

**The 1st Day : Friday, May 26**

**The 2nd Day : Saturday, May 27**

B2F HALL		B2F HALL	
8:00			8:00
9:00			9:00
10:00	9:30~11:30 3F 中教室  <b>幹細胞若手の会 (つくしの会)</b>	9:30~10:40 <b>Session 3</b> <b>Pluripotent Stem Cells and Patient-derived iPSC</b> O-8~O-11 Chair : Koji Eto	▶P.5 10:00
11:00		10:40~10:55 <b>Coffee Break</b>	
12:00		10:55~12:30 <b>Session 4</b> <b>Cancer Stem Cells</b> O-12~O-16 Chair : Issay Kitabayashi Noriko Gotoh	▶P.5 11:00
13:00	13:00~13:10 <b>Opening Remarks</b> 13:10~14:15 <b>Session 1</b> <b>Tissue Stem Cells (I)</b> O-1~O-3 Chair : Fumio Arai	12:30~14:00 <b>Lunch Time / Poster Session</b>	13:00
14:00	14:15~14:30 <b>Coffee Break</b> 14:30~15:50 <b>Session 2</b> <b>Reprogramming and Pluripotent Stem Cells</b> O-4~O-7 Chair : Hitoshi Niwa Takumi Era	14:00~16:05 <b>Session 5</b> <b>Tissue Stem Cells (II)</b> O-17~O-22 Chair : Atsushi Hirao Kunimasa Ohta	▶P.6 14:00
15:00	15:50~16:05 <b>Coffee Break</b> 16:05~17:35 <b>Special Lecture</b> S-1 Takashi Shinohara S-2 Emi K. Nishimura S-3 Yasuyuki Fujita Chair : Atsushi Iwama	16:05~ <b>Closing Remarks</b>	▶P.4 16:00
16:00	17:35~17:50 <b>General Meeting</b>		17:00
17:00			18:00
18:00	18:00~ <b>Reception</b>		19:00
19:00			20:00
20:00			20:00

**Friday, May 26. The 1st Day****Opening Remarks Organizer Atsushi Iwama 13:00~13:10**

(Department of Cellular and Molecular Medicine, Graduate School of Medicine, Chiba University)

**Session 1: Tissue Stem Cells (I) 13:10~14:15****Chair Fumio Arai**

(Department of Stem Cell Biology and Medicine, Graduate School of Medical Sciences, Kyushu University)

**O-1 Valine starving permits hematopoietic stem cell transplantation without chemoirradiative myeloablation**

Satoshi Yamazaki

(Project Division of Advanced Regenerative Medicine, The Institute of Medical Science, the University of Tokyo)

**O-2 Chromatin accessibility identifies CTCF as a gatekeeper of stemness functions in human hematopoietic development**

Naoya Takayama<sup>1,2,6</sup>, Alex Murison<sup>1,6</sup>, Shin-ichiro Takayanagi<sup>1</sup>, Sasan Zandi<sup>1</sup>, Nadia Penrod<sup>1</sup>, Amanda Mitchell<sup>1</sup>, James Kennedy<sup>1</sup>, Stanley Ng<sup>1</sup>, Stephanie Xie<sup>1</sup>, Mark Minden<sup>3</sup>, John E. Dick<sup>1</sup>, and Mathieu Lupien<sup>1,4,5</sup>

(<sup>1</sup>Department of Molecular Genetics, Princess Margaret Cancer Centre, University Health Network, Toronto, <sup>2</sup>Department of Innovation Therapy, Chiba University Graduate School of Medicine, Chiba, <sup>3</sup>Department of Medicine, University of Toronto, <sup>4</sup>Department of Medical Biophysics, University of Toronto, <sup>5</sup>Ontario Institute for Cancer Research, Toronto, <sup>6</sup>Authors equally contributed to this work)

**O-3 27-hydroxycholesterol induces hematopoietic stem cell mobilization and extramedullary hematopoiesis during pregnancy**

Hideyuki Oguro<sup>1</sup>, Sean Morrison<sup>2</sup>

(<sup>1</sup>Cellular Engineering, The Jackson Laboratory for Genomic Medicine, <sup>2</sup>Children's Research Institute, Howard Hughes Medical Institute, University of Texas Southwestern Medical Center)

**Coffee Break 14:15~14:30****Session 2: Reprogramming and Pluripotent Stem Cells 14:30~15:50****Chair Hitoshi Niwa**

(Institute of Molecular Embryology and Genetics, Kumamoto University)

**Takumi Era**

(Department of Cell Modulation, Institute of Molecular Embryology and Genetics, Kumamoto University)

**O-4 In vitro reprogramming of mature hepatocytes to culturable liver progenitor cells using small molecules**

Takeshi Katsuda, Masaki Kawamata, Keitaro Hagiwara,

Ryou-u Takahashi, Yusuke Yamamoto, Kazunori Hosaka, Takahiro Ochiya (National Cancer Center Research Institute)

**O-5 Srf destabilizes cellular identity by suppressing cell-type-specific gene expression programs**

Shinji Masui, Takashi Ikeda, Akitsu Hotta  
(Department of Life Science Frontiers, CiRA, Kyoto University)

**O-6 Generation of adult-like cardiomyocytes from pluripotent stem cells *in vivo***

Hideki Uosaki<sup>1</sup>, Nawin Chanthra<sup>1</sup>, Yasumitsu Nagao<sup>1</sup>, Gunsik Cho<sup>2</sup>,  
Chulan Kwon<sup>2</sup>, Yutaka Hanazono<sup>1</sup>  
(<sup>1</sup>Jichi Medical University, <sup>2</sup>Johns Hopkins University)

**O-7 Creation of eggs in a dish as a model and a resource**

Katsuhiko Hayashi  
(Department of Stem Cell Biology and Medicine, Graduate School of Medical Sciences, Kyushu University)

**Coffee Break**

**15:50~16:05**

**Special Lecture**

**16:05~17:35**

**Chair Atsushi Iwama**

(Department of Cellular and Molecular Medicine, Graduate School of Medicine, Chiba University)

**S-1 Myc/Mycn-mediated glycolysis enhances mouse spermatogonial stem cell self-renewal**

Takashi Shinohara  
(Kyoto University)

**S-2 Stem cells orchestrates hair follicle aging program**

Emi K. Nishimura  
(Dept. Stem Cell Biology, Medical Research Institute, Tokyo Medical and Dental University)

**S-3 Cell competition between normal and transformed epithelial cells**

Yasuyuki Fujita  
(Hokkaido University, Institute for Genetic Medicine, Division of Molecular Oncology)

**General Meeting**

**17:35~17:50**

**Chief Director Koichi Akashi**

(Department of Medicine and Biosystemic Science, Faculty of Medicine, Kyushu University)

**Reception**

**18:00~**

## Saturday, May 27. The 2nd Day

### Session 3: Pluripotent Stem Cells and Patient-derived iPSC

9:30~10:40

#### Chair Koji Eto

(Department of Clinical Application, Center for iPS Cell Research and Application, Kyoto University)

#### O-8 Regulating the mesoderm patterning generates kidney organoids from human pluripotent stem cells

Minoru Takasato  
(RIKEN CDB)

#### O-9 LNGFR(+)/THY-1(+) multipotent stem cells derived from human induced pluripotent stem cells

Takehito Ouchi<sup>1,2</sup>, Shinsuke Shibata<sup>2</sup>, Hiroo Kimura<sup>3</sup>, Masaya Nakamura<sup>3</sup>, Taneaki Nakagawa<sup>1</sup>, Hideyuki Okano<sup>2</sup>  
(<sup>1</sup>Department of Dentistry and Oral Surgery, Keio University School of Medicine, <sup>2</sup>Department of Physiology, Keio University School of Medicine, <sup>3</sup>Department of Orthopedic Surgery, Keio University School of Medicine)

#### O-10 Target specific drug screening using patient-derived induced pluripotent stem cell for methylmaronic acidemia

Shirou Matsumoto<sup>1</sup>, Tadahiro Numakawa<sup>2</sup>, Fumio Endo<sup>3</sup>, Takumi Era<sup>2</sup>  
(<sup>1</sup>Department of Pediatrics, Perinatal Medical Center, Kumamoto University Hospital, <sup>2</sup>Department of Cell Modulation, Division of Stem Cell Research, Institute of Molecular Embryology and Genetics, Kumamoto University, <sup>3</sup>Department of Pediatrics, Developmental and Reconstructive Medical Sciences, Division of Advanced Biomedical Sciences, Faculty of Life Sciences Kumamoto University)

#### O-11 Patient-derived induced pluripotent stem cells identify ADAM8 (CD156) as a novel antigen of TKI-resistant chronic myeloid leukemia cells

Masashi Miyauchi, Junji Koya, Shunya Arai, Sho Yamazaki, Akira Honda, Keisuke Kataoka, Akihide Yoshimi, Kazuki Taoka, Keiki Kumano, Mineo Kurokawa  
(Department of Hematology and Oncology, Graduate School of Medicine, The University of Tokyo)

#### Coffee Break

10:40~10:55

### Session 4: Cancer Stem Cells

10:55~12:30

#### Chair Issay Kitabayashi

(Division of Hematological Malignancy, National Cancer Center Research Institute)

#### Noriko Gotoh

(Division of Cancer Cell Biology, Cancer Research Institute, Kanazawa University)

#### O-12 Therapeutic targeting of amino acid transport system xc(-) in CD44v-expressing stem-like cancer cells

Osamu Nagano  
(Division of Gene Regulation, Institute for Advanced Medical Research (IAMR), School of Medicine, Keio University)

**O-13 Maintenance of stemness and niche environment of breast cancer cells by FRS2beta, a feedback inhibitor for HER2-ERK pathway, during mammary tumorigenesis**

Natsuko Kimura<sup>1</sup>, Yukino Machida<sup>2</sup>, Keiichiro Tada<sup>3</sup>, Jun-ichiro Inoue<sup>4</sup>,  
Issay Kitabayashi<sup>2</sup>, Arinobu Tojo<sup>1</sup>, Noriko Gotoh<sup>5</sup>

<sup>1</sup>Division of Molecular Therapy, Institute of Medical Science, University of Tokyo,

<sup>2</sup>Division of Hematological Malignancy, National Cancer Center Research Institute,

<sup>3</sup>Department of Breast and Endocrine Surgery, The University of Tokyo Hospital,

<sup>4</sup>Division of Cellular Molecular and Biology, Institute of Medical Science,

University of Tokyo, <sup>5</sup>Division of Cancer Cell Biology, Cancer Research Institute,

Kanazawa University)

**O-14 Coordinated action of miRNAs for the regulation of normal and colon cancer stem cells**

Yohei Shimono<sup>1</sup>, Shigeo Hisamori<sup>2</sup>, Piero Dalerba<sup>3</sup>, Junko Mukohyama<sup>1</sup>,  
Taichi Isobe<sup>4</sup>, Hironobu Minami<sup>5</sup>, Akira Suzuki<sup>1</sup>

<sup>1</sup>Division of Molecular and Cellular Biology, Kobe University Graduate School of

Medicine, <sup>2</sup>Department of Surgery, Kyoto University Hospital, <sup>3</sup>Department of

Pathology and Cell Biology, Columbia University, <sup>4</sup>Institute for Stem Cell Biology

and Regenerative Medicine, Stanford University, <sup>5</sup>Division of Oncology/

Hematology, Kobe University Graduate School of Medicine)

**O-15 Transcriptional machinery that maintains cancer stem cell potential in MLL-rearranged leukemia**

Akihiko Yokoyama<sup>1</sup>, Hiroshi Okuda<sup>1</sup>, Satoshi Takahashi<sup>2</sup>

<sup>1</sup>National Cancer Center, <sup>2</sup>Kyoto University)

**O-16 Plasticity and stemness in gastrointestinal tumorigenesis**

Hiroshi Seno, Takahisa Maruno, Norihiro Goto, Akihisa Fukuda

(Kyoto University, Department of Gastroenterology and Hepatology)

**Lunch Time / Poster Session**

**12:30~14:00**

**Session 5: Tissue Stem Cells (II)**

**14:00~16:05**

**Chair Atsushi Hirao**

(Division of Molecular Genetics, Cancer Research Institute, Kanazawa University)

**Kunimasa Ohta**

(Department of Developmental Neurobiology, Kumamoto University Graduate School of Life Sciences)

**O-17 Tsukushi dysfunction leads to hydrocephalus by altering neurogenesis in the subventricular zone**

Kunimasa Ohta, Adil Shah, Anam Mohammad, Naofumi Ito

(Kumamoto University)

**O-18 MT-nanotube mediated niche-stem cell signal specification**

Mayu Inaba

(University of Connecticut, Department of Cell Biology)

**O-19 G<sub>0</sub> phase analysis of hematopoietic stem cell in mVenus-p27K<sup>o</sup> mice**

Tsuyoshi Fukushima<sup>1</sup>, Yosuke Tanaka<sup>1</sup>, Toshihiko Oki<sup>2</sup>, Toshio Kitamura<sup>1</sup>

<sup>1</sup>Division of cell therapy, Institute of medical science, Tokyo University,

<sup>2</sup>Department of Stem Cell and Regenerative Biology, Harvard University,

Cambridge)

**O-20 Role of the polycomb-group protein Pcgfl in the lineage commitment of hematopoietic stem and progenitor cells**

Yaeko Nakajima-Takagi<sup>1</sup>, Motohiko Oshima<sup>1</sup>, Yusuke Isshiki<sup>1</sup>,  
Tomokatsu Ikawa<sup>2</sup>, Junichiro Takano<sup>2</sup>, Sha Si<sup>1</sup>, Kazumasa Aoyama<sup>1</sup>,  
Atsunori Saraya<sup>1</sup>, Haruhiko Koseki<sup>3</sup>, Atsushi Iwama<sup>1</sup>

(<sup>1</sup>Department of Cellular and Molecular Medicine, Graduate School of Medicine, Chiba University, <sup>2</sup>YCI Laboratory for Immune Regeneration, RIKEN Research Center for Integrative Medical Science, <sup>3</sup>Laboratory for Developmental Genetics, RIKEN Research Center for Integrative Medical Science)

**O-21 Defining the stem cell lineages in the mouse inter-follicular epidermis**

Aiko Sada<sup>1</sup>, Fadi Jacob<sup>2</sup>, Eva Leung<sup>2</sup>, Sherry Wang<sup>2</sup>, Brian White<sup>3</sup>,  
David Shalloway<sup>2</sup>, Tudorita Tumbar<sup>2</sup>

(<sup>1</sup>University of Tsukuba, Life Science Center, Tsukuba Advanced Research Alliance, Hiromi Yanagisawa Laboratory, <sup>2</sup>Department of Molecular Biology and Genetics, Cornell University, USA, <sup>3</sup>McDonnell Genome Institute, Washington University, USA)

**O-22 Orchestration of stem and progenitor cells drives abdominal skin expansion during pregnancy**

Fumiko Toyoshima

(Institute for Frontier Life and Medical Science, Kyoto Univ.)

**Closing Remarks**

**16:05~**

**Next Organizer Fumio Arai**

(Department of Stem Cell Biology and Medicine, Graduate School of Medical Sciences, Kyushu University)

## Poster Session

- P-1 Endothelial cell-selective adhesion molecule (ESAM) is required for the ontogeny of definitive hematopoietic system in mice**  
Tomoaki Ueda<sup>1</sup>, Takafumi Yokota<sup>1</sup>, Yasuhiro Shingai<sup>1</sup>, Yukiko Doi<sup>1</sup>, Tomohiko Ishibashi<sup>1,2</sup>, Takao Sudo<sup>1,3</sup>, Yasuhiro Nagate<sup>1</sup>, Akira Tanimura<sup>1</sup>, Masahiro Tokunaga<sup>1</sup>, Jiro Fujita<sup>1</sup>, Michiko Ichii<sup>1</sup>, Sachiko Ezoe<sup>1</sup>, Hirohiko Shibayama<sup>1</sup>, Kenji Oritani<sup>1</sup>, Yuzuru Kanakura<sup>1</sup>  
(<sup>1</sup>Department of Hematology and Oncology, Osaka University Graduate School of Medicine, <sup>2</sup>Department of Vascular Physiology, Research Institute National Cerebral and Cardiovascular Center, <sup>3</sup>Department of Immunology and Cell Biology, Osaka University Graduate School of Medicine)
- P-2 Hemidesmosomal component-mediated stem cell polarity and the cell division axis determine hair follicle stem cell fate during aging**  
Hiroyuki Matsumura<sup>1</sup>, Nan Liu<sup>1</sup>, Aki Takada<sup>1</sup>, Daisuke Nanba<sup>1</sup>, Shizuko Ichinose<sup>2</sup>, Makoto Fukuda<sup>1</sup>, Elisabeth Geroges-laboohouse<sup>3</sup>, Shigeo Ohno<sup>4</sup>, Emi K Nishimura<sup>1</sup>  
(<sup>1</sup>Department of Stem Cell Biology, Medical Research Institute, Tokyo Medical and Dental University, <sup>2</sup>Division of human gene sciences research, Research Center for Medical and Dental Sciences, Tokyo Medical and Dental University, <sup>3</sup>Institut de Génétique et de Biologie Moléculaire et Cellulaire, Department of Cell Biology and Development, <sup>4</sup>Department of Molecular Biology, Yokohama City University School of Medicine)
- P-3 Variable SATBI levels confer hematopoietic stem cell heterogeneity with distinct lineage fate**  
Yukiko Doi<sup>1</sup>, Takafumi Yokota<sup>1</sup>, Yusuke Satoh<sup>1,2</sup>, Tomoaki Ueda<sup>1</sup>, Yasuhiro Shingai<sup>1</sup>, Michiko Ichii<sup>1</sup>, Akira Tanimura<sup>1</sup>, Sachiko Ezoe<sup>1</sup>, Hirohiko Shibayama<sup>1</sup>, Kenji Oritani<sup>1</sup>, Terumi Kohwi-Shigematsu<sup>3</sup>, Yuzuru Kanakura<sup>1</sup>  
(<sup>1</sup>Department of Hematology and Oncology, Osaka University Graduate School of Medicine, <sup>2</sup>Department of Lifestyle Studies, Kobe Shoin Women's University, <sup>3</sup>Department of Orofacial Sciences, University of California San Francisco)
- P-4 Development of HSC-dependent and independent lineages in the mouse embryo**  
Tomomasa Yokomizo<sup>1</sup>, Naoki Watanabe<sup>2</sup>, Tomoiku Takaku<sup>2</sup>, Seiichi Mori<sup>3</sup>, Motomi Osato<sup>1,4</sup>, Norio Komatsu<sup>2</sup>  
(<sup>1</sup>IRCMS, Kumamoto University, <sup>2</sup>Department of Hematology, Juntendo University School of Medicine, <sup>3</sup>The Cancer Institute of JFCR, <sup>4</sup>CSI, National University of Singapore)
- P-5 Aged hematopoietic stem cells enhance self-renewal program at single cell level**  
Hiroshi Kobayashi<sup>1</sup>, Yusuke Shiozawa<sup>2</sup>, Seishi Ogawa<sup>2</sup>, Keiyo Takubo<sup>1</sup>  
(<sup>1</sup>Department of Stem Cell Biology, National Center for Global Health and Medicine, <sup>2</sup>Department of Pathology and Tumor Biology, Kyoto University)
- P-6 Asymmetric distribution of midbody and asymmetric cell division of hematopoietic stem cells**  
Yosuke Tanaka, Tsuyoshi Fukushima, Toshio Kitamura  
(The University of Tokyo Institute of Medical Science Division of Cellular Therapy)

- P-7 Radiobiology of sphere-forming rat mammary epithelial cells under nonadherent culture**  
Tatsuhiko Imaoka<sup>1</sup>, Ayaka Hosoki<sup>2</sup>, Mari Ogawa<sup>1</sup>, Yukiko Nishimura<sup>2</sup>, Shusuke Tani<sup>3</sup>, Mayumi Nishimura<sup>1</sup>, Kazuhiro Daino<sup>1</sup>, Yutaka Yamada<sup>1</sup>, Shizuko Kakinuma<sup>1</sup>, Yoshiya Shimada<sup>4</sup>  
 (<sup>1</sup>Department of Radiation Effects Research, National Institute of Radiological Sciences, National Institutes for Quantum and Radiological Science and Technology, <sup>2</sup>Radiation Effect Accumulation and Prevention Project, Fukushima Project Headquarters, National Institute of Radiological Sciences, <sup>3</sup>Radiobiology for Children's Health Program, National Institute of Radiological Sciences, <sup>4</sup>National Institutes for Quantum and Radiological Science and Technology)
- P-8 Molecular response for low dose-rate irradiation in the hematopoietic system**  
Yoshinori Ohno<sup>1</sup>, Kyoko Suzuki-Takedachi<sup>1</sup>, Yun Guo<sup>2</sup>, Naoto Shirasu<sup>3</sup>, Mimoko Santo<sup>1</sup>, Masamoto Kanno<sup>2</sup>, Shin'ichiro Yasunaga<sup>3</sup>, Motoaki Ohtsubo<sup>4</sup>, Yoshihiro Takihara<sup>5</sup>  
 (<sup>1</sup>Dept. Stem Cell Biol., RIRBM, Hiroshima Univ., <sup>2</sup>Dept. Immunol., Grad. Sch. Biomed. Sci., Hiroshima Univ., <sup>3</sup>Dept. Biochem., Facul. Med., Fukuoka Univ., <sup>4</sup>Dept. Food and Ferment. Sci., Beppu Univ., <sup>5</sup>Japanese Red Cross Osaka Blood Center.)
- P-9 Dynamics of liver stem/progenitor cells during pregnancy**  
Satoshi Kozuki<sup>1,2</sup>, Fumiko Toyoshima<sup>1,2</sup>  
 (<sup>1</sup>Lab. of Tissue Homeostasis, Inst. for Front. Life and Med. Sci., Kyoto Univ., <sup>2</sup>Grad. Sch. of Biostudies, Kyoto Univ.)
- P-10 Interfollicular epidermal cell dynamics in the process of abdominal skin contraction after parturition**  
Takuya Okada, Ryo Ichijo, Mitsuko Fukuhara, Fumiko Toyoshima  
 (Department of Biosystems Science, Lab. of Tissue Homeostasis, Institute for Frontier Life and Medical Science, Kyoto University)
- P-11 Stem cells and their microenvironment as a candidate target of radiation-induced mammary carcinogenesis**  
Daisuke Iizuka, Megumi Sasatani, Hidehiko Kawai, Kenji Kamiya  
 (Department of Experimental Oncology, Research Institute for Radiation Biology and Medicine, Hiroshima University)
- P-12 Mitochondria metabolism regulates the activation of hematopoietic stem cells**  
Terumasa Umemoto<sup>1</sup>, Yu Matsuzaki<sup>1</sup>, Michihiro Hashimoto<sup>1</sup>, Toshio Suda<sup>1,2</sup>  
 (<sup>1</sup>International Research Center for Medical Science (IRCMS), <sup>2</sup>Cancer Science Institute of Singapore, National University of Singapore)
- P-13 Differential effects of pregnancy on rat mammary carcinoma induction by pre- and post-pubertal radiation exposures**  
Masaru Takabatake<sup>1</sup>, Tatsuhiko Imaoka<sup>1</sup>, Kazuhiro Daino<sup>1</sup>, Kaye Showler<sup>2</sup>, Ayaka Hosoki<sup>2</sup>, Yukiko Nishimura<sup>1</sup>, Mayumi Nishimura<sup>1</sup>, Shizuko Kakinuma<sup>1</sup>, Masahiro Fukushi<sup>3</sup>, Yoshiya Shimada<sup>4</sup>  
 (<sup>1</sup>Department of Radiation Effects Research, National Institute of Radiological Sciences, National Institutes for Quantum and Radiological Science and Technology, <sup>2</sup>National Institute of Radiological Sciences, <sup>3</sup>Tokyo Metropolitan University, <sup>4</sup>National Institutes for Quantum and Radiological Science and Technology)

**P-14 Human bone-derived SSEA-4 and CD271 double positive mesenchymal stromal cells accelerated aging by TGF-beta 2**

Hiroshi Kawamura, Ryusuke Nakatsuka, Keisuke Sumide,  
Yoshikazu Matsuoka, Yasumasa Shirouzu, Tatsuya Fujioka,  
Yoshiaki Sonoda  
(Department of Stem Cell Biology, Graduate School of Medical Science, Kansai Medical University)

**P-15 Role of Kdm2b, a component of non-canonical PRC1.1, in hematopoiesis**

Yusuke Isshiki<sup>1</sup>, Yaeko Nakajima-Takagi<sup>1</sup>, Motohiko Oshima<sup>1</sup>,  
Kazumasa Aoyama<sup>1</sup>, Haruhiko Koseki<sup>2</sup>, Atsushi Iwama<sup>1</sup>  
(<sup>1</sup>Department of Cellular and Molecular Medicine, Graduate School of Medicine, Chiba University, <sup>2</sup>Laboratory for Developmental Genetics, RIKEN Research Center for Integrative Medical Science)

**P-16 Roles of miR-17 family in the age-related dysfunctions of tissue stem cells**

Hayato Naka-Kaneda<sup>1</sup>, Daisuke Hisamatsu<sup>2</sup>  
(<sup>1</sup>Dept. Anatomy, Shiga Univ. Med. Sci., <sup>2</sup>Dept. Physiol., Keio Univ. Sch. Med.)

**P-17 Setdb1 maintains HSPCs by restricting the ectopic activation of non-hematopoietic genes**

Shuhei Koide, Motohiko Oshima, Eriko Nitta, Atsunori Saraya,  
Kazumasa Aoyama, Yuko Kato, Satoru Miyagi, Yaeko Nakajima-Takagi,  
Atsushi Iwama  
(Department of Cellular and Molecular Medicine, Graduate School of Medicine, Chiba University)

**P-18 CHD7 specifies stem cell identity and neurogenic potential in human central nervous system**

Tsukasa Sanosaka, MuhChyi Chai, Hironobu Okuno, Satoe Banno,  
Ikuko Koya, Zhi Zhou, Hideyuki Okano, Jun Kohyama  
(Department of Physiology, Keio University School of Medicine)

**P-19 Functional defect of Polycomb group complex during hematopoietic stem cell aging and myeloid malignancies**

Motohiko Oshima<sup>1</sup>, Kazumasa Aoyama<sup>1</sup>, Changshan Wang<sup>2</sup>, Shuhei Koide<sup>1</sup>,  
Atsushi Iwama<sup>1</sup>  
(<sup>1</sup>Dept. Cell. Mol. Med., Chiba Univ., <sup>2</sup>Coll. Life Sci., Inn. Mong. Univ.)

**P-20 Role of the polycomb group protein Bmil in hematopoietic stem cell aging**

Eriko Nitta, Atsunori Saraya, Shuhei Koide, Motohiko Oshima,  
Atsushi Iwama  
(Cellular Molecular Medicine, Chiba University Graduate School of Medicine)

**P-21 Abcg2-induced MDS/AML cells perturb bone formation by inhibiting osteoblastic differentiation of bone marrow mesenchymal stem cells**

Yasutaka Hayashi<sup>1</sup>, Kimihito Kawabata<sup>2</sup>, Yasufumi Uehara<sup>3</sup>,  
Yosuke Tanaka<sup>1</sup>, Yuya Kunisaki<sup>3</sup>, Susumu Goyama<sup>1</sup>, Toshio Kitamura<sup>1</sup>  
(<sup>1</sup>Division of Cellular Therapy, The Institute of Medical Science, The University of Tokyo, <sup>2</sup>Division of Hematology/ Medical Oncology, Department of Medicine, Weill-Cornell Medical College, Cornell University, <sup>3</sup>Department of Stem Cell Biology and Medicine/Cancer Stem Cell Research, Graduate School of Medical Sciences, Kyushu University)

**P-22 Jagged1 expression in Sertoli cells is controlled by cAMP**

Ryu Okada<sup>1</sup>, Taro Hara<sup>1</sup>, Tomomi Sato<sup>2</sup>, Nobuhiko Kojima<sup>3</sup>, Yukio Nishina<sup>1</sup>  
 (<sup>1</sup>Laboratory of Molecular Embryology, Yokohama City University, <sup>2</sup>Laboratory of Endocrinology, Yokohama City University, <sup>3</sup>Laboratory of Regenerative Biology, Yokohama City University)

**P-23 The loss of Bmi1 promotes age-associated changes in bone marrow niche cells**

Li-Bo Hou<sup>1</sup>, Sha Si<sup>1</sup>, Motohiko Oshima<sup>1</sup>, Yuko Kato<sup>1</sup>, Erico Nitta<sup>1</sup>,  
 Yaeko Nakajima<sup>1</sup>, Satoshi Yamazaki<sup>2</sup>, Atsushi Iwama<sup>1</sup>  
 (<sup>1</sup>Department of Cellular and Molecular Medicine, Graduate School of Medicine, Chiba University., <sup>2</sup>Project division of advanced regenerative medicine, the university of Tokyo, the institute of medical science.)

**P-24 The impact of p53 activation in bone marrow vascular niche cells on hematopoiesis**

SHA SI<sup>1</sup>, Yaeko Nakajima-Takagi<sup>1</sup>, Motohiko Oshima<sup>1</sup>, Atsunori Saraya<sup>1</sup>,  
 Satoshi Yamazaki<sup>2</sup>, Libo Hou<sup>1</sup>, Yoshiaki Kubota<sup>3</sup>, Tohru Minamino<sup>4</sup>,  
 Atsushi Iwama<sup>1</sup>  
 (<sup>1</sup>Department of Cellular and Molecular Medicine, Graduate School of Medicine, Chiba University, <sup>2</sup>Division of Stem Cell Therapy, Center for Stem Cell and Regenerative Medicine, The Institute of Medical Science, The University of Tokyo, <sup>3</sup>Department of Cell Differentiation, The Sakaguchi Laboratory, School of Medicine, Keio University, <sup>4</sup>Department of Cardiovascular Biology and Medicine, Niigata University Graduate School of Medical and Dental Sciences.; PRESTO, Japan Science and Technology Agency)

**P-25 Mbd3 variant lacking methyl-CpG binding domain exerts equivalent function to canonical Mbd3 for preserving ESC pluripotency**

Masataka Hirasaki, Ayumu Suzuki, Kousuke Uranishi, Masamitsu Asaka,  
 Masazumi Nishimoto, Akihiko Okuda  
 (Division of Developmental Biology, Research Center for Genomic Medicine, Saitama Medical University)

**P-26 Baf53a deficiency inhibits cell proliferation and Baf53b substitutes for functions of Baf53a in mouse embryonic stem cells**

Bo Zhu, Atsushi Ueda, Xiaohong Song, Tadayuki Akagi, Takashi Yokota  
 (Department of Stem Cell Biology, Graduate School of Medical Sciences, Kanazawa University)

**P-27 O-GlcNAc is essential for the transition from primed state to naïve state of mouse pluripotent stem cells**

Taichi Miura<sup>1,2</sup>, Shoko Nishihara<sup>1</sup>  
 (<sup>1</sup>Department of Bioinformatics, Graduate School of Engineering, Soka University, <sup>2</sup>National Institute of Radiological Sciences, Department of Basic Medical Sciences for Radiation Damages, Regenerative Therapy Research Team)

**P-28 Generation of reporter ESC lines to study trophoblast fate specification**

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 (RIKEN CDB, Laboratory for in vitro Histogenesis)

**P-29 Hlfoo has a pivotal role in qualifying induced pluripotent stem cells**

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 Ken-ichi Yagami<sup>2</sup>, Mamoru Tanaka<sup>4</sup>, Keiichi Fukuda<sup>1</sup>  
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- P-30 AKT promotes somatic cell nuclear reprogramming through  $\alpha$ -KG**  
Akari Matsumoto<sup>1</sup>, Yoichi Sekita<sup>1</sup>, Yuki Kawasaki<sup>2</sup>, Yuki Sugiura<sup>3</sup>,  
Ryo Konno<sup>4</sup>, Yoshio Koderu<sup>4</sup>, Takashi Kohda<sup>2</sup>, Fumitoshi Ishino<sup>2</sup>,  
Tohru Kimura<sup>1</sup>  
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- P-31 A novel megakaryocyte-based screening system identifies molecules that promote production of platelets in vitro**  
Si Jing Chen<sup>1</sup>, Hideya Seo<sup>1</sup>, Akitsu Hotta<sup>2</sup>, Yohei Nishi<sup>2</sup>, Akira Ohta<sup>2</sup>,  
Koji Eto<sup>1</sup>  
(<sup>1</sup>Department of Clinical Application, Center for iPS Cell Research and Application, Kyoto University, <sup>2</sup>Department of Life Science Frontiers, Center for iPS Cell Research and Application, Kyoto University)
- P-32 Drug screening for GMI gangliosidosis using the patient-derived iPS cells**  
Ryutaro Kajihara, Takumi Era  
(Department of Cell Modulation, Institute of Molecular Embryology and Genetics, Kumamoto University)
- P-33 Induced cancer stem cells: a model for studying cancer stem cell dormancy and recurrence**  
Akira Shimamoto, Tahara Hidetoshi  
(Department of Cellular and Molecular Biology, Graduate School of Biomedical & Health Sciences, Hiroshima University)
- P-34 Single-cell gene expression analysis reveals a novel candidate AML stem cell-associated antigen, ALCAM**  
Arika Shimura-Nukina, Yosuke Masamoto, Yuki Kagoya, Shunya Arai,  
Mineo Kurokawa  
(Department of Hematology and Oncology, Graduate School of Medicine, The University of Tokyo)
- P-35 mTORC2-mediated metabolic processes contributes drug resistance in leukemia**  
Masaya Ueno, Hui Peng, Atsushi Hirao  
(Division of Molecular Genetics, Cancer Research Institute, Kanazawa University)
- P-36 Identification of potential stemness-maintaining factors in cancer stem cells**  
Takahiko Murayama<sup>1</sup>, Tatsunori Nishimura<sup>2</sup>, Kana Tominaga<sup>1</sup>,  
Asuka Nakata<sup>2</sup>, Masao Yano<sup>3</sup>, Kei-ichiro Tada<sup>4</sup>, Arinobu Tojo<sup>1</sup>,  
Noriko Gotoh<sup>1,2</sup>  
(<sup>1</sup>Division of Molecular Therapy, Institute of Medical Science, University of Tokyo, <sup>2</sup>Division of Cancer Cell Biology, Cancer Research Institute of Kanazawa University, <sup>3</sup>Department of Breast Surgery, Minamimachida Hospital, <sup>4</sup>Department of Breast & Endocrine Surgery, Graduate School of Medicine, University of Tokyo)
- P-37 Screening for human pancreatic cancer stem cell niche mimicry by using synthetic polymer microarrays**  
Yoshitaka Murota<sup>1</sup>, Sara Schmidt<sup>2</sup>, Kouichi Tabu<sup>1</sup>, Hiromitsu Ito<sup>3</sup>,  
Shinji Tanaka<sup>3,4</sup>, Mark Bradley<sup>2</sup>, Tetsuya Taga<sup>1</sup>  
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- P-38 Development of a novel anti-leukemic therapy targeting the circadian clock genes**  
Tomoko Hyoda, Yuya Kunisaki, Kentaro Hosokawa, Fumio Arai  
 (Department of Stem Cell Biology and Medicine, Graduate School of Medical Science, Kyushu University)
- P-39 Establishment of novel circadian rhythm sleep disorder model using pluripotent stem cells**  
Hiroyuki Tamiya<sup>1</sup>, Sumito Ogawa<sup>1</sup>, Yasuyoshi Ouchi<sup>2</sup>, Masahiro Akishita<sup>1</sup>  
 (<sup>1</sup>Department of Geriatric Medicine, The University of Tokyo Hospital, <sup>2</sup>Toranomon Hospital)
- P-40 The ubiquitin ligase STUB1 regulates stability and activity of RUNX1 and RUNX1-RUNXIT1**  
Taishi Yonezawa<sup>1</sup>, Hirotaka Takahashi<sup>2</sup>, Shiori Shikata<sup>1</sup>, Shyuhei Asada<sup>1</sup>, Tsuyoshi Fukushima<sup>1</sup>, Tomofusa Fukuyama<sup>1</sup>, Yosuke Tanaka<sup>1</sup>, Tatsuya Sawasaki<sup>2</sup>, Toshio Kitamura<sup>1</sup>, Susumu Goyama<sup>1</sup>  
 (<sup>1</sup>Division of Cellular Therapy The Institute of Medical Science The university of Tokyo, <sup>2</sup>Proteo-Science Center (PROS) Ehime University)
- P-41 Physiological roles of the genes expressed during maternal zygotic transition**  
Satoko Kanzaki<sup>1</sup>, Mizuki Wakabayashi<sup>1</sup>, Shuji Takada<sup>2</sup>, Yoichi Sekita<sup>1</sup>, Tohru Kimura<sup>1</sup>  
 (<sup>1</sup>Kitasato University, <sup>2</sup>National Center for Child Health and Development)
- P-42 Essential roles of Snf5 in female germ cell sex differentiation**  
Toshiaki Ito<sup>1</sup>, Yoichi Sekita<sup>1</sup>, Charles Roberts<sup>2</sup>, Tohru Kimura<sup>1</sup>  
 (<sup>1</sup>Laboratory of Stem Cell Biology, Kitasato University School of Science, <sup>2</sup>Dana-Farber Cancer Institute)
- P-43 Identification and analysis of imprinting control region-binding proteins**  
Yoichi Sekita<sup>1</sup>, Yuki Yoshimura<sup>1</sup>, Hodaka Fujii<sup>2</sup>, Kimura Tohru<sup>1</sup>  
 (<sup>1</sup>Laboratory of Stem Cell Biology, Department of Biosciences, Kitasato University School of Science, <sup>2</sup>Research Institute for Microbial Diseases, Osaka University)
- P-44 Identification of novel human hematopoietic stem cell subpopulations via comprehensive surface marker analysis**  
Takashi Jiomaru, Kohta Miyawaki, Yasuo Mori, Hiromi Iwasaki, Takahiro Maeda, Koichi Akashi  
 (Medicine and Biosystemic Science, Kyushu University)
- P-45 Role of the polycomb methyltransferase Ezh1 in EZH2-insufficient myelodysplastic syndrome**  
Kazumasa Aoyama<sup>1</sup>, Emi Suzuki<sup>1</sup>, Makiko Mochizuki-Kashio<sup>1</sup>, Motohiko Oshima<sup>1</sup>, Shuhei Koide<sup>1</sup>, Yaeko Nakajima-Takagi<sup>1</sup>, Goro Sashida<sup>1,2</sup>, Atsushi Iwama<sup>1</sup>  
 (<sup>1</sup>Dept. of Cel. and Mol. Med., Grad. Sch. of Med., Chiba Univ., <sup>2</sup>IRCMS, Kumamoto Univ.)
- P-46 Dramatically increased myelopoiesis in the bone marrow of EBV-infected humanized NOG mice**  
Yasuhiro Katahira  
 (Department of hematological Malignancy, Institute of Medical Science, Tokai University)