHRF1 to sites of DNA replication: implications for DNA remethylation Alexandra Fournier<sup>1</sup>, Laure Ferry<sup>1</sup>, Takeshi Tsusaka<sup>2</sup>, Tadahiro Shimazu<sup>2</sup>, Kyohei Arita<sup>3</sup>, Yoichi Shinkai<sup>2</sup>, Pierre-Antoine Defossez<sup>1</sup> (<sup>1</sup>CNRS, Paris, France, <sup>2</sup>RIKEN, Wako, Japan, <sup>3</sup>Yokohama City University) **4S14-6** [11:00] Epigenome changes induced by environmental factors and their memory Shunsuke Ishii (Lab of Molecular Genetics) Conclusion [11:25] Yoichi Shinkai (RIKEN) **4S15** 第15会場(神戸国際会議場 3階 国際会議室) 9:00-11:30 (E) **Tissue Remodeling and Diseases** Organizers: Yoshihiro Ogawa (Tokyo Medical and Dental University) Motoko Yanagita (Kyoto University) Introduction [9:00] Yoshihiro Ogawa (Tokyo Medical and Dental University) [9:03] Cellular and molecular bases of pulmonary fibrosis Kouii Matsushima (Dept. of Mol. Preventive Med., Faculty of Med., The Univ. of Tokyo) [9:32] Intravital imaging analysis of different macrophages, bone tissue maintaining osteoclasts and residential macrophages in adipose tissues Masaru Ishii (Dept. of Immunol. Cell Biol., Grad. Sch. of Med. Front. Biosci., Osaka Univ.) 4S15-3 [10:01] Liver Tissue Injury and Remodeling Ekihiro Seki (Div. of Gatroenterol. Dept. of Med., Cedars-Sinai Med. Ctr.) [10:30] 4S15-4 Obesity-induced adipose tissue remodeling and the metabolic syndrome

Takayoshi Suganami<sup>1,23</sup>, Miyako Tanaka<sup>12</sup>, Michiko Itoh<sup>2</sup>, Yoshihiro Ogawa<sup>2,4</sup> (<sup>1</sup>Dept. of Molecular Medicine and Metabolism, Res. Inst. of Environmental Medicine, Nagoya Univ., <sup>2</sup>Dept. of Molecular Endocrinology and Metabolism, Grad. Sch. of Medical and Dental Sci., Tokyo Medical and Dental Univ., <sup>3</sup>PRESTO, JST, <sup>4</sup>CREST · AMED)

4S15-5 [10:59]

#### A brain-heart-kidney network controls adaptation to cardiac stress and remodeling through tissue macrophage activation

Ichiro Manabe (Dept. Cardiovasc. Med., Grad. Sch. Med., Univ. Tokyo)



Conclusion [11:28]

Motoko Yanagita (Kyoto University )

 CSHA session
 第9会場(神戸ポートピアホテル 本館 地下1階 菊水)
 14:00-16:30 [E]

#### Metabolism, cancer and diseases

Organizer: Maoyen Chi (Cold Spring Harbor Laboratory/CSH Asia)

Introduction [14:00]

Maoyen Chi (Cold Spring Harbor Laboratory/CSH Asia)

CSHA-1 [14:20]

#### The Mitochondrial Pyruvate Carrier as a Target for Treating Diabetes

Finck Brian (Washington University School of Medicine)

CSHA-2 [14:50]

# The Role of Seipin in Adipogenesis and Lipid Droplet Expansion

(rob) yang Hongyuan (School of Biotechnology and Biomolecular Sciences, the University of NSW)

CSHA-3 [15:20]

#### A new method of drug delivery that selectively targets senescent cells

Daniel Munoz-Espin¹, Cristina Gimenez², Irene Galiana², Jose Ramon Murguia², Ramon Martinez-Manez², Manuel Serrano¹ (¹Spanish National Cancer Research Center (CNIO), 28029 Madrid, Spain, ²Centre for Molecular Recognition and Technological Development (IDM),Polytechnic University of Valencia (UPV), 46022 Valencia, Spain )

CSHA-4 [15:50]

#### Adipose Tissue Dysregulation and Metabolic Complications in Obesity

Jong In Kim, Sung Sik Choe, Jin Young Huh, **Jae Bum Kim** (Department of Biological Science, Institute of Molecular Biology & Genetics, Seoul National University, Seoul 151-742, Korea)