

シンポジウム

第1日目12月3日(火)

1AS-01	Room 1 (Fukuoka International Congress Center 5F 501)	9:00-11:30 [E]
Crossroad of Chemical and RNA Biology		
Organizers : Shinichi Nakagawa (Hokkaido University) Masatoshi Hagiwara (Kyoto University)		
Introduction		[9:00]
Shinichi Nakagawa (Hokkaido University)		
1AS-01-1		[9:01]
Chemical approach to elucidate the regulatory mechanisms of snRNP biogenesis		
Saki Ohazama ² , Shinichi Nakagawa ^{1,2} , Hiroshi Maita ^{1,2} (¹ Fac. of Pharm. Sci., Hokkaido Univ., ² Grad. Sch. of Life Sci., Hokkaido Univ.)		
1AS-01-2		[9:19]
Identification of novel molecular glue that induces selective degradation of splicing factor CAPER-alpha via CUL4-DCAF15 ubiquitin ligase		
Taisuke Uehara ¹ , Yukinori Minoshima ¹ , Koji Sagane ¹ , Naoko Sugi ¹ , Kaoru Mitsuhashi ¹ , Noboru Yamamoto ¹ , Hiroshi Kamiyama ¹ , Kentaro Takahashi ¹ , Yoshihiko Kotake ¹ , Mai Uesugi ¹ , Akira Yokoi ¹ , Atsushi Inoue ¹ , Miyuki Mabuchi ² , Akito Tanaka ² , Takashi Owa ¹ (¹ Eisai Co. Ltd., ² School of Pharmacy, Hyogo University of Health Science)		
1AS-01-3		[9:44]
A novel translational buffering system that links splicing and cancer		
Minoru Yoshida ^{1,2} (¹ RIKEN CSRS, ² Dept. of Biotechnol., CRIIM, Univ. of Tokyo)		
1AS-01-4		[10:09]
Using molecular glues to target gene expression		
Ting Han (National Institute of Biological Sciences)		
1AS-01-5		[10:34]
mRNA processing and disease		
Gideon Dreyfuss (Dept. Biochemistry and Biophysics, Howard Hughes Medical Institute, School of Medicine, Univ. of Pennsylvania)		
1AS-01-6		[11:04]
Drug Discovery for Genetic Diseases Caused by Aberrant mRNA Splicing		
Masatoshi Hagiwara (Grad. Sch. of Med., Kyoto Univ.)		
Conclusion		[11:29]
Masatoshi Hagiwara (Kyoto University)		
1AS-11	Room 11 (Fukuoka International Congress Center 3F Main Hall)	9:00-11:30 [E]
Neurogenesis ~from developmental to adult stages~		
Organizers : Kinichi Nakashima (Kyushu University) Sebastian Jessberger (University of Zurich)		
Introduction		[9:00]
Kinichi Nakashima (Kyushu University)		
1AS-11-1		[9:02]
Gene expression dynamics regulating the timing of neuronal differentiation during mammalian neural development		
Hiromi Shimojo, Ryoichiro Kageyama (Inst. for Frontier Life and Medical Sciences, Kyoto Univ.)		
1AS-11-2		[9:32]
How has the brain expanded and acquired complexity in the mammalian evolution?		
Yuji Tsunekawa, Taeko Suetsugu, Ikumi Fujita, Quan Wu, Atsunori Shitamukai, Ayaka Omori, Osamu Nishimura, Shigehiro Kuraku, Fumio Matsuzaki (RIKEN BDR)		

1AS-11-3	[10:02]
Controlling the positioning of new neurons for functional regeneration in the post-stroke brain	
Naoko Kaneko ¹ , Kazunobu Sawamoto ^{1,2} (¹ Department of Developmental and Regenerative Biology, Nagoya City University Graduate School of Medical Sciences, ² Division of Neural Development and Regeneration, National Institute for Physiological Sciences)	
1AS-11-4	[10:32]
Artificial generation of new neurons in adult central nervous systems	
Kinichi Nakashima (Dep. Stem Cel Biol. Med., Grad. Sch. Med. Sci., Kyushu Univ.)	
1AS-11-5	[10:58]
Elucidating the molecular and cellular dynamics of neurogenesis	
Sebastian Jessberger (Univ. of Zurich)	
Conclusion	[11:28]
Sebastian Jessberger (University of Zurich)	

1PS-01 Room 1 (Fukuoka International Congress Center 5F 501) 15:45-18:15 [E]

Morphostasis: the crossroads between developmental and disease biology

Organizers : Erina Kuranaga (Tohoku University)
Tohru Ishitani (Gunma University / Osaka University)

Introduction **[15:45]**
Tohru Ishitani (Gunma University / Osaka University)

1PS-01-1 **[15:47]**

Genetic dissection of epithelial wound repair and remodeling via cell-cell communication

Tatsushi Igaki (Lab. of Genetics, Grad. Sch. of Biostudies, Kyoto Univ.)

1PS-01-2 **[16:11]**

Mechanical Feedbacks in Morphogenetic Robustness

Fengzhu Xiong (Gurdon Institute, University of Cambridge)

1PS-01-3 **[16:35]**

Defective cell sensing and elimination system utilizing Wnt morphogen-gradient

Yuki Akieda¹, Shohei Ogamino², Tohru Ishitani^{1,2} (¹Homeostatic Reg., RIMD, Osaka Univ., ²Integ. Signal. Sys., IMCR, Gunma Univ.)

1PS-01-4 **[16:59]**

Environmental Stress and Myocardial Regeneration

Wataru Kimura (RIKEN BDR)

1PS-01-5 **[17:23]**

Epithelial stem cells in tissue regeneration and aging

Aiko Sada (TARA, Univ. of Tsukuba)

1PS-01-6 **[17:47]**

Organoid-based analysis of human kidney development and disease

Ryuichi Nishinakamura (Int. Mol. Embryol. Genet., Kumamoto Univ.)

Conclusion **[18:11]**

Erina Kuranaga (Tohoku University)

1PS-11 Room 11 (Fukuoka International Congress Center 3F Main Hall) 15:45-18:15 [E]

Molecular Biology of CRISPR ~Origin, Function, Structure and Application ~

Organizer : Yoshizumi Ishino (Kyushu University)

1PS-11-1 **[15:45]**

History of CRISPR/Cas, beginning from encounter with a mysterious repeated sequence

Yoshizumi Ishino (Dept. Biosci.Biotech., Grad.Sch.of Bioresource & Bioenviron. Sci., Kyushu Univ.)

1PS-11-2	[15:58]
Diversity, evolution, and exaptation of CRISPR-Cas systems	
Eugene Koonin (Nath. Center Biotechnol. Info., NIH, USA)	
1PS-11-3	[16:32]
Molecular mechanisms of antiviral defence by archaeal CRISPR-Cmr systems	
Qunxin She ^{1,2} (¹ Micro. Tech. Inst., Shandong Univ., ² Archaea Centre, Dept. of Biol., Univ. of Copenhagen)	
1PS-11-4	[17:06]
Structure-based molecular engineering of CRISPR-Cas9	
Hiroshi Nishimasu (The University of Tokyo)	
1PS-11-5	[17:40]
Expanding the diversity of the Type V CRISPR repertoire	
David Scott ¹ , Pratyusha Hunnewell ¹ , Lauren Alfonse ¹ , Jason Carte ¹ , Elise Keston-Smith ¹ , Shanmugapriya Sothiselvam ¹ , Anthony Garrity ¹ , Shaorong Chong ¹ , Kira Makarova ² , Eugene Koonin ² , David Cheng ¹ , Winston Yan ¹ (¹ Arbor Biotechnologies, ² National Center for Biotechnology Information, National Library of Medicine, National Institutes of Health)	
Conclusion	[18:14]
Yoshizumi Ishino (Kyushu University)	

第2日目12月4日(水)

2AS-01	Room 1 (Fukuoka International Congress Center 5F 501)	9:00-11:30 [E]
Frontiers of in-cell protein sciences		
Organizers : Kenji Inaba (Tohoku University) Yutaka Ito (Tokyo Metropolitan University)		
2AS-01-1		[9:00]
Novel protein quality control system cooperated by zinc ions and ERp44 in the early secretory pathway		
Kenji Inaba (Tohoku University)		
2AS-01-2		[9:25]
Phase Separation for Compartmentalization: Mechanism, Function and Pathology		
Tanja Mittag (Dept. of Structural Biology, St. Jude Children's Research Hospital)		
2AS-01-3		[9:50]
Stress- and ubiquitylation-dependent phase separation of the proteasome		
Sayaka Yasuda ¹ , Hikaru Tsuchiya ¹ , Qiang Guo ² , Wolfgang Baumeister ² , Ruben Fernandez-Busnadiego ² , Keiji Tanaka ¹ , Yasushi Saeki ¹ (¹ Lab. of Prot. Metabo. TMIMS, ² Dept. of Mol. Struct. Biol., MPI of Biochem.)		
2AS-01-4		[10:15]
Interplay between autophagy-related liquid droplets and membranes		
Nobuo N. Noda (Lab. of Struct. Biol., Inst. Microbial Chem.)		
2AS-01-5		[10:40]
Molecular Dynamics and Interaction of Protein-Ligand Binding in Crowded Cellular Environments		
Yuji Sugita (RIKEN CPR)		
2AS-01-6		[11:05]
Solution NMR approaches to 3D structure determination of proteins in living eukaryotic cells		
Yutaka Ito, Teppei Ikeya (Dept. of Chem., Tokyo Metropolitan Univ.)		
2AS-11	Room 11 (Fukuoka International Congress Center 3F Main Hall)	9:00-11:30 [E]
Molecular mechanisms governing cellular pluripotency		
Organizer : Hitoshi Niwa (Kumamoto University)		
Introduction		
Hitoshi Niwa (Kumamoto University)		
2AS-11-1		[9:02]
Overlapping function of Klf family members and Tbx3 prevents suicide of mouse ES cells by activation of Foxd3		
Hitoshi Niwa (IMEG, Kumamoto Univ.)		
2AS-11-2		[9:22]
Haploid mouse embryonic stem cells as a tool for discovery of new regulators of X chromosome inactivation		
Anton Wutz, Asun Monfort, Andreas Postlmayr (D-BIOL, Swiss Federal Institute of Technology)		
2AS-11-3		[9:47]
DNA hypomethylated female mouse ES cells as a useful tool to identify de novo DNA methylation activity by Dnmt3a and Dnmt3b		
Yasuhiro Yamada (IMSUT)		
2AS-11-4		[10:12]
Systems Biology of Gene Regulation in Mouse Pluripotency		
Henk Stunnenberg, Yaser Atalsi, Wout Megchelenbrink, Tianran Peng, Menno ter Huurne (Molecular Biology, Radboud University)		

2AS-11-5 **[10:37]**
Zscan4 and maintenance of genome integrity in pluripotent stem cells, preimplantation embryos, and germ cells

Minoru Ko¹, Tomohiko Akiyama¹, Kei-ichiro Ishiguro², Shigeru Ko¹, Nana Chikazawa-Nohtomi¹, Yuhki Nakatake¹, Saeko Sato¹ (¹Systems Med., Sch. of Med., Keio Univ., ²Inst. of Mol. Embryology & Genet.)

2AS-11-6 **[11:02]**
Formative Pluripotency

Masaki Kinoshita, Austin Smith (Wellcome-MRC Cambridge Stem Cell Institute, Univ. of Cambridge)

Conclusion **[11:27]**

Austin Smith (Wellcome-MRC Cambridge Stem Cell Institute, Univ. of Cambridge)

2PS-01 Room 1 (Fukuoka International Congress Center 5F 501) **15:45-18:15 [E]**

Co-hosted by: Plant-Structure Optimization Strategy, Grant-in-Aid for Scientific Research on Innovative Areas

Functions and Mechanisms of Force in Animal and Plant Life

Organizers : Miyo T. Morita (National Institute for Basic Biology)
Masatsugu Toyota (Saitama University)

Introduction **[15:45]**

Miyo Terao Morita (National Institute for Basic Biology)

2PS-01-1 **[15:48]**
Molecular and biophysical mechanisms of substrate rigidity sensing that determines cell fate

Masahiro Sokabe¹, Takeshi Kobayashi² (¹Mechanobiology Lab., Nagoya Univ., Grad. Sch. of Med., ²Dept. of Physiol., Nagoya Univ., Grad. Sch. of Med.)

2PS-01-2 **[16:18]**
Forces and their Feedback in Epithelial Tissue Morphogenesis: Multiscale Biomechanics Approach

Taiji Adachi (Lab. of Biomechanics, Inst. for Front. Life & Med. Sci., Kyoto Univ.)

2PS-01-3 **[16:48]**
Suboptimal mechanical signals add robustness to plant development

Olivier Hamant (ENS Lyon)

2PS-01-4 **[17:18]**
Sensing mechanism of directional cue of gravity in plant gravitropism

Miyo Terao Morita¹, Moritaka Nakamura¹, Takeshi Nishimura¹, Masatsugu Toyota² (¹NIBB, ²Grad. Sch. of Sci. & Eng., Saitama Univ.)

2PS-01-5 **[17:43]**
Influence of cell wall composition toward mechanical property during gravitropism of Arabidopsis inflorescence stems

Misato Ohtani^{1,2}, Norihiro Kanda¹, Takuya Tokumoto¹, Lorenz Gerber³, Satoru Tsugawa¹, Moritaka Nakamura⁴, Miyo T. Morita⁴, Taku Demura¹ (¹Div. of Biol. Sci., NAIST, ²Grad. Sch. of Front. Sci., Univ. of Tokyo, ³Genome Inst. of Singapore, ⁴Div. of Plant Environ. Responses, NIBB)

Conclusion **[18:12]**

Masatsugu Toyota (Saitama University)

2PS-11 Room 11 (Fukuoka International Congress Center 3F Main Hall) **15:45-18:15 [E]**

Unbiased life sciences by data-driven approaches

Organizers : Tohru Natsume (AIST)
Keiichi Nakayama (Kyushu University)

2PS-11-1 **[15:45]**
Decoding the cellular functions by AI with large-scale collection of epigenetic information

Jun Sese (Humanome Lab.)

2PS-11-2	[16:10]
Transforming the future with precision medicine by enabling high-throughput protein biomarker discovery and validation using multiplex Proximity Extension Assay	
Ida Grundberg (Olink Proteomics, Inc.)	
2PS-11-3	[16:35]
Unraveling Oxidative Stress Resistance of the Proteome	
Roger L. Chang ^{1,2} , Matthew C. Robinson ¹ , Joel W. Sher ¹ , Zhanwen Li ³ , Yujia A. Chan ^{1,2} , Ashton R. Omdahl ¹ , Ruddy Wattiez ⁴ , Adam Godzik ³ , Sabine Matallana-Surget ⁵ (¹ Dept. of Sys. Bio., Harvard Med. School, ² Wyss Inst. for Biologically Inspired Engineering, Harvard Univ., ³ Div. of Biomed. Sci., Univ. of California Riverside Sch. of Med., ⁴ Dept. of Proteomics and Microbio., Res. Inst. for Biosci., Univ. of Mons, ⁵ Div. of Bio. and Env. Sci., Fac. of Nat. Sci., Univ. of Stirling)	
2PS-11-4	[17:00]
The Leading-edge Applications of Mass Spectrometry in the Drug Discovery & Diagnosis for Precision Medicine ~ Integration of comprehensive Omics analysis into Precision Medicine	
Taka-Aki Sato (R&D Center for Precision Medicine, Tsukuba University)	
2PS-11-5	[17:25]
Machine learning uncovers novel aspects in healthcare and life science	
Hideyuki Shimizu, Keiichi I. Nakayama (Div. of Mol. Cell. Biol., Med. Inst. of Bioregulation, Kyushu Univ.)	
2PS-11-6	[17:50]
Robotic Research Process Automation	
Koichi Takahashi ^{1,2} (¹ RIKEN, ² Keio University SFC)	

第3日目12月5日(木)

3AS-01 Room 1 (Fukuoka International Congress Center 5F 501)

9:00-11:30 [E]

Metabolic dynamics for cancer cell plasticity and fate decision

 Organizers : Akira Suzuki (Kobe University)
 Atsushi Hirao (Kanazawa University)

Introduction [9:00]

Akira Suzuki (Kobe University)

3AS-01-1 [9:02]

Critical regulation of metabolites for hematopoietic homeostasis and leukemogenesis

Atsushi Hirao (Div. Mol. Gen., CRI, Kanazawa Univ.)

3AS-01-2 [9:27]

Metabolic vulnerability in senescent cells

Makoto Nakanishi, Yoshikazu Johmura (Div. of Cancer Cell Biol, Inst. of Med. Sci., Univ. of Tokyo)

3AS-01-3 [9:52]

Metabolic adaptation of cancer cells to tumor microenvironments for tumor progression

Tsuyoshi Osawa (Div. Nutriomics Onc, RCAST, Univ. of Tokyo)

3AS-01-4 [10:12]

Next-generation proteomics unveils a global landscape of cancer metabolism: Discovery of the "second" Warburg effect

Keiichi Nakayama (Dept. Mol. Cell. Biol., Med. Inst. Bioreg., Kyushu Univ.)

3AS-01-5 [10:42]

Metabolic Adaptation in Malignancies

 Tak Wah Mak^{1,2} (¹Princess Margaret Cancer Centre, ²University of Hong Kong)

Conclusion [11:27]

Atsushi Hirao (Kanazawa University)

3AS-11 Room 11 (Fukuoka International Congress Center 3F Main Hall)

9:00-11:30 [E]

Immune system in health and disease

 Organizers : Taro Kawai (Nara Institute of Science and Technology)
 Reiko Shinkura (The University of Tokyo)

3AS-11-1 [9:00]

Intestinal IgA as a modulator of gut microbiota

Reiko Shinkura (Institute for Quantitative Biosciences, The University of Tokyo)

3AS-11-2 [9:30]

Pairwise interactions predict complex combinatorics in pathogen sensing

Nicolas Chevrier (Pritzker School of Molecular Engineering, Univ. of Chicago)

3AS-11-3 [10:00]

Endoribonuclease Regnase-1 controls inflammation and immune responses

Shizuo Akira (Lab. of Host Defense, IPReC., Osaka Univ.)

3AS-11-4 [10:30]

Role of gut microbiota in intestinal pathogen colonization

Yun-Gi Kim (Res. Cent. for Drug Discov., Facul. of Pharm., Keio Univ.)

3AS-11-5 [11:00]

Local expansion of CD8+ T cells by tissue resident macrophages in the lung

Taro Kawai, Takumi Kawasaki (Lab. of Mol. Immunobiol., Div. of Bio. Sci., Nara Inst. of Sci. Tech)

3AS-12+13	Room 12 + 13 (Fukuoka International Congress Center 2F 201+202)	9:00-11:30 [E]
Understanding biodynamics by the trinity of measuring, mathematical, and controlling techniques		
Organizers : Ryoichiro Kageyama (Kyoto University) Atsushi Mochizuki (Kyoto University)		
Introduction		[9:00]
Atsushi Mochizuki (Kyoto University)		
3AS-12+13-1		[9:03]
Controlling cell fate specification system based on network structure		
Atsushi Mochizuki ^{1,2} , Kenji Kobayashi ³ , Kazuki Maeda ⁴ , Miki Tokuoka ⁵ , Yutaka Satou ^{2,5} (¹ Inst. for Front. Life & Med. Sci., Kyoto U., ² CREST, JST, ³ Marine Biol. Lab., Grad. Sch. of Integ. Sci. for Life, Hiroshima Univ., ⁴ Univ. of Fukuchiyama, ⁵ Dept. of Zool., Grad. Sch. of Sci., Kyoto Univ.)		
3AS-12+13-2		[9:25]
Quantification and manipulation of cell signaling by live cell imaging		
Kazuhiro Aoki (ExCELLS/NIBB, NINS)		
3AS-12+13-3		[9:50]
Mathematical model-based analysis of morphodynamic spectrum of fast migrating cells		
Daisuke Imoto ¹ , Nen Saito ² , Satoshi Sawai ¹ (¹ Grad. Sch. of Arts. Sci., Univ. of Tokyo, ² Grad. Sch. of Sci., Univ. of Tokyo)		
3AS-12+13-4		[10:15]
Model-based understanding of cell proliferation		
Mariko Okada (Institute for Protein Research, Osaka University)		
3AS-12+13-5		[10:40]
Collective cell rearrangements and cell flows in dynamic tissues		
Frank Jülicher (Max Planck Institute for the Physics of Complex Systems)		
3AS-12+13-6		[11:05]
Mechanism of synchronized Hes7 oscillations in the somite segmentation clock		
Ryoichiro Kageyama ^{1,2} (¹ Inst. Front. Life Med. Sci., ² iCeMS)		
Conclusion		[11:27]
Ryoichiro Kageyama (Kyoto University)		
3PS-01	Room 1 (Fukuoka International Congress Center 5F 501)	15:45-18:15 [E]
Co-hosted by: JST CREST "Innovative Technology Platforms for Integrated Single Cell Analysis"		
Cutting edge of technical innovations in integrated single cell analysis		
Organizers : Piero Carninci (RIKEN) Takeshi Bamba (Kyushu University)		
3PS-01-1		[15:45]
Functional genomics moving into single-cell analysis		
Piero Carninci (RIKEN Center for Integrative Medical Sciences)		
3PS-01-2		[16:10]
Three challenges in single cell workflows		
Alistair Forrest (Harry Perkins Institute of Medical Research)		
3PS-01-3		[16:35]
Development of chromatin integration labeling technology for single cell multiomics		
Yasuyuki Ohkawa (Div. of Transcriptomics, MIB, Kyushu Univ.)		
3PS-01-4		[17:00]
Automated single-cell and single-molecule imaging analysis		
Masahiro Ueda ^{1,2} (¹ Graduate School of Frontier Biosciences, Osaka University, ² Center for Biosystems Dynamics Research (BDR), RIKEN)		

3PS-01-5 [17:25]

Comprehensive Integration of Single Cell Protein Analysis by Nanofluidic Device and Photothermal Optical Phase Sift Detection

Takehiko Kitamori (School of Engineering, The Univeristy of Tokyo)

3PS-01-6 [17:50]

Development of single-cell molecular phenotyping technologies based on mass spectrometry

Takeshi Bamba (Med. Inst. Bioreg., Kyushu Univ.)

3PS-11 Room 11 (Fukuoka International Congress Center 3F Main Hall) 15:45-18:15 [E]

Molecular basis of phenotypic variation regulated by epigenome

Organizers : Mitsuyoshi Nakao (Kumamoto University)

Takeshi Inagaki (Gunma University)

3PS-11-1 [15:45]

A Chromatin Conformation-Dependent Regulation of Adipocyte Characteristics by JMJD1A

 Takeshi Inagaki¹, Juro Sakai^{2,3} (¹Gunma Univ., ²The University of Tokyo, ³Tohoku University)

3PS-11-2 [16:10]

EPIGENETIC UNDERPINNINGS OF METABOLIC DISEASE HETEROGENEITY

J. Andrew Pospisilik (Van Andel Research Institute)

3PS-11-3 [16:45]

Function of HP1 in H3K9 methylation dynamics

Makoto Tachibana, Ryo Maeda (FBS, Osaka Univ.)

3PS-11-4 [17:15]

Glycerol phosphate shuttle enzyme GPD2 regulates macrophage inflammatory responses

Tiffany Horng (ShanghaiTech University)

3PS-11-5 [17:50]

Regulation of macrophage and dendritic cell subsets by lipid mediator and epigenome

 Tomoaki Koga¹, Fumiyouki Sasaki², Takehiko Yokomizo², Mitsuyoshi Nakao¹ (¹Dept. of Med. Cell Biol, Inst. of Mol. Emb. Genet., Kumamoto Univ., ²Dept. Biochem., Juntendo Grad. Sch. of Med.)

3PS-12+13 Room 12 + 13 (Fukuoka International Congress Center 2F 201+202) 15:45-18:15 [E]

Decoding informational processing in the brain that underlies behavioral regulation

Organizers : Yuichi Iino (The University of Tokyo)

Takeshi Ishihara (Kyushu University)

3PS-12+13-1 [15:45]

Conservation and variability in the neural sub-networks in the whole nervous system of *C. elegans*

 Yuichi Iino¹, Yu Toyoshima¹, Hirofumi Sato¹, Stephen Wu², Yuishi Iwasaki³, Manami Kanamori¹, Moon-Sun Jang¹, Suzu Oe⁴, Yoko Murakami⁴, Sayuri Kuge⁴, Osamu Hirose⁵, Terumasa Tokunaga⁶, Takayuki Teramoto⁴, Ryo Yoshida², Takeshi Ishihara¹ (¹Dept. of Biol. Sci., Grad. Sch. of Sci., Univ. of Tokyo, ²Inst. of Stat. Math., Res. Org. of Info. and Sys., ³Dept. of Intel. Sys. Eng., Ibaraki Univ., ⁴Dep. Biol. Facl. Sci., Kyushu Univ., ⁵Facl. of Electr. and Comput. Eng., Inst. of Sci. and Eng., Kanazawa Univ., ⁶Dept. of Sys. Design and Info., Facult. of Comput. Sci. and Sys. Eng., Kyushu Inst. of Tech.)

3PS-12+13-2 [16:12]

How are neural and metabolic networks coordinated to shape behavior?

Thomas R. Clandinin (Department of Neurobiology, Stanford University)

3PS-12+13-3 [16:54]

in-vivo imaging of the telencephalic neural activities in the closed-loop virtual reality environment revealed active inference in decision making

Hitoshi Okamoto (RIKEN Center for Brain Science)

3PS-12+13-4

[17:21]

Motor information flow between the mouse motor cortices

Masanori Matsuzaki, Shin-ichiro Terada (Dept. of Physiol., Grad. Sch. of Med., Univ. of Tokyo)

3PS-12+13-5

[17:48]

Orchestrated ensemble activities constitute a hippocampal memory engram

Kaoru Inokuchi (Grad. Sch. of Med. Pharma, Univ. of Toyama)

第4日目12月6日(金)

4S-01 Room 1 (Fukuoka International Congress Center 5F 501)

13:00-15:30 [E]

Augmented Cell Engineering

 Organizers : Takanori Takebe (Tokyo Medical and Dental University)
 Nozomu Yachie (The University of Tokyo)

Introduction

[13:00]

Nozomu Yachie (The University of Tokyo)

4S-01-1

[13:03]

Designer's Organoids By Narrative Engineering

 Takanori Takebe^{1,2} (¹TMDU, ²CCHMC)

4S-01-2

[13:27]

Single-cell genomic analysis of human organoid development

Gray Camp (Institute of Molecular and Clinical Ophthalmology Basel)

4S-01-3

[13:51]

Generating a non-linear phenotype in non-polarized, artificial cells

Takanari Inoue (Johns Hopkins University)

4S-01-4

[14:15]

DNA Recording Biology

Nozomu Yachie (RCAST, Univ. of Tokyo)

4S-01-5

[14:39]

A roadmap for how human pluripotent stem cells develop into diverse tissue progenitors

Kyle Loh (Institute for Stem Cell Biology & Regenerative Medicine, Department of Developmental Biology, Stanford University School of Medicine)

4S-01-6

[15:03]

Human Time vs. Mouse Time with in vitro Recapitulated Systems

Miki Ebisuya (EMBL Barcelona)

Conclusion

[15:27]

Takanori Takebe (Tokyo Medical and Dental University)

4S-11 Room 11 (Fukuoka International Congress Center 3F Main Hall)

13:00-15:30 [E]

Co-hosted by: Grant-in-Aid for Scientific Research on Innovative Areas "Program of totipotency", "Ensuring integrity in gametogenesis"
Robustness of germline lineage

 Organizers : Katsuhiko Hayashi (Kyushu University)
 Masahito Ikawa (Osaka University)

Introduction

[13:00]

Katsuhiko Hayashi (Kyushu University)

4S-11-1

[13:02]

Study of fertilization through genome-edited mice

 Masahito Ikawa^{1,2} (¹RIMD, Osaka University, ²IMSUT, Univ. of Tokyo)

4S-11-2

[13:25]

What do we learn from somatic cell nuclear transfer (SCNT)?

Atsuo Ogura, Shogo Matoba, Kimiko Inoue (RIKEN BRC)

4S-11-3

[13:50]

The transcription factor complex NF-Y controls zygotic genome activation and early mouse development

Antoine H.F.M. Peters, Deepankar Singh, Evgeniy A. Ozonov, Yumiko K Kawamura, Sebastien A. Smallwood (Friedrich Miescher Institute for Biomedical Research)

4S-11-4

[14:15]

Mechanism and Reconstitution In Vitro of Human Germ Cell DevelopmentMitunori Saitou^{1,2,3} (¹ASHBi, Kyoto Univ., ²Dept. of Anat. Cell Biol., Grad. Sch. of Med., Kyoto Univ., ³CiRA, Kyoto Univ.)

4S-11-5

[14:40]

A mechanism underlying sustainable oocyte production in mouse germ line

Katsuhiko Hayashi, Go Nagamatsu, Nobuhiko Hamazaki, Takashi Yoshino (Dept. of Stem Cell Biol. Med., Grad. Sch. of Med. Sci., Kyushu Univ.)

4S-11-6

[15:03]

Robust spermatogenesis is supported by random behavior and simple regulation of stem cells

Shosei Yoshida (Natl. Inst. Basic Biol.)

Conclusion

[15:28]

Masahito Ikawa (Osaka University)