

Friday, May 21. The 1st Day

Opening Remarks 12:00~12:10

Organizer Hitoshi Takizawa

(International Research Center for Medical Sciences, Kumamoto University)

Special Lecture 12:10~13:10

Chair Hiroyuki Kayo

(Nippon Becton Dickinson Company, Ltd., BD Life Sciences-Biosciences)

SL Purification and characterization of planarian adult Pluripotent Stem Cells (aPSC) by FACS

Kiyokazu Agata

(National Institute for Basic Biology, Director General)

Sponsored by : Nippon Becton Dickinson Company

Keynote Lecture I 13:10~13:40

Chair Ryuichi Nishinakamura

(Department of Kidney Development, IMEG, Kumamoto University)

KL-1 Modeling hepato-biliary-pancreatic organogenesis towards therapy

Takanori Takebe^{1,2}

(¹Division of Gastroenterology, Hepatology and Nutrition, Developmental Biology and Center for Stem Cell and Organoid Medicine (CuSTOM), Cincinnati Children's Hospital Medical Center, ²Institute of Research, Tokyo Medical and Dental University)

Session 1: Organoid 13:40~14:30

Chair Kosaku Nanki

(Department of Organoid Medicine, Keio University School of Medicine)

Invited Lecture

O-01 Direct reprogramming to hepatic and intestinal lineages

Atsushi Suzuki

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

Invited Lecture

O-02 Organoid-based analysis of human kidney development and disease

Ryuichi Nishinakamura

(Department of Kidney Development, IMEG, Kumamoto University)

Coffee Break 14:30~14:50

Session 2: Reprogramming/Pluripotent Stem Cell 14:50~15:40

Chair Hitoshi Niwa

(Department of Pluripotent Stem Cell Biology, IMEG, Kumamoto University)

Yasuhiro Yamada

(Division of Stem Cell Pathology, Center for Experimental Medicine and Systems Biology, Institute of Medical Science, University of Tokyo)

Invited Lecture

O-03 Context-dependent roles of NAT1 in stem cells

Kazutoshi Takahashi

(Center for iPS cell Research and Application, Kyoto University)

Invited Lecture

O-04 Exploring the developmental regulation of 3D genome organization through single-cell DNA replication profiling

Ichiro Hiratani

(Laboratory for Developmental Epigenetics, RIKEN BDR, Kobe, Japan)

Session 3: Germline Stem Cell 15:40~16:45

Chair Shosei Yoshida

(National Institute for Basic Biology, National Institutes of Natural Sciences)

Invited Lecture

O-05 Reconstitution of molecular and cellular networks regulating oocyte formation

Katsuhiko Hayashi

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

Invited Lecture

O-06 Restoration of fertility by tuning the post-transplantation fate of mouse spermatogonial stem cells

Yoshiaki Nakamura¹, David Jörg², Benjamin Simons², Shosei Yoshida³

(¹Hiroshima University, ²University of Cambridge, ³National Institute for Basic Biology)

O-07 Multistate dynamics of stem cells in steady-state mouse spermatogenesis

Toshinori Nakagawa¹, David Jorg², Ben Simons², Shosei Yoshida¹

(¹National Institute for Basic Biology, ²University of Cambridge)

Coffee Break 16:45~17:10

Keynote Lecture II 17:10~18:00

Chair Toshio Suda

(International Research Center for Medical Sciences, Kumamoto University)

KL-2 Mechanism for left-right symmetry breaking: diversity among vertebrates

Hiroshi Hamada

(RIKEN Center for Biosystems Dynamics Research)

Saturday, May 22. The 2nd Day

Session 4: Blood Stem Cell

9:00~10:25

Chair Shigeru Chiba

(Department of Hematology, Faculty of Medicine, University of Tsukuba)

Fumio Arai

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

Invited Lecture

O-08 Insights into the metabolic control of hematopoietic stem cell fate

Keisuke Ito

(Albert Einstein College of Medicine)

O-09 HMGA2 protects hematopoietic stem cell in stress hematopoiesis

Sho Kubota¹, Yuqi Sun¹, Jie Bai¹, Takako Yokomizo-Nakano¹, Mariko Morii¹, Supannika Sorin^{1,2}, Ai Hamashima¹, Mihoko Iimori¹, Motomi Osato³, Kimi Araki⁴, Terumasa Umemoto⁵, Goro Sashida¹¹Laboratory of Transcriptional Regulation in Leukemogenesis, International Research Center for Medical Sciences (IRCMS), Kumamoto University, Kumamoto, Japan., ²Department of Biochemistry Faculty of Medicine, Khon Kaen University, Thailand, ³Cancer Science Institute of Singapore, National University of Singapore, Singapore, ⁴Institute of Resource Development and Analysis, Kumamoto University, Kumamoto, Japan., ⁵Laboratory of Hematopoietic Stem Cell Engineering, IRCMS, Kumamoto University, Kumamoto, Japan.)

O-10 Hematopoietic stem and progenitor cells integrate microbial signals to enhance gut tissue repair

Maiko Sezaki¹, Yoshikazu Hayashi², Gaku Nakato³, Subinoy Biswas¹, Tatsuya Morishima⁴, Jieun Moon⁵, Soyeon Ahn⁵, Pilhan Kim^{6,7}, Yuji Miyamoto^{8,9}, Hideo Baba^{8,9}, Shinji Fukuda^{3,10,11}, Hitoshi Takizawa^{9,12}¹Laboratory of Stem Cell Stress, International Research Center for Medical Sciences (IRCMS), Kumamoto University, Japan, ²Division of Functional Structure, Department of Morphological Biology, Fukuoka Dental College, Fukuoka, Japan, ³Intestinal Microbiota Project, Kanagawa Institute of Industrial Science and Technology (KISTEC-KAST), Kanagawa, Japan, ⁴Laboratory of Hematopoietic Stem Cell Engineering, International Research Center for Medical Sciences (IRCMS), Kumamoto University, Japan, ⁵Graduate School of Nanoscience and Technology, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Republic of Korea, ⁶Graduate School of Nanoscience and Technology, ⁷Graduate School of Medical Science and Engineering, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Republic of Korea, ⁸Department of Gastroenterological Surgery, Graduate School of Medical Sciences, ⁹Center for Metabolic Regulation of Healthy Aging, Kumamoto University, Kumamoto, Japan, ¹⁰Institute for Advanced Biosciences (IAB), Keio University, Yamagata, Japan, ¹¹Transborder Medical Research Center, University of Tsukuba, Ibaraki, Japan, ¹²Laboratory of Stem Cell Stress, International Research Center for Medical Sciences (IRCMS))

O-11 Group 2 innate lymphoid cells (ILC2s) support hematopoietic stem and progenitor cell recovery under stress conditions

Takao Sudo¹, Soichiro Hashimoto², Takafumi Yokota³, Naoki Hosen³, Masaru Ishii²¹Department of Hematology and Oncology/Immunology and Cell Biology, Graduate School of Medicine, Osaka University, ²Department of Immunology and Cell Biology, Graduate School of Medicine, Osaka University, ³Department of Hematology and Oncology, Graduate School of Medicine, Osaka University)

O-12 Tracing the origin of hierarchical hematopoietic structure in fetal liver

Tomomasa Yokomizo¹, Takako Ideue¹, Mineo Kurokawa², Norio Komatsu³,
Kimi Araki⁴, Motomi Osato^{1,5}, Toshio Suda^{1,5}
 (1IRCMS, Kumamoto University, 2Department of Hematology and Oncology, University of
 Tokyo, 3Department of Hematology, Juntendo University School of Medicine, 4Institute of
 Resource Development and Analysis, Kumamoto University, 5CSI, National University of
 Singapore)

Coffee Break

10:25~10:45

Session 5: Tissue Stem Cell I

10:45~11:40

Chair Hironobu Fujiwara

(RIKEN Center for Biosystems Dynamics Research)

Yusuke Ono

(Department of Muscle Development and Regeneration, IMEG, Kumamoto University)

Invited Lecture

O-13 Behaviors of muscle stem cells in overloaded muscle

So-ichiro Fukada
 (Graduate School of Pharmaceutical Sciences, Osaka University)

O-14 Nutrition-dependent de-differentiation of enteroendocrine cells ensures adaptive growth in the adult *Drosophila* midgut

Yuichiro Nakajima^{1,2}, Erina Kuranaga², Hiroki Nagai¹
 (1FRIS, Tohoku University, 2Graduate School of Life Sciences, Tohoku University)

O-15 Airway tissue stem cells reutilize the embryonic proliferation regulator, Tgf β -Id2 axis, for tissue regeneration

Mitsuru Morimoto, Hirofumi Kiyokawa
 (RIKEN Center for Biosystems and Dynamics Research)

Lunch Time

11:40~13:00

General Meeting

13:00~13:05

Session 6: Tissue Stem Cell II

13:05~14:35

Chair Kunimasa Ohta

(Department of Stem Cell Biology, Faculty of Arts and Science, Kyushu University)

Goro Sashida

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

Invited Lecture

O-16 Artificially-induced neurogenesis and its therapeutic application to injury in the adult central nervous systems

Kinichi Nakashima
 (Graduate School of Medical Sciences, Kyushu University)

Invited Lecture

O-17 Stem cell dynamics in skin regeneration and aging

Aiko Sada
 (International Research Center for Medical Sciences (IRCMS), Kumamoto University)

Invited Lecture**O-18 Origin and induction process of hair follicle stem cells**

Ritsuko Morita¹, Noriko Sanzen¹, Hiroko Sasaki¹, Tetsutaro Hayashi², Mana Umeda², Mika Yoshimura², Takaki Yamamoto^{3,4}, Tatsuo Shibata³, Takaya Abe⁵, Hiroshi Kiyonari⁵, Yasuhide Furuta^{5,6}, Itoshi Nikaido^{2,7} and Hironobu Fujiwara¹
 (¹Laboratory for Tissue Microenvironment, RIKEN Center for Biosystems Dynamics Research (BDR), Kobe, Japan, ²Laboratory for Bioinformatics Research, RIKEN Center for Biosystems Dynamics Research (BDR), Kobe, Japan, ³Laboratory for Physical Biology, RIKEN Center for Biosystems Dynamics Research (BDR), Kobe, Japan, ⁴Nonequilibrium Physics of Living Matter RIKEN Hakubi Research Team, RIKEN Center for Biosystems Dynamics Research (BDR), Kobe, Japan, ⁵Laboratory for Animal Resources and Genetic Engineering, RIKEN Center for Biosystems Dynamics Research (BDR), Kobe, Japan, ⁶Mouse Genetics Core Facility, Sloan Kettering Institute, Memorial Sloan Kettering Cancer Center, USA, ⁷Bioinformatics Course, Master's/Doctoral Program in Life Science, Innovation (T-LSI), School of Integrative and Global Majors (SIGMA), University of Tsukuba, Wako, Saitama, Japan)

O-19 Distinct types of stem cell divisions determine organ regeneration and aging in hair follicles

Hiroyuki Matsumura¹, Nan Liu¹, Daisuke Nanba¹, Shizuko Ichinose², Aki Takada¹, Sotaro Kurata³, Hironobu Morinaga¹, Yasuaki Mohri¹, Adèle De Arcangelis⁴, Shigeo Ohno⁵, Emi K. Nishimura¹
 (¹Department of Stem Cell Biology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan., ²Research Center for Medical and Dental Sciences, Tokyo Medical and Dental University, Tokyo, Japan., ³Beppu Garden-Hill Clinic, Kurata Clinic, Beppu City, Japan., ⁴Institut de Génétique et de Biologie Moléculaire et Cellulaire, Department of Development and Stem Cells, CNRS UMR7104, Inserm U1258, Université de Strasbourg, Illkirch, France., ⁵Department of Molecular Biology, Yokohama City University School of Medicine, Kanazawa, Yokohama, Japan)

Coffee Break**14:35~14:50****Session 7: Cancer Stem Cell****14:50~16:05****Chair Atsushi Hirao**

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

Invited Lecture**O-20 Epithelial Mesenchymal Transition (EMT) in developmental and cancer biology**

Guojun SHENG, Sofiane HAMIDI, Hiroki NAGAI, Galym ISMAGULOV, Wei WENG
 (International Research Center for Medical Sciences, Kumamoto University)

Invited Lecture**O-21 Somatic mutations in human ulcerative colitis epithelium**

Kosaku Nanki^{1,2}, Toshiro Sato²
 (¹Department of Gastroenterology, Keio University School of Medicine, ²Department of Organoid Medicine, Keio University School of Medicine)

Invited Lecture**O-22 Metabolic regulation of cancer cell fate in myeloid leukemia**

Takahiro Ito
 (Institute for Frontier Life and Medical Sciences, Kyoto University)

Keynote Lecture III

16:05~16:55

Chair Yukiko Gotoh

(Graduate School of Pharmaceutical Sciences, The University of Tokyo)

**KL-3 Investigation of human neurological diseases using iPSCs and GM
Non-human Primates**

Hideyuki Okano

(Keio University School of Medicine)

Award Announcement

16:55~17:05

Closing Remarks

17:05~17:10

Next Organizer Yasuhiro Yamada

Poster Session

Poster Session 1: Tissue Stem Cell

P-01 GFII Is a Downstream Target of EVII in Normal Hematopoiesis

Akira Chiba, Yosuke Masamoto, Hideaki Mizuno, Mineo Kurokawa
(Department of Hematology and Oncology, Graduate School of Medicine, The University of Tokyo)

P-02 Dysfunction of the proteoglycan Tsukushi causes hydrocephalus through altered neurogenesis in the subventricular zone in mice

Kunimasa Ohta^{1,2}, Shah Adil Ishtiyahq Ahmad², Naofumi Ito²
(¹Kyushu University, ²Kumamoto University)

P-03 NRP2⁺ human mesenchymal stem cells have stemness-associated properties

Kotaro Tanaka¹, Rintaro Yoshikawa¹, Satoru Miyagi¹, Takashi Suyama^{1,2},
Hiromi Miyauchi^{1,2}, Yuko Kato^{1,2}, Ayako Watanabe¹, Kenichi Miyamoto¹,
Yumi Matsuzaki^{1,2}
(¹Department of Life Science, Faculty of Medicine, Shimane University, ²PuREC Co., Ltd.)

P-04 Defining diversity and similarity of epithelial stem cell populations and their anatomical environment in murine skin and oral mucosa

Yen Xuan Ngo^{1,2,3}, Hiroko Kato⁴, Kenji Izumi⁴, Hiromi Yanagisawa^{2,5}, Aiko Sada^{2,3}
(¹Ph.D. Program in Human Biology, School of Integrative and Global Majors, University of Tsukuba, Tsukuba, Japan, ²Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Tsukuba, Japan, ³International Research Center for Medical Sciences (IRCMS), Kumamoto University, Kumamoto, Japan, ⁴Graduate School of Medical and Dental Sciences, Niigata University, Japan, ⁵Faculty of Medicine, University of Tsukuba, Tsukuba, Japan)

P-05 Biological effect of radiation exposure on clonal proliferation of mammary stem cells using a lineage tracing technology

Daisuke Iizuka, Chizuru Tsuruoka, Mayumi Shinagawa, Masaaki Sunaoshi,
Tatsuhiko Imaoka, Shizuko Kakinuma
(Department of Radiation Effects Research, National Institute of Radiological Sciences, QST)

P-06 Fanconi Anemia protein FANCD2 confers with Replication Stress through the Hematopoietic Stem Cell expansion in Fetal Liver

Makiko Mochizuki-Kashio¹, Yoon me Young², Theresa Menna³, Markus Grompe⁴,
Ayako Nakamura-Ishizu¹, Peter Kurre³
(¹Department of Anatomy, Department of Medicine, Tokyo Women's Medical University, Tokyo, ²Committee on Immunology, Graduate Program in Biosciences, University of Chicago, Chicago, ³Comprehensive Bone Marrow Failure Center, Children's Hospital of Philadelphia; Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA., ⁴Department of Pediatrics, Papé Family Pediatric Research Institute, Pediatric Blood & Cancer Biology Program, Stem Cell Center, Oregon Health & Science University, Portland, OR.)

P-07 The metabolic fitness corresponding to chromatin accessibility patterns is essential for hematopoietic stem cell regulations

Terumasa Umemoto¹, Alban Johansson¹, Shah Adil Ishtiyag Ahmad¹,
Michihiro Hashimoto², Sho Kubota³, Haruki Odaka⁴, Takumi Era⁴, Goro Sashida³,
Toshio Suda^{2,5}

(¹Laboratory of Hematopoietic Stem Cell Engineering, International Research Center for Medical Sciences, Kumamoto University, ²Laboratory of Stem Cell Regulation, International Research Center for Medical Sciences, Kumamoto University, ³Laboratory of Transcriptional Regulation in Leukemogenesis, International Research Center for Medical Sciences, Kumamoto University, ⁴Department of Cell Modulation, Institute of Molecular Embryology and Genetics, Kumamoto University, ⁵Cancer Science Institute of Singapore, National University of Singapore)

P-08 Environmental optimization to maintain the function of hematopoietic stem cells after genome editing

Kohei Shiroshita^{1,2}, Hiroshi Kobayashi¹, Keiyo Takubo¹

(¹Department of Stem Cell Biology, Research Institute, National Center for Global Health and Medicine, ²Division of Hematology, Department of Internal Medicine, Keio University School of Medicine)

P-09 Characterization of Thpo-induced metabolic changes upon HSC induction to quiescence

Ayako Nakamura-Ishizu
(Tokyo Women's Medical University)

P-10 Dynamics of DNA double-strand break repair of stem and mature cells in rat mammary gland

Kento Nagata¹, Yukiko Nishimura¹, Yuya Hattori², Ritsuko Watanabe³, Keiji Suzuki⁴,
Shizuko Kakinuma¹, Tatsuhiko Imaoka¹

(¹Department of Radiation Effects Research, National Institute of Radiological Sciences, National Institutes for Quantum and Radiological Science and Technology, ²Department of Systems and Control Engineering, School of Engineering, Tokyo Institute of Technology, ³Institute for Quantum Life Science, National Institutes for Quantum and Radiological Science and Technology, ⁴Department of Radiation Medical Sciences, Atomic Bomb Disease Institute, Nagasaki University)

P-11 The chromatin remodeling factor BRM maintains the hematopoietic stem cell quiescence via repression of inflammatory stress signaling

Eriko Nitta¹, Hiroki Kiriyama¹, Hiroki Miyachi¹, Nonoko Kawabata¹,
Tsuyoshi Imasaki¹, Naoki Itokawa², Shuhei Koide², Masayuki Yamashita²,
Motohiko Oshima², Toshio Suda³, Atsushi Iwama², Ryo Nitta¹

(¹Kobe University Graduate School of Medicine, ²Institute of Medical Science, University of Tokyo, ³Cancer Science Institute of Singapore, National Institute of Singapore)

P-12 Melanocyte stem cell dynamics underlie de novo melanomagenesis

Sally Eshiba¹, Takeshi Namiki², Yasuaki Mohri¹, Naotaka Serizawa¹,
Takakazu Shibata³, Hironobu Morinaga¹, Daisuke Nanba¹, Keiko Miura⁴,
Masaru Tanaka⁵, Hisashi Uhara⁶, Hiroo Yokozeki², Toshiaki Saida⁷,
Emi K. Nishimura¹

(¹Department of Stem Cell Biology, Medical Research Institute, Tokyo Medical and Dental University, Japan, ²Department of Dermatology, Medical Research Institute, Tokyo Medical and Dental University, Japan, ³Medical Corporation Shibata Dermatology Clinic, Japan, ⁴Department of Pathology, Medical Research Institute, Tokyo Medical and Dental University, Japan, ⁵Department of Dermatology, Tokyo Women's Medical University Medical Center East, Tokyo, Japan, ⁶Department of Dermatology, Sapporo Medical University School of Medicine, Sapporo, Japan, ⁷Shinshu University, Matsumoto, Japan)

P-13 BMP signaling suppresses Gemc1 expression and ependymal differentiation of mouse telencephalic progenitors

Hanae Omiya, Shima Yamaguchi, Tomoyuki Watanabe, Kuniya Takaaki,
Yujin Harada, Daichi Kawaguchi, Yukiko Gotoh
(Graduate School of Pharmaceutical Sciences, The University of Tokyo)

P-14 Low dose-rate irradiation preferentially damages mitochondrial function of the more undifferentiated hematopoietic cells

Yoshinori Ohno¹, Kyoko Suzuki-Takedachi², Yun Guo³, Naoto Shirasu¹,
Motoaki Ohtsubo⁴, Yoshihiro Takihara^{2,5}, Shin'ichiro Yasunaga¹
(¹Dept. Biochem., Facul. Med., Fukuoka Univ., ²Dept. Stem Cell Biol., RIRBM, Hiroshima Univ.,
³Dept. Immunol., Grad. Sch. Biomed. Sci., Hiroshima Univ., ⁴Dept. Food and Ferment. Sci.,
Beppu Univ., ⁵Japanese Red Cross Kinki Block Blood Center.)

P-15 Dynamic changes in the chromatin accessibility during neuronal differentiation

Yusuke Kishi, Seishin Sakai, Merve Bilgic, Yukiko Gotoh
(Graduate School of Pharmaceutical Sciences, The University of Tokyo)

Poster Session 2: Multi-/pluri-potent Stem Cell (iPS/ES)**P-16 An investigation of human cardiac pacemaker cells differentiation process using human induced pluripotent stem cells visualizing HCN4/Shox2 gene expression**

Takayuki Wakimizu, Motokazu Tsuneto, Yasuaki Shirayoshi, Ichiro Hisatome
(Department of Regenerative Medicine and Therapeutics, Graduate School of Medical Science,
Tottori University)

P-17 Role of PRC1.6 Polycomb complex for repression of ZGA- and germline-related genes in pluripotent stem cells

Mitsuhiro Endoh¹, Haruhiko Koseki², Hitoshi Niwa¹
(¹IMEG, Kumamoto University, ²RIKEN IMS)

P-18 PRC1.6-dependent and -independent repression of meiosis-related genes by MGA with its sophisticated use of two distinct DNA binding domains

Kousuke Uranishi, Yuka Kitamura, Ayumu Suzuki, Masataka Hirasaki,
Masazumi Nishimoto, Akihiko Okuda
(Saitama Medical University)

P-19 Polycomb repressive complex 2 coordinates total glycome dynamics during the mouse naïve-to-primed pluripotency state transition

Hayato Ota¹, Federico Pecori¹, Ikuko Yokota², Hisatoshi Hanamatsu², Taichi Miura³,
Chika Ogura¹, Jun-ichi Furukawa², Shinya Oki⁴, Kazuo Yamamoto⁵, Osamu Yoshie⁶,
Shoko Nishihara¹
(¹Department of Bioinformatics, Graduate School of Engineering, Soka University,
²Department of Advanced clinical glycobiology, Faculty of Medicine and Graduate School of
Medicine, Hokkaido University, ³National Institute of Radiological Sciences (NIRS), National
Institutes for Quantum and Radiological Science and Technology, ⁴Department of Drug
Discovery Medicine, Graduate School of Medicine, Kyoto University, ⁵Department of
Integrated Biosciences, Graduate School of Frontier Sciences, The University of Tokyo,
⁶Health and Kampo Institute)

P-20 Mucin-type O-glycosylation regulates the pluripotency of mouse embryonic stem cells via Wnt receptor endocytosis

Miki Mori¹, Federico Pecori², Yoshihiro Akimoto³, Jun-ichi Furukawa⁴,
Yasuro Shinohara⁵, Yuzuru Ikehara⁶, Shoko Nishihara⁷

(¹Department of Life Sciences, Graduate School of Science and Engineering, Soka University,
²Laboratory of Cell Biology, Department of Bioinformatics, Graduate School of Engineering,
Soka University, ³Department of Anatomy, Kyorin University School of Medicine,
⁴Department of Advanced clinical glycobiology, Faculty of Medicine and Graduate School of
Medicine, Hokkaido University, ⁵Department of Pharmacy, Kinjo Gakuin University,
⁶Department of Molecular and Tumor Pathology, Graduate School of Medicine, Chiba
University, ⁷Glycan & Life System Integration Center (GaLSIC), Faculty of Science and
Engineering, Soka University)

P-21 Max regulates the transition from mitosis to meiosis in mouse ESCs and PGCs

Ayumu Suzuki¹, Kousuke Uranishi¹, Yuka Kitamura¹, Masazumi Nishimoto²,
Akihiko Okuda¹

(¹Research Center for Genomic Medicine, Saitama Medical University, ²Biomedical Research
Center, Saitama Medical University)

Poster Session 3: Cancer Stem Cell

P-22 Polymer-based elucidation of molecular basis underlying cancer stem cell-mediated niche reconstruction and glioma recurrence

Kouichi Tabu, Tetsuya Taga

(Department of Stem cell regulation, Medical Research Institute, Tokyo Medical and Dental
University (TMDU))

P-23 miR-93 targets WASF3 and functions as a metastasis suppressor in human breast cancer stem cells

Yohei Shimono^{1,2}, Naoki Shibuya², Tatsunori Nishimura³, Noriko Gotoh³,
Yoshihiro Kakeji²

(¹Fujita Health University, ²Kobe University Graduate School of Medicine, ³Cancer Research
Institute, Kanazawa University)

P-24 Niche-mimicking polymer-based characterization of human pancreatic cancer stem cells

Mariko Nagane¹, Kouichi Tabu¹, Yoshitaka Murota¹, Shinji Tanaka², Tetsuya Taga¹

(¹Department of Stem Cell Regulation, Medical Research Institute, Tokyo Medical and Dental
University, ²Department of Molecular Oncology, Graduate school of Medical and Dental
Sciences, Tokyo Medical and Dental University)

P-25 Effect of ionizing radiation on balance between basal and luminal cell populations in rat mammary epithelium

Tatsuhiko Imaoka¹, Ken-ichi Kudo², Yukiko Nishimura¹, Keiji Suzuki³, Kento Nagata¹,
Mayumi Nishimura¹, Kazuhiro Daino¹, Shizuko Kakinuma¹

(¹National Institutes for Quantum and Radiological Science and Technology, ²Fukushima
Medical University, ³Nagasaki University)

P-26 Age-dependent thymus regeneration by activation of PI3K-AKT-mTOR pathway in B6C3F1 mice during thymic lymphomagenesis after irradiation

Masaaki Sunaoshi¹, Benjamin J. Blyth², Yi Shang¹, Chizuru Tsuruoka¹,
Takamitsu Morioka¹, Mayumi Shinagawa¹, Mari Ogawa¹, Yoshiya Shimada³,
Akira Tachibana⁴, Daisuke Iizuka¹, Shizuko Kakinuma¹

(¹Radiat. Effects Res., Nat. Inst. Radiol. Sci., QST, ²Cancer Res. Div., Peter MacCallum Cancer
Centre, ³Inst. Environ. Sci., ⁴Grad. Sch. Sci. Eng., Ibaraki Univ.)

P-27 IRAK1/4-NFκB-PD-L1 axis is crucial for imatinib-insensitivity of CML LSCs

Yosuke Tanaka, Susumu Goyama, Toshio Kitamura
(The University of Tokyo, The Institute of Medical Science)

P-28 A mechanism of oncogenic self-renewal mediated by MLL and MOZ complexes

Akihiko Yokoyama
(National Cancer Center Tsuruoka Metabolomics Laboratory)

Poster Session 4: Microenvironment**P-29 A novel YAP/TAZ activator restores bone marrow microenvironment and promotes hematopoietic regeneration**

Shun Uemura¹, Masayuki Yamashita¹, Ayako Aihara², Taito Nishino²,
Atsushi Iwama¹
(¹Division of Stem Cell and Molecular Medicine, Center for Stem Cell Biology and Regenerative Medicine, The Institute of Medical Science, The University of Tokyo, ²Biological Research Laboratories, Nissan Chemical Corporation)

P-30 Non-neuronal acetylcholine in the bone marrow regulates B cell differentiation

Shinya Fujita^{1,2}, Takayuki Morikawa¹, Yuki Sugiura³, Takako Hishiki³, Maiko Sezaki⁴,
Hitoshi Takizawa⁴, Keisuke Kataoka⁵, Makoto Suematsu³, Keiyo Takubo¹
(¹Department of Stem Cell Biology, National Center for Global Health and Medicine Research Institute, Japan, ²Division of Hematology, Keio University School of Medicine, ³Division of Biochemistry, Keio University School of Medicine, ⁴Laboratory of Stem Cell Stress, IRCMS, Kumamoto University, Kumamoto, Japan, ⁵Division of Hematology, Keio university School of Medicine)

P-31 *Akkermansia Muciniphila* induces long-term sustained extramedullary hematopoiesis

Yuxin Wang¹, Tatsuya Morishima^{1,2}, Gaku Nakato³, Shinji Fukuda^{3,4,5},
Hitoshi Takizawa¹
(¹Laboratory of Stem Cell Stress, International Research Center for Medical Sciences, Kumamoto University, ²Laboratory of Stem Cell Engineering, International Research Center for Medical Sciences, Kumamoto University, ³Intestinal Microbiota Project, Kanagawa Institute of Industrial Science and Technology (KISTEC-KAST), ⁴Institute for Advanced Biosciences (IAB), Keio University, ⁵Transborder Medical Research Center, University of Tsukuba)

P-32 CD271+CD51+ human mesenchymal stem/stromal cells possess enhanced chondrogenic potential towards humanized ossicle generation

Maiko Sezaki¹, Subinoy Biswas¹, Pui-Yu Ho¹, Shuhei Koide², Takeshi Miyamoto³,
Atsushi Iwama², Hitoshi Takizawa¹
(¹International Research Center for Medical Sciences, Kumamoto University, Kumamoto, Japan, ²The Institute of Medical Sciences, The University of Tokyo, Tokyo, Japan, ³Department of Orthopaedic Surgery, Faculty of Life Sciences, Kumamoto University, Kumamoto, Japan)

P-33 Nitric oxide-dependent vasodilation maintains physiological hypoxia and local crawling of hematopoietic stem cell in bone marrow

Takayuki Morikawa¹, Shinya Fujita^{1,2}, Toshitada Yoshihara³, Reiko Sakaguchi⁴,
Yasuo Mori⁴, Seiji Tobita³, Keiyo Takubo¹
(¹Department of Stem Cell Biology, Research Institute, National Center for Global Health and Medicine, ²Division of Hematology, Keio University School of Medicine, ³Graduate School of Science and Technology, Gunma University, ⁴Laboratory of Molecular Biology, Department of Synthetic Chemistry and Biological Chemistry, Graduate School of Engineering, Kyoto University)

P-34 The membrane-linked adaptor FRS2b fashions a cytokine-rich inflammatory microenvironment that promotes breast cancer carcinogenesis

Yasuto Takeuchi¹, Natsuko Kimura², Takahiko Murayama¹, Yukino Machida², Daisuke Iejima², Tatsunori Nishimura¹, Reiko Sakamoto³, Mizuki Yamamoto⁴, Naoki Itano⁵, Yusuke Inoue⁶, Masataka Ito⁷, Nobuaki Yoshida³, Jun-ichiro Inoue⁴, Kouichi Akashi⁸, Hideyuki Saya⁹, Koji Fujita¹⁰, Masahiko Kuroda¹⁰, Issay Kitabayashi¹¹, Arinobu Tojo², Noriko Gotoh¹

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Poster Session 5: Organoid

P-35 Epithelial expression of Gata4 and Sox2 regulates specification of the squamous-columnar junction via MAPK/ERK signaling in murine stomach

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P-36 Conceptual basis of lineage shift between intestinal epithelium and hepatocytes

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P-37 Generation of allogenic iPSC-derived three-dimensional retinal sheet for first-in-human clinical research

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Poster Session 6: Other**P-38 Phospholipid metabolism adaptation induces drug resistance in IDH mutant AML cells**

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P-39 Taurine Modification of Mitochondrial tRNAs is Indispensable for Fetal Erythroid Differentiation

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P-40 演題取り下げ**P-41 The expansion of pancreatic insulin-producing cells for the amelioration of diabetic mellitus**

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P-42 Midazolam anesthesia modifies chromatin landscape to promote neural stem cell dormancy

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P-43 Germ cell specific Mga splicing variant might function as a fail-safe in meiotic process

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