The 7th Stem Cell Research Symposium

Program

Date : **May 15 (Fri) - 16(Sat), 2009**

Venue : **Izumi Garden Gallery**

Director : **Hideyuki Okano**
Department of Physiology, Keio University School of Medicine

Organizer : **Stem Cell Research Symposium**
Cosponsor : **Keio University Global COE Program**
Education and Research Center for Stem Cell Medicine

Friday, May 15.　The First Day

Registration・Exhibit posters **9:00～9:30**

Opening Remarks　Director　Hideyuki Okano **9:30～9:40**
(Department of Physiology, Keio University School of Medicine)

Session 1：Hematopoietic Stem Cell **9:40～11:00**
Chair　Mineo Kurokawa
(Department of Hematology and Oncology, Graduate School of Medicine, University of Tokyo)

O-1　Characterization of hematopoietic clusters in the mouse embryo
Tomomasa Yokomizo and Elaine Dzierzak
(Erasmus University, Department of Cell Biology, Rotterdam, The Netherlands)

O-2　Characterization of hematopoietic stem cells in adult fish kidney
Isao Kobayashi[1], Tadaaki Moritomo[2], Toshio Suda[1]
([1]Department of Cell Differentiation , School of Medicine, Keio University, [2]Department of Veterinary Medicine, College of Bioresource Sciences, Nihon University)

O-3　Importance of Notch signals in hematopoietic homeostasis
Yukari Muguruma[1], Takashi Yahata[2], Yin Sheng[1], Katsuto Hozumi[3], Kiyoshi Ando[4]
([1]Division of Hematopoiesis, Research Center for Regenerative Medicine, [2]Department of Cell Transplantation and Regenerative Medicine, [3]Department of Immunology, [4]Department of Hematology, Tokai University School of Medicine)

O-4　Derivation of functional mature neutrophils from human embryonic stem cells
Yasuhisa Yokoyama[1, 2, 3], Takahiro Suzuki[1, 3], Mamiko Sakata-Yanagimoto[1, 2, 3], Keiki Kumano[1, 3], Katsumi Higashi[4], Tsuyoshi Takato[5], Mineo Kurokawa[3], Seishi Ogawa[1, 5, 6], and Shigeru Chiba[1, 2]
([1]Department of Cell Therapy and Transplantation Medicine, University of Tokyo Hospital, Tokyo; [2]Department of Clinical and Experimental Hematology, University of Tsukuba, Tsukuba; [3]Department of Hematology and Oncology, Graduate School of Medicine, University of Tokyo, Tokyo; [4]Department of Clinical Hematology, School of Health Sciences, Kyorin University, Tokyo; [5]Divison of Tissue Engineering, University of Tokyo Hospital, Tokyo; [6]The 21st Century COE Program, Graduate School of Medicine, University of Tokyo, Tokyo)

Special Lecture 1 **11:00～11:40**

Glycome analysis during differentiation of human embryonic stem cells
John Yu
(The Genomics Research Center, and Institute of Cellular & Organismic Biology Academia Sinica, Taiwan)

Poster Session **11:40～13:50**

Gallery B：lunch served

Secretary society **12:20～13:00**

Working Room 2

Session 2：Mesenchymal Stem Cell and Angiogenesis　13:50～15:10

Chair　Hiroshi Asahara

(Department of Systems BioMedicine, National Research Institute for Child Health and Development)

O-5　Co-transplantation of MSCs improves the engraftment of HSCs in nonhuman primates

Shigeo Masuda[1], Naohide Ageyama[2], Hiroaki Shibata[2], Yoko Obara[3], Tamako Ikeda[1], Kengo Takeuchi[4], Yasuji Ueda[5], Keiya Ozawa[3], Yutaka Hanazono[1]

([1] Division of Regenerative Medicine, Center for Molecular Medicine, Jichi Medical University, [2] Tsukuba Primate Research Center, National Institute of Biomedical Innovation, [3] Division of Hematology, Department of Medicine, Jichi Medical University, [4] Division of Pathology, The Cancer Institute, [5] Department of Gene Therapy, Graduate School of Medicine, Chiba University)

O-6　Prospective identification of Murine and Human Mesenchymal Stem Cells

Yumi Matsuzaki[1], Satoru Morikawa[1, 2], Yo Mabuchi[1] and Hideyuki Okano[1]

([1] Department of Physiology, Keio University School of Medicine, [2] Department of Dentistry and Oral Surgery, Keio University School of Medicine)

O-7　Converged signaling of Notch and β-catenin in VEGFR2$^+$ vascular progenitor cells confers arterial-venous specification

Kohei Yamamizu[1], Jun K.Yamashita[1,2]

([1] Laboratory of Stem Cell Differentiation Stem, Cell Research Center, Institute for Frontier Medical Sciences, Kyoto University, Kyoto, Japan, [2] Center for iPS Cell Research and Application, Institute for Integrated Cell-Material Sciences, Kyoto University, Kyoto, Japan)

O-8　Snail is required for TGF-β-induced endothelial-mesenchymal transition of embryonic stem cell-derived endothelial cells

Tetsuro Watabe[1], Takashi Kokudo[1], Yuka Suzuki[1], Yasuhiro Yoshimatsu[1], Tomoko Yamazaki[1], Kohei Miyazono[1]

([1]Department of Molecular Pathology, Graduate School of Medicine, University of Tokyo)

Special Lecture 2　15:10～15:50

The therapeutic plasticity of neural stem/precursor cells

Stefano Pluchino

(CNS Repair Unit, DIBIT II and Institute of Experimental Neurology (InSpe), San Raffaele Scientific Institute, via Olgettina 58, I-20132 Milan, Italy)

Coffee Break　15:50～16:20

Session 3 : Neural Stem Cell 16:20～17:40

Chair Hideyuki Okano

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

O-9 Role of TEAD1 in the proliferation of retinal pigment-cell progenitors

Michinori Kitagawa[1], Takumi Era[2]

([1]Signal Regulation, [2]Molecular Neurobiology, Institute of Molecular Embryology and Genetics, Kumamoto University)

O-10 Tsukushi is a Frizzled ligand that regulates the proliferation of neuronal stem/progenitor cells

Kunimasa Ohta[1], Ayako Ito[1,2], Yohei Shinmyo[1], Hideaki Tanaka[1,2]

([1]Department of Developmental Neurobiology, Graduate School of Medical Sciences, Kumamoto University, [2]Global COE, Kumamoto University)

O-11 A vascular niche factor for neural stem cells

Jun Namiki[1], Sayuri Suzuki[2], Shinsuke Shibata[3], Yumi Matsuzaki[3], Hideyuki Okano[3]

([1]Department of Emergency and Critical Care Medicine, [2]Center of Integrated Medical Research, [3]Department of Physiology, School of Medicine, Keio University)

O-12 Committed neuronal precursors confer astrocyte-differentiation potential on neural stem cells through Notch-signal mediated DNA demethylation during mouse brain development

Katsunori Semi[1], Masakazu Namihira[1, 2], Jun Kohyama[1], Tsukasa Sanosaka[1], Kinichi Nakashima[1]

([1] Laboratory of Molecular Neuroscience, Nara Institute of Science and Technology, [2] Department of Human Genetics, David Geffen School of Medicine, University of California at Los Angeles)

Special Lecture 3 17:40～18:20

The Use of Stem Cells or Their Progenitors in Repair of Myelin Disorders

Ian D. Duncan

(University of Wisconsin-Madison, Madison, WI, USA)

General Meeting Chief Director Toshio Suda 18:20～18:40

(Department of Cell Differentiation, Keio University School of Medicine)

Poster Session Friday, May 15 11:40～13:50

Gallery B

P-1 Human pluripotent stem cell-derived neurosphere culture based neural differentiation control method and application

Tamaki Wada[1], Norie Tooi[1], Makoto Honda[1], Kazuhiro Aiba[1], Norio Nakatsuji[2]
([1] Stem Cell and Drug Discovery Institute, [2] Institute for Integrated Cell-Material Sciences (iCeMS) and Institute for Frontier Medical Sciences, Kyoto University)

P-2 Analysis of Hematopoietic Cells in C/EBPß and C/EBPε Double Knockout Mice

Tadayuki Akagi[1, 2], Nils H. Thoennissen[2], Gay Crooks[3], Adrian F. Gombart[2], H. Phillip Koeffler[2]
([1]Department of Stem Cell Biology, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University, [2]Division of Hematology and Oncology, Cedars-Sinai Medical Center, UCLA School of Medicine, [3]Division of Pediatric Hematology/Oncology, Children's Hospital Los Angeles)

P-3 Foxo3a is essential for maintenance of chronic myelogenous leukemia-initiating cells

Kazuhito Naka[1], Takayuki Hoshii[1], Teruyuki Muraguchi[1], Takako Ooshio[1, 2], Noboru Motoyama[3], and Atsushi Hirao[1, 2]
([1]Center for Cancer and Stem Cell Research, Kanazawa University, [2]CREST, JST, [3]Department of Geriatric Medicine, National Center for Gerontology and Geriatrics)

P-4 Multiple developmental defects in R-spondin2 knockout mice

Wakako Yamada[1,3], Keiyo Takubo[1], Kenji Nagao[4], Kaori Horikoshi[3], Ayako Fujikura[3], Eiji Ikeda[2], Yoshimasa Inagaki[3], Makoto Kakitani[3], Kazuma Tomizuka[3], Hiroshi Miyazaki[3], Toshio Suda[1]
([1]Department of Cell Differentiation, [2]Department of Pathology, School of Medicine, Keio University, [3]Innovative Drug Research Laboratories, [4]Frontier Research Laboratory, Kyowa Hakko KIRIN Co., Ltd.)

P-5 Migration, localization, and differentiation of neural crest-derived enteric neural precursor cells in aganglionic gut

Naoki Shimojima[1], Yasuhide Morikawa [1], Ryuhei Nishikawa [1], Shinsuke Shibata [2], Ryo Hotta [1], Narihito Nagoshi [3], Masaya Nakamura [3], Yumi Matsuzaki [2], Hirotaka J Okano [2], Hideyuki Okano [2]
(Department of [1] Pediatric Surgery, [2] Physiology, and [3] Orthopaedic Surgery, Keio University School of Medicine, Tokyo, Japan)

P-6 Marked Variation in the Safety and Therapeutic Potential of Induced Pluripotent Stem Cells

Kyoko Miura[1, 2, 3, 4, *], Osahiko Tsuji[4, 5, *], Yohei Okada[4], Kazutoshi,Takahashi[1, 2, 3], Keisuke Okita[1, 2, 3], Makoto Nishino[4], Daisuke Ogawa[4], Eiji Ikeda[6], Yoshiaki Toyama[5], Masaya Nakamura[5], Shinya Yamanaka[1, 2, 3, 9, **] and Hideyuki Okano[4, **]
([1]Center for iPS Cell Research and Application (CiRA), Institute for Integrated Cell-Material Sciences, Kyoto University, Kyoto 606-8507, Japan [2] Department of Stem Cell Biology, Institute for Frontier Medical Sciences, Kyoto University, Kyoto 606-8507, Japan. [3]CREST and Yamanaka iPS Cell Special Project, Japan Science and Technology Agency, Kawaguchi 332-0012, Japan. [4]Department of Physiology, School of Medicine, Keio University, Tokyo 160-8582, Japan. [5]Department of Orthopaedic Surgery, [6]Department of Pathology, School of Medicine, Keio University, Tokyo 160-8582, Japan.)

P-7 A feeder-free production of neutrophils from human embryonic stem cells and induced pluripotent stem cells

Kumiko Saeki[1], Yoshiko Yogiashi[1], Naoko Nakamura[1], Satoko Matsuyama[1], Chikako Sato[1], Maiko Gokoh[1], Kazutoshi Takahashi[2], Shinya Yamanaka[2], Akira Yuo[1]
([1]Department of Hematology, International Medical Center of Japan, Tokyo, Japan, [2]Center for iPS Cell Research and Application, iCeMS, Kyoto University)

P-8 Role of TNF-α in the mesenchymal stromal cell (MSC) accumulation at tumor sites

Ryosuke Uchibori, Takayuki Ito, Hiroyuki Mizuguchi, Masashi Urabe, Hiroaki Mizukami, Akihiro Kume, Keiya Ozawa
([1]Div. Genet. Ther., Ctr. Mol. Med., Jichi Med Univ., [2]National Institute of Biomedical Innovation)

P-9 Blocking of IL-21 signal attenuates graft-versus-host disease but not graft-versus-leukemia effect in a mouse model

Akiko Meguro[1], Katsutoshi Ozaki[1], Ikekuni Oh[1], Keiko Hatanaka[1], Keiya Ozawa[1]
([1] Division of Hematology, Department of Medicine, Jichi Medical University)

P-10 Detection of Definitive Endothelial Progenitors in Mouse Bone Marrow Mononuclear Cell Populations

Junjie Yang[1, 2], Masaaki Ii[1], Naosuke Kamei[1], Kwon Sang-Mo[3], Yoshiki Sawa[2], Takayuki Asahara[3]
([1] Group of Vascular Regeneration Research, Institute of Biomedical Research and Innovation, Kobe, [2] Division of Cardiovascular Surgery, Department of Surgery, Osaka University Graduate School of Medicine, [3] Department of Regenerative Medicine, Tokai University School of Medicine)

P-11 TET family oncogene *Fus* is essential for the maintenance of self-renewing hematopoietic stem cells

Takeaki Sugawara[1], Yohei Morita[2], Hideyuki Oguro[1], Atsushi Iwama[1]
([1]Department of Cellular and Molecular Medicine, Graduate School of Medicine, Chiba University, [2]Division of Stem Cell Therapy, Center for Stem Cell and Regenerative Medicine, Institute of Medical Science, University of Tokyo)

P-12 Novel therapeutic strategy in patients who require repeated transfusion of human leukocyte antigen-matched platelets derived from human iPS cells

Naoya Takayama[1], Koji Eto[1], Sou Nakamura[1], Ryoko Ohnishi[1], Shinya Yamanaka[2], Hiromitsu Nakauchi[1]
([1]Division of Stem Cell Therapy, Center for Stem Cell and Regenerative Medicine, The Institute of Medical Science, University of Tokyo, [2]Department of Stem Cell Biology, Center for iPS cell Research and Application iCeMS, Kyoto University)

P-13 DNA methyltransferase Dnmt3b is essential for development of hematopoietic stem cells in mouse fetal liver

Makoto Ibata[1], Hideo Ema[1], Masaki Okano[2], and Hiromitsu Nakauchi[1]
([1]Division of Stem Cell therapy, Center for Stem Cell and Regenerative Medicine, Institute of Medical Science, University of Tokyo, [2]Laboratory for Mammalian Epigenetic Studies, Center for Developmental Biology, RIKEN)

P-14 Definitive proof for direct reprogramming of hematopoietic cells to pluripotency

Motohito Okabe[1], Makoto Otsu[1], Ahn Dong Hyuck[1], Toshihiro Kobayashi[1], Yohei Morita[1], Yukiko Wakiyama[2], Masafumi Onodera[3], Koji Eto[1], Hideo Ema[1], & Hiromitsu Nakauchi[1, 2]
([1]Division of Stem Cell Therapy, Center for Stem Cell and Regenerative Medicine, Institute of Medical Science, University of Tokyo, [2]Japan Science Technology Agency, ERATO, Nakauchi Stem Cell and Organ Regeneration Project, and [3]Department of Genetics, National Research Institute for Child Health and Development)

P-15 Molecular role of Scmh1, a member of Polycomb complex 1, which plays a crucial role for governing the hematopoietic stem cell activity

Shin'ichiro Yasunaga , Yoshinori Ohno, Motoaki Ohtsubo, Miyuki Tsumura, Yuka Kageyama, Rie Tokimoto, Yoshihiro Takihara
(Dept. Stem Cell Biol., RIRBM, Hiroshima Univ.)

P-16 A site-specific gene integration system and human embryonic stem cell lines carrying neurodegenerative disease genes

Kazuhiro Aiba[1], Kenji Sakurai[1], Norie Tooi[1], Makoto Honda[1], Tamaki Wada[1], Miho Shimoji[1], Norio Nakatsuji[2, 3]
([1]Stem Cell and Drug Discovery Institute, [2]Institute for Integrated Cell-Material Sciences and [3]Institute for Frontier Medical Sciences, Kyoto University)

P-17 SIRT1 Deficiency Suppressed the Maintenance of Hematopoietic Stem Cell Pool

Sachiko Ezoe, Itaru Matsumura, Hirokazu Tanaka, Yusuke Satoh, Yuzuru Kanakura
(Department of Hematology and Oncology, Osaka University Graduate School of Medicine)

P-18 Excess amount of Eed induces apoptosis of mouse ES cells

Hiroki Ura, Tadayuki Akagi, Hiroshi Koide, Takashi Yokota
(Department of Stem Cell Biology, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University)

P-19 TSC-mTOR signaling controls the hematopoietic stem cell pool through both intrinsic and extrinsic pathways

Takayuki Hoshii[1], Teruyuki Muraguchi[1], Takako Ooshio[1, 2], Kazuhito Naka[1], Atsushi Hirao[1, 2]
([1]Division of Molecular Genetics, Center for Cancer and Stem Cell Research, Cancer Research Institute, Kanazawa University, [2]Core Research for Evolutional Science and Technology (CREST))

P-20 p53- and Ink4a/Arf-independent growth arrest of neural stem/progenitor cells induced by oncogenic Ras signal *in vivo*

Teruyuki Muraguchi[1, 2], Takayuki Hoshii[1], Takako Ooshio[1], Kazuhito Naka[1], Atsushi Hirao[1, 3]
([1]Division of Molecular Genetics, Center for Cancer and Stem Cell Research, Cancer Research Institute, Kanazawa University, [2]Japan Society for the Promotion of Science, [3]Core Research for Evolutional Science and Technology (CREST), Japan Science and Technology Agency)

P-21 Kinetics of CXCR4 expression on murine steady state KSL cells

Yutaka Sasaki, Yoshikazu Matsuoka, Takayuki Toyohara, Makoto Hase, Ryusuke Nakatsuka, Yasushi Uemura, Yoshiaki, Sonoda
(Department of Stem Cell Biology and Regenerative Medicine, Graduate School of Medical Science, Kansai Medical University)

P-22 Isolation of mouse dental pulp-derived Sca-1^{+}PDGFRα^{+} tissue-committed stem cells

Ryusuke Nakatsuka, Yoshikazu Matsuoka, Yasushi Uemura, Yutaka Sasaki, Yoshiaki Sonoda
(Department of Stem Cell Biology and Regenerative Medicine, Graduate School of Medical Science, Kansai Medical University)

P-23 Human SIRPA Polymorphism Modulates Macrophage-Mediated Suppression of Human Hematopoiesis

Takuro Kuriyama[1], Katsuto Takenaka[1], Koichi Akashi[1]
([1]Department of Medicine and Biosystemic Science, School of medicine, Kyushu University)

P-24 Thrombopoietin controls proliferation of embryonic multipotent haematopoietic progenitors via JAK2-STAT5

Xin Huang,[1, 2] Hiroshi Sakamoto,[1, 2] and Minetaro Ogawa[1, 2]
([1] Department of Cell Differentiation, Institute of Molecular Embryology and Genetics, Kumamoto University, [2] Global COE "Cell Fate Regulation Research and Education Unit," Kumamoto University)

P-25 Guided differentiation of the mouse induced pluripotent stem cells into pancreatic cell lineages

Keitaro Yamane, Yuichiro Higuchi, Nobuaki Shiraki, Kazuhiko Kume, Shoen Kume
(Stem cell Biology, Institute of Molecular Embryology and Genetics, Kumamoto University)

P-26 Biochemical characterization of the Piwi-subfamily proteins, BmAGO3 and SIWI, in a BmN4 germ cell line established from silkworm ovaries

Taro Mannen, Mikiko C. Siomi, Haruhiko Siomi
(Department of Molecular Biology, Keio University School of Medicine)

P-27 Identification and analysis of cancer stem cells in human acute lymphoblastic leukemia

Hiroko Nishida[1], Hiroto Yamazaki[2], Taketo Yamada[3], Satoshi Iwata[2], Takeshi Inukai[4], Kanji Sugita [4], Chikao Morimoto[2], Yasuo Ikeda[1]
([1] Division of Hematology, Department of Internal Medicine, Keio University School of Medicine, Tokyo, Japan, [2] Division of Clinical Immunology, Advanced Clinical Research Center, Institute of Medical Science, University of Tokyo, Tokyo, Japan,[3] Department of Pathology, Keio University, School of Medicine, Tokyo, Japan,[4] Department of Pediatrics, School of Medicine, University of Yamanashi, Yamanashi, Japan)

P-28 Isolation and Identification of Mesenchymal Stem Cells in Human Bone Marrow

Yo Mabuchi[1], Satoru Morikawa[1, 2], Hideyuki Okano[1], Yumi Matsuzaki[1]
([1] Department of Physiology, Keio University School of Medicine, [2] Department of Dentistry and Oral Surgery, Keio University School of Medicine)

P-29 Survival of early neural stem/progenitor cells

Seiji Ishii[1], Yohei Okada[1, 2], Toshihiko Kadoya[3], Takuya Shimazaki[1] and Hideyuki Okano[1]
([1]Department of Physiology, School of medicine, Keio University, [2]Department of Neurology, Graduate school of medicine, Nagoya University, [3]CMC R&D Laboratories, Kyowa Hakko Kirin Company, Limited)

P-30 Abstract Withdrawn

P-31 Drosophila optic neuron progenitors turn their epithelial structure into spherical one along with the progression of cell dividing cycle

Minako Orihara-Ono[1], Hideyuki Okano[1] and Keiko Nakao[2]
([1]Department of Physiology, School of Medicine, Keio University, [2]Department of Physiology, Saitama Medical University)

P-32 Galectin-1: The negative regulator of proliferation of neural precursor cells in the adult hippocampus

Yoichi Imaizumi[1, 2], Masanori Sakaguchi[3], Tsuyoshi Morishita[4], Mamoru Ito[5], Francoise Poirier[6], Kazunobu Sawamoto[7], Hideyuki Okano[1, 2]
([1] Institution:Department of Physiology, Keio University, School of Medicine, Tokyo, Japan, [2] Institution:Bridgestone Laboratory of Developmental and Regenerative Neurobiology, Keio University, Tokyo, Japan, [3] Institution:The Hospital for Sick Children Research Institute, Toronto, Canada, [4] Institution:Kyowa Hakko Kogyo Co., Ltd, [5] Institution:Central insititute for experimental animals, [6] Institution:University of Paris 6th and Paris 7th, Paris, France, [7] Institution:Nagoya City University Graduate School of Medical Sciences Aichi, Japan)

P-33 Elucidation of mechanism of functional recovery after transplantation of NSPCs to SCI

Akimasa Yasuda[1,2], Osahiko Tsuji[1], Narihito Nagoshi[1], Kanehiro Fujiyoshi[1], Kazuya Kitamura[1], Masahiko Mukaino[3], Takehiko Takagi[1, 2], Yuichiro Takahashi[1, 2], Satoshi Nori[1, 2], Yoshiaki Toyama[1], Masaya Nakamura[1], Hideyuki Okano[2]
([1]Department of Orthopaedic surgery, [2]Department of Physiology, [3]Department of Rehabilitation medicine, School of medicine, Keio University, Tokyo)

P-34 Diffusion tensor tractography of peripheral nerve after contusive injury

Takehiko Takagi[1,2], Masaya Nakamura[1], Masayuki Yamada[3], Keigo Hikishima[3], Suketaka Momoshima[4], Kanehiro Fujiyoshi[1,2], Shinsuke Shibata[2], Hirotaka James Okano[2], Yoshiaki Toyama[1], and Hideyuki Okano[2]
(Departments of [1]Orthopaedic Surgery, [2]Physiology, and [4]Diagnostic Radiology and [4]Physiology, Keio University School of Medicine. [3]Central Institute for Experimental Animals.)

P-35 A contribution of Musashi1 to the regulation by Lin-28 in blocking *miRNA* processing

Hironori Kawahara[1], Takao Imai[1], Hideyuki Okano[1]
([1] Department of Physiology, School of Medicine, Keio University)

P-36 Sox21, a regulator of adult neurogenesis in mouse hippocampus

Satoru Matsuda[1,4], Hirotaka James Okano[1], Shuichi Tsutsumi[2], Hiroyuki Aburatani[2], Yumiko Saga[3], Hachiro Sugimoto[4], and Hideyuki Okano[1]
([1]Dept. Physiol., Keio Univ., Sch. Med., [2]Genome Sci. Div., RCAST, Univ. Tokyo, [3]Div. Mamm. Dev., Natl. Inst. Genet., [4]Dept. Neurosci. Drug Discov,. Kyoto Univ. Grad. Sch.)

P-37 Visualization of Neurogenesis with Fluorescent Proteins

Hiroaki Kanki[1], Marilia Kimie Shimabukuro[1], Yoshikazu M. Saito[2], Yoichi Imaizumi[1], Atsushi Miyawaki[3], Shigeyoshi Itohara[2], and Hideyuki Okano[1]
([1] Department of Physiology, Keio University School of Medicine, [2] Laboratory for Behavioral Genetics, Brain Science Institute (BSI), RIKEN, [3] Laboratory for Cell Function Dynamics, BSI, RIKEN)

P-38 RNA Binding Protein Musashi2 for Network Formation of Proprioceptive Sensory Neuron

Shinsuke Shibata[1] Shin-Ichi Sakakibara[2] Hidemasa Furue[3] Megumu Yoshimura[3] Takehiko Takagi[4] Rika Ohkuma[1] Ken-Ichiro Kuwako[1] Hirotaka J Okano[1] Hideyuki Okano[1]
([1] Department of Physiology, School of Medicine, Keio University. [2] Department of Histology and Neurobiology, School of Medicine, Dokkyo University. [3] Department of Integrative Physiology, Graduate School of Medical Sciences, Kyushu University. [4] Department of Orthopaedic Surgery, School of Medicine, Keio University.)

P-39 Abstract Withdrawn

P-40 Gene targeting in the common marmoset embryonic stem cells

Seiji Shiozawa[1,2,3], Erika Sasaki[2], Yusuke Sotomaru[3], Hideyuki Okano[1]
([1] Department of Physiology, School of Medicine, Keio University, [2]Marmoset department, Central Institute for Experimental Animals, [3]Natural Science Center for Basic Research and Development, Hiroshima University)

P-41 Temporal specification of neural stem cells

Hayato Naka[1,2], Shiho Nakamura[1,2], Takuya Shimazaki[1,2] , Hideyuki Okano[1,2]
([1] Department of Physiology, School of Medicine, Keio University,
[2] Solution-Oriented Research for Science and Technology, Japan Science and Technology Agency)

P-42 RNA-binding protein Musashi1 inhibits *let-7* miRNA activity

Takao Imai, Hironori Kawahara, Satoshi Kawase, Hideyuki Okano.
(Department of Physiology, School of Medicine, Keio University)

P-43 Derivation and characterization of human pluripotent stem cell-derived neural stem/progenitor cells

Yohei Okada[1, 2, 3], Tomoko Tokura[1, 2], Shuta Tomisato[1], Kazuhisa Kohda[1], Gen Sobue[3], Michisuke Yuzaki[1], Hideyuki Okano[1]
([1.]Department of Physiology, School of Medicine, Keio University, [2.]Kanrinmaru Project, School of Medicine, Keio University, [3.]Department of Neurology, Graduate School of Medicine, Nagoya University)

P-44 Generation of induced pluripotent stem cell lines from adult marmoset cells

Takuji Maeda[1, 2], Hiroko Shimada[1], Kazutoshi Takahashi[3], Ikuo Tomioka[2, 4], Seiji Shiozawa[1, 2], Ryo Oiwa[2], Akiko Shimada[2], Shinya Yamanaka[3], Erika Sasaki[2,4], Hideyuki Okano[1]
([1]Department of Physiology, School of Medicine, Keio University, [2]Marmoset Research Department, Laboratory of Applied Developmental Biology, Central Institute for Experimental Animals, [3]Department of Stem Cell Biology, Institute for Frontier Medical Sciences, Kyoto University, [4]Department of Biochemistry & Integrative Medical Biology, School of Medicine, Keio University)

P-45 Regenerated young neurons migrate along the blood vessel scaffold in the striatum after ischemic injury

Takuro Kojima[1, 2], Yuki Hirota[2], Masatsugu Ema[3], Satoru Takahashi[3], Ichiro Miyoshi[2], Hideyuki Okano[1], and Kazunobu Sawamoto[1, 2]
([1] Keio Univ Sch of Medicine, Tokyo, JAPAN, [2] Nagoya City Univ Grad Sch Med Sciences, Nagoya, JAPAN, [3] Univ Tsukuba Grad Sch Medicine, Ibaragi, JAPAN)

P-46 Transplantation of human embryonic stem cell derived-neural stem/progenitor cells for spinal cord injury in adult NOD/Scid mice

Yuichiro Takahashi[1, 2], Yohei Okada[2], Gentaro Kumagai[3], Osahiko Tsuji[1, 2], Yoshiaki Toyama[1], Masaya Nakamura[1], Hideyuki Okano[2]
([1]Department of Orthopedics Surgery, [2]Department of Physiology, School of Medicine, Keio University, [3]Department of Orthopedics Surgery, School of Medicine, Hirosaki University)

P-47 Comparative study of different administrations of the neural stem/progenitor cells for spinal cord injury in mice

Yuichiro Takahashi[1,2], Osahiko Tuji[1,2], Chikako Hara[2], Gentaro Kumagai[3], Yoshiaki Toyama[1], Masaya Nakamura[1], Hideyuki Okano[2]
([1]Department of Orthopedics Surgery, [2]Department of Physiology, School of Medicine, Keio University, [3]Department of Orthopedics Surgery, School of Medicine, Hirosaki University)

P-48 Transplantation of human iPS cell-derived neurospheres for the treatment of spinal cord injury in NOD-scid mice

Satoshi Nori[1], Yohei Okada[2], Masaya Nakamura[1], Osahiko Tsuji[1], Yuichiro Takahashi[1], Kanehiro Fujiyoshi[1], Narihito Nagoshi[1], Kazuya Kitamura[1], Masahiko Mukaino[3], Akimasa Yasuda[1], Hiroko Shimada[1,2], Yoshiaki Toyama[1], Shinya Yamanaka[4], Hideyuki Okano[2]
([1]Department of Orthopaedics, [2]Department of Physiology, [3]Department of Rehabilitation Medicine, Keio University, Tokyo, Japan, [4]Department of Stem Cell Biology, Institute for Frontier Medical Sciences, Kyoto University)

P-49 Analysis of transcriptional regulation of musashi1 gene in neural stem cells

Satoshi Kawase, Takao Imai, Chikako Hara, Hideyuki Okano
(Department of Physiology, School of Medicine, Keio University)

P-50 All-trans retinoic acid inhibits the efflux activity of breast cancer resistance protein

Lawrence Lein, Yasuo Nagai, Hideyuki Okano, Yumi Matsuzaki
(Department of Physiology, Keio University School of Medicine)

P-51 Analysis of a transcription factor involved in neural stem cell maintenance

Shin-ichi Fukami [1,2], Hideyuki Okano [1]
([1] Department of Physiology, Keio University School of Medicine, Tokyo, Japan, [2] SORST, JST, Tokyo, Japan)

P-52 Role and Mechanisms of reactive astrocyte's migration after spinal cord injury

Francois Renault-Mihara[1], Masahiko Mukaino[2], Masaya Nakamura[2], Yoshiaki Toyama[2] and Hideyuki Okano[1].
([1]Department of Physiology, [2]Department of Orthopedic Surgery, Keio University School of Medicine)

P-53 Stamporation: a microinjection method into cultured cells

Chikako Miyauchi-Hara[1,2], Atsushi Miyawaki[2], Hideyuki Okano[1]
([1]Department of Physiology, School of Medicine, Keio University, [2]Laboratory for Cell Function Dynamics, Brain Science Institute, RIKEN)

P-54 Nurr1 gene induced human NT2N cells provides therapeutic benefits in transplanted MCAO stroke model rats

Koichi Hara[1,2], Noriyuki Matsukawa[2], Takao Yasuhara[2], Seung U. Kim[3], Takeshi Kawase[1], Cesario V. Borlongan[2]
([1]Department of Neurosurgery, KEIO university, [2]Department of Neurology, Medical college of Georgia, [3]Brain Disease Research Center, Ajou University School of Medicine)

P-55 Analysis of Musashi1 function in human glioma stem cells and development of gene therapy for tumor growth suppression

Jun Muto[1,2], Takao Imai[2], Yumi Matsuzaki[2], Takeshi Kawase[1], Hideyuki Okano[2]
([1]Department of Neurosurgery, School of Medicine, Keio University
[2] Department of physiology, School of Medicine, Keio University)

Saturday, May 16. The Second Day

Session 4 : Multipotent Stem Cell 9:00～10:20

Chair Takashi Yokota

(Department of Stem Cell Biology, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University)

O-13 Dax1 functions as a negative regulator of Oct3/4 in mouse embryonic stem cells

Hiroshi Koide[1], Chuanhai Sun[1], Yuhki Nakatake[2], Tadayuki Akagi[1], Hiroki Ura[1], Takahiko Matsuda[3], Hitoshi Niwa[2], Takashi Yokota[1]

([1]Department of Stem Cell Biology, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University, [2]Laboratory for Pluripotent Cell Studies, RIKEN Center for Developmental Biology, [3]Department of Genetics, Howard Hughes Medical Institute, Harvard Medical School)

O-14 Differential requirement of nucleostemin for cell viability between ES cells and neural stem cells

Akihiko Okuda[1], Miyuki Katano[1], Hidemasa Kato[1], Shinji Masui[2], Jun Nomura[1]

([1]Division of Developmental Biology, Research Center for Genomic Medicine, Saitama Medical University, [2]Regerative Medicine, Research Institute, International Medical Center of Japan)

O-15 Correction of Duchenne muscular dystrophy in induced pluripotent stem cells using a human artificial chromosome

Yasuhiro Kazuki[1], Masaharu Hiratsuka[1], Masato Takiguchi[1], Mitsuhiko Osaki[1], Hidetoshi Hoshiya[1], Kei Hiramatsu[1], Naoyo Kajitani[1], Toko Yoshino[1], Kanako Kazuki[1], Masato Nakagawa[2], Kazutoshi Takahashi[2], Shinya Yamanaka[2] and Mitsuo Oshimura[1]

([1]Department of Biomedical Science, Institute of Regenerative Medicine and Biofunction, Graduate School of Medical Science, Tottori University, [2]Department of Stem Cell Biology, Institute for Frontier Medical Sciences, Kyoto University)

O-16 Derivation of multipotential hematopoietic progenitors and mature blood cells from human induced pluripotent stem cells

Feng Ma[1, 2], Yasuhiro Ebihara[1], Hiromitsu Nakauchi[2] and Kohichiro Tsuji[1, 2]

([1]Division of Cellular Therapy, Advanced Clinical Research Center, [2]Division of Stem Cell Therapy, Center for Stem Cell and Regenerative Medicine; Institute of Medical Science, The University of Tokyo)

Coffee Break 10:20～10:40

Session 5 : Cancer Stem Cell 10:40～11:20

Chair Toru Nakano

(Department of Pathology, Osaka University Medical School)

O-17 Evi-1 is up-regulated by MLL oncoproteins selectively in hematopoietic stem cells

Shunya Arai, Susumu Goyama, Munetake Shimabe, Motoshi Ichikawa, Yoichi Imai, Mineo Kurokawa

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

O-18 Hes1 rapidly induces blastic crisis in CML by conferring committed progenitors with self-renewal capabilities.

Fumio Nakahara[1, 3], Jiro Kitaura[1], Mamiko Sakata-Yanagimoto[2], Yukiko Komeno[1], Naoko Kato[1], Mineo Kurokawa[3], Shigeru Chiba[2], Toshio Kitamura[1]
([1]Division of Cellular Therapy, The Institute of Medical Science, The University of Tokyo, [2]Department of Hematology, University of Tsukuba, [3]Department of Hematology-Oncology, University of Tokyo)

Special Lecture 4 **11:20～12:00**

Hemopoietic Stem Cells and their Niche

SK Nilsson

（Australian Stem Cell Centre, Melbourne, Australia）

Poster Session **12:00～14:00**

Gallery B：lunch served

Session 6：New Aspect of Stem Cell research **14:00～15:20**

Chair Toshio Suda

(Department of Cell Differentiation, Keio University School of Medicine)

O-19 Hair follicle stem cells provide a COL17A1-dependent niche for melanocyte stem cells

Shintaro Tanimura[1, 2, *], Yuko Tadokoro[1, *], Ken Inomata[1], Wataru Nishie[2], James R. McMillan[2], Daisuke Sawamura[2], Hiroshi Shimizu[2], Emi K. Nishimura[1, 3]
([1]Department of Stem Cell Medicine, Cancer Research Institute, Kanazawa University, [2]Department of Dermatology, Hokkaido University Graduate School of Medicine, [3]Department of Stem Cell Biology, Medical Research Institute, Tokyo Medical and Dental University, *equally contribution)

O-20 Generation of pancreas and functional islets from pluripotent stem cells by way of blastocyst complementation

Toshihiro Kobayashi[1, 2], Hiromitsu Nakauchi[1, 2]
([1]Division of Stem Cell Therapy, Center for Stem Cell and Regenerative Medicine, Institute of Medical Science, University of Tokyo, [2]Japan Science Technology Agency, ERATO, Nakauchi Stem Cell and Organ Regeneration Project)

O-21 Identification of human cartilage progenitor cells in the perichondrium of auricular cartilage

Takanori Takebe[1], Shinji Kobayashi[1, 2], Midori Inui[1], Yuki Emoto[1], Yasuharu Ueno[1],Yun-Wen Zheng[1], Jiro Maegawa[2], Hideki Taniguchi[1]
([1]Department of Regenerative Medicine; [2]Department of Plastic and Reconstructive Surgery, Yokohama City University School of Medicine, Japan)

O-22 Mastermind-1/Mastermind-2 are essential components of Notch signaling pathways

Toshinao Oyama[1], Kenichi Harigaya[1], Nobuo Sasaki[2], Yoshiaki Okamura[2], Yumiko Saga[2], Katsuto Hozumi[3], Reiko Sakamoto[4], Mitsuharu Sato[4], Nobuaki Yoshida[4], and Motoo Kitagawa[1]
([1] Department of Molecular and Tumor Pathology, Chiba University Graduate School of Medicine, [2] Division of Mammalian Development, National Institute of Genetics, [3] Department of Immunology, Tokai University School of Medicine, [4] Institute of Medical Science, University of Tokyo)

Coffee Break **15:20～15:40**

Session 7 : Network of Transcription Factor and Epigenetics

15:40～17:00

Chair Haruhiko Siomi
(Department of Molecular Biology, School of Medicine, Keio University)

O-23 Establishment and Effects of Epigenetic Pattern Regulated by a Tissue Specific Transcription Factor
Kenji Kitajima, Jie Zheng, Toru Nakano
(Department of Pathology, Osaka University Medical School)

O-24 Piwi regulation by a large Maf transcription factor, *traffic jam,* in *Drosophila* ovarian somatic cells
Sachi Inagaki[1], Mikiko Siomi[1], and Haruhiko Siomi[1]
([1] Department of Molecular Biology, School of Medicine, Keio University)

O-25 A systems approach reveals myogenesis genome network is regulated by the transcriptional repressor RP58
Shigetoshi Yokoyama[1], Yoshiaki Ito[1], Hiroshi Asahara[1]
([1]Department of Systems BioMedicine, National Research Institute for Child Health and Development)

O-26 Role of Polycomb group protein Ring1B and its mediated histone H2A ubiquitylation in mouse ES cell maintenance
Mitsuhiro Endoh[1], Takaho A. Endo[2], Haruhiko Koseki[1]
([1] RIKEN Research Center for Allergy and Immunology, 1-7-22 Suehiro, Tsurumi-ku, Yokohama 230-0045, Japan, [2] RIKEN Genomic Sciences Center, 1-7-22 Suehiro, Tsurumi-ku, Yokohama 230-0045, Japan)

Special Lecture 5

17:00～17:40

Translational Regulation in Germline Stem Cell Self-Renewal

Haifan Lin
(Yale Stem Cell Center, and Departments of Cell Biology and Genetics, Yale University School of Medicine, New Haven CT 06511, USA.)

Closing Remarks

Next Director Koichi Akashi **17:40～17:50**
(Department of Medicine and Biosystemic Science, School of medicine, Kyushu University)

Poster Session Saturday, May 16 12:00～14:00

Gallery B

P-56 Transcriptional Mediator in niche cells plays a role to support hematopoietic stem/progenitor cells

Akiko Sumitomo[1], Kana Inoue[1], Ruri Ishino[1], Kenji Yonezawa[1], Norinaga Urahama[1] and Mitsuhiro Ito[1, 2]
([1] Laboratory of Hematology, Division of Medical Biophysics, Kobe University Graduate School of Health Sciences, [2] Division of Hematology, Department of Medicine, Kobe University Graduate School of Medicine)

P-57 *Gone early* maintains undifferentiated state of primordial germ cells and regulates establishment of germline stem cells in *Drosophila* ovary

Shinya Matsuoka[1, 2], Miho Asaoka[1, 2], Yasushi Hiromi[1, 2]
([1]Department of Developmental Genetics, National Institute of Genetics, [2]Department of Genetics, Sokendai)

P-58 Histone acetyltransferases MOZ and MORF are essential for self-renewal of hematopoietic stem cells

Takuo Katsumoto, Issay Kitabayashi
(Division of Molecular Oncology, National Cancer Center Research Institute)

P-59 A system to express multiple genes by a single vector

Shinji Masui
(Division of Molecular Biology and Cell Engineering, Department of Regenerative Medicine, Research Institute, International Medical Center of Japan)

P-60 The maintenance of undifferentiated state of stem-cell precursors in *Drosophila* germline

Miho Asaoka[1, 2], Shinya Matsuoka[1] and Yasushi Hiromi[1]
([1]Department of Developmental Genetics, National Institute of Genetics, [2]Department of Genetics, Sokendai)

P-61 Age-related changes in prospectively isolated muscle satellite cells

Ikemoto-Uezumi M[1], Uezumi A[2], Tsuchida K[2], Fukada S[3], Hashimoto N[1]
([1]Department of Regenerative Medicine, NILS, National Center for Geriatrics and Gerontology, [2]Division for Therapies against Intractable Diseases, ICMS, Fujita Health University, [3]Department of Immunology, Graduate School of Pharmaceutical Sciences, Osaka University)

P-62 Generating Induced Pluripotent Stem Cells from Common Marmoset Bone Marrow Cells

Ikuo Tomioka[1, 2], Takuji Maeda[1, 2], Akiko Shimada[1, 3], Ryo Ooiwa[1, 3], Hideyuki Okano[2], Erika Sasaki[1, 2]
([1]Central Institute for Experimental Animal, Kanagawa, Japan, [2]Keio University, School of Medicine Tokyo, Japan, [3]JAC Inc., Tokyo, Japan)

P-63 Generation of functional T cells from ES cells and induced pluripotent stem (iPS) cells *in vitro*

Haruka Wada and Ken-ichiro Seino
(Division of Bioregulation research, Institute of Medical Science, St. Marianna University School of Medicine)

P-64 Long-term repopulation and lymphoid differentiation potential of the embryonic hemangioblast

Mitsujiro Osawa[1] and Michael Kyba[2]
([1] Department of Cellular and Molecular Medicine, Graduate School of Medicine, Chiba University, [2] Department of Pediatrics, Division of Hematology-Oncology/Blood and Bone Marrow Transplantation, University of Minnesota)

P-65 A novel Flk1 enhancer for hemato-cardiovascular progenitor

Hiroyuki Ishitobi, Asami Wakamatsu, Michito Hamada, Satoru Takahashi, Masatsugu Ema
(Univ. Tsukuba, Grad. Sch. Comprehensive Human Sci., Dept. Anatomy Embryol.)

P-66 Genotoxic stress abrogates renewal of melanocyte stem cells by triggering their differentiation

Ken Inomata1, 2, Takahiro Aoto1, 6, Nguyen Thanh Binh1, Natsuko Okamoto1, Shintaro Tanimura[1, 3], Tomohiko Wakayama[4], Shoichi Iseki[4], Eiji Hara[5], Takuji Masunaga[2], Hiroshi Shimizu[3], Emi K. Nishimura[1, 6]
([1] Division of Stem Cell Medicine, Center for Cancer and Stem Cell Research, Cancer Research Institute, Kanazawa University, [2] Fundamental Research Laboratories, KOSÉ Corporation, [3] Department of Histology and Embryology, Graduate School of Medical Science, Kanazawa University, [4] Cancer Institute of Japanese Foundation for Cancer Research, [5] Department of Dermatology, Hokkaido University Graduate School of Medicine, [6] Department of Stem Cell Biology, Medical Research Institute, Tokyo Medical and Dental University)

P-67 Characterization of cells that have hematopoietic activity in the placenta of mouse embryo

Gomaa, A.,[1, 2] Nobuhisa, I.,[1] Yamasaki, S.,[1] Taga, T.[1, 2, 3]
([1]Dept. of Cell Fate Modulation, Institute of Molecular Embryology and Genetics, Kumamoto Univ., [2]GCOE Kumamoto Univ. Kumamoto, Japan, [3]Dept. of Stem Cell Regulation, Medical Research Institute, Tokyo Medical and Dental Univ.)

P-68 Cyclin D1 inhibits astrocyte differentiation from neural stem/progenitor cells in a manner independent of cell cycle regulation

Norihisa Bizen[1], Toshihiro Inoue[2], Takeshi Shimizu[3], Tetsushi Kagawa[1], Tetsuya Taga[1]
([1]Department of Stem Cell Regulation, Medical Research Institute, Tokyo Medical and Dental University, [2]Department of Ophthalmology and Visual Science, Graduate School of Medical Sciences, Kumamoto University, Laboratory for Vertebrate Axis Formation, RIKEN Center for Developmental Biology)

P-69 Formation of functional islets with distinct 3D structure *in vitro*

Hiroki Saito[1,2], Masaki Takeuchi[1], Kaori Suzuki[1], Kazuhiro Chida[2], and Atsushi Miyajima[1]
([1]Institute of Molecular and Cellular Biosciences, [2]Graduate School of Agricultural and Life Sciences, The University of Tokyo)

P-70 MT1-MMP is required for hematopoietic maturation in the BM niche

Chiemi Nishida[1], Beate Heissig[1], Daigo Niiya[3], Motoharu Seiki[3], Koichi Hattori[1]
([1]Division of Stem Cell Regulation, [1.2] Frontier Research Initiative, [1.2,3] Institute of Medical Science, University of Tokyo, [3] Division of Cancer Cell Research, Institute of Medical Science, University of Tokyo)

P-71 FRS2α regulates Erk levels to control a self-renewal target Hes1 and proliferation of FGF-responsive neural stem/progenitor cells

Takuya Sato[1], Takuya Shimazaki[2], Hayato Naka[2], Hideyuki Okano[2], and Noriko Gotoh[1]
([1]Division of Systems Biomedical Technology and [2]Department of Physiology, Keio University School of Medicine, Tokyo, Japan.)

P-72 Evi-1 up-regulates Pbx1 expression in hematopoietic stem/progenitors and leukemic cells.

Munetake Shimabe, Susumu Goyama, Motoshi Ichikawa, Yoichi Imai, Tsuyoshi Takahashi, Akira Hangaishi, Mineo Kurokawa
(Department of Hematology & Oncology, Graduate School of Medicine, University of Tokyo)

P-73 Wnt/beta-catenin signals in hepatic differentiation of human mesenchymal stem cells: its relation with E-cadherin

Yoshiko Hoshikawa[1], Yoshiaki Matsumi[1], Yuta Tezuka[1], Hideharu Okamoto[1], An AFIDA ASHLA[1], Hiroyuki Tsuchiya[1], Akihiro Umezawa[2], Goshi Shiota[1]
([1]Division of Molecular and Genetic Medicine, Department of Genetic Medicine and Regenerative Therapeutics, Tottori University, [2]Department of Reproductive Biology and Pathology, National Research Institute for Child Health and Development)

P-74 Properties of cardiac pacemaker like cells isolated from mouse ES cells

Keita Arakawa, Shinichi Itoh, Natsumi Shimizu, Kumi Morikawa, Yasuaki Shirayoshi, Ichiro Hisatome.
(Division of Regenerative Medicine and Therapeutics, Department of Genetic Medicine and Regenerative Therapeutics, Graduate School of Medical Science, Tottori University)

P-75 Characterization of human iPS cells established from Down syndrome patient-derived fibroblast cell lines

Masaharu Hiratsuka[1], Narumi Uno[2], Natsuko Imaoka[2], Shigeko Masuda[2], Yasuhiro Kazuki[2], Mitsuhiko Osaki[2], Katsumi Higaki[3], Kazutoshi Takahashi[4], Shinya Yamanaka[4] and Mitsuo Oshimura[1, 2]
([1] Division of Molecular and Cell Genetics, Department of Molecular and Cellular Biology, School of Life Sciences, Faculty of Medicine, [2] Department of Biomedical Science, Institute of Regenerative Medicine and Biofunction, Graduate School of Medical Science, [3] Division of Functional Genomics, Research Center for Bioscience and Technology, Tottori University,
[4] Department of Stem Cell Biology, Institute for Frontier Medical Sciences, Kyoto University)

P-76 Recovery of human dystrophin expression in the mdx mesoangioblast-derived skeletal muscle using the human artificial chromosome (HAC)

Hidetoshi Hoshiya[1], Yasuhiro Kazuki[1], Saverio Tedesci[2], Satoshi Abe[1], Masato Takiguchi[1], Naoyo Kajitani[1], Yoshinori Watanabe[1], Toko Yoshino[3], Yasuaki Shirayoshi[4], Katsumi Higaki[3], Graziella Messina[2], Giulio Cossu[2] and Mitsuo Oshimura[1]
([1]Department of Biomedical Science, Graduate School of Medical Science, Tottori University, [2]Stem Cell Research Institute, San Raffaele Scientific Institute, Milan, Italy, [3]Research Center for Bioscience and Technology, Tottori University, [4]Department of Genetic Medicine and Regenerative Therapeutics, Graduate School of Medical Science, Tottori University)

P-77 Towards extension of life-span of a human mesenchymal stem cells using a human artificial chromosome carrying a conditional centromere

Yuichi Iida[1], Jun-ichirou Ohzeki[2], Yasuhiro Kazuki[1], Hidetoshi Hoshiya[1], Masato Takiguchi[1], Masahiro Hayashi[1], Megumi Nakano[3], Hiroshi Masumoto[2], William C. Earnshaw[4], Vladimir Larionov[3] and Mitsuo Oshimura[1]
([1] Department of Biomedical Science, Institute of Regenerative Medicine and Biofunction, Graduate School of Medical Sciences, Tottori University, Yonago, Tottori, Japan, [2] Institute of Kazusa DNA reserch, Kazusa, Chiba, Japan, [3]Laboratory of Biosystems and Cancer, National Cancer Institute, NIH, Bethesda, Maryland, United States, [4] Wellcome Trust Centre for Cell Biology, University of Edinburgh, scotland, United Kingdom.)

P-78 Human FVIII Expression Using a HAC Vector Toward Stem Cell- Mediated Gene Therapy for Hemophilia A

Hajime Kurosaki[1], Narumi Uno[1], Masaharu Hiratsuka[2], Yuichi Iida[1], Yasuhiro Kazuki[1], Chie Ishihara[3], Yuna Yakura[3], Hiroyuki Takeya[3] and Mitsuo Oshimura[1].

([1]Department of Biomedical Science, Institute of Regenerative Medicine and Biofunction, Graduate School of Medical Science, Tottori University, [2]Division of Human Genome Science, Department of Molecular and Cellular Biology, School of Life Sciences, Faculty of Medicine, Tottori University, and [3]Division of Pathological Biochemistry, Department of Biomedical Sciences, School of Life Sciences, Faculty of Medicine, Tottori University)

P-79 Evaluation of BCR-ABL-positive leukemia stem cells with imatinib-therapy and apoptosis induced by bortezomib-treatment

Yosuke Minami[1], Akihiro Abe[1], Yachiyo Kuwatsuka[1], Yuka Nomura[1], Ryohei Tanizaki[1], Tomoki Naoe[1]

([1]Department of Hematology and Oncology, Nagoya University Graduate School of Medicine)

P-80 Cyclin C Regulates Quiescence of Human Hematopoietic Primitive Progenitor Cells

Yasuhiko Miyata[1, 2], Vladimir Jankovic[2], Tomoki Naoe[1], Stephen Nimer[2]

([1]Hematology and Oncology Department, Nagoya University Graduate School of Medicine, [2]Molecular Pharmacology and Chemistry Program, Memorial Sloan-Kettering Cancer Center)

P-81 Molecular roles for *HOX* gene products and the fusion with NUP98 in hematopoieis and lukemogenesis

Yoshinori Ohno, Shin'ichiro Yasunaga, Motoaki Ohtsubo, Yuka Kageyama, Rie Tokimoto, Yoshihiro Takihara

(Dept. Stem Cell Biol., RIRBM, Hiroshima Univ.)

P-82 Role of Scmh1 in the regulation of Polycomb-group complex 1, which acts as the E3 ubiquitin ligase for histone H2A and Geminin

Motoaki Ohtsubo, Shin'ichiro Yasunaga, Miyuki Tsumura, Yoshinori Ohno, Yuka Kageyama, Shunsuke Kimura, Rie Tokimoto, Yoshihiro Takihara

(Dept. Stem Cell Biol., RIRBM, Hiroshima Univ.)

P-83 Mesenchymal progenitors distinct from muscle satellite cells contribute to ectopic fat formation in skeletal muscle

Akiyoshi Uezumi[1], So-ichiro Fukada[2], Harumoto Yamada[3], Ichizo Nishino[4], Shin'ichi Takeda[5], and Kunihiro Tsuchida[1]

([1]Division for Therapies against Intractable Diseases, Institute for Comprehensive Medical Science, Fujita Health University, [2]Department of Immunology, Graduate School of Pharmaceutical Sciences, Osaka University, [3]Department of Orthopaedic Surgery, Fujita Health University, [4]Department of Neuromuscular Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry (NCNP), [5]Department of Molecular Therapy, National Institute of Neuroscience, NCNP)

P-84 Purification of hematopoietic stem cells without negative-selection

Yasushi Kubota[1], Ivo Lieberam[2], Thomas M. Jessell[2], Shin-ichi Nishikawa[1]

([1]Laboratory for Stem Cell Biology, RIKEN Center for Developmental Biology, [2]Howard Hughes Medical Institute, Department of Biochemistry and Molecular Biophysics, Center for Neurobiology and Behavior, Columbia University)

P-85 Molecular mechanisms of primitive endoderm specification during the preimplantation mouse development

Julien BOUISSAC, Naoko YOSHIOKA, Lars M. JAKT & Shin-Ichi NISHIKAWA
(Laboratory for Stem Cell Biology, RIKEN Center for Developmental Biology, Kobe)

P-86 iPS technology as a new tool to understand the relationship between stem cell and cancer

Kenichiro Kobayashi, Satomi Nishikawa, Shin-ichi Nishikawa
(Laboratory for Stem Cell Biology, RIKEN Center for Developmental Biology)

P-87 Investigation of lymphoid potential in the early VE-cadherin positive population

Yosuke Tanaka, Shin-ichi Nishikawa
(RIKEN Kobe Institute Center for Developmental Biology, Laboratory for Stem Cell Biology)

P-88 Adult pluripotent cells for personalized therapy ?

Hervé Le Mouellic, Shin-Ichi Nishikawa

P-89 Analysis of epigenetic systems maintaining pluripotency

Kazuhiro Murakami, Hitoshi Niwa
(Laboratory for Pluripotent Cell Studies, Center for Developmental Biology, RIKEN)

P-90 Generation and propagation of mouse neural crest progenitor cells

Jitsutaro Kawaguchi[1, 2], Jennifer Nichols[1] and Austin Smith[1]
([1] Wellcome Trust Centre for Stem Cell Research, University of Cambridge, Cambridge,[2] Current Address: Center for Developmental Biology, Riken, Kobe)

P-91 Germline transmission of a novel human artificial chromosome (14HAC) vector

Minoru Kakeda[1], Keiko Nagata[1], Akiyo Okazaki[1], Mitsuo Oshimura[2], Kazuma Tomizuka[1]
([1] Innovative Drug Research Laboratories, Research Division, Kyowa Hakko Kirin Co., Ltd., [2] Graduate School of Medical Science, Tottori University)

P-92 Molecular function of Tsukushi in the brain

Ayako Ito [1, 2], Yohei Shinmyo[1], Masahiro Yamaguchi[3], Rika Nakayama[4], Naoko Oshima[4], Hideaki Tanaka[1,2], Kunimasa Ohta[1]
([1]Department of Developmental Neurobiology, Graduate School of Medical Sciences, Kumamoto University, [2]Global COE, Kumamoto University, [3]Graduate School of Medical science University of Tokyo, [4]RIKEN CDB)

P-93 Highly efficient transient gene expression and gene targeting in human pluripotent stem cells with helper-dependent adenoviral vectors

Keiichiro Suzuki[1], Kaoru Mitsui[1], Emi Aizawa[1], Kouichi Hasegawa[2], Eihachiro Kawase[3], Hirofumi Suemori[2], Norio Nakatsuji[3, 4] and Kohnosuke Mitani[1]
([1]Gene Therapy Division, Research Center for Genomic Medicine, Saitama Medical University. [2]Laboratory of Embryonic Stem Cell Research, Stem Cell Research Center and [3]Department of Development and Differentiation, Institute for Frontier Medical Sciences, and [4]Institute for Integrated Cell-Material Sciences, Kyoto University.)

P-94 Acute myelogenous leukemia blasts convert into adherent myofibroblast cells

Ryosuke Shirasaki, Haruko Tashiro, Yoko Oka, Toshihiko Sugao, Nobu Akiyama, Kazuo Kawasugi and Naoki Shirafuji
(Department of Hematology / Oncology, Teikyo University School of Medicine 2-11-1, Kaga, Itabashi-ku, Tokyo 173-8606 Japan)

P-95 The role of polycomb group gene *Ring1B* in the proliferation of hepatic stem cells

Takako Naito[1], Yasuharu Ueno[1], Yun-Wen Zheng[1], Kyoichi Isono Isono[2], Haruhiko Koseki[2], Hideki Taniguchi[1]
([1]Dept. of Regenerative Medicine, Graduate School of Medicine, Yokohama City University, [2] Laboratory for Developmental Genetics, RIKEN Research Center for Allergy and Immunology)

P-96 The prospective identification and differentiation of human hepatic stem cells

Bin Li, Yun-Wen Zheng, Yousuke Miyabe, Yasuharu Ueno and Hideki Taniguchi
(Dept. of Regenerative Med., Grad. Sch. of Med., Yokohama City Uni., Japan)