

The 8th Japan-Sino-Korea Mouse Resource Workshop

“Precision Modelling of Human Diseases in Mice and Cell Resources”

Date: August 26(Mon) – September 2(Mon), 2019

Venue: Moriwaki Hall, RIKEN BioResource Research Center (BRC)

3-1-1 Koyadai, Tsukuba, Ibaraki 305-0074, Japan

Language: English

This workshop is a part of RIKEN Symposium Series.

Day 1, August 26 (Mon)

9:00-9:30 Registration

9:30-9:40 Opening Remarks

9:40-11:00 **Laboratory mouse genetics**

“Is the JF1/Ms strain Neanderthal?”

Toshihiko Shiroishi (RIKEN BRC)

“History of mouse research”

Xiang Gao (MARC Nanjing University, GemPharmatech)

11:00-11:30 **Human disease models I**

“Gut microbiome and metabolic homeostasis”

Sungsoon Fang (Yonsei University)

11:30-12:20 **Keynote lecture I**

“Mouse model of human female infertility”

Masami Kanai (Tokyo Medical and Dental University)

12:20-13:10 **Luncheon seminar I**

“The Leading Edge of Bioimaging Technology, Bioluminescence Imaging and Multiphoton Imaging”

Takashi Sugiyama & Mitsuru Araki (OLYMPUS CORPORATION)

13:10-14:50 **Mouse resource, genetic manipulation and phenotyping**

“Reproductive techniques to support the maintenance of mouse models”

Kimiko Inoue (RIKEN BRC)

“Highly efficient RNA-guided base editing”

Kyoungmi Kim (Korea University)

“Regulation of pluripotency in mouse embryonic stem cells”

Ho Lee (National Cancer Center Korea)

14:50-15:20 **Neuroscience research using mice**

“Fundamental Strategies Using Mouse Resources in Neuroscience Research”

Toshiaki Nakashiba (RIKEN BRC)

15:20-16:10 **Keynote lecture II**

“Studying the mechanism of motor control using mouse model for Parkinson's disease”

Toshikuni Sasaoka (Niigata University)

16:10-17:30 **Neuroscience research using mice (continue)**

“Synaptic Glutamate Receptors and Behaviors in Animal and Human”

Yun Stone Shi (MARC Nanjing University)

“Mouse models of human deafness: disease mechanisms and therapeutics”

Guoqiang Wan (MARC Nanjing University)

17:30-18:10 Open discussion

18:10-18:30 Group photo

18:30-19:30 Dinner

19:30-20:30 Poster presentation and discussion

Day 2, August 27 (Tue)

8:50-9:50 **Imaging technique and informatics**

“Data integration of phenotype and disease”

Hiroshi Masuya (RIKEN BRC)

“Visualization of mouse embryos with the X-ray computed tomography (CT)”

Masaru Tamura (RIKEN BRC)

9:50-10:40 **Keynote lecture III**

“Non-invasive imaging of diseases in living mice”

Yoshihiro Miwa (University of Tsukuba)

10:40-12:30 **Human disease models II**

“Systemic mouse pathology for defining gene function”

Ki Taek Nam (Yonsei University)

“Smooth Muscle Function and Pathology”

Min-Sheng Zhu (MARC Nanjing University)

“Single cell transcriptome analysis of brown adipogenesis in mouse model”

Je Kyung Seong (Seoul National University & Korea Mouse Phenotyping Center (KMPC))

12:30-13:20 **Luncheon seminar II**

“Mouse genome editing through zygote electroporation”

Shinya Ayabe (RIKEN BRC)

“GONAD: Simple Method for Genome-editing in Mice and Rats”

Makoto Matsuyama (Shigei Medical Research Institute)

13:20-14:10 **Keynote lecture IV**

“Modelling the complex inheritance pattern of Holoprosencephaly using mouse experimental genetics”

Ruth Arkell (The Australian National University)

14:10-15:10 **Human iPS cell resource for disease research**

“Studies using patient-derived iPS cells deposited in RIKEN cell bank”

Yohei Hayashi (RIKEN BRC)

“Modelling human diseases using disease iPSC resources”

Mika Suga (RIKEN BRC)

15:10-16:30 **Human disease models III**

“Tumor-associated myeloid cells and their therapeutic implications”

Jianghuai Liu (MARC Nanjing University)

“Embryo phenotyping of knockout mice with vascular defects”

Young Jae Lee (Gachon University)

16:30-18:00 **Models and techniques for metabolic disease research**

“The role of transcription factor Ets-1 in regulating pancreatic β -cell dedifferentiation and transdifferentiation in Type 2 Diabetes Mellitus”

Xiao Han (Nanjing Medical University)

“The metabolic reprogram regulated by protein prenylation”

Chaojun Li (MARC and Medical School, Nanjing University)

“Targeting Skeletal Muscle to Combat Metabolic Diseases”

Shuai Chen (MARC Nanjing University)

18:00-18:30	Open discussion
18:30-18:50	Diploma presentation
18:50-19:00	Closing remarks
19:00-20:30	Dinner

Day 3, August 28 (Wed)

9:00-12:00 **Practical trainings and demos (Optional)**

Detailed information to be announced.

- 1. Modified SHIRPA & Phenotyping Facility lab tour**
- 2. Embryo manipulation**
- 3. Informatics and genome editing & Mouse Resource Facility lab tour**
- 4. Stem cell imaging & Cell Bank lab tour**

12:00-13:00 Lunch

13:00-18:00 **Practical trainings and demos (Optional)**

- 1. Embryo manipulation**
- 2. Genome editing**

Day 4-6, August 29, 30, September 2 (Thu-Mon)

9:00-18:00 **Practical trainings and demos (Optional)**

- 1. Embryo manipulation**
- 2. Genome editing**