Friday, May 20. The 1st Day

Opening Remarks Organizer Atsushi Hirao 13:00～13:10

(Cancer Research Institute, Kanazawa University)

Session 1: Hematopoietic Stem Cells 13:10～15:05

Chair Mineo Kurokawa

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

Atsushi Iwama

(Department of Cellular and Molecular Medicine, Chiba University)

O-1 Standard medium leads to high reproducible results of HSCs via removal of non-scientific factors.

Satoshi Yamazaki

(Laboratory of Stem Cell Therapy, Center for Experimental Medicine, The Institute of Medical Science, the University of Tokyo)

O-2 TGF-beta-induced intracellular PAI-1 is a critical regulator of hematopoietic stem cell localization in the niche

Takashi Yahata[1], Abd Aziz Ibrahim[1], Yukari Muguruma[1], Satoko Kaneko[1], Toshio Miyata[2], Kiyoshi Ando[1]

([1]Research Center for Regenerative Medicine, Tokai University School of Medicine, [2]Molecular Medicine and Therapy, Tohoku University Graduate School of Medicine)

O-3 A metabolic signal that awakens resting hematopoietic stem/progenitor cells

Keiyo Takubo

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

O-4 Enhancer for Runx1, eR1: a powerful tool in stem cell and cancer biology

Motomi Osato[1,2], Cai Ping Koh[1], Tomomasa Yokomizo[2]

([1]Cancer Science Institute, National University of Singapore, [2]International Research Center for Medical Sciences, Kumamoto University)

O-5 Pot1 maintains hematopoietic stem cell activity under stress

Fumio Arai

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

Coffee Break 15:05～15:25

Session 2: Tissue Stem Cells 15:25～17:20

Chair Tetsuya Taga

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

Emi Nishimura

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

O-6 Hair follicle aging is driven by COL17A1 proteolysis

Hiroyuki Matsumura[1], Yasuaki Mohri[1], Hironobu Morinaga[1], Makoto Fukuda[1], Sotaro Kurata[2], Emi K. Nishimura[1]
([1]Department of Stem Cell Biology, Medical Research Institute, Tokyo Medical and Dental University, [2]Beppu Garden-Hill Clinic, Kurata Clinic, Beppu city, Oita)

O-7 Locus-specific expansion of Polycomb domain determines the temporal repression of the neurogenic genes in neocortical development

Yusuke Kishi[1], Yusuke Hirabayashi[2], Kelsey Tyssowski[2], Haruhiko Koseki[3], Yutaka Suzuki[4], Yukiko Gotoh[1]
([1]Graduate School of Pharmaceutical Sciences, the University of Tokyo, [2]Institute of Molecular and Cellular Biosciences, the University of Tokyo, [3]RIKEN Center for Allergy and Immunology, [4]Department of Medical Genome Sciences, the University of Tokyo)

O-8 Oscillatory Control of Determination Factors for Multipotency versus Fate Choice in Neural Stem Cells

Itaru Imayoshi
(Institute for Virus Research, Kyoto University)

O-9 Alternative cell fate selection and following directed cell migration coordinate epithelial pattern of branching airways

Mitsuru Morimoto
(RIKEN Center for Developmental Biology)

O-10 Regulation of stem cell properties in liver development

Atsushi Suzuki
(Division of Organogenesis and Regeneration, Medical Institute of Bioregulation, Kyushu University)

Coffee Break 17:20～17:30

Special Lecture 1 17:30～18:15

Chair Yukiko Gotoh

(Laboratory of Molecular Biology, Graduate School of Pharmaceutical Sciences, The University of Tokyo)

S-1 "Regenerative Medicine and Disease Modeling with iPS cells technologies".

Hideyuki Okano
(Keio University School of Medicine)

Poster Session and Reception 18:45～

Saturday, May 21. The 2nd Day

Session 3: Leukemia Stem Cells 8:30～9:50

Chair Shigeru Chiba
(Department of Hematology, Faculty of Medicine, University of Tsukuba)
Yoshihiro Takihara
(Department of Stem Cell Biology, Research Institute for Radiation Biology and Medicine, Hiroshima University)

O-11 Nutrient Supply Essential for the Maintenance of CML Stem Cells
Kazuhito Naka[1], Yoshihiro Takihara[1], Yukio Kato[2], Hiromitsu Nakauchi[3,4], Akira Ooshima[5], Seong-Jin Kim[5]
([1]Department of Stem Cell Biology, Research Institute for Radiation Biology and Medicine, Hiroshima University, [2]Faculty of Pharmacy, Institute of Medical, Pharmaceutical and Health Sciences, Kakuma-machi, Kanazawa University, [3]Division of Stem Cell Therapy, Center for Stem Cell Biology and Regeneration Medicine, Institute of Medical Science, University of Tokyo, [4]Institute for Stem Cell Biology & Regenerative Medicine, Stanford University School of Medicine, CA, USA., [5]CHA Cancer Institute and Department of Biomedical Science, CHA University, Republic of Korea.)

O-12 NANOG expression as a responsive biomarker during treatment with Hedgehog signal inhibitor in acute myeloid leukemia
Yosuke Minami[1], Seiji Kakiuchi[2], Nobuaki Fukushima[3]
([1]Kobe Univ Hospital, Dept of Transfusion Med and Cell Therapy, [2]Kobe Univ Hospital, Dept of Medical Oncology and Hematology, [3]Japanese Red Cross Nagoya the 1st Hospital, Dept of Hematology)

O-13 The role of Runx-F2r pathway in myeloid leukemia stem cells
Susumu Goyama[1], Toshio Kitamura[1], Joseph S. Palumbo[2], James C. Mulloy[2]
([1]Division of Cellular Therapy, The Institute of Medical Science, The University of Tokyo, [2]Cancer and Blood Diseases Institute, Cincinnati Children's Hospital Medical Center)

O-14 Identification of TIM-3 as a functional leukemic stem cell surface molecule in primary human myeloid leukemia
Yoshikane Kikushige, Koichi Akashi
(Medicine and Biosystemic Science, Kyushu University Graduate School of Medical Sciences)

Coffee Break 9:50～10:05

Session 4: Differentiation and Malignancy 10:05～11:35

Chair Issay Kitabayashi
(Division of Hematological Malignancy, National Cancer Center Research Institute)
Yohei Shimono
(Division of Molecular and Cellular Biology, Kobe University Graduate School of Medicine)

O-15 Double inactivation of *Tet2* and *Tet3* induces hypomethylating agent-sensitive acute myeloid leukemia

Koichiro Maie[1], Mamiko Sakata-Yanagimoto[1], Motohiko Ohshima[2], Takayasu Kato[1], Hideharu Muto[1], Atsushi Iwama[2], Shigeru Chiba[1]
([1]Department of Hematology, University of Tsukuba, [2]Department of Cellular and Molecular Medicine, Graduate School of Medicine, Chiba University)

O-16 Ezh2 loss in hematopoietic stem cells predisposes mice to develop heterogeneous malignancies in an Ezh1-dependent manner

Makiko Mochizuki-Kashio[1,2], Kazumasa Aoyama[3], Goro Sashida[4], Motohiko Oshima[3], Changshan Wang[5], Atsushi Iwama[3]
([1]Laboratory of Chromatin Metabolism and Epigenetics, Graduate school of Science, [2] Department of Cellular and Molecular Medicine, Graduate school of Medicine, Chiba University, [3]Department of Cellular and Molecular Medicine,Graduate school of Medicine, Chiba University, [4]International Research Center for Medical Sciences, Kumamoto University, [5]College of Life Sciences, Inner Mongolia University, China)

O-17 Therapeutic strategies for osteosarcoma stem cells by regulating adipocyte differentiation based on actin dynamics

Hiroyuki Nobusue[1], Nobuhiro Takahashi[1], Nobuyuki Onishi[1], Takatsune Shimizu[2], Eiji Sugihara[1], Yoshinao Oki[3], Tatsuyuki Chiyoda[1], Koichi Akashi[4], Koichiro Kano[3], Hideyuki Saya[1]
([1]Division of Gene Regulation, Institute for Advanced Medical Research, Keio University School of Medicine, [2]Department of Pathophysiology, Hoshi University, [3]Laboratory of Cell and Tissue Biology, College of Bioresource Sciences, Nihon University, [4]Department of Medicine and Biosystemic Science, Kyushu University Graduate School of Medical Science)

O-18 DISSECTING CANCER BIOLOGY WITH iPSC TECHNOLOGY

Yasuhiro Yamada
(Laboratory of Stem Cell Oncology, Department of Life Science Frontiers, Center for iPS Cell Research and Application, Kyoto University)

Coffee Break 11:35～11:45

Special Lecture 2 11:45～12:30

Chair Takashi Shinohara

(Department of Molecular Genetics, Graduate School of Medicine, Kyoto University)

S-2 The Case for Predetermination of Spermatogonial Stem Cells

John R. McCarrey[1], Christopher B. Geyer[2], Jon M. Oatley[3], Brian P. Hermann[1]
([1]Department of Biology, University of Texas at San Antonio, San Antonio, TX, USA, [2]Department of Anatomy and Cell Biology, East Carolina University, Greenville, NC, USA, [3]School of Molecular Biosciences, Washington State University, Pullman, WA, USA)

Lunch Time 12:30～13:30

General Meeting 13:30～13:40

Chief Director Koichi Akashi

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

Session 5: Pluripotent Stem Cells 13:40～15:30

Chair Koji Eto

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

Shinji Masui

(CiRA, Kyoto University)

O-19 Overlapped function of Klf family members to maintain pluripotency of mouse embryonic stem cells

Hitoshi Niwa

(Institute of Molecular Embryology and Genetics, Kumamoto University)

O-20 Large-scaled transgene activation on human embryonic stem cells

Yuhki Nakatake[1], Nana Nohtomi-Chikazawa[1], Miyako Murakami[1], Chiaki Ookura[1], Miki Sakota[1], Shunichi Wakabayashi[1], Siu San Mak[1], Martin Jakt[1], Tomoo Ueno[1], Misako Matsushita[1], Mayumi Oda[1], Noriko Utsumi[2], Madoka Hirayama-Ishikawa[3], Noriko Itoh[3], Motohiko Tanino[3], Yukari Ikeda[3], Hiroshi Iijima[3], Takumi Miura[4], Masakazu Machida[4], Kahori Minami[4], Shigeru Ko[1], Hiroyuki Nishimura[5], Ryo Matoba[3], Hidenori Akutsu[4], Osamu Ohara[2], Minoru Ko[1]

([1]Department of Systems Medicine, Mitsunada Sakaguchi Laboratory, Keio University School of Medicine, [2]Kazusa DNA Research Institute, [3]DNA Chip Research Inc., [4]Department of Reproductive Biology, National Center for Child Health and Development, [5]Xcoo, Inc.)

O-21 Toward understanding the immortal trait of human embryonic stem cells

Masatoshi Ohgushi

(RIKEN CDB, Laboratory for in vitro Histogenesis)

O-22 Identifying the biphasic role of Calcineurin/NFAT signaling pathway enables successfully to replace sox2 in somatic cell reprogramming.

Sherif Khodeer, Takumi Era

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

O-23 Ribosomes convert human fibroblasts into multipotent cells

Kunimasa Ohta

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

Closing Remarks 15:30～15:40

Next Organizer Atsushi Iwama

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

Poster Session

P-1 Endothelial antigen ESAM is a human HSC marker associated with a subset of human leukemias

Tomohiko Ishibashi[1], Takafumi Yokota[1], Hirokazu Tanaka[2], Michiko Ichii[1], Takao Sudo[1], Yusuke Satoh[1,3], Yukiko Doi[1], Tomoaki Ueda[1], Akira Tanimura[1], Yuri Hamanaka[1], Sachiko Ezoe[1], Hirohiko Shibayama[1], Kenji Oritani[1], Yuzuru Kanakura[1]
([1]Department of Hematology and Oncology, Osaka University Graduate School of Medicine, [2]Department of Hematology and Rheumatology, Kinki University Faculty of Medicine, [3]Department of Lifestyle Studies, Kobe Shoin Women's University)

P-2 Disruption of Tsukushi leads to hydrocephalus by aberrant neurogenesis.

Naofumi Ito[1], Riyadh Asrafuzzaman[1], Ayako Ito[1], Yohei Shinmyo[2], Athary Felemban[1], Jun Hatakeyama[3], Kenji Shimamura[3], Kazunobu Sawamoto[4], Kunimasa Ohta[1]
([1]Department of Developmental Neurobiology, Kumamoto University, [2]Department of Biophysical Genetics, Kanazawa University, [3]Department of Brain Morphogenesis, Kumamoto University, [4]Department of Developmental and Regenerative Biology, Nagoya City University)

P-3 A single miRNA rescues EBF1 deficiency in B cell development though TGF-β pathway

Ryutaro Kotaki[1], Ai Kotani[1,2]
([1]Division of Hematological Malignancy, Institute of Medical Science, Tokai University, [2]Department of Hematology/Oncology, School of Medicine, Tokai University)

P-4 Mechanism of epidermal aging

Nan Liu, Hiroyuki Matsumura, Makoto Fukuda, Aki Takada, Daisuke Nanba, Emi K Nishimura
(Department of Stem Cell Biology, Medical Research Institute, Tokyo Medical and Dental University)

P-5 Kinetic analysis and modeling for understanding human keratinocyte stem/progenitor cell behavior in epidermal sheet formation

Daisuke Nanba[1], Fujio Toki[1], Hiroshi Toki[2], Emi K. Nishimura[1]
([1]Department of Stem Cell Biology, Medical Research Institute, Tokyo Medical and Dental University, [2]Research Center for Nuclear Physics, Osaka University)

P-6 Human bone marrow-derived CD271$^+$SSEA-4$^+$ mesenchymal stromal cells support hematopoietic stem/progenitor cells through the cell-cell contact

Yoshikazu Matsuoka[1], Keisuke Sumide[1], Hiroshi Kawamura[1,2], Ryusuke Nakatsuka[1], Tatsuya Fujioka[1], Yutaka Sasaki[1], Yoshiaki Sonoda[1]
([1]Department of Stem Cell Biology and Regenerative Medicine, Kansai Medical University, [2]Department of Orthopedic Surgery, Kansai Medical University)

P-7 G0 phase analysis of hematopoietic stem cells in mVenus-p27K$^-$mice

Tsuyoshi Fukushima
(The Institute of Medical Science Division of cell therapy)

P-8 Regulation of physical environment for stem cell fate determination during brain development

Yoichi Kosodo, Misato Iwashita
(Korea Brain Research Institute)

P-9 Functional recovery of age-related disorders in multiple tissues by upregulation of a regenerative factor derived from MSCs

Hayato Naka-Kaneda[1], Daisuke Hisamatsu[1,2], Shiho Nakamura[1], Yo Mabuchi[3]
([1]RIKEN IMS Laboratory for Stem Cell Competency, [2] Keio University School of Medicine, [3]Tokyo Medical and Dental University)

P-10 Effect of low dose-rate irradiation on the hematopoietic system

Yoshinori Ohno[1], Kyoko Suzuki-Takedachi[1], Mimoko Santo[1], Yun Guo[2], Masamoto Kanno[2], Shin'ichiro Yasunaga[3], Motoaki Ohtsubo[4], Kazuhito Naka[1], Yoshihiro Takihara[1]
([1]Dept. Stem Cell Biol., RIRBM, Hiroshima Univ., [2]Dept. Immunol., Grad. Sch. Biomed. Sci., Hiroshima Univ., [3]Dept. Biochem., Facul. Med., Fukuoka Univ., [4]Dept. Food and Ferment. Sci., Beppu Univ.)

P-11 The transcription factor Klf5 regulates biliary epithelial tissue growth in liver regeneration upon cholestatic injury

Hajime Okada[1], Tohru Itoh[1], Kota Kaneko[1], Kenji Kamimoto[1], Len Katsumata[1], Minami Yamada[1], Cindy Kok[1], Masatsugu Ema[2], Atsushi Miyajima[1]
([1]Laboratory of Cell Growth and Differentiation, Institute of Molecular and Cellular Biosciences, The University of Tokyo, [2]Department of Stem Cells and Human Disease Models, Research Center for Animal Life Science, Shiga University of Medical Science)

P-12 The analyses of Notch signaling in mouse testis.

Ryu Okada, Megumi Fujimagari, Tomohisa Watanabe, Akiko Kumano, Yukio Nishina
(Laboratory of Molecular Embryology, Yokohama City University)

P-13 The DGCR8 gene, a candidate gene for 22q11.2 deletion-associated schizophrenia, regulates adult hippocampal neurogenesis and cognition

Yasuo Ouchi
(Division of Innate Immune Regulation, International Research and Development center for Mucosal Vaccine The Institute of Medical Science, The University of Tokyo)

P-14 Mechanism of maintaining hematopoietic stem and progenitor cell phenotype of intra-aortic cell clusters in the AGM region through the Sox17-Notch1-Hes1 axis

Kiyoka Saito, Ikuo Nobuhisa, Maha Anani, Kaho Harada, Satomi Takahashi, Tetsuya Taga
(Department of Stem Cell Regulation, Medical Research Institute, Tokyo Medical and Dental University (TMDU))

P-15 MicroRNA-153 Regulates the Acquisition of Gliogenic Competence by Neural StemCells

Jun Tsuyama[1], Jens Bunt[2], Linda Richards[2], Hiroko Iwanari[3], Yasuhiro Mochizuki[3], Takao Hamakubo[3], Takuya Shimazaki[1], Hideyuki Okano[1]
([1]Department of Physiology, Keio University School of Medicine, [2]Queensland Brain Institute, The University of Queensland, [3]Department of Quantitative Biology and Medicine, Research Center for Advanced Science and Technology, The University of Tokyo)

P-16 Aging of bone marrow environments influence the functions of hematopoietic stem cells

Yasufumi Uehara, Yuya Kunisaki
(Center for cellular and Molecular Medicine, Kyushu University Hospital)

P-17 Integrin α v β 3 regulates long-term repopulating activity of hematopoietic stem cells through the double-edged influences.

Terumasa Umemoto[1], Yu Matsuzaki[1], Junichi Furusawa[2], Takayuki Yoshimoto[2], Masayuki Yamato[3], Toshio Suda[4,5]
([1]International Research Center for Medical Science (IRCMS), Kumamoto University, [2]Institute of Medical Science, Tokyo Medical University., [3]Institute of Advanced Biomedical Engineering and Science, Tokyo Women's medical University., [4]International Research Center for Medical Science (IRCMS), Kumamoto University, [5] Cancer Science Institute of Singapore, National University of Singapore)

P-18 Does hemogenic endothelium exist in the mouse embryonic head?

Tomomasa Yokomizo[1,2], Kazuhide Iizuka[2], Naoki Watanabe[2], Yosuke Tanaka[3], Motomi Osato[1,4], Tomoiku Takaku[2], Norio Komatsu[2]
([1]International Research Center for Medical Sciences, Kumamoto University, [2]Department of Hematology, Juntendo University School of Medicine, [3]Center for Developmental Biology, RIKEN Kobe, [4]Cancer Science Institute of Singapore, National University of Singapore)

P-19 The new BMP down-stream molecule ANKS1B is controlling Histone H3 methylation with abnormal BMP signaling in reprogramming and diseases.

Makoto Hamasaki[1], Takayuki Kiboku[1], Minami Soga[1], Naoki Shinojima[2], Hirokazu Furuya[3], Takumi Era[1]
([1]Department of Cell Modulation, Institute of Molecular Embryology and Genetics, Kumamoto University, [2]Department of Neurosurgery, Graduate School of Medical Sciences, Kumamoto University, [3]Department of Neurology, Kochi Medical School, Kochi University)

P-20 Disease specific iPSCs mimic their disease specific phenotypes in teratomas

Takayuki Kiboku[1], Makoto Hamasaki[1], Saori Ikeda[1], Katsuhiko Sekimata[2], Hirokazu Furuya[3], Hashizume Yoshinobu[4], Takumi Era[1]
([1]Department of Cell Modulation, Institute of Molecular Embryology and Genetics, Kumamoto University, [2]RIKEN Center for Life Science Technologies, Division of Bio-Function Dynamics Imaging, Drug Discovery Chemistry Platform Unit, [3]Department of Neurology, Kochi Medical School, Kochi University, [4]RIKEN Program for Drug Discovery and Medical Technology Platforms)

P-21 Identification of Runx1-direct targets important for definitive hematopoiesis

Yosuke Tanaka[1,2], Vicki Moignard[2], Adam Wilkinson[2], Toshio Kitamura[3], Bertie Gottgens[2]
([1]The University of Tokyo Institute of Medical Science Division of Cellular Therapy, [2]Cambridge University Department of Hematology Cambridge Institute for Medical Research, [3]The University of Tokyo Institute of Medical Science Division of Cellular Therapy)

P-22 Investigation of causative genes in chronic myelomonocytic leukemia through patient-derived induced pluripotent stem cells

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

P-23 Development of high-efficient differentiation protocols from human iPS cells to glutamatergic or GABAergic neural progenitor cells

Yusuke Kubo[1,2,3], Shigeru Yamada[2], Takashi Inutsuka[3], Yasunari Kanda[2], Yuko Sekino[2]
([1]Japan Agency for Medical Research and Development, [2]National Institute of Health Sciences, [3]Pharmacological Evaluation Institute of Japan)

P-24 Formation of vascular network structures in the co-culture with human inducible pluripotent stem cell-derived CD31+ cells

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

P-25 β -actin regulates reprogramming

Shinji Masui, Takashi Ikeda, Akitsu Hotta
(CiRA, Kyoto University)

P-26 Challenge of "HLA omnipotent platelets" for overcoming allogeneic immune response using induced Pluripotent Stem Cell (iPSC) technology

Daisuke Suzuki[1], Naoshi Sugimoto[1], Norihide Yoshikawa[1], Sou Nakamura[1], Hiroshi Endo[1], Akitsu Hotta[2], Koji Eto[1]
([1]Department of Clinical Application, Center for iPS Cell Research and Application, Kyoto University, [2]Department of Life Science Frontiers, Center for iPS Cell Research and Application, Kyoto University)

P-27 Novel tools for generation, purification, and analysis of pluripotent stem cell–derived cardiomyocytes

Rumi Tanaka
(Miltenyi Biotec K.K.)

P-28 Elucidating the role of MPL at the branch point of Erythrocytes and Megakaryocytes lineages.

Akinori Yuzuriha[1], Naoshi Sugimoto[1,2], Koji Eto[1]
([1]The Koji Eto Lab, Department of clinical application, Center for iPS Cells Research and Application, Kyoto University, [2] Department of Hematology and Oncology, Graduate school of Medicine, Kyoto University)

P-29 Oligodendrocytes and macrophages contribute stem cell niche for glioblastoma in the edge of the tumor mass

Takuichiro Hide[1], Yoshihiro Komohara[2], Keishi Makino[1], Hideo Nakamura[1], Shigetoshi Yano[1], Motohiro Takeya[2], Jun-ichi Kuratsu[1]
([1]Department of Neurosurgery, Graduate School of Medical Sciences, Kumamoto University, [2]Department of Cell Pathology, Graduate School of Medical Sciences, Kumamoto University)

P-30 Molecular characterization of dormant metastatic human breast cancer stem cells

Yohei Shimono[1], Tatsunori Nishimura[2], Junko Mukohyama[1], Taichi Isobe[3], Toru Mukohara[4], Noriko Gotoh[2], Hironobu Minami[4]
([1]Division of Molecular and Cellular Biology, Kobe University Graduate School of Medicine, [2]Division of Cancer Cell Biology, Cancer Research Institute, Kanazawa University, [3]Institute for Stem Cell Biology and Regenerative Medicine, Stanford University, [4]Division of Oncology/Hematology, Kobe University Graduate School of Medicine)

P-31 Localization of distinct subsets of nestin-expressing cells in human bone marrow and their abnormalities in myelodysplastic syndromes

Luan Cao Sy[1], Naoshi Obara[2], Tatsuhiro Sakamoto[1], Takayasu Kato[2], Hidekazu Nishikii[2], Satoshi Ikeda[3], Keiko Suzuki[3], Shigeru Chiba[2]
([1]Hematology, Graduate School of Comprehensive Human Sciences, University of Tsukuba, [2]Department of Hematology, Faculty of Medicine, University of Tsukuba, [3]Department of Pathology, Tsuchiura Kyodo General Hospital)

P-32 Heterozygous Dnmt3a mutation induces expansion of hematopoietic stem cell pool in a murine model

Takashi Higo[1], Junji Koya[1], Yoshiki Sumitomo[2,3], Takako Tsuruta-Kishino[1], Keisuke kataoka[1], Tomohiko Sato[1], Mineo Kurokawa[1]
([1]Department of Hematology & Oncology, Graduate School of Medicine, The University of Tokyo, [2]Department of Hematology & Oncology, Graduate School of Medicine, The University of Tokyo, [3]Oncology Research Laboratories, Kyowa Hakko Kirin Co., Ltd.)

P-33 Maintenance of stemness of breast cancer cells by FRS2beta, a feedback inhibitor for HER2-ERK pathway, during mammary tumorigenesis

Natsuko Kimura[1], Yukino Machida[2], Daisuke Iejima[1], Arinobu Tojo[1], Nobuaki Yoshida[3], Ko-ichi Akashi[4], Hideyuki Saya[5], Issay Kitabayashi[2], Noriko Gotoh[1,6]
([1]Division of Molecular Therapy, Institute of Medical Science, University of Tokyo, [2]Division of Hematological Malignancy, National Cancer Center Research Institute, [3]Division of Developmental Genetics, Institute of Medical Science, University of Tokyo, [4]Department of Medicine and Biosystemic Science, Kyusyu University, [5]Div. of Gene Regulation, Inst., Advanced Med. Res., Grad. Sch. of Med., Keio Univ.,, [6]Division of Cancer Cell Biology, Cancer Research Institute, Kanazawa University)

P-34 CD74-NRG1, an oncogenic fusion gene product, leads to ErbB-NF- κ B-IGF2 autocrine/paracrine circuit and confers cancer stem cell properties

Takahiko Murayama[1,2], Takashi Nakaoku[3], Masato Enari[4], Tatsunori Nishimura[2], Kana Tominaga[1], Asuka Nakata[2], Arinobu Tojo[1], Sumio Sugano[5], Takashi Kohno[3], Noriko Gotoh[1,2]
([1]Division of Molecular Therapy, Institute of Medical Science, University of Tokyo, [2]Division of Cancer Cell Biology, Cancer Research Institute of Kanazawa University, Kanazawa University, [3]Division of Genome Biology, National Cancer Center Research Institute, [4]Division of Refractory Cancer Research, National Cancer Center Research Institute, [5]Laboratory of Functional Genomics, Department of Medical Genome Sciences, Graduate School of Frontier Sciences, University of Tokyo)

P-35 C6 glioma stem cell-derived extracellular vesicles promote the development of macrophages

Yoshitaka Murota, Kouichi Tabu, Tetsuya Taga
(Department of Stem Cell Regulation, Medical Research Institute, Tokyo Medical and Dental University (TMDU))

P-36 Development of mouse brain tumor models using in vivo electroporation and piggyBac system

Nobuyuki Onishi, Hideyuki Saya
(Division of Gene Regulation, Institute for Advanced Medical Research, Keio University School of Medicine)

P-37 The role of mTOR complex 1 in hematopoiesis and leukemogenesis

Hui Peng, Atsuo Kasada, Masaya Ueno, Takayuki Hoshii, Atsushi Hirao
(Cancer Research Institute of Kanazawa University)

P-38 GDF15 promotes tumor sphere formation in breast cancer

Asako Sasahara[1,2], Kana Tominaga[3], Keiichiro Tada[4], Hajime Kanauchi[5], Yasuyuki Seto[6], Arinobu Tojo[3], Noriko Gotoh[1,7]
([1]Division of Molecular Therapy, Institute of Medical Science, University of Tokyo, [2]Department of Breast and Endocrine Surgery, Graduate School of Medicine, University of Tokyo, [3]Division of Molecular Therapy, Institute of Medical Science, University of Tokyo, [4]Department of Breast and Endocrine Surgery, Graduate School of Medicine, University of Tokyo, [5]Department of Breast and Endocrine Surgery, Showa General Hospital, [6]Department of Gastrointestinal Surgery, Graduate School of Medicine, University of Tokyo, [7]Division of Cancer Cell Biology, Cancer Research Institute, Kanazawa University)

P-39 CGRP-CRLR signaling is important for leukemogenesis in AML with high EVI1 expression

Akira Suekane, Yusuke Saito, Shingo Nakahata, Kazuhiro Morishita
(Div of Tumor and Cellular Biochemistry, Dept of Medical Sci. Fac. of Med. Univ of Miyazaki)

P-40 Adaptive response of rat C6 glioma stem cells to iron deprivation by which the development of tumor infiltrating macrophages is induced

Kouichi Tabu, Yasuhiro Kokubu, Nozomi Muramatsu, Shunki Nomoto, Wenqian Wang, Tetsuya Taga
(Department of Stem Cell Regulation, Medical Research Institute, Tokyo Medical and Dental University (TMDU))

P-41 MICAL3 regulates tumor initiating activity in human breast cancer stem cells.

Kana Tominaga[1,2], Kei-ichiro Tada[3], Arinobu Tojo[1], Noriko Gotoh[1,4]
([1]Division of Molecular Therapy, Institute of Medical Science, University of Tokyo, [2]JSPS Research Fellow, [3]Department of Breast & Endocrine Surgery, Graduate School of Medicine, University of Tokyo, [4]Division of Cancer Cell Biology, Cancer Research Institute, Kanazawa University)

P-42 Resistance of glioma stem cells to 5-aminolevulinic acid (ALA)-based detection due to enhanced metabolic conversion of protoporphyrin IX

Wenqian Wang[1], Kouichi Tabu[1], Yuichiro Hagiya[2], Shun-ichiro Ogura[2], Tetsuya Taga[1]
([1]Dept. of Stem Cell Regulation, Tokyo Med. & Dent. Univ, [2]Grad. Sch. of Biosci. and Biotech., Tokyo Inst. of Technology)

P-43 GPR56 is one of important LSC surface markers associated with poor outcome AML

Yusuke Saito, Kazuko Kaneda, Akira Suekane, Shingo Nakahata, Kazuhiro Morishita
(Div of Tumor and Cellular Biochemistry, Dept of Medical Sci. Fac. of Med. Univ of Miyazaki)

P-44 Functional and comprehensive investigation of microRNA targeting Notch receptors

Ryo Nasu[1], Kazuki Okuyama[1], Daisuke Ohgiya[2], Katsuto Hozumi[3], Akihiko Murata[4], Kiyoshi Ando[2], Ai Kotani[1]
([1]Division of Hematological Malignancy, Institute of Medical Science, Tokai University, [2]Department of Hematology and Oncology, Tokai University School of Medicine, [3]Department of Immunology, Tokai University School of Medicine, [4]Department of Immunology, Tottori University Faculty of Medicine)

P-45 NOTCH signaling pathway in bone marrow nestin-expressing cells controls balance of erythropoiesis between bone marrow and spleen

Tatsuhiro Sakamoto[1], Naoshi Obara[2], Ryosuke Fujimura[3], Takayasu Kato[2], Luan Cao Sy[1], Hidekazu Nishikii[4,5], Mamiko Sakata-Yanagimoto[2], Satoru Takahashi[6], Shigeru Chiba[2]

([1]Department of Hematology, Graduate School of Comprehensive Human Sciences, University of Tsukuba, [2]Department of Hematology, Faculty of Medicine, University of Tsukuba, [3]School of medical science, University of Tsukuba, [4]Department of Hematology, Faculty of Medicine, University of Tsukuba, [5]Department of Medicine, Division of Blood and Marrow Transplantation, Stanford University, [6]Department of Anatomy and Embryology, Faculty of Medicine, University of Tsukuba)

P-46 *Nanog* alone induces germ cells in primed epiblast *in vitro* by activation of enhancers

Kazuhiro Murakami[1], Ufuk Gnesdogan[2], Azim Surani[2]

([1]Div. of Epithelial Stem Cell Biology, Cancer Research Inst., Kanazawa Univ., [2]The Gurdon Inst., Univ. of Cambridge)