Friday, May 23. The 1st Day

Opening Remarks 12:30～12:40

Keynote Lecture 1 12:40～13:30

Chair Noriko Gotoh
(Kanazawa University)

KL1

Somatic mosaicism and cancer

Presenter Seishi Ogawa
(Department of Pathology and Tumor Biology, Kyoto University)

Short Break 13:30～13:40

Session 1: iPS, tissue specific stem cells 13:40～15:45

Chair Koji Eto
(CiRA)

O1-01 (13:40～13:55)

Development of universal off-the-shelf T cells regenerated from pluripotent stem cells for the treatment of COVID-19

Hiroshi Kawamoto[1], Takakazu Kawase[2], Seiji Nagano[1]
([1]Laboratory of Immunology, Institute for Frontier Life and Medical Sciences, Kyoto University, Kyoto, Japan, [2]Laboratory of Regenerative Immunology, International Center for Cell and Gene Therapy, Fujita Health University, Toyoake, Japan)

O1-02 (13:55～14:10)

TP53-TAU axis regulates microtubule bundling to orchestrate alveolar stem cell morphological change during regeneration

Satoshi Konishi[1], Liu Shuyu[1], Naoya Miyashita[1], Yoshihiko Kobayashi[2], Vera Hutchinson[3], Ashna Sai[1], Pankaj Agarwar[1], Jichao Chen[4], Aleksandra Tata[1], Purushothama Rao Tata[1]
([1]Department of Cell Biology, Duke University School of Medicine, [2]Medical Research Laboratory, Institute of Integrated Research, Institute of Science Tokyo, [3]Department of Pulmonary Medicine, The University of Texas MD Anderson Cancer Center, [4]Department of Pediatrics, Perinatal Institute Division of Pulmonary Biology, University of Cincinnati and Cincinnati Children's Hospital Medical Center, Cincinnati)

O1-03 (14:10～14:25)

The balance between IFN-γ and ERK/MAPK signaling activities safeguards the intestinal stem cell population during aging

May Nakajima-Koyama[1], Eisuke Nishida[2], Takuya Yamamoto[1,3,4]
([1]Center for iPS Cell Research and Application (CiRA), Kyoto University, [2]RIKEN Center for Biosystems Dynamics Research (BDR), [3]Institute for the Advanced Study of Human Biology (ASHBi), Kyoto University, [4]Medical-Risk Avoidance Based on iPS Cells Team, RIKEN Center for Advanced Intelligence Project (AIP))

O1-04 (14:25～14:40)

iPS cell-derived NKT cells retain the adjuvant activity of inducing memory phenotype T cells

Takahiro Aoki[1,2], Yun-Hsuan Chang[1], Haruhiko Koseki[1]
([1]RIKEN IMS, [2]Chiba University)

O1-05 (14:40～14:55)

Progenitor reprogramming for cellular rejuvenation by defined factors

Sudip Kumar Paul[1], Ikuyo Yoshino[1], Sou Nakamura[2], Satoko Sakurai[3], Liu Yijing[1], Maria Alejandra Kanashiro[1], Susumu Tashiro[4], Michiaki Mukai[4], Masamitsu Sone[1], Hisaya Kato[5], Yoshiro Maezawa[5], Motohiko Oshima[6], Masaki Fukuyo[7], Bahityar Rahmutulla[7], Kyoko Tsujimura[1], Mahito Nakanishi[8], Makoto Ikeya[2], Atsushi Kaneda[7], Atsushi Iwama[6], Koutaro Yokote[9], Takuya Yamamoto[3], Koji Eto[2], Naoya Takayama[1]
([1]Department of Regenerative Medicine, Graduate School of Medicine, Chiba University, Chiba, Japan., [2]Department of Clinical Application, Center for iPS Cell Research and Application (CiRA), Kyoto University, Kyoto, Japan, [3]Department of Life Science Frontiers, Center for iPS Cell Research and Application (CiRA), Kyoto University, Kyoto, Japan, [4]Department of Orthopedic Surgery, Graduate School of Medicine, Chiba University, Chiba, Japan., [5]Department of Endocrinology, Hematology and Gerontology, Graduate School of Medicine, Chiba University, Chiba, Japan., [6]Division of Stem Cell and Molecular Medicine, Center for Stem Cell Biology and Regenerative Medicine, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan., [7]Department of Molecular Oncology, Graduate School of Medicine, Chiba University, Chiba, Japan., [8]TOKIWA Bio, Tsukuba, Japan., [9]Chiba University, Chiba, Japan.)

Invited Lecture

O1-06 (14:55～15:20)

Modeling Human Thymic Development and Regenerating Thymic Function Using iPSC Technology

Yoko Hamazaki
([1]Center for iPS Cell Research and Application (CiRA), [2]Laboratory of Immunobiology, Graduate School of Medicine, Kyoto University)

Invited Lecture

O1-07 (15:20～15:45)

Synthetic RNA technologies for cell programming

Hirohide Saito
(Institute for Quantitative Biosciences, The University of Tokyo/Center for iPS Cell Research and Application, Kyoto University)

Coffee Break 15:45～16:00

Session 2: haematopoietic stem cells, early development, germ cells 16:00～18:10

Chair Atsushi Iwama
(IMSUT)

O2-01 (16:00～16:15)

Skin inflammation triggers disease-driving BM granulopoiesis program during psoriasis

Tomson Kosasih[1], Kanako Wakahashi[1], Aiko Sada[2], Hitoshi Takizawa[1,3]
([1]Laboratory of Stem Cell Stress, International Research Center for Medical Sciences, Kumamoto University, [2]Laboratory of Skin Regeneration and Aging, Medical Institute of Bioregulation, Kyushu University, [3]Center for Metabolic Regulation of Healthy Aging (CMHA), Kumamoto University)

O2-02 (16:15～16:30)

Irradiation conditioning with head shielding mitigates acute graft-versus-host disease in allogeneic transplants

Ismael Adolf[1], Sayuri Nakata[1], Takanori Teshima[2], Hitoshi Takizawa[1]
([1]Laboratory of Stem Cell Stress, International Research Center for Medical Sciences, Kumamoto University, Kumamoto, [2]Department of Hematology, Hokkaido University Graduate School of Medicine, Sapporo)

Invited Lecture

O2-03 (16:30～16:55)

Immune privilege identifies the most primitive hematopoietic stem cells and their special vascular niche

Miwako Kakiuchi
(Department of Preventive Medicine, Graduate School of Medicine, The University of Tokyo)

Invited Lecture

O2-04 (16:55～17:20)

Foxp2-Egr1 Axis: A Key Regulator of Hematopoietic Stem Cell Quiescence and Self-Renewal with Therapeutic Potential

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

Invited Lecture

O2-05 (17:20～17:45)

Clonal expansion of non-sperm-forming spermatogonial stem cells in aged mouse testes

Kenshiro Hara
(Graduate School of Agricultural Science, Tohoku University)

Invited Lecture

O2-06 (17:45～18:10)

Embryonic nuclear structure for gene regulation and preimplantation development

Kei Miyamoto
(Kyushu University)

Short Break 18:10～18:20

Keynote Lecture 2 18:20～19:10

Chair Fumihiko Ishikawa
(RIKEN)

KL2

Clonal hematopoiesis carrying ASXL1 mutations induces hematological malignancies and atherosclerosis with distinct mechanisms

Presenter Toshio Kitamura
(Institution of Biomedical Research and Innovation, Foundation for Biochemical Research and Innovation at Kobe/Graduate School of Pharmaceutical Sciences, The University of Tokyo)

Short Break 19:10～19:20

Poster Session 19:20～21:20

P-1

E3 ubiquitin ligase Cop1 modulates hematopoiesis by regulating the protein stability of transcription factors

Yoshitaka Sunami, Takuro Nakamura
(IMS, Tokyo Medical University)

P-2

Pot1a is Essential for Maintaining the Function of Hematopoietic Niche

Yuki Esaki, Kentaro Hosokawa, Hisayuki Yao, Fumio Arai
(Department of Stem Cell Biology and Medicine, Graduate School of Medical Sciences, Kyushu University)

P-3

***In vitro* CRISPR KO screening for functional CHIP mutations**

Daichi Ito, Takako Yokomizo, Atsushi Iwama
(The Institute of Medical Science, The University of Tokyo)

P-4

Tracking Clusterin expression in hematopoietic stem cells reveals their heterogeneous composition across the lifespan

Shuhei Koide, Atsushi Iwama
(The Institute of Medical Science, The University of Tokyo)

P-5

Defining epithelial stem cell heterogeneity through undulating structures of the skin and oral mucosa

Mizuho Ishikawa[1,2], Xuan Ngo Yen[2,3,4], Ikuto Nishikawa[1,2,5,6], Hiroko Kato[7,8], Ryo Maeda[9], Ryosuke Mizuno[10], Jun Mizuno[11], Kenji Izumi[7], Hiromi Yanagisawa[3,12], Aiko Sada[1,2,3]
([1]Division of Skin Regeneration and Aging, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan, [2]International Research Center for Medical Sciences (IRCMS), Kumamoto University, Kumamoto, Japan, [3]Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Tsukuba, Japan, [4]Ph.D. Program in Human Biology, School of Integrative and Global Majors, University of Tsukuba, Tsukuba, Japan, [5]Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan, [6]Graduate School of Medical Sciences, Kumamoto University, Kumamoto, Japan, [7]Division of Biomimetics, School of Medical and Dental Sciences, Niigata University, Niigata, Japan, [8]Research Center for Advanced Oral Science, School of Medical and Dental Sciences, Niigata University, Niigata, Japan, [9]Taki Chemical Co., Ltd., Kakogawa, Hyogo, Japan, [10]Komatsuseiki Kosakusho Co., Ltd., Suwa, Nagano, Japan, [11]National Cheng Kung University, Tainan, Taiwan, [12]Faculty of Medicine, University of Tsukuba, Tsukuba, Japan)

P-6

Spinal Cord Injury-Induced Depression and Cognitive Dysfunction Mediated by Gut Dysbiosis

Shu Kunoh[1], Hasan Raslan[1], Yicheng Zhu[1], Shotaro Kai[1], Taito Matsuda[2], Kinichi Nakashima[1]
([1]Kyushu University, [2]Nara Institute of Science and Technology)

P-7

Adipsin functions as an extracellular and intracellular regulator of lipid droplet formation during adipocyte stem cell differentiation

Behnoush Khaledian[1], Jumpei Yoshida[1,2], Masahiro Mizuno[1], Naoya Asai[3], Kenji Kawada[2], Yohei Shimono[1]
([1]Department of Biochemistry, Fujita Health University School of Medicine, [2]Department of Medical Oncology, Fujita Health University School of Medicine, [3]Department of Pathology, Fujita Health University School of Medicine)

P-8

Aging-dependent reduction of KAT7 (HBO1) activity impairs imMKCL-based platelet production by promoting immune properties

Wei-Yin Qiu, Sou Nakamura, Koji Eto
(Center for iPS Research and Application)

P-9

The therapeutic potential of mesenchymal stem cell-derived extracellular vesicles (MSC-EV) in triple negative breast cancer

Yun-Hsuan Chang[1], Cat-Khanh Vuong[2], Nhat-Hoang Ngo[2], Toshiharu Yamashita[2], Xiucai Ye[3], Yasunori Futamura[3], Mizuho Fukushige[2], Mana Obata-Yasuoka[4], Hiromi Hamada[4], Motoo Osaka[5], Yuji Hiramatsu[5], Tetsuya Sakurai[3], Osamu Ohneda[2]
([1]Laboratory for Developmental Genetics, RIKEN IMS, Japan, [2]Laboratory of Regenerative Medicine and Stem Cell Biology, University of Tsukuba, Japan, [3]Department of Computer Science, University of Tsukuba, Japan, [4]Department of Obstetrics and Gynecology, University of Tsukuba, Japan, [5]Department of Cardiovascular Surgery, University of Tsukuba, Japan)

P-10

Mga-PRC1.6 is crucial for the establishment of an epigenetic environment for meiotic genes

Kousuke Uranishi[1], Ayumu Suzuki[2], Masataka Hirasaki[2], Masazumi Nishimoto[2], Akihiko Okuda[2]
([1]Division of Biomedical Sciences, Research Center for Genomic Medicine, Saitama Medical University, [2]Division of Biomedical Sciences, Research Center for Genomic Medicine, Saitama Medical University)

P-11

Polycomb repressive complex 1 in the vicinity of the replication fork optimizes chromatin configuration to safeguard identities of the stem/progenitor cells

Junichiro Takano, Shinsuke Ito, Haruhiko Koseki
(Laboratory for Developmental Genetics, RIKEN Center for Integrative Medical Sciences)

P-12

Reducing the number of the most undifferentiated mouse spermatogonial stem cells impairs spermatogenesis

Kodai Fujihara[1,2], Sinnosuke Suzuki[1,2], Shosei Yoshida[1,2]
([1]Division of Germ Cell Biology, National Institute for Basic Biology, National Institutes of Natural Sciences, [2]Basic Biology Program, Graduate Institute for Advanced Studies, Graduate University for Advanced Studies (SOKENDAI))

P-13

BCAT1 drives disease progression via senescence and differentiation blockade through enzymatic and non-enzymatic functions in chondrosarcoma

Yoshiki Yamamoto[1], Makoto Nakagawa[2], John Glushka[3], Ayaka Maeno[4], Makoto Tsunoda[5], Eijiro Shimada[2], Fumihiko Nakatani[6], Kazuya Ichihara[7], Akinobu Matsumoto[7], Arthur Edison[3], Hironori Kaji[4], Junya Toguchida[8], Benjamin Alman[2], Takahiro Ito[1], Ayuna Hattori[1]
([1]Division of Cell Fate Dynamics and Therapeutics, Institute for Life and Medical Sciences (LiMe), Kyoto University, Kyoto, Japan., [2]Department of Orthopaedic Surgery, Duke University Medical Center, Durham, North Carolina, USA., [3]Complex Carbohydrate Research Center, University of Georgia, Athens, Georgia, USA., [4]Institute for Chemical Research, Kyoto University, Uji, Kyoto, Japan., [5]Graduate School of Pharmaceutical Sciences, The University of Tokyo, Bunkyo, Tokyo, Japan., [6]Deptartment of Musculoskeletal Oncology and Rehabilitation, NCCHC, Kashiwa, Japan., [7]Group of Gene Expression and Regulation, Department of Biological Sciences, Nagoya University, Nagoya, Japan., [8]Center for iPS Cell Research and Application, Kyoto University, Kyoto, Japan.)

P-14

Permeable lung vasculature provides chemo-resistant endothelial niche by producing SERPINE1 at the metastasis of breast cancer

Dan Shan[1], Tsunaki Hongu[1], Qiqige Saran[1], Hirokazu Kusunoki[1], Akihiko Ishimura[2], Takeshi Suzuki[2], Thordur Oskarsson[3], Noriko Gotoh[1,4]
([1]Division of Cancer Cell Biology, Cancer Research Institute, Kanazawa University, [2]Division of Functional Genomics, Cancer Research Institute, Kanazawa University, [3]Department of Molecular Oncology, H. Lee Moffit Cancer Center & Research Institute, Tampa, Florida, USA, [4]Institute for Frontier Science Initiative (InFiniti), Kanazawa University)

P-15

Inflammasome activation promotes the progression of myelodysplastic syndrome

Yaeko Nakajima-Takagi[1], Shohei Andoh[1], Takanori Fukuta[1], Makiko Miyota[1], Akiho Tsuchiya[1], Shuhei Koide[1], Motohiko Oshima[1], Yasuhito Nannya[2], Yoshihiro Hayashi[3,4], Hironori Harada[3], Atsushi Iwama[1]
([1]The Institute of Medical Science, The University of Tokyo, [2]Institute of Medical Science, The University of Tokyo, [3]Tokyo University of Pharmacy and Life Sciences, [4]College of Pharmaceutical Sciences, Ritsumeikan University)

P-16

Uncovering the RNA modomics on hematopoietic cell fate and leukemogenesis

Koutarou Nishimura, Daichi Inoue
(Department of Cancer Pathology, Graduate School of Medicine and Frontier Biosciences, Osaka University)

P-17

A mitochondrial one-carbon metabolism promotes breast cancer tumorigenesis and lung metastasis

Tsunaki Hongu[1], Yuming Wang[1], Tatsunori Nishimura[1], Takiko Daikoku[2], Ryoji Yao[3], Satoshi Kojo[4], Hiroshi Watarai[4], Tomoyoshi Soga[5], Noriko Gotoh[1,6]
([1]Division of Cancer Cell Biology, Cancer Research Institute, Kanazawa University, [2]Division of Animal Disease Model, Research Center for Experimental Modeling of Human Disease, [3]Department of Cell Biology, Cancer Institute, Japanese Foundation for Cancer Research, [4]Department of Immunology and Stem Cell Biology, Faculty of Medicine, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University, [5]Institute for Advanced Biosciences, Keio University, [6]InFiniti, Kanazawa University)

P-18

Lysine-arginine imbalance overcomes therapeutic tolerance governed by the transcription factor E3-lysosome axis in glioblastoma

Yongwei Jing, Masahiko Kobayashi, Atsushi Hirao
(Cancer Research Institute of Kanazawa University)

P-19

The roles of BCAA downstream metabolism in leukemia stem cell maintenance

Ririko Shinonaga[1,2], Amane Kishinmoto[1,2], Kenkyo Matsuura[1], Ayuna Hattori[1], Takahiro Ito[1]
([1]Cell Fate Dynamics and Therapeutics, Institute for Life and Medical Sciences, Kyoto University, [2]Graduate School of Pharmaceutical Sciences, Kyoto University)

P-20

Breaking Barriers in Human Developmental Study: Decoding Pancreatic Morphogenesis through iPSC-Derived Models

Soki Kimura, Kaho Fujii, Kenichiro Furuyama, Yoshiya Kawaguchi
(Center for iPS Cell Research and Application)

P-21

Elucidating Calcium Dynamics in PLT Biogenesis Using a Revised Model of Calcium Dependency

Xianji Jiang, Sou Nakamura, Koji Eto
(Kyoto University)

P-22

Dynamic movement of recombinant FGFR1-FRS2*α* complex observed at one molecule level by High Speed-Atomic Force Microscope (HS-AFM)

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

P-23

Exploring the Reprogramming Potential of MYCL for Rejuvenating Age-Associated Transcriptional Signatures in Mouse Islet Cells

Masaya Tsurumachi, Yasuhiro Yamada
(Graduate School of Medicine, The University of Tokyo)

P-24

Venetoclax and proteasome inhibitors synergistically induces apoptosis in AML cells

Chengxi Li[1], Toshio Kitamura[2,3], Susumu Goyama[4], Yutaka Enomoto[3]
([1]Department of Internal Medicine, Graduate School of Medicine, The University of Tokyo, [2]Institute of Biomedical Research Innovation, Foundation for Biomedical Research Innovation at Kobe, [3]Molecular Pharmacology of Malignant Diseases, Graduate School of Pharmaceutical Sciences, The University of Tokyo, [4]Division of Molecular Oncology, Graduate School of Frontier Sciences, The University of Tokyo)

P-25

Drug development targeting osteosarcomas with reprogramming technologies

Yihan Wang, Masato Saito, Yasuhiro Yamada
(The University of Tokyo)

Saturday, May 24. The 2nd Day

Session 3: Cancer stem cells and leukemia 10:00～11:50

Chair Atsushi Hirao
(Kanazawa University)

O3-01 (10:00～10:15)

ETV6 contributes to maintenance of leukemia stem cells in acute myeloid leukemia with high EVI1 expression

Toshiya Hino[1], Yosuke Masamoto[1,2], Ken Morita[1], Hiroki Hayashida[1], Mineo Kurokawa[1,2]
([1]Department of Hematology and Oncology, Graduate School of Medicine, The University of Tokyo, [2]Department of Cell Therapy and Transplantation Medicine, The University of Tokyo Hospital)

O3-02 (10:15～10:30)

Epigenetic and post-transcriptional regulation of leukemia stem cell quiescence

Sumiko Takao[1,2], Victor Morell[2], Masahiro Uni[2], Alicia Slavit[2], Sophia Rha[2], Shuyuan Cheng[2], Laura K Schmalbrock[2], Fiona C Brown[2], Sergi Beneyto-Calabuig[3,4], Richard P Koche[2], Lars Velten[3,4], Atsushi Hirao[1,5], Alex Kentsis[2]
([1]Nano Life Science Institute at Kanazawa University, [2]Memorial Sloan Kettering Cancer Center, [3]CRG Barcelona Institute of Science and Technology, [4]Universitat Pompeu Fabra, [5]Cancer Research Institute at Kanazawa University)

O3-03 (10:30～10:45)

RNA binding protein ZCCHC24 regulates tumorigenicity in triple-negative breast cancer

Yutaro Uchida[1], Ryota Kurimoto[1], Tomoki Chiba[1], Takahide Matsushima[1], Goshi Oda[1], Iichiroh Onishi[1], Yasuto Takeuchi[2], Noriko Gotoh[2], Hiroshi Asahara[1]
([1]Institute of Science Tokyo, [2]Kanazawa University)

O3-04 (10:45～11:00)

Tumor heterogeneity of activated branched-chain amino acid metabolism regulates the aggressive nature in human triple-negative breast cancer

Kenkyo Matsuura[1], Itsuki Kuroda[1,2], Ririko Shinonaga[1,2], Mizuki Yamamoto[3], Jun-ichiro Inoue[4], Ayuna Hattori[1], Hiromi Imamura[5,6], Takahiro Ito[1]
([1]Institute for Life and Medical Sciences, Kyoto University, [2]Graduate School of Pharmaceutical Sciences, Kyoto University, [3]Institute of Medical Sciences, The University of Tokyo, [4]The University of Tokyo Pandemic Preparedness, Infection and Advanced Research Center (UTOPIA), [5]Graduate School of Biostudies, Kyoto University, [6]Organization of Research Initiatives, Yamaguchi University)

Invited Lecture

O3-05 (11:00～11:25)

Mechanisms of action and resistance in histone methylation-targeted therapy for malignant lymphomas

Makoto Yamagishi
(Department of Computational Biology and Medical Sciences, Graduate School of Frontier Sciences, The University of Tokyo)

Invited Lecture

O3-06 (11:25～11:50)

Immune cells derived from clonal hematpoiesis regulate cancer progression

Mamiko Sakata-Yanagimoto
(Department of Hematology, Institute of Medicine, University of Tsukuba)

Short Break 11:50～12:00

Lunch Seminar 12:00～12:40

Chair Seitaro Terakura
(Graduate School of Medicine, Nagoya University, Department of Hematology and Oncology)

LS

Somatic stem cells -Research and development for clinical application-

Presenter Tokiko Nagamura-Inoue
(IMSUT CORD, Department of Cell Processing and Transfusion, IMSUT Hospital, The Institute of Medical Science, The University of Tokyo)

Sponsored by : JCR Pharmaceuticals Co., Ltd.

Coffee Break 12:40～13:00

General Meeting 13:00～13:10

Short Break 13:10～13:20

Session 4: Organoids and cancer stem cells 13:20～15:05

Chair Shosei Yoshida

(National Institute for Basic Biology)

O4-01 (13:20～13:35)

Granulocyte-colony stimulating factor (G-CSF)-mediated interaction contributed to tumorigenesis, local recurrence and bone metastasis in triple negative breast cancer

Yasuto Takeuchi[1], Huazi Zhang[1], Takahiko Murayama[1], Kazuhiro Ikeda[2], Kuniko Horie[2], Satoshi Inoue[2], Masao Yano[3], Masahiko Tanabe[4], Satoko Ishikawa[5], Tetsuo Ota[5], Kei-ichiro Tada[6], Etsuo A. Susaki[7,8], Eishu Hirata[9], Makafumi Horie[10], Daichi Maeda[10], Koji Okamoto[11], Arinobu Tojo[12], Noriko Gotoh[1,13]

([1]Division of Cancer Cell Biology, Cancer Research Institute of Kanazawa University, Kanazawa University, [2]Division of Systems Medicine and Gene Therapy, Research Center for Genomic Medicine, Saitama Medical University, [3]Department of Breast Surgery, Minamimachida Hospital, [4]Department of Breast & Endocrine Surgery, Graduate School of Medicine, University of Tokyo, [5]Department of Gastroenterological Surgery, Kanazawa University, [6]Department of Surgery, Division of Mammary Gland and Endocrine Surgery, Nihon University School of Medicine, [7]Department of Biochemistry and Systems Biomedicine, Juntendo University Graduate School of Medicine, [8]Nakatani Biomedical Spatialomics Hub, Juntendo University Graduate School of Medicine, [9]Cancer Research Institute of Kanazawa University, Kanazawa University, [10]Department of Molecular and Cellular Pathology, Kanazawa University, [11]Teikyo University Advanced Comprehensive Research Organization, [12]Division of Molecular Therapy, Institute of Medical Science, University of Tokyo, [13]Institute for Frontier Science Initiative (InFiniti), Kanazawa University)

O4-02 (13:35～13:50)

Analysis of the interaction between granulocyte-colony stimulating factor receptor (G-CSFR)-expressing breast cancer stem cells and surrounding cells in bone metastatic niche

Huazi Zhang[1], Yasuto Takeuchi[1], Takahiko Murayama[1], Kazuhiro Ikeda[2], Kuniko Horie[2], Satoshi Inoue[2], Masao Yano[3], Masahiko Tanabe[4], Satoko Ishikawa[5], Tetsuo Ota[5], Keiichiro Tada[6], Etsuo A. Susaki[7,8], Eishu Hirata[1], Makafumi Horie[9], Daichi Maeda[9], Koji Okamoto[10], Arinobu Tojo[11], Noriko Gotoh[1,12]

([1]Division of Cancer Cell Biology, Cancer Research Institute of Kanazawa University, Kanazawa University, [2]Division of Systems Medicine and Gene Therapy, Research Center for Genomic Medicine, Saitama Medical University, [3]Department of Breast Surgery, Minamimachida Hospital, [4]Department of Breast & Endocrine Surgery, Graduate School of Medicine, University of Tokyo, [5]Department of Gastroenterological Surgery, Kanazawa University, [6]Department of Surgery, Division of Mammary Gland and Endocrine Surgery, Nihon University School of Medicine, [7]Department of Biochemistry and Systems Biomedicine, Juntendo University Graduate School, [8]Nakatani Biomedical Spatialomics Hub, Juntendo University Graduate School of Medicine of Medicine, [9]Department of Molecular and Cellular Pathology, Kanazawa University, [10]Teikyo University Advanced Comprehensive Research Organization, [11]Division of Molecular Therapy, Institute of Medical Science, University of Tokyo, [12]Institute for Frontier Science Initiative (InFiniti), Kanazawa University)

Invited Lecture

O4-03 (13:50～14:15)

Organoid system for human endodermal organ development modeling

Mitsuru Morimoto

(Laboratory for Lung Development and Regeneration, RIKEN Center for Biosystems Dynamics Research (BDR), Kobe 650-0047, Japan.)

Invited Lecture

O4-04 (14:15～14:40)

Programming multicellular patterns and dynamics with synthetic cell-cell communication

Satoshi Toda
(Institute for Protein Research, Osaka University)

Invited Lecture

O4-05 (14:40～15:05)

Development of an intestinal model using pluripotent stem cells and organ-on-a-chip technology

Kazuo Takayama
(Medical Research Institute, Institute of Integrated Research, Institute of Science Tokyo)

Coffee Break 15:05～15:20

Keynote Lecture 3 15:20～16:10

Chair Issay Kitabayashi
(Fujita Health University)

KL3

Supercompetitive stem cell dynamics drive squamous cancer evolution through epigenetic switching

Presenter Emi Nishimura, Hiroyuki Matsumura
(The Institute of Medical Science, The University of Tokyo)

Award Announcement 16:10～16:20

Closing Remarks 16:20～16:30