

### 5月24日(金) 【1日目】

開会の辞 13:00~13:05

世話人 後藤 由季子

(東京大学大学院薬学系研究科 分子生物学教室)

Session 1 13:05~15:00

座長 新井 文用

(九州大学大学院医学研究院 応用幹細胞医科学部門 幹細胞再生修復医学分野)

岩間 厚志

(東京大学医科学研究所 幹細胞治療研究センター)

特別講演

O-01 (13:05~13:35)

Mitochondria-Lysosome Metabolism in Hematopoietic Cells

Toshio Suda

(Cancer Science Institute (CSI), National University of Singapore (NUS), 14 Medical Drive, #12-01, Singapore, 117599 IRCMS, Kumamoto University)

O-02  $(13:35 \sim 13:50)$ 

Environmental optimization enables maintenance of quiescent hematopoietic stem cells ex vivo

<u>Hiroshi Kobayashi</u>, Takayuki Morikawa, Keiyo Takubo (Research Institute National Center for Global Health and Medicine)

招待講演

O-03 (13:50 $\sim$ 14:15)

In vivo single cell analysis resolves hematopoietic stem cell heterogeneity and aging

Ryo Yamamoto<sup>1</sup>, Hiromitsu Nakauchi<sup>1,2,3</sup>

(<sup>1</sup>Institute for Stem Cell Biology and Regenerative Medicine, Stanford University School of Medicine, <sup>2</sup>Department of Genetics, Stanford University, <sup>3</sup>Division of Stem Cell Therapy, Center for Stem Cell Biology and Regeneration Medicine, Institute of Medical Science, University of Tokyo)

O-04 (14:15~14:30)

Tet2 loss reshapes the binding regions of Hmga2 and promotes the development of myelodysplastic syndrome

Goro Sashida

(Laboratory of Transcriptional Regulation in Leukemogenesis, International Research Center for Medical Sciences, Kumamoto University)

O-05 (14:30~14:45)

Regulation of neural stem cell fate by histone modifications

Masafumi Tsuboi<sup>1</sup>, Yusuke Kishi<sup>2</sup>, Wakana Yokozeki<sup>2</sup>, Haruhiko Koseki<sup>3</sup>, Yusuke Hirabayashi<sup>1</sup>, Yukiko Gotoh<sup>2</sup>

(¹Graduate School of Engineering, The University of Tokyo, ²Graduate School of Pharmaceutical Sciences, The University of Tokyo, ³RIKEN Center for Integrative Medical Sciences)

 $O-06 (14:45 \sim 15:00)$ 

MBD3 contributes to the differentiation competence of ESCs into EpiLCs via the recruitment of PRC2 complex

<u>Masataka Hirasaki</u>, Kousuke Uranishi, Yuka Kitamura, Ayumu Suzuki, Masazumi Nishimoto, Akihiko Okuda

(Division of Developmental Biology, Research Center for Genomic Medicine, Saitama Medical University)

休憩 15:00~15:15

Session 2 15:15∼16:45

座長 田久保 圭誉

(国立国際医療研究センター研究所 生体恒常性プロジェクト)

招待講演

 $O-07 (15:15 \sim 15:40)$ 

細胞競合による上皮の恒常性維持機構

井垣 達吏

(京都大学大学院生命科学研究科 システム機能学分野)

招待講演

O-08 (15:40 $\sim$ 16:05)

Stem cell competition orchestrates skin homeostasis and ageing

Nan Liu<sup>1</sup>, Hiroyuki Matsumura<sup>1</sup>, Tomoki Kato<sup>1</sup>, Shizuko Ichinose<sup>2</sup>, Aki Takada<sup>2</sup>, Takeshi Namiki<sup>3</sup>, Kyosuke Asakawa<sup>1</sup>, Hironobu Morinaga<sup>1</sup>, Yasuaki Mohri<sup>1</sup>, Adèle De Arcangelis<sup>4</sup>, Elisabeth Geroges-Labouesse<sup>4</sup>, Daisuke Nanba<sup>1</sup>, Emi K. Nishimura<sup>1</sup>

(¹Department of Stem Cell Biology, Medical Research Institute, Tokyo Medical and Dental University, ²Research Center for Medical and Dental Sciences, Tokyo Medical and Dental University, ³Department of Dermatology, Tokyo Medical and Dental University Graduate School and Faculty of Medicine, ⁴Institut de Génétique et de Biologie Moléculaire et Cellulaire, Development and Stem Cells Department, CNRS UMR7104, Inserm U1258, Université de Strasbourg, Illkirch, France)

招待講演

 $O-09 (16:05 \sim 16:30)$ 

一つ一つの幹細胞のランダムなふるまいが安定した精子形成を支える

<u>吉田</u>松生 (基礎生物学研究所)

O-10 (16:30~16:45)

Regulation of dormant state of oocyte by mechanical stress involved in nuclear rotation

<u>Go Nagamatsu</u>, Katsuhiko Hayashi (Kyushu University)

休憩 16:45~17:00

Session 3 17:00∼18:15

座長 田賀 哲也

(東京医科歯科大学 難治疾患研究所 幹細胞制御分野)

招待講演

 $O-11 (17:00 \sim 17:25)$ 

Visualization of turbulent flow in vivo and computer simulation in vitro enabled production of 100 billion-order platelets from iPSCs

Koji Eto

(Center for iPS Cell Research and Application, Kyoto University, Japan)

招待講演

 $O-12 (17:25 \sim 17:50)$ 

生後脳組織の維持・再生における新生ニューロンの移動

澤本 和延

(名古屋市立大学大学院医学研究科 再生医学分野)

招待講演

O-13 (17:50~18:15)

Unravel the mysteries of cancer cell dormancy in brain metastasis

Eishu Hirata

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

Poster Session 18:30~20:00

### 5月25日(土) 【2日目】

Session 4 8:30~10:15

座長 山田 泰広

(東京大学医科学研究所 システム疾患モデル研究センター)

後藤 由季子

(東京大学大学院薬学系研究科 分子生物学教室)

招待講演

 $O-14 (8:30 \sim 8:55)$ 

幹細胞による試験管内胚盤胞再構成の試み

大日向 康秀

(理化学研究所 生命医科学研究センター 免疫器官形成研究チーム)

招待講演

 $O-15 (8:55 \sim 9:20)$ 

ヒトナイーブ型多能性幹細胞とヒト初期発生

高島 康弘

(京都大学 iPS 細胞研究所 CiRA 未来生命科学開拓部門)

招待講演

 $O-16 (9:20 \sim 9:45)$ 

Reconstitution and understanding of mammalian oogenesis

Katsuhiko Hayashi

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

特別講演

 $O-17 (9:45 \sim 10:15)$ 

インテリジェント画像活性細胞選抜法がもたらす生物学の新展開

<u>合田 圭介</u><sup>1,2,3,4</sup>

(1 東京大学大学院理学系研究科、2 武漢大学工業科学研究院、3 株式会社 CYBO、4 株式会社 Cupido)

休憩 10:15~10:35

Session 5 10:35~12:20

座長 林 克彦

(九州大学医学研究院 応用幹細胞医科学 ヒトゲノム幹細胞医学)

招待講演

O-18 (10:35~11:00)

ダイレクトリプログラミングの発生・再生学への応用

家田 真樹

(筑波大学医学医療系 循環器内科)

O-19 (11:00~11:15)

Transdifferentiation of human somatic cells by ribosome

<u>Kunimasa Ohta</u> (Kumamoto University)

招待講演

O-20 (11:15~11:40)

環境適応と心臓再生能

木村 航

招待講演

O-21 (11:40~12:05)

細胞系譜の直接転換による潰瘍面からの新規上皮化の誘導

栗田 昌和

(東京大学医学部附属病院 形成外科)

O-22 (12:05~12:20)

IL-1 and TNFa in the inflammatory niche enhance the proliferation of alveolar type 2 epithelial cell and contribute to alveolar regeneration

<u>Hiroaki Katsura,</u> Yoshihiko Kobayashi, Purushothama Tata, Brigid Hogan (Duke University)

全体会議 12:20~12:35

代表幹事 赤司 浩一

(九州大学大学院医学研究院 病態修復内科学)

休憩 12:35~13:20

Session 6 13:20~15:35

座長 黒川 峰夫

(東京大学医学部附属病院)

北林 一生

(国立がん研究センター 研究所 造血器腫瘍研究分野)

招待講演

O-23 (13:20~13:45)

The role of endothelial stem cell in vascular regeneration

Hisamichi Naito

(Department of Signal Transduction, Research Institute for Microbial Diseases, Osaka University)

 $O-24 (13:45 \sim 14:00)$ 

Analysis with an alternative marker for Sca-1 revealed unexpected hematopoietic responses during infection

Masashi Kanayama, Toshiaki Ohteki

(Department of Biodefense Research, Medical Research Institute, Tokyo Medical and Dental University)

### O-25 (14:00 $\sim$ 14:15)

Patient-derived induced pluripotent stem cells revealed calcium/calmodulin dependent protein kinase 2 gamma as a therapeutic target of myelofibrosis

Masashi Miyauchi, Ken Sasaki, Kazuki Taoka, Yosuke Masamoto, Sho Yamazaki, Shunya Arai, Mineo Kurokawa (Department of Hematology and Oncology, Graduate School of Medicine, The University of Tokyo)

#### 招待講演

O-26 (14:15~14:40)

Deciphering and Engineering Human Hematopoietic Development

Ryohichi Rio Sugimura (CiRA)

#### $O-27 (14:40 \sim 14:55)$

LMO2 activation by NAMPT-NAD+SIRT2 pathway mediated deacetylation is indispensable for early hematopoiesis and T-ALL leukemogenesis

<u>Tatsuya Morishima</u><sup>1,2</sup>, Ann-Christin Krahl<sup>2</sup>, Yun Xu<sup>2</sup>, Narges Aghaallaei<sup>2</sup>, Masoud Nasri<sup>2</sup>, Maksim Klimiankou<sup>2</sup>, Malte Ritter<sup>2</sup>, Marcus D Hartmann<sup>3</sup>, Betül Findik<sup>2</sup>, Sylwia Stefanczyk<sup>2</sup>, Christian Lindner<sup>2</sup>, Benedikt Oswald<sup>2</sup>, Regine Bernhard<sup>2</sup>, Karin Hähnel<sup>2</sup>, Ursula Hermanutz-Klein<sup>2</sup>, Lothar Kanz<sup>2</sup>, Baubak Bajoghli<sup>2</sup>, Maya Andre<sup>4,5</sup>, Patrick Müller<sup>6</sup>, Karl Welte<sup>4</sup>, Julia Skokowa<sup>2</sup>

(¹International Research Center for Medical Sciences, Kumamoto University, Kumamoto, Japan, ²Department of Oncology, Hematology, Immunology, Rheumatology and Pulmonology, University Hospital Tübingen, Germany, ³Department of Protein Evolution, Max Planck Institute for Developmental Biology, Tübingen, Germany, ⁴University Children's Hospital Tübingen, Germany, ⁵University of Basel Children's Hospital, Dep. of Pediatric Intensive Care, Basel, Switzerland, ⁴Friedrich Miescher Laboratory of the Max Planck Society, Tübingen, Germany)

### O-28 (14:55~15:10)

miR-221 targets an RNA-binding protein QKI-5 and enhances the tumorigenic capacity of human colorectal cancer stem cells

<u>Yohei Shimono</u><sup>1</sup>, Junko Mukohyama<sup>2</sup>, Takanori Hayashi<sup>1</sup>, Takashi Watanabe<sup>1</sup>, Taichi Isobe<sup>3</sup>, Qingjiang Hu<sup>4</sup>, Debashis Sahoo<sup>5</sup>, Hironobu Minami<sup>6</sup>, Koshi Mimori<sup>4</sup>, Piero Dalerba<sup>2</sup>, Yoshihiro Kakeji<sup>6</sup>, Akira Suzuki<sup>6</sup>

(¹Fujita Health University School of Medicine, ²Columbia University, ³Kyushu University, ⁴Kyushu University Beppu Hospital, ⁵University of California San Diego, ⁶Kobe University Graduate School of Medicine)

### 招待講演

O-29 (15:10~15:35)

iPS 細胞技術によるがん細胞の理解と制御

山田 泰広 (東京大学医科学研究所 システム疾患モデル研究センター 先進病態モデル研究分野)

閉会の辞 15:35~15:40

次期世話人 滝澤 仁

(熊本大学国際先端医学研究機構)

### **Poster Session**

P-01 Age-dependent decrease in requirement for glycolysis in hematopoietic stem cells

Shintaro Watanuki, Hiroshi Kobayashi, Daiki Karigane, Takayuki Morikawa, Keiyo Takubo (National Center for Global Health and Medicine, Division of Stem Cell Biology)

P-02 A system for construction and observation of mosaic mammary gland towards exploration of the hypothetical cell competition between irradiated and non-irradiated cells

<u>Tatsuhiko Imaoka</u>, Yukiko Nishimura, Ken-ichi Kudo, Mayumi Nishimura, Kazuhiro Daino, Daisuke Iizuka, Mari Ogawa, Misuzu Fujita, Shizuko Kakinuma (QST)

P-03 Low dose-rate irradiation preferentially affects hematopoietic stem cell activity

<u>Yoshinori Ohno</u><sup>1</sup>, Kyoko Suzuki-Takedachi<sup>1</sup>, Yun Guo<sup>2</sup>, Masamoto Kanno<sup>2</sup>, Naoto Shirasu<sup>3</sup>, Shin'ichiro Yasunaga<sup>3</sup>, Motoaki Ohtsubo<sup>4</sup>, Yoshihiro Takihara<sup>1,5</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-04 Elucidation of a mechanism regulating the expansion-to-neurogenic transition in neocortical neural progenitor cells

<u>Naohiro Kuwayama</u>, Yusuke Kishi, Yurie Nishiumi, Yukiko Gotoh (The university of Tokyo)

P-05 Identification and characterization of embryonic origin of adult subventricular neural stem cells

Shima Yamaguchi<sup>1</sup>, Takaaki Kuniya<sup>1</sup>, Hanae Omiya<sup>1</sup>, Daichi Kawaguchi<sup>1</sup>, Yutaka Suzuki<sup>2</sup>, Yukiko Gotoh<sup>1</sup>

(¹Graduate School of Pharmaceutical Sciences, The University of Tokyo, ²Department of Computational Biology and Medical Sciences, Graduate School of Frontier Sciences, The University of Tokyo)

P-06 Transcriptional profiling of aged intestinal stem cells, progenitor cells and the stem cell niche

May Nakajima-Koyama<sup>1</sup>, Takuya Yamamoto<sup>1</sup>, Eisuke Nishida<sup>2</sup> (<sup>1</sup>Center for iPS Cell Research & Application, Kyoto University, <sup>2</sup>RIKEN Center for Biosystems Dynamics Research)

P-07 Acute gut inflammation orchestrates early hematopoiesis via innate immune signaling

Yoshikazu Hayashi<sup>1</sup>, Maiko Sezaki<sup>1</sup>, Sumit Sheoran<sup>1</sup>, Tatsuya Morishima<sup>1</sup>, Gaku Nakato<sup>2</sup>, Shinji Fukuda<sup>2,3</sup>, Hitoshi Takizawa<sup>1</sup> (<sup>1</sup>Laboratory of Stem Cell Stress, International Research Center for Medical Sciences, Kumamoto University, Kumamoto, Japan, <sup>2</sup>Kanagawa Institute of Industrial Science and Technology, Kanagawa, Japan, <sup>3</sup>Institute for Advanced Biosciences, Keio University, Yamagata, Japan)

### P-08 Investigation of niche signals for the maintenance of embryonic origin of adult neural stem cells

<u>Yuewen Ding</u>, Daichi Kawaguchi, Yukiko Gotoh (Graduate school of pharmaceutical sciences, The University of Tokyo)

# P-09 Spatiotemporal patterning of epithelial Sox2 and Gata4 orchestrates the formation of a squamous-columnar junction in a mouse stomach

Nao Sankoda<sup>1</sup>, Yasuhiro Yamada<sup>1</sup>, Yoshiya Kawaguchi<sup>2</sup> (<sup>1</sup>Center for Experimental Medicine and System Biology, Institute of Medical Science, University of Tokyo, <sup>2</sup>Center for iPS Cell Research and Application, Kyoto University)

### P-10 Hoxa10 regulates adult muscle regeneration in a body-region-specific manner

Yusuke Ono<sup>1</sup>, Yasuo Kitajima<sup>1</sup>, Daiki Seko<sup>1</sup>, Jumpei Nogami<sup>2</sup>, Yoshifumi Tsuchiya<sup>1</sup>, Shizuka Ogawa<sup>3</sup>, Narihiro Okazaki<sup>3</sup>, Akihiko Yonekura<sup>3</sup>, Seigo Ohba<sup>3</sup>, Yoshinori Sumita<sup>3</sup>, Ko Chiba<sup>3</sup>, Izumi Asahina<sup>3</sup>, Yasuyuki Ohkawa<sup>2</sup>, Kiyoshi Yoshioka<sup>1</sup> (¹Department of Muscle Development and Regeneration, Institute of Molecular Embryology and Genetics, Kumamoto University, ²Division of Transcriptomics, Medical Institute of Bioregulation, Kyushu University, ³Nagasaki University Graduate School of Biomedical Sciences)

### P-11 Autophagy-Independent Neonatal Hematopoiesis

Michihiro Hashimoto<sup>1</sup>, Terumasa Umemoto<sup>1</sup>, Tomomasa Yokomizo<sup>1</sup>, Toshio Suda<sup>1,2</sup>

(¹IRCMS, Kumamoto University, ²CSI, National University of Singapore)

### P-12 Trim28 participates in neuro-gliogenic potential change of neural stem cells Takumi Nakagawa

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

# P-13 p53 Deficiency in Mesenchymal Stem Cells Alters Stress Hematopoiesis and Develops Fibrosarcoma

Yuriko Sorimachi<sup>1,2</sup>, Nobuhito Goda<sup>2</sup>, Keiyo Takubo<sup>1</sup> (<sup>1</sup>Department of Stem Cell Biology, Research Institute, National Center for Global Health and Medicine, <sup>2</sup>Department of Life Sciences and Medical BioScience, Waseda University School of Advanced Science and Engineering)

### P-14 Activation of Keapl-Nrf2 pathway in HSCs during aging

Motohiko Oshima<sup>1</sup>, Wakako Kuribayashi<sup>2</sup>, Yaeko Nakajima-Takagi<sup>1</sup>, Kazumasa Aoyama<sup>3</sup>, Shuhei Koide<sup>2</sup>, Naoki Itokawa<sup>2</sup>, Atsushi Iwama<sup>1</sup> (¹Division of Stem Cell and Molecular Medicine, Center for Stem Cell Biology and Regenerative Medicine, Institute of Medical Science, University of Tokyo, ²Division of Stem Cell and Molecular Medicine, Center for Stem Cell Biology and Regenerative Medicine, Institute of Medical Science, University of Tokyo, ³Department of Cellular and Molecular Medicine, Graduate School of Medicine, Chiba University)

# P-15 Identifying a new stem/progenitor like population of vascular resident endothelial cells

<u>Tomohiro Iba</u><sup>1</sup>, Hisamichi Naito<sup>1</sup>, Hideya Kawaji<sup>2</sup>, Tsukasa Kouno<sup>2</sup>, Nobuyuki Takakura<sup>1</sup>

(¹Dept. of Signal Transduction, RIMD, Osaka Univ., ²Div. of Genomic Medicine, IMS, Riken)

### P-16 Low energy metabolism contributes to the maintenance of hematopoietic stem cells

<u>Terumasa Umemoto</u><sup>1</sup>, Michihiro Hashimoto<sup>1</sup>, Toshio Suda<sup>1,2</sup> (<sup>1</sup>IRCMS, Kumamoto University, <sup>2</sup>CSI, National University of Singapore)

### P-17 Regular division and stochastic state switch of Plvap+ spermatogenic stem cells in homeostasis

<u>Toshinori Nakagawa</u> (National Institute for Basic Biology)

# P-18 Induction of vascular endothelial cells from feeder free iPS cells using 3D suspension culture

Shinako Masuda, Katsuhisa Matsuura, Tatsuya Shimizu (Institute of Advanced Biomedical Engineering and Science Tokyo Women's Medical University)

### P-19 Characterization of the progenitor cell state during ESC-to-trophoblast differentiation

Masatoshi Ohgushi
(Institute for Frontier Life and Medical Bioscience, Kyoto University)

### P-20 Cell type-specific one-step in vivo sarcoma model unveiled cell-of-origin and its critical role in *EWS/ATF1*-induced sarcomas

<u>Kenji Ito</u><sup>1</sup>, Shingo Komura<sup>2</sup>, Yasuhiro Yamada<sup>1</sup>
(<sup>1</sup>Division of Stem Cell Pathology, Institute of Medical Science, The University of Tokyo, <sup>2</sup>Department of Orthopaedic Surgery, Gifu University Graduate School of Medicine)

### P-21 Establishment of primitive endoderm like cells from human naïve pluripotent stem cells

<u>Takumi Okubo</u>, Yasuhiro Takashima (Department of Life Science Frontiers, Center for iPS Cell Research and Application, Kyoto University)

# P-22 Hypoxia induces the dormant state in oocytes through expression of Foxo3 <u>So Shimamoto</u>, Yohei Nishimura, Go Nagamatsu, Norio Hamada, Haruka Kita, Orie Hikabe, Nobuhiko Hamazaki, Katsuhiko Hayashi (Department of Stem Cell Biology and Medicine, Graduate School of Medical Sciences, Kyushu University)

### P-23 Role of PCGF factors during ES cell differentiation

<u>Hiroki Sugishita</u><sup>1,2</sup>, Shinsuke Ito<sup>1</sup>, Takashi Kondo<sup>1</sup>, Haruhiko Koseki<sup>1,2</sup> (<sup>1</sup>RIKEN IMS, Laboratory for Developmental Genetics, <sup>2</sup>Chiba University, Graduate School of Medicine)

#### P-24 Hsa-miR-302s are essential for self-renew of human pluripotent stem cells

<u>Tohru Sugawara</u>, Hidenori Akutsu, Akihiro Umezawa (National Center for Child Health and Development)

### P-25 Transcriptional regulatory networks controlling the oocyte identity

<u>Nobuhiko Hamazaki</u>, So Shimamoto, Orie Hikabe, Norio Hamada, Katsuhiko Hayashi

(Department of Developmental Stem Cell Biology, Faculty of Medical Sciences, Kyushu University, Japan)

# P-26 Cell-Matrix Adhesion Modulates Pluripotent Stem Cell Differentiation toward Hematopoietic Cells

Akinori Yuzuriha<sup>1</sup>, Naoshi Sugimoto<sup>1</sup>, Sou Nakamura<sup>1</sup>, Koji Eto<sup>1,2</sup> (<sup>1</sup>Center for iPS Cell Research and Application, Kyoto University, Kyoto Japan, <sup>2</sup>Department of Regenerative Medicine, Chiba University Graduate School of Medicine, Chiba, Japan)

# P-27 Autoschizis-like spontaneous necrosis mediates a self-expanding strategy of glioma stem cells by modulating tumor-associated macrophages

<u>Kouichi Tabu</u><sup>1</sup>, Wenyu Liu<sup>1</sup>, Takuichiro Hide<sup>2</sup>, Tetsuya Taga<sup>1</sup> (<sup>1</sup>Department of Stem Cell Regulation, Medical Research Institute, Tokyo Medical and Dental University (TMDU), <sup>2</sup>Department of Neurosurgery, Graduate School of Medical Sciences, Kumamoto University)

### P-28 Enhanced erythropoiesis in bone marrow of C6 glioma-bearing mice

Alapati Aimaitijiang, Kouichi Tabu, Wenqian Wang, Ikuo Nobuhisa, Tetsuya Taga

(Department of Stem Cell Regulation, Medical Research Institute, Tokyo Medical and Dental University (TMDU))

### P-29 Activated pentose phosphate pathway mediated by Fbp1 upregulation supports leukemia initiation of AML with high Evil expression

<u>Hideaki Mizuno</u>, Yuki Kagoya, Junji Koya, Yosuke Masamoto, Mineo Kurokawa (Graduate School of Medicine, The University of Tokyo)

# P-30 MCM10 maintains breast cancer stem-like cells by promoting the response to DNA replicative stress

<u>Takahiko Murayama</u><sup>1</sup>, Toyoaki Natsume<sup>2</sup>, Tatsunori Nishimura<sup>1</sup>, Yutaka Suzuki<sup>3</sup>, Sumio Sugano<sup>3</sup>, Masato Kanemaki<sup>2</sup>, Arinobu Tojo<sup>4</sup>, Noriko Gotoh<sup>1</sup>

(¹Division of Cancer Cell Biology, Cancer Research Institute, Kanazawa University, ²Division of Molecular Cell Engineering, National Institute of Genetics, ³Department of Medical Genome Sciences, Graduate School of Frontier Sciences, The University of Tokyo, ⁴Division of Molecular Therapy, Institute of Medical Science, The University of Tokyo)

# P-31 Identification of BCAAs metabolism pathway as a common machinery for maintaining the stemness of human colorectal cancer

<u>Fumiyasu Hanamura</u><sup>1</sup>, Yoshikane Kikushige<sup>1</sup>, Eishi Baba<sup>2</sup>, Koichi Akashi<sup>1</sup> (<sup>1</sup>Department of Medicine and Biosystemic Sciences, Kyushu University Graduate School of Medical Sciences, <sup>2</sup>Department of Comprehensive Clinical Oncology, Faculty of Medical Sciences, Kyushu University)

# P-32 p57 identifies quiescent stem cells in normal and neoplastic intestinal epithelia: towards development of an eradicative cancer therapy

<u>Takeru Oka</u>, Tsunaki Higa, Yasutaka Okita, Keiichi I. Nakayama (Department of Molecular and Cellular Biology, Medical Institute of Bioregulation, Kyushu University)

### P-33 Identification of critical downstream molecules of FOXO for targeting leukemic stem cells

Masaya Ueno<sup>1,2</sup>, Yusuke Takase<sup>1</sup>, Kenta Kurayoshi<sup>1</sup>, Atsushi Hirao<sup>1,2</sup> (<sup>1</sup>Cancer Research Institute, Kanazawa University, <sup>2</sup>WPI Nano Life Science Institute, Kanazawa University)

# P-34 MOZ is critical for leukemic cell proliferation and immortalization through repression of p16Ink4a gene

<u>Takuo Katsumoto</u><sup>1</sup>, Atsushi Iwama<sup>2</sup>, Issay Kitabayashi<sup>1</sup>
(<sup>1</sup>Division of Hematological Malignancy, National Cancer Center, Research Institute, <sup>2</sup>Division of Stem Cell and Molecular Medicine, Center for Stem Cell Biology and Regenerative Medicine, Institute of Medical Science, University of Tokyo)

# P-35 Glioma stem like cells can be targeted in Boron Neutron Capture Therapy with boronophenylalanine

<u>Natsuko Kondo<sup>1</sup></u>, Masaki Hikida<sup>2</sup>, Mitsutoshi Nakada<sup>3</sup>, Yoshinori Sakurai<sup>1</sup>, Minoru Suzuki<sup>1</sup>

(¹Institue for Integrated Radiation and Nuclear Science, Kyoto University, ²Department of Life Science, Akita university, ³Department of Neurosurgery, Kanazawa university)

### P-36 Incomplete rejuvenation of aged HSCs in young bone marrow niche

Wakako Kuribayashi<sup>1,2</sup>, Motohiko Oshima<sup>2</sup>, Atsushi Iwama<sup>2</sup> (<sup>1</sup>Chiba Univercity, <sup>2</sup>The Institute of Medical Science, Tokyo Univercity)

### P-37 CD244 is a sensitive marker to represent functional retardation of HSCs after in vitro culture

<u>Shuhei Koide</u><sup>1,2</sup>, Valgardur Sigurdsson<sup>1</sup>, Visnja Radulovic<sup>1</sup>, Mark Garde<sup>1</sup>, Stefan Lang<sup>3</sup>, Kenichi Miharada<sup>1</sup>

(¹Division of Molecular Medicine and Gene Therapy, Lund Stem Cell Center, Lund University, ²Division of Stem Cell and Molecular Medicine, Center for Stem Cell Biology and Regenerative Medicine, Institute of Medical Science at University of Tokyo, ³StemTherapy Bioinformatics Core Facility, Lund Stem Cell Center, Lund University)

# P-38 Identification and local manipulation of bone marrow vasculature during in vivo intravital imaging

Takayuki Morikawa, Keiyo Takubo

(Department of Stem Cell Biology, Research Institute, National Center for Global Health and Medicine)

# P-39 Radiation response of mammary stem and progenitor cells of Sprague-Dawley rats as a potential target of radiation-induced carcinogenesis

<u>Ken-ichi Kudo</u><sup>1</sup>, Yukiko Nishimura<sup>1</sup>, Masaru Takabatake<sup>1</sup>, Kazuhiro Daino<sup>1</sup>, Ayaka Hosoki<sup>2</sup>, Mayumi Nishimura<sup>1</sup>, Shizuko Kakinuma<sup>1</sup>, Tatsuhiko Imaoka<sup>1</sup>

(¹Department of Radiation Effects Research, National Institute of Radiological Sciences, National Institutes for Quantum and Radiological Science and Technology, ²Fukushima Project Headquarters, National Institute of Radiological Sciences)

# P-40 Allelic inactivation of Tets is responsible for leukemic transformation in mice already losing Tet functions in multiple alleles

Mamiko Sakata-Yanagimoto<sup>1</sup>, Shrestha Raksha<sup>1</sup>, Koichiro Maie<sup>1</sup>, Motohiko Oshima<sup>2</sup>, Yaeko Nakajima-Takagi<sup>2</sup>, Hirotaka Matsui<sup>3</sup>, Takayasu Kato<sup>1</sup>, Hideharu Muto<sup>1</sup>, Enguerran Mouly<sup>4</sup>, Olivier A. Bernard<sup>4</sup>, Haruhiko Koseki<sup>5</sup>, Atsushi Iwama<sup>2</sup>, Shigeru Chiba<sup>1</sup> (<sup>1</sup>University of Tsukuba, <sup>2</sup>the University of Tokyo, <sup>3</sup>Kumamoto University, <sup>4</sup>INSERM U1170, <sup>5</sup>RIKEN Research Center for Allergy and Immunology)

# P-41 Investigation of the mechanisms of delayed aging and cancer resistance in the longest-lived rodent, the naked mole-rat

Kyoko Miura

(Kumamoto University, Faculty of Life Sciences)

- P-42 Functional requirement of Ovol genes for lineage specification of mouse PGCs

  <u>Yuki Naito</u><sup>1</sup>, Go Nagamatsu<sup>1</sup>, Nobuhiko Hamazaki<sup>1</sup>, Makoto Hayashi<sup>2</sup>,

  Yuko Shinozuka<sup>2</sup>, Satoru Kobayashi<sup>2</sup>, Katsuhiko Hayashi<sup>1</sup>

  (¹Kyushu University, ²Tsukuba University)
- P-43 Identification of the early progenitor cell for the cardiac conduction system

  <u>Akane Sakaguchi</u><sup>1</sup>, Hiroki Kokubo<sup>2</sup>, Rieko Ajima<sup>3</sup>, Yumiko Saga<sup>3</sup>

  (1BDR, Laboratory for Heart Regeneration, <sup>2</sup>Hiroshima university, <sup>3</sup>NIG)
- P-44 Functional analysis of MeCP2, the Rett syndrome responsible factor, mediated by microRNA in neural stem cells fate specification

<u>Hideyuki Nakashima</u><sup>1</sup>, Keita Tsujimura<sup>2</sup>, Koichiro Irie<sup>3</sup>, Takuya Imamura<sup>1</sup>, Kinichi Nakashima<sup>1</sup>

(¹Stem Cell Biology and Medicine, Kyushu University, ²Nagoya University Graduate School of Medicine, ³Faculty of Education and Integrated Arts and Sciences, Waseda University)

- P-45 Germ cell specific generation of Mga variant that may facilitate meiotic process

  Yuka Kitamura, Kousuke Uranishi, Ayumu Suzuki, Masataka Hirasaki,

  Masazumi Nishimoto, Akihiko Okuda

  (Saitama Medical University, Research Center for Genomic Medicine, Division of Developmental Biology)
- P-46 Investigation for a novel therapeutic target in acute myeloid leukemia with monosomy 7

<u>Kensuke Matsuda</u>, Yuki Kagoya, Sho Yamazaki, Masashi Miyauchi, Mineo Kurokawa

(Department of Hematology and Oncology, Graduate School of Medicine, The University of Tokyo)

- P-47 Cell competition in the growing epithelial progenitors is driven by autophagy
  <a href="mailto:Rina Nagata">Rina Nagata</a>, Mai Nakamura, Yuya Sanaki, Tatsushi Igaki
  (Graduate School of Biostudies, Kyoto University)
- P-48 Maintenance of heterogeneous epidermal stem cell populations by the distinct niche

<u>Aiko Sada</u>¹, Lalhaba Oinam¹, Gopakumar Changarathil¹, Jun Tsunezumi², Hiromi Yanagisawa¹

(<sup>1</sup>Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Tsukuba, Japan, <sup>2</sup>Department of Internal Medicine, Division of Nephrology, UT Southwestern Medical Center, Dallas, USA)