シンポジウム
第1日目11月25日（火）

1S1　第1会場（1階 メインホール）　9:00-11:30【E】
Molecular Biology of Aging and Age-Related Disorders

Organizers：**Eisuke Nishida** (Graduate School of Biostudies, Kyoto University)
Eiji Hara (Div. of Cancer Biol., Cancer Institute, JFCR)

1S1-1　【9:00】
Mechanisms of life-span regulation by environmental stresses in C. elegans
Masaharu Uno, Eisuke Nishida（Graduate School of Biostudies, Kyoto University）

1S1-2　【9:30】
The roles of cellular senescence in aging and cancer
Akiko Takahashi, **Eiji Hara**（Div. of Cancer Biol., Cancer Institute, JFCR）

1S1-3　【10:00】
Hypoxia response and age-related macular degeneration
Toshihide Kurihara（Dept. of Ophthalmol., Med. Sch., Keio Univ.）

1S1-4　【10:30】
Progeroid syndrome as a model of aging-related metabolic disorders
Koutaro Yokote[1], Takahiko Shimizu[2], Akira Shimamoto[3], Minoru Takemoto[1]（[1]Dept. of Med., Grad. Sch. of Med. Chiba Univ., [2]Dept. of Adv. Aging Med., Grad. Sch. of Med. Chiba Univ., [3]Dept. of Cell. Mol. Biol., Grad. Sch. of Biomed. Health Sci., Hiroshima Univ）

1S1-5　【11:00】
Longevity mechanisms in the naked mole rat and other long-lived rodent species
Vera Gorbunova, **Andrei Seluanov**（University of Rochester）

1S2　第2会場（3階 301）　9:00-11:30【E】
Gut Microbiota on the Host Physiology and Pathology

Organizers：**Hiroshi Ohno** (RIKEN IMS)
Naoko Ohtani (Tokyo University of Science)

1S2-1　【9:00】
Th17 induction by epithelial-adhering intestinal microbes
Kenya Honda[1,3,6], Koji Atarashi[1,3,5], Takeshi Tanue[1], Minoru Ando[2], Nobuhiko Kamada[4], Yuji Nagano[1], Akemi Imaoka[2], Seiko Narushima[1], Gabriel Nunez[4], Yoshinori Umesaki[2]（[1]RIKEN IMS, [2]Yakult Central Institute for Microbiological Research, [3]Keio University, Sch. of Med., [4]The University of Michigan Medical School, [5]JST PRESTO, [6]JST, CREST）

1S2-2　【9:30】
Regulation of gut microbiota by Foxp3 and IgA
Shimpei Kawamoto, Mikako Maruya, **Sidonia Fagarasan**（Lab. for Mucosal Immunity, IMS, RIKEN）

1S2-3　【10:00】
The host and its microbiome in health and disease
Eran Elinav（Dept. of Immun, Weizmann Institute of Science）

1S2-4　【10:30】
Gut microbiota-derived metabolites shape host physiological homeostasis
Shinji Fukuda[1,2]（[1]Inst. Adv. Biosci., Keio Univ., [2]RIKEN IMS）

1S2-5　【11:00】
The role of gut microbiota in obesity-associated hepatic carcinogenesis
Naoko Ohtani[1,2,3], Shin Yoshimoto[2,5], Tze Mun Loo[1], Eiji Hara[2,4]（[1]Dept. Applied Biol. Sci., Faculty Sci.Technol.,Tokyo Univ. Sci., [2]Div. Cancer Biol., Cancer Inst. JFCR, [3]Japan Sci. Technol. Agency (JST),PRESTO, [4]Japan Sci. Technol. Agency (JST), CREST, [5]LSI Medience Corp.）

1S3　第3会場（3階 302）　9:00-11:30【E】

Synthetic Study to Uncover Hierarchical Ordering of Biological Systems

Organizers：**Daisuke Kiga** (Tokyo Tech, Dept Comp Intel and Sys Sci/ WPI-ELSI)
Kaoru Sugimura (WPI-iCeMS, Kyoto University)

1S3-1　[9:00]

Synthetic approach across layers of life: Cell population diversification programmed by artificial genetic circuit

Daisuke Kiga（Tokyo Tech, Dept Comp Intel and Sys Sci/ WPI-ELSI）

1S3-2　[9:15]

Designing protein molecules from scratch

Nobuyasu Koga[1,2]（[1]IMS・CIMoS, [2]JST・PRESTO）

1S3-3　[9:40]

Single cell analysis through development of proteins for imaging and manipulation

Takeharu Nagai（ISIR, Osaka Univ.）

1S3-4　[10:05]

Modular protein domains for designing cellular circuits and new protein folds

Roman Jerala（National Institute of Chemistry）

1S3-5　[10:35]

Sensitivity of chemical reaction networks: a structural approach

Atsushi Mochizuki[1,2], Bernold Fiedler[3]（[1]Theor. Biol. Lab. RIKEN, [2]CREST, JST, [3]Inst. for Math., Free Univ. Berlin）

1S3-6　[11:00]

Human iPSC-derived organ bud based approaches towards functional organ generation

Takanori Takebe[1,2]（[1]Dept. of Reg. Med., Grad. Sch. of Med., Yokohama City Univ., [2]PRESTO, JST）

Conclusion　[11:25]

Kaoru Sugimura（WPI-iCeMS, Kyoto University）

1S15　第15会場（5階 501）　9:00-11:30【E】

Shu Takeda Presents (Co-sponsored by JST CREST)

Interacting Organ Systems Governing Whole Body Homeostasis

Organizer：**Shu Takeda** (Dept. of Phy. Cell Biol., Grad. Sch. of Med. Den. Sci., Tokyo Med. Den. Univ.)

1S15-1　[9:00]

Control of bone remodeling by central nervous system

Shu Takeda（Dept. of Phy. Cell Biol., Grad. Sch. of Med. Den. Sci., Tokyo Med. Den. Univ.）

1S15-2　[9:24]

Microglia Surveillance of Neuron-Synapses

Junichi Nabekura[1,2], Akiko Miyamoto[1], Hiroaki Wake[1,2]（[1]National Institute for Physiological Sciences, [2]Graduate University of Advanced Studies）

1S15-3　[9:48]

Intravital imaging revealing a dynamic cell system linking bone and immune systems in vivo

Masaru Ishii（Dept. of. Immunol. Cell Biol., Grad. Sch. Med. Frontier Biosci., Osaka Univ.）

1S15-4　[10:12]

Pathogenesis of atopic dermatitis: interplay among the barrier, allergy, and pruritus as a trinity

Kenji Kabashima（Dept. of Dermatol., Kyoto Univ. Grad. Sch. Med.）

1S15-5　[10:36]

Neuronal Information Highways for Metabolic Regulation at the Whole Body Level

Hideki Katagiri（Dept. of Metab. Diabet., Grad. Sch. of Med., Tohoku Univ.）

1S15-6 【11:00】

Glut1-dependent glucose uptake in osteoblasts is necessary for bone formation before and after birth and whole-body glucose homeostasis

Gerard Karsenty（Columbia University Medical Center）

1S16　第16会場(5階 502)　9:00-11:30【E】

Takehiko Kobayashi Presents

Regeneration of Genome

Organizer：**Takehiko Kobayashi** (Natl. Inst. of Genetics / Sokendai)

Introduction 【9:00】

Takehiko Kobayashi（Natl. Inst. of Genetics / Sokendai）

1S16-1 【9:05】

Instability of repetitive sequence and cellular senescence

Takehiko Kobayashi[1,2], Kimiko Saka[1]（[1]Natl. Inst. of Genetics, [2]Sokendai）

1S16-2 【9:33】

Cell-autonomous correction of ring chromosomes by compensatory uniparental disomy in human induced pluripotent stem cells

Yohei Hayashi[1], Shinya Yamanaka[1,2]（[1]Gladstone Institute of Cardiovascular Disease, [2]Center for iPS Cell Research and Application, Kyoto University）

1S16-3 【10:02】

Oxidative DNA damage and its repair system: implications for de novo germline mutations

Mizuki Ohno（Dept. of Med. Biophys. & Radiation Biol., Faculty of Med. Sci., Kyushu Univ.）

1S16-4 【10:31】

DNA damage repair and neurodegenerative diseases

Hitoshi Okazawa（TMDU, Medical Research Institute/Center for Brain Integration Research）

1S16-5 【11:00】

Suppression of somatic expansion delays motor decline in a mouse model of Huntingtons disease

Cynthia T. Mcmurray, Helen Budworth, Faye Harris, Paul T. Williams, Do-Yup Lee, Jens Pahnke, Bartosz Szczesny, Sankar Mitra, Karina Acevedo-Torres, Sylvette Ayala-Pena（Lawrence Berkeley National Lab.）

Conclusion 【11:30】

Takehiko Kobayashi（Natl. Inst. of Genetics / Sokendai）

1S17　第17会場(5階 503)　9:00-11:30【E】

Tamotsu Yoshimori Presents

Inside Cells, Membranes Move, Fission, and Fuse to Maintain Life

Organizer：**Tamotsu Yoshimori** (Graduate School of Frontier Biosciences / Medicine, Osaka University)

Introduction 【9:00】

Tamotsu Yoshimori（Graduate School of Frontier Biosciences / Medicine, Osaka University）

1S17-1 【9:03】

Regulation of myosin V interaction with cargoes

Richard G Yau, Yui Jin, Sara Wong, **Lois Weisman**（Life Sciences Institute, Department of Cell and Developmental Biology, University of Michigan）

1S17-2 【9:24】

Resolving the contributions of the actin machinery to endocytic membrane bending and vesicle formation

Wanda Kukulski[1,2], Andrea Picco[1], Tanja Specht[1], Hetty Manenschijn[1], John A. G. Briggs[1,2], Marko Kaksonen[1,2]（[1]Cell Biology and Biophysics Unit, EMBL Heidelberg, [2]Structural and Computational Biology Unit, EMBL Heidelberg）

1S17-3 【9:45】

Dynamic Regulation of Autophagy and Endocytosis for Cell Remodeling during Early Development in C. elegans

Miyuki Sato[1], Ryosuke Konuma[2], Kotone Tomura[2], Ken Sato[2] ([1]Lab. of Mol. Memb. Biol., IMCR, Gunma Univ., [2]Lab. of Mol. Traffic, IMCR, Gunma Univ.)

1S17-4 【10:06】

Analysis on the autophagosome formation site

Maho Hamasaki[1,2], Akiko Nezu[2], Tamotsu Yoshimori[1,2] ([1]Dept. of Genetics, Grad. Sch. of Med., Osaka University, [2]Dept. of Intracellular Memb. Dynamics, Grad. Sch. of Frontier Biosciences)

1S17-5 【10:25】

The small GTPase Arf1 modulates mitochondrial morphology and function

Karin B. Ackema[1], Jürgen Hench[2], Stefan Böckler[3], Shyi Chyi Wang[4], Ursula Sauder[5], Heidi Mergentaler[1], Benedikt Westermann[3], Frédéric Bard[4], Stephan Frank[2], **Anne Spang**[1] ([1]Growth and Development, Biozentrum, University of Basel, [2]Division of Neuropathology, Institute of Pathology, University Hospital Basel, [3]Cell Biology, University of Bayreuth, [4]Institute for Molecular and Cell Biology, [5]Microscopy Center, Biozentrum, University of Basel)

1S17-6 【10:46】

Catching vesicles at the Golgi complex

Suzanne Pfeffer (Dept. Biochemistry, Stanford University School of Medicine)

1S17-7 【11:07】

Rab6 is essential for plural apical transport pathways but not for basolateral transport pathway in Drosophila photoreceptors

Nozomi Iwanami, Takunori Satoh, Yuri Nakamura, Jiguan Liu, **Akiko Satoh** (Graduate School of Integrated Arts and Sciences, Hiroshima University)

Conclusion 【11:28】

Maho Hamasaki[1,2] ([1]Dept. of Genetics, Grad. Sch. of Med., Osaka University, [2]Dept. of Intracellular Memb. Dynamics, Grad. Sch. of Frontier Biosciences)

第2日目11月26日（水）

2S1　第1会場（1階 メインホール）　9:00-11:30【E】

Mitinori Saitou Presents

Programming/Reprogramming Stem Cell Fate

Organizer：**Mitinori Saitou** (Graduate School of Medicine, Kyoto University)

Introduction 【9:00】

Mitinori Saitou（Graduate School of Medicine, Kyoto University）

2S1-1 【9:10】

Epigenetic Control of Mammalian Germ Line and Early Embryonic Development

Antoine H.F.M. Peters（Friedrich Miescher Institute for Biomedical Research, Switzerland）

2S1-2 【9:45】

Epigenetic abnormalities associated with somatic cell nuclear transfer in mice

Atsuo Ogura[1,2]（[1]RIKEN BioResource Center, [2]Grad. Sch. of Life Environ. Sci., Univ. of Tsukuba）

2S1-3 【10:20】

The Epigenetic Instability of the Pluripotent and Somatic Cell States

Jacob Hanna（Weizmann Institute of Science）

2S1-4 【10:55】

Programming stem cells toward the kidney

Ryuichi Nishinakamura, Atsuhiro Taguchi（Inst. Mol. Embryol. Genet., Kumamoto Univ.）

2S2　第2会場（3階 301）　9:00-11:30【E】

Toru Takumi Presents

Molecular Biology of Brain and Mind

Organizer：**Toru Takumi** (RIKEN・BSI)

Introduction 【9:00】

Toru Takumi（RIKEN・BSI）

2S2-1 【9:03】

Molecular approaches towards understanding the pathophysiology of mental disorders

Toru Takumi（RIKEN・BSI）

2S2-2 【9:15】

Supramolecular organisation of the synapse

Seth Grant（Genes to Cognition Programme, Edinburgh University, UK）

2S2-3 【9:50】

Probing integrin function in brain networks

Yukiko Goda（RIKEN Brain Science Institute）

2S2-4 【10:20】

Synaptic scaffolding proteins, NMDA receptor function, and autism spectrum disorders

Eunjoon Kim[1,2]（[1]Center for Synaptic Brain Dysfunctions, Inst. of Basic Sci. (IBS)., [2]Dept. of Biol. Sci., Korea Adv. Inst. of Sci. Technol (KAIST)）

2S2-5 【10:55】

Engineered Microbial Rhodopsins for studying Neural Circuits

Ofer Yizhar（Weizmann Institute of Science, Rehovot, Israel）

2S3　第3会場（3階 302）　9:00-11:30【E】

Yuichiro Watanabe Presents

Diverse Gene Regulation Systems for Environmental Adaptation

Organizer：**Yuichiro Watanabe** (Graduate School of Arts and Sciences, The University of Tokyo)

Introduction 【9:00】

Yuichiro Watanabe（Graduate School of Arts and Sciences, The University of Tokyo）

2S3-1 【9:05】

Epitranscriptome, the chemical modification on mRNA, in mammalian circadian rhythms

Hitoshi Okamura, **Jean-Michel Fustin**（Dept. System Bio., Grad. Sch. Pharm. Sci., Kyoto Univ.）

2S3-2 【9:30】

Linking mRNA methylation and 3' end processing to plant development

Gordon Simpson[1,2]（[1]Division of Plant Sciences, College of Life Sciences, Dundee University, Scotland, UK, [2]Cell & Molecular Sciences, The James Hutton Institute, Invergowrie, Dundee, Scotland, UK.）

2S3-3 【10:00】

Genetic architecture of Arabidopsis circadian clock system

Norihito Nakamichi（WPI-ITbM, Nagoya Univ.）

2S3-4 【10:25】

Transcriptional and post-transcriptional regulation mediate the adaptation of the circadian clock to temperature changes

Osnat Bartok, Naveh Evantal, **Sebastian Kadener**（Biological Chemistry Department, Silberman Institute of Life Sciences, The Hebrew University of Jerusalem）

2S3-5 【10:55】

Transcriptome dynamics under fluctuating field

Atsushi J. Nagano[1,2]（[1]Cen. for Ecol. Res., Kyoto Univ., [2]JST PRESTO）

Discussion 【11:20】

2S15　第15会場（5階 501）　9:00-11:30【E】

Towards Establishment of Systematical Structure-Function Analysis Technology of Membrane Proteins

Organizers：**Osamu Nureki** (Graduate School of Science, The University of Tokyo)
Atsuko Yamashita (Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University)

2S15-1 【9:00】

Improving Major Facilitator Superfamily transporters for biofuel production

Jamie Cate[1,2,3]（[1]Dept. Molecular and Cell Biology, UC Berkeley, [2]Dept. Chemistry, UC Berkeley, [3]Energy Biosciences Institute）

2S15-2 【9:35】

Molecular Mechanisms of Membrane Channel and Transporter

Osamu Nureki（Graduate School of Science, The University of Tokyo）

2S15-3 【9:58】

Structural basis for the drug extrusion mechanism by a MATE multidrug transporter

Yoshiki Tanaka[1,3], Christopher J. Hipolito[2], Ryuichiro Ishitani[1], Hiroaki Suga[2], Osamu Nureki[1]（[1]Dept. of Bioph. and Bioch., Grad. Sch. of Sci., Univ. of Tokyo, [2]Dept. of Chem., Grad. Sch. of Sci., Univ. of Tokyo, [3]Grad. Sch. of Bio. Sci., NAIST）

2S15-4 【10:21】

In silico drug design system based on the structure of drug transporter substrates

Hiroyuki Kusuhara, Kazuya Maeda（Grad. Sch. of Pharm. Sci., Univ. of Tokyo）

2S15-5 【10:44】

Towards Establishment of Systematic Structure Analysis Technology for G-protein Coupled Receptors

Takeshi Murata[1,2]（[1]Dept. of Chem., Grad. Sch. of Sci., Chiba Univ., [2]PRESTO, JST）

2S15-6 【11:07】

Structure studies on membrane proteins using X-ray free electron laser

So Iwata[1,2], Kanako Kimura[1], Tatsurou Shimamura[1], Eriko Nango[2], Tomoyuki Tanaka[2], Tomohiro Nishizawa[8], Osamu Nureki[8], Rie Tanaka[2], Mamoru Suzuki[2,7], Tetsuya Masuda[2,9], Michihiro Sugahara[2], Tono Kensuke[3], Yasumasa Joti[3], Takashi Kameshima[3], Changyong Song[2], Takaki Hatsui[2], Makina Yabashi[2], Keitaro Yamashita[2], Toshiaki Hosaka[4], Hiroaki Tanabe[4], Masakatsu Hato[4], Toshi Arima[4], Someya Tomomi[4], Mikako Shirouzu[4], Dongqing Pan[5], Toru Nakatsu[5], Hiroaki Kato[5], Eiichi Mizohata[6], Yu Kitago[7], Junichi Takagi[7], Yasuaki Yamanaka[1], Takaaki Fujiwara[1], Ayumi Yamashita[2], Jyun Kobayashi[2]（[1]Graduate School of Medicine, Kyoto University, [2]Riken SPring-8 Centre, [3]Japan Synchrotron Research Institute, [4]RIKEN Center for Life Science Technologies, [5]Graduate School of Pharmaceutical Sciences, Kyoto University, [6]Graduate School of Engineering, Osaka University, [7]Institute for Protein Research, Osaka University, [8]Graduate School of Science, the University of Tokyo, [9]Graduate School of Agriculture, Kyoto University）

2S16　第16会場（5階 502）　9:00-11:30【E】

Yoshiko Takahashi Presents

Developmental Biology: Cells-to-organs and biodiversity

Organizer：**Yoshiko Takahashi** (Dept. of Zoology, Grad. Sch. of Sci., Kyoto Univ.)

Introduction 【9:00】

Yoshiko Takahashi（Dept. of Zoology, Grad. Sch. of Sci., Kyoto Univ.）

2S16-1 【9:03】

Cell communications during skin pigmentation

Yoshiko Takahashi[1], Hidetaka Murai[1, 2], Kenichiro Sakai[2], Ryosuke Tadokoro[1],（[1]Dept. of Zoology, Grad. Sch. of Sci., Kyoto Univ., [2]Dept. of Bio. Sci., NAIST）

2S16-2 【9:28】

Trunk or tail: the changing lives of axial progenitors

Moises Mallo（Instituto Gulbenkian de Ciencia, Oeiras, Portugal）

2S16-3 【10:03】

Interaction between organisms and the environment: developmental regulation of polyphenism

Teiya Kijimoto, Armin P. Moczek（Dept. of Biology, Indiana Univ.）

2S16-4 【10:28】

Dynamics of mouse sperm stem cells: How is the tissue homeostasis maintained?

Shosei Yoshida（Div. of Germ Cell Biol., Natl. Inst. Basic Biol.）

2S16-5 【10:53】

The fluid dynamics of collective cell migration

Roberto Mayor（Dept. Cell and Dev. Biol., University College London）

Conclusion 【11:28】

Shosei Yoshida（Div. of Germ Cell Biol., Natl. Inst. Basic Biol.）

2S17　第17会場（5階 503）　9:00-11:30【E】

Minoru Yoshida Presents

At the Molecular Crossroad of Metabolism and Epigenetics

Organizer：**Minoru Yoshida** (RIKEN)

Introduction 【9:00】

Minoru Yoshida（RIKEN）

2S17-1 【9:02】

Sirtuin-catalyzed deacylation: Interdependence of metabolism and the epigenome

John M. Denu（Dept. of Biomolecular Chemistry, and the Wisconsin Institute for Discovery, Univ. of Wisconsin, Madison, USA）

2S17-2 【9:42】

PKA-dependent Association of Histone Demethylase JMJD1A with SWI/SNF and PPARγ Alters Chromatin Dynamics and Thermogenesis in Brown Adipocytes

Juro Sakai（Div. of Metabolic Medicine, RCAST）

2S17-3 【10:09】

Epigenomics in Chronic Diseases

Takeo Kubota[1], Kunio Miyake[1], Natsuyo Hariya[1], Kazuki Mochizuki[2]（[1]Department of Epigenetic Medicine, Faculty of Medicine, University of Yamanashi, [2]Department of Local Produce and Food Sciences, Faculty of Life and Environmental Sciences, University of Yamanashi）

2S17-4 【10:36】

Function of methionine adenosyltransferase II in plasma cell differentiation

Kyoko Ochiai[1,2], Yasutake Katoh[1], Hiroki Shima[1,2], **Kazuhiko Igarashi**[1,2]（[1]Dept. Biochem., Grad. Sch. of Med., Tohoku Univ., [2]CREST, JST）

2S17-5 【11:03】

Intestinal microbiota regulates the mucosal immune system through epigenetic modifications

Koji Hase（Dept. of Biochem., Faculty of Pham., Univ. of Keio）

第3日目11月27日（木）

3S1　第1会場（1階 メインホール）　9:00-11:30【E】

Mikiko C. Siomi Presents

Molecular Biology of Non-coding RNAs and its Application

Organizer：**Mikiko C. Siomi** (Dept. of Biol. Sci. Grad. Sch. of Sci. Univ. of Tokyo)

Introduction 【9:00】

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

3S1-1 【9:02】

Transcriptome wide mapping of Msi1-RNA interaction in neural stem cell

Masato Yano[1], Robert B. Darnell[2], Hideyuki Okano[1]（[1]Keio University, [2]The Rockefeller University）

3S1-2 【9:24】

The Biology of CRISPRs: From Genome Defense to Genomic Engineering

Jennifer A. Doudna（Dept. of Molecular and Cell Biology & Chemistry, University of California, Berkeley）

3S1-3 【9:59】

The critical role of miRNAs at the edge of Hox-code during skeletal development

Hiroshi Asahara[1,2,4,5], Tempei Sato[1,2,3], Masafumi Inui[2]（[1]Dep. of Syst. BioMed., Grad. Sch. of Med., Tokyo Med. Dent. Univ, [2]Dep. of Syst. BioMed., Nat. Res. Inst. for Child Health and Dev., [3]JSPS research fellow, [4]CREST, JST, [5]TSRI, USA）

3S1-4 【10:22】

Reconstitution of Death Star, a RISCy Business

Qinghua Liu（Dept. of Biochemistry, UT Southwestern Medical Center, USA）

3S1-5 【10:45】

Specification of cluster loci in the genome for piRNA production

Zhao Zhang[1], Phillip Zamore[2], Zhiping Weng[3], William Theurkauf[4]（[1]Department of Embryology, Carnegie Institution for Science, [2]Department of Biochemistry and Molecular Pharmacology and HHMI, University of Massachusetts Medical School, [3]Program in Bioinformatics and Integrative Biology, University of Massachusetts Medical School, [4]Program in Molecular Medicine, University of Massachusetts Medical School）

3S1-6 【11:08】

Biogenesis of PIWI-interacting small RNAs in Drosophila

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

3S2　第2会場（3階 301）　9:00-11:30【E】

Stem Cell Production and Organ Regeneration as an Adaptive Reprogramming Strategy

Organizers：**Keiko Sugimoto** (RIKEN CSRS)
Yosuke Tamada (National Institute for Basic Biology)

Introduction 【9:00】

Keiko Sugimoto（RIKEN CSRS）

3S2-1 【9:05】

A qualitative shift of adult pluripotent stem cell state during regeneration in planarians

Norito Shibata, Hayoung Lee, Kiyokazu Agata（Grad. Sch. of Sci., Kyoto Univ.）

3S2-2 【9:30】

What determines differences in cardiac regenerative abilities between mouse and newts?

Takashi Takeuchi, Shoji Tane, Hitomi Okayama, Aiko Ikenishi, Yuki Amemiya, Akira Matsumoto, Ayumi Myouga, Syohei Azuma, Toshinori Hayashi（Sch. of Life Sci., Faculty of Med., Tottori Univ.）

3S2-3 **【9:55】**

Epigenome analysis of the stem-cell formation in the moss *Physcomitrella patens*

Yosuke Tamada[1,2], Tetsuya Kurata[3,4], Masayuki Hattori[5,6], Yutaka Hayano[5,7], Shin Oya[5], Yasuhiro Kamei[2,6], Yuji Hiwatashi[1,2], Yukiko Kabeya[1], Tomoaki Nishiyama[3,8], Takashi Murata[1,2], Mitsuyasu Hasebe[1,2,3] ([1]Div. Evol. Biol., Natl. Inst. Basic Biol., [2]Sch. Life Sci., Grad. Univ. Adv. Stud., [3]ERATO, JST, [4]Grad. Sch. Biol. Sci., Nara Inst. Sci. Tech., [5]Subaru Telescope, Natl. Astron. Obs. Jpn., [6]SBI, Natl. Inst. Basic Biol., [7]Sch. Phys. Sci., Grad. Univ. Adv. Stud., [8]Adv. Sci. Res. Cntr., Kanazawa Univ.)

3S2-4 **【10:20】**

Epigenetic control of cellular reprogramming in plants

Momoko Ikeuchi, Akira Iwase, **Keiko Sugimoto** (RIKEN CSRS)

3S2-5 **【10:45】**

The Trajectory of Transdifferentiating Cells in the Plant Root

Kenneth D Birnbaum, Idan Efroni, Tal Nawy, Alison Mello, Pui-Leng Ip, Ramin Rahni, Nicholas DelRose (Center for Genomics and Systems Biology, Biology Department, New York University)

3S3　第3会場(3階 302)　**9:00-11:30【E】**

Biological Evolution and Diversity

Organizers：**Fumitoshi Ishino** (Dept. of Epigenet., Med. Res. Inst., Tokyo Med. Dent. Univ.)
Yoshihiko Umesono (Grad. Sch. of Life Sci., Univ. of Hyogo)

3S3-1 **【9:00】**

Diversity of head regenerative ability along the anterior-posterior axis among planarian species

Yoshihiko Umesono (Grad. Sch. of Life Sci., Univ. of Hyogo)

3S3-2 **【9:25】**

The amphioxus and beyond: genome evolution for vertebrate innovations

Jordi Garcia-Fernàndez (Departament de Genètica, Fac. Biologia, Universitat de Barcelona)

3S3-3 **【9:50】**

Mammalian Evolution Promoted by Exaptation of LTR Retrotransposons

Fumitoshi Ishino[1], Tomoko Kaneko-Ishino[2] ([1]Dept. of Epigenet., Med. Res. Inst., Tokyo Med. Dent. Univ., [2]Sch. of Health Sci., Tokai Univ.)

3S3-4 **【10:15】**

Endogenization of betaretroviruses which are involved in placentation

Takayuki Miyazawa[1], Yuki Nakaya[2] ([1]Inst. for Virus Res., Kyoto Uni., [2]Kyoto Prefect. Univ. of Medicine)

3S3-5 **【10:40】**

Role of retrotransposon in brain development and function

Alysson Muotri (Univ. of California, San Diego)

3S3-6 **【11:05】**

Acquisition of genetic variability through interbreeding in Homo sapiens

Ken-ichi Shinoda (Natl. Mus. of Nat. and Sci. Dept. Antrop.)

3S15　第15会場(5階 501)　**9:00-11:30【E】**

Fumiko Toyoshima Presents

Cell Fate Decision and Tissue Homeostasis by Symmetric and Asymmetric Cell Division

Organizer：**Fumiko Toyoshima** (Inst. Virus Res., Kyoto Univ.)

Introduction **【9:00】**

Fumiko Toyoshima (Inst. Virus Res., Kyoto Univ.)

3S15-1 **【9:05】**

Molecular mechanisms for ECM-dependent oriented cell division

Fumiko Toyoshima (Inst. Virus Res., Kyoto Univ.)

3S15-2 【9:30】
Regulation of asymmetric cell division by Wnt signaling in C. elegans
Hitoshi Sawa[1,2]（[1]NIG, [2]Sokendai）

3S15-3 【10:00】
The feedback signaling from neurons to neural stem cells
Atsunori Shitamukai[1], Tomomi Shimogori[2], Akihiro Goto[3], Shinji Takada[4], Michiyuki Matsuda[3], Fumio Matsuzaki[1]
（[1]RIKEN CDB , [2]RIKEN BSI, [3]Grad. Sch. of Biostudies., Kyoto Univ., [4]Div. of Mol. and Dev. Biol., NIBB）

3S15-4 【10:25】
Cell fate control via asymmetric cell division in normal and malignant hematopoiesis
Takahiro Ito（Dept. of Biochem. and Mol. Biol., Coverdell Center for Biomed. and Health Sci., Univ. of Georgia）

3S15-5 【10:55】
Mechanism and Functions of Spindle Orientation in the Epidermis
Lindsey Seldin, **Terry Lechler**（Departments of Dermatology and Cell Biology, Duke University Medical Center）

Conclusion 【11:25】
Fumiko Toyoshima（Inst. Virus Res., Kyoto Univ.）

3S16　第16会場（5階 502）　9:00-11:30【E】

Katsuhiko Shirahige Presents

Epigenetic Dysregulation and Disease

Organizer：**Katsuhiko Shirahige**（The University of Tokyo Institute of Molecular and Cellular Biosciences）

Introduction 【9:00】
Hiroyuki Aburatani（Genomescience, RCAST, Univ. of Tokyo）

3S16-1 【9:10】
Mutations of epigenetic modifiers in cancer
Hiroyuki Aburatani（Genomescience, RCAST, Univ. of Tokyo）

3S16-2 【9:35】
Epigenetic alterations that underlie gliomagenesis and gliomas progression
Akitake Mukasa（Dept. of Neurosurg., Faculty of Med., Univ. of Tokyo）

3S16-3 【10:00】
Epigenetic regulation of stem cells in acute myeloid leukemia: Essential roles of the IDH mutation
Issay Kitabayashi（Div. Hematological Malignancy, Natl. Cancer Ctr. Res. Inst.）

3S16-4 【10:25】
Congenital intellectual disability syndromes arising from mutations of epigenetic regulators
Naomichi Matsumoto（Dept of Hum Genet, Yokohama City Univ Grad Sch Med）

3S16-5 【10:50】
Mechanism of Transcriptional Dysregulation in Cohesinopathies
Kosuke Izumi（Research Center for Epigenetic Disease, IMCB, Univ. of Tokyo）

Discussion 【11:15】

Conclusion 【11:20】
Katsuhiko Shirahige（The University of Tokyo Institute of Molecular and Cellular Biosciences）

3S17　第17会場（5階 503）　9:00-11:30【E】

Yoshinori Watanabe Presents

Molecular Mechanisms of Chromosome Segregation

Organizer：**Yoshinori Watanabe**（Inst. of Mol. Cell. Biosci., Univ. of Tokyo）

Introduction 【9:00】
Yoshinori Watanabe（Inst. of Mol. Cell. Biosci., Univ. of Tokyo）

3S17-1 【9:02】
Mechanisms of Chromosomal Instability in Human Cancer Cells
Duane A. Compton（Dept. Biochem, Geisel School of Medicine at Dartmouth）

3S17-2 【9:37】
An origin of chromosome missegregation in mitosis
Toru Hirota（Div. Exp. Pathol., Cancer Inst., JFCR）

3S17-3 【10:02】
The inner centromere-shugoshin network prevents chromosomal instability
Yuji Tanno, Hiroaki Susumu, **Yoshinori Watanabe**（Inst. of Mol. Cell. Biosci., Univ. of Tokyo）

3S17-4 【10:27】
Joining centrosomes and how to disjoin them to get a mitotic spindle
Elmar Schiebel（Ctr. Mol. Biol., Univ. of Heidelberg）

3S17-5 【11:02】
Evolutionary landscape of condensin-based chromosome architecture
Tatsuya Hirano（Chromosome Dynamics Laboratory, RIKEN）

Conclusion 【11:27】
Elmar Schiebel（Ctr. Mol. Biol., Univ. of Heidelberg）

CSHA session　第17会場（5階 503）　13:15-15:45【E】
Frontiers in Computational Biology

Organizer：**Michael Q. Zhang** (Center for Systems Biology, MCB, Univ. of Texas - Dallas; Center for Synthetic and Systems Biology, TNLIST, Tsinghua University)

Introduction about Cold Spring Harbor Asia 【13:15】
Maoyen Chi（Cold Spring Harbor Laboratory / CSH Asia）

CSHA-1 【13:25】
Alu Repetitive Elements as Proto-Enhancers
Jing-dong Jackie Han（CAS-MPG Partner Institute for Computational Biology）

CSHA-2 【13:50】
Computational Advances in ChIP-seq and ChIA-PET Data Analysis
Michael Q. Zhang（Center for Systems Biology, MCB, Univ. of Texas - Dallas; Center for Synthetic and Systems Biology, TNLIST, Tsinghua University）

CSHA-3 【14:15】
Metabolomics and Multi-omics Systems Biology
Masaru Tomita（Institute for Advanced Biosciences, Keio University）

CSHA-4 【14:40】
Finding collaborating transcription factors using ChIP-seq
Wing-kin Sung[1,2]（[1]Dept. of Computer Science, National University of Singapore, [2]Genome Institute of Singapore）

CSHA-5 【15:05】
Regulatory RNA
Nikolaus Rajewsky（Max Delbrueck Center for Molecular Medicine）