July 23（Thursday)
Moderator Kyoko Hida (Institute for Genetic Medicine, Hokkaido University)

13:00-13:10 **Opening Remarks**
Akinori Takaoka (Institute for Genetic Medicine, Hokkaido University)

Cancer genome, epigenome, and proteome

Chair:Atsushi Suzuki (Medical Institute of Bioregulation, Kyushu University)
Takashi Ohashi (Institute for Genetic Medicine, Hokkaido University)

13:10-13:35
S-1 Achievements, difficulties and challenges of cancer genomics
Tatsuhiro Shibata（Institute of Medical Science, The University of Tokyo)

13:35-14:00
S-2 Involvement of histone methyl-modifying enzymes in cancer development identified by retroviral insertional mutagenesis
Takeshi Suzuki（Cancer Research Institute, Kanazawa University)

14:00-14:25
S-3 Next-generation proteomics unveils a global landscape of cancer metabolism
Keiichi I. Nakayama（Medical Institute of Bioregulation, Kyushu University)

14:25-14:40 Intermission 1

Stem cell biology and molecular medicine

Chair:Yasuhisa Matsui (Institute of Development, Aging and Cancer, Tohoku University)
Toru Kondo (Institute for Genetic Medicine, Hokkaido University)

14:40-14:55
Y-1 Spred1 regulates the self-renewal activity in hematopoietic stem cells
Yuko Tadokoro（Cancer Research Institute, Kanazawa University)

14:55-15:10
Y-2 Sox17 maintains the stem cell population of intra-aortic hematopoietic cell clusters in the aorta-gonad-mesonephros region
Ikuo Nobuhisa (Medical Research Institute, Tokyo Medical and Dental University)

15:10-15:25
Y-3 Role of Kid and CENP-E on efficient chromosome alignment
Kenji Iemura（Institute of Development, Aging and Cancer,Tohoku University)

15:25-15:40
Y-4 Molecular mechanism for peptide recognition by sorLA Vps10p domain
Yu Kitago（Institute for Protein Research, Osaka University)

15:40-15:55
Y-5 ***In silico*** **approach to elucidate the regulatory mechanism of D-amino acid oxidase**
Yusuke Kato（Institute for Enzyme Research, Tokushima University）

15:55-16:05 Intermission 2

special lecture 1

Chair:Yasuyuki Fujita (Institute for Genetic Medicine, Hokkaido University)

16:05-16:35
S-4 **Entosis is induced by nutrient deprivation of cancer cells.**
Michael Overholtzer（Memorial Sloan Kettering Cancer Center）

16:35-17:35 **Poster Session**

18:00-20:00 Discussion Party（Faculty House "Enreiso"）

July 24（Friday）
Moderator Hidemitsu Kitamura (Institute for Genetic Medicine, Hokkaido University)

Self tolerance and its failure

Chair:Masatsugu Oh-hora（Medical Institute of Bioregulation, Kyushu University）
Hidemitsu Kitamura (Institute for Genetic Medicine, Hokkaido University)

9:00-9:25
S-5 **Role of Aire in the establishment of immunological tolerance**
Mitsuru Matsumoto（Institute for Enzyme Research, Tokushima University）

9:25-9:50
S-6 **Gateway Reflex, A New Paradigm of Immune-Neural Interaction**
Masaaki Murakami（Institute for Genetic Medicine, Hokkaido University）

9:50-10:15
S-7 **Generation of highly self-reactive T helper cells in SKG autoimmune arthritis**
Keiji Hirota（Institute for Frontier Medical Sciences, Kyoto University）

10:15-10:25 Intermission 3

Molecular manipulation for self defense

Chair:Takeshi Suzuki（Cancer Research Institute, Kanazawa University）
Masayuki Noguchi (Institute for Genetic Medicine, Hokkaido University)

10:25-10:50
S-8 **Type IV secretion system as a lethal weapon of bacterial pathogens**
Hiroki Nagai（Reseach Institute for Microbial Diseases, Osaka University）

10:50-11:15

S-9 Chemical synthesis of Interleukin-2
Hironobu Hojo（Institute for Protein Research, Osaka University）

special lecture 2

Chair:Masayuki Noguchi (Institute for Genetic Medicine, Hokkaido University)

11:15-11:45

S-10 Fine-tuning of Interleukin-2 Activity with Engineered IL-2 Partial Agonists that Serve as Receptor Signaling Clamps
Warren Leonard（National Heart, Lung, and Blood Institute ）

11:45-12:50 Poster Session & Lunch

Molecular mechanisms of immune system

Chair:Keiji Hirota（Institute for Frontier Medical Sciences, Kyoto University)
Masaaki Murakami (Institute for Genetic Medicine, Hokkaido University)

12:50-13:05

Y-6 Dual function of RIG-I as an innate antiviral mediator against hepatitis B virus
Seiichi Sato（Institute for Genetic Medicine, Hokkaido University）

13:05-13:20

Y-7 Regeneration of tumor specific CTLs utilizing iPS technology
Takuya Maeda（Institute for Frontier Medical Sciences, Kyoto University）

13:20-13:35

Y-8 A role for mitochondria in innate immune response
Tatsuya Kozaki（Research Institute for Microbial Diseases, Osaka University）

13:35-14:50

Y-9 Role of STIM-mediated calcium signaling in immune system
Masatsugu Oh-hora（Medical Institute of Bioregulation, Kyushu University）

14:50-14:05

Y-10 Tissue-Specific Mast Cell-Fibroblast Network for Tissue Homeostasis
Yosuke Kurashima（Institute of Medical Science, The University of Tokyo）

14:05-14:20

Y-11 Discovery of a lipopeptide Ag-presenting molecule: its molecular identity and X-ray crystallographic structure
Daisuke Morita（Institute for Virus Research, Kyoto University）

14:20-14:30 Intermission 4

Molecular mechanism of cellular function

Chair: Hiroki Nagai (Reseach Institute for Microbial Diseases, Osaka University)
Tetsuro Hirose (Institute for Genetic Medicine, Hokkaido University)

14:30-14:55
S-11 Molecular mechanisms that separate germ cell from pluripotential stem cells
Yasuhisa Matsui (Institute of Development, Aging and Cancer, Tohoku University)

14:55-15:20
S-12 A cellular mechanism that sorts RNA transcripts according to their lengths
Mutsuhito Ohno (Institute for Virus Research, Kyoto University)

15:20-15:45
S-13 Discovery of RHOA driver mutations in diffuse-type gastric carcinoma.
Shumpei Ishikawa (Medical Research Institute, Tokyo Medical and Dental University)

special lecture 3

Chair:Akinori Takaoka (Institute for Genetic Medicine, Hokkaido University)

15:45-16:15
S-14 Function and regulation of the *Helicobacter pylori* CagA oncoprotein
Masanori Hatakeyama (Graduate School of Medicine, The University of Tokyo)

16:15-16:30 Closing

Commendation for Young Investigator Award & Poster Presentation Award
Akinori Takaoka (Institute for Genetic Medicine, Hokkaido University)

Closing Remarks
Ken-ichiro Seino (Institute for Genetic Medicine, Hokkaido University)

P-1
Unique response of cancer- and senescence-resistant rodent “Naked mole-rat” to cellular senescence induction
Yoshimi Kawamura (Institute for Genetic Medicine, Hokkaido University)

P-2
Inhibitory effects of β2-Glycoprotein I on angiogenesis and tumorigenesis
Hisako Nakagawa (Institute for Genetic Medicine, Hokkaido University)

P-3
Application of vasohibin-1 and its splicing variant to anti-angiogenic cancer therapy
Sachiko Horie (Institute of Development, Aging and Cancer, Tohoku University)

P-4
Fbxw7 inhibits cancer metastasis in a non-cell-autonomous manner
Kanae Yumimoto (Medical Institute of Bioregulation, Kyushu University)

P-5
Functional role of Gli1 transcription factor in metastasis of melanoma
I Ketut Gunarta (Cancer Research Institute, Kanazawa University)

P-6
MEK mutants derived from sporadic cancers and congenital Ras/MAPK syndromes induce differential gene-expression profiles by modulating spatio-temporal properties of ERK signaling
Yuji Kubota (Institute of Medical Science, The University of Tokyo)

P-7
Search for Proteins that Specifically Function at the Boundary between Normal and RasV12-transformed Epithelial Cell
Yuta Yako (Institute for Genetic Medicine, Hokkaido University)

P-8
Interaction between Normal and Transformed Epithelial Cells through Endocytosis
Sayaka Saitoh (Institute for Genetic Medicine, Hokkaido University)

P-9
A novel BRCA1-interacting protein OLA1 functions in centrosome regulation and carcinogenesis
Hiroki Fujita (Institute of Development, Aging and Cancer, Tohoku University)

P-10
Identification of Wnt target gene ATF3 and its role in tumor suppressor in human colon cancer.
Makoto Inoue (Medical Research Institute, Tokyo Medical and Dental University)

P-11
The metabolic function of RB in controlling mevalonate (MVA) pathway regulates tumor progression
Nobunari Sasaki (Cancer Research Institute, Kanazawa University)

P-12
Mutant p53 increase invasive adenocarcinoma of intestinal tumors in *Apc* $^{\Delta 716}$ mice.
Mizuho Nakayama (Cancer Research Institute, Kanazawa University)

P-13
CD44 is involved in the recognition for self or non-self
Ayana Sasaki (Institute for Genetic Medicine, Hokkaido University)

P-14
HTLV-1 bZIP factor* RNA attenuates apoptosis through enhanced expression of *survivin
Yuichi Mitobe (Institute for Virus Research, Kyoto University)

P-15
MicroRNA as a novel biomarker for development of personalized medicine in cancer immunotherapy
Hidemitsu Kitamura (Institute for Genetic Medicine, Hokkaido University)

P-16
Kdel receptor regulates integrated stress response in naive T cells
Daisuke Kamimura (Institute for Genetic Medicine, Hokkaido University)

P-17
Rapamycin suppresses NK cell-mediated rejection of HLA haplotype homozygous hematopoietic cells by haploidentical recipient
Hiroshi Ichise (Institute for Frontier Medical Sciences, Kyoto University)

P-18
Role of glucocorticoid-induced TNFR-related protein (GITR) ligand in effector function and Treg-mediated suppression
Keiko Yasuda (Institute for Frontier Medical Sciences, Kyoto University)

P-19
Regeneration of MART-1 specific T cells from T-iPS cells for allogeneic transplantation
Kyoko Masuda (Institute for Frontier Medical Sciences, Kyoto University)

P-20 (Y-7)
Regeneration of tumor specific CTLs utilizing iPS technology
Takuya Maeda (Institute for Frontier Medical Sciences, Kyoto University)

P-21
Identification of host surveillance system for RNA viruses in the nucleus
Tomoyuki Honda (Institute for Virus Research, Kyoto University)

P-22 (Y-6)
Dual function of RIG-I as an innate antiviral mediator against hepatitis B virus
Seiichi Sato (Institute for Genetic Medicine, Hokkaido University)

P-23
Commensal Gram-positive bacteria initiates colitis by inducing monocyte/macrophage mobilization
Yusuke Nakanishi (Medical Research Institute, Tokyo Medical and Dental University)

P-24
Identification of pathogen-specific response pathways in activated immune cells using a systems biology approach
Ashwini Patil (Institute of Medical Science, The University of Tokyo)

P-25 (Y-9)
Role of STIM-mediated calcium signaling in immune system
Masatsugu Oh-hora (Medical Institute of Bioregulation, Kyushu University)

P-26
Cellular misfolded proteins transported to the cell surface by MHC class II molecules are targets for autoantibodies in autoimmune diseases
Satoko Morikami (Research Institute for Microbial Diseases, Osaka University)

P-27 (Y-8)
A role for mitochondria in innate immune response
Tatsuya Kozaki (Research Institute for Microbial Diseases, Osaka University)

P-28
Identification of a novel molecule essential for Aire expression and self-tolerance
Toyoshi Yanagihara (Medical Institute of Bioregulation, Kyushu University)

P-29
Nucling, an apoptosis-associated novel protein, controls mammary gland involution through regulation of NF-κB and STAT3
Huy Van Dang (Institute for Enzyme Research, Tokushima University)

P-30 (Y-10)
Tissue-Specific Mast Cell-Fibroblast Network for Tissue Homeostasis
Yosuke Kurashima (Institute of Medical Science, The University of Tokyo)

P-31 (Y-1)
Spred1 regulates the self-renewal activity in hematopoietic stem cells
Yuko Tadokoro (Cancer Research Institute, Kanazawa University)

P-32 (Y-2)
Sox17 maintains the stem cell population of intra-aortic hematopoietic cell clusters in the aorta-gonad-mesonephros region
Ikuo Nobuhisa (Medical Research Institute, Tokyo Medical and Dental University)

P-33
Molecular recognition mechanisms of CD28 family proteins and SH2 domains
Nobutaka Numoto (Medical Research Institute, Tokyo Medical and Dental University)

P-34
Conditional deletion of glial glutamate transporters in spinal cord induces ALS-like phenotype in mice
Kaori Sugiyama (Medical Research Institute, Tokyo Medical and Dental University)

P-35 (Y-4)
Molecular mechanism for peptide recognition by sorLA Vps10p domain
Yu Kitago (Institute for Protein Research, Osaka University)

P-36 (Y-11)
Discovery of a lipopeptide Ag-presenting molecule: its molecular identity and X-ray crystallographic structure
Daisuke Morita (Institute for Virus Research, Kyoto University)

P-37
GPI-anchored protein complex, LY6K/TEX101, is required for sperm fertilizing ability in mice
Yoshitaka Fujihara (Research Institute for Microbial Diseases, Osaka University)

P-38
Role of H3K9 methylation and demethylation enzymes on mouse sex determination
Shunsuke Kuroki (Institute for Enzyme Research, Tokushima University)

P-39 (Y-3)
Role of Kid and CENP-E on efficient chromosome alignment
Kenji Iemura (Institute of Development, Aging and Cancer, Tohoku University)

P-40 (Y-5)
***In silico* approach to elucidate the regulatory mechanism of D-amino acid oxidase**
Yusuke Kato (Institute for Enzyme Research, Tokushima University)

P-41
Structural basis of the maturation mechanism and substrate specificity for redox enzymes
Daiki Kiyota (Institute for Protein Research, Osaka University)

P-42
Small Liposomes Accelerate the Fibrillation of Amyloid β (1-40).
Mayu S. Terakawa (Institute for Protein Research, Osaka University)

P-43

Comprehensive single-cell transcriptome reveals heterogeneity in cancer tissue

Shinichi Hashimoto (Graduate. School of Medicine, Kanazawa University)

P-44

A novel mechanism for activating Type-1 immunity by neuropeptide signalings through NK1R and NK2R in tumor microenvironments

Takayuki Ohkuri (Department of Pathology, Asahikawa Medical University)