Monday, March 3 (Day 1)

9:00-9:55 Registration

9:55-10:00 Opening Address by Kazunari Miyamichi
10:00-10:05 Welcome Remarks by Eisuke Nishida

Session 1
Chair: Genshiro Sunagawa

10:05-10:30 **S1-1**
Cell types of adult mouse brain: definition and experimental access
Bosiljka Tasic (Allen Institute, USA)

10:30-10:55 **S1-2**
Life-stage-dependent neural circuit remodeling in mice: Foundations of physiological and behavioral plasticity
Kazunari Miyamichi (RIKEN Center for Biosystems Dynamics Research, Japan)

10:55-11:10 **S1-3***
VMH-NR5A1 Regulates Food Intake in Adults
Teppei Fujikawa (UT Southwestern Medical Center, USA)

11:10-11:25 **S1-4*** (P-46)
Does Sleep Arise from the Trajectory of Neuronal States?
Shoi Shi (University of Tsukuba, Japan)

11:25-11:50 *Coffee Break*

Session 2
Chair: Yasushi Okada

11:50-12:15 **S2-1**
How RocA and DMDA-PatA target eIF4A: insights into their mechanism of action
Takuhiro Ito (RIKEN Center for Biosystems Dynamics Research, Japan)

*Selected Talk

12:15-12:30 **S2-2***
Finding Rules for Sequence-Dependent Coexistence of Protein Condensates
Kyosuke Adachi (RIKEN Interdisciplinary Theoretical and Mathematical Sciences Program, Japan)

12:30-13:40 *Lunch*
Poster Flash Talk 1 (13:10-13:40)
Chair: Kazunari Miyamichi

13:40-15:10 **Poster Session 1**
13:40-14:40 Presenters of Odd-numbered posters
14:40-15:10 Free discussion

Session 3
Chair: Sa Kan Yoo

15:10-15:35 **S3-1**
Deciphering the systemic functions of protein arginine methylation: A small change makes a physiological difference during aging
Akiyoshi Fukamizu (Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Japan)

15:35-16:00 **S3-2**
Systemic extracellular acidification as a novel hallmark of ageing
Helena Cochemé (MRC Laboratory of Medical Sciences (LMS), UK)

16:00-16:25 **S3-3**
Shifting to the healthy life by early-life dietary manipulation
Fumiaki Obata (RIKEN Center for Biosystems Dynamics Research, Japan)

16:25-16:55 *Coffee Break*

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*Selected Talk

Session 4
Chair: Miki Ebisuya

16:55-17:20 **S4-1**
Building Blocks to Program Morphogenesis
Wendell A. Lim (University of California San Francisco, USA)

17:20-17:45 **S4-2**
Microvessel-on-a-Chip: Tuning Vessels for Tissue Design
Yukiko T. Matsunaga (The University of Tokyo, Japan)

17:45-18:00 **S4-3***
Self-organization of embryonic stem cells into a reproducible embryo model through epigenome editing
S. Ali Shariati (University of California, Santa Cruz, USA)

18:00-20:30 Social Gathering at BDR Lounge

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*Selected Talk

Tuesday, March 4, 2025 (Day 2)

Session 5
Chair: Teruki Honma

9:30-9:55 **S5-1**
Structural Life Science Research Using Fragment Molecular Orbital Method
Kaori Fukuzawa (Osaka University, Japan)

9:55-10:20 **S5-2**
Use of FMO Analysis to Refine and Interpret Cryo-EM Structures
Toru Sengoku (Yokohama City University, Japan)

10:20-10:45 **S5-3**
Guiding Medicinal Chemistry with Fragment Molecular Orbital (FMO) Method
Alexander Heifetz (Sygnature Discovery, UK)

10:45-11:10 *Coffee Break*

Session 6
Chair: Shuichi Onami

11:10-11:35 **S6-1**
Can Aging be Solved? Lessons from *C. elegans*
David Gems (University College London, UK)

11:35-11:50 **S6-2*** (P-38)
The Signaling Buffering System that Ensures Lifelong Maintenance of Intestinal Stem Cells
May Nakajima-Koyama (Center for iPS Cell Research and Application (CiRA), Kyoto University, Japan)

11:50-13:00 *Group Photo & Lunch*
Poster Flash Talk 2 (12:40-13:00)
Chair: Miki Ebisuya

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*Selected Talk

13:00-14:30 **Poster Session 2**
13:00-14:00 Presenters of Even-numbered posters
14:00-14:30 Free discussion

Session 7
Chair: Kazunari Miyamichi

14:30-14:55 **S7-1**
Reopening critical periods with psychedelics: basic mechanisms and therapeutic opportunities
Gül Dölen (University of California, Berkeley, USA)

14:55-15:20 **S7-2**
Neural Mechanisms Underlying the Representation of Others
Teruhiro Okuyama (Institute for Quantitative Biosciences (IQB), The University of Tokyo, Japan)

15:20-15:45 **S7-3**
Neural circuit mechanisms for sexually dimorphic innate behaviors
Nirao Shah (Stanford University, USA)

15:45-16:10 *Coffee Break*

Session 8
Chair: Mitsuru Morimoto

16:10-16:35 **S8-1**
REMOTE TALK **Engineering Next-Generation Organoids**
Matthias Lütolf (Ecole Polytechnique Fédérale de Lausanne, Switzerland)

16:35-17:00 **S8-2**
Co-induction and self-organization of skeletal muscle and endothelial cells from bovine embryonic stem cells
Marina Sanaki-Matsumiya (Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Japan)

*Selected Talk

17:00-17:25 **S8-3**
Multiplexed Immunofluorescence Imaging Reveals Dynamic Cell Cycle Regulation Coupled with Intestinal Stem Cell Differentiation
Yumi Konagaya (RIKEN Center for Biosystems Dynamics Research, Japan)

17:25-17:50 **S8-4**
Microengineered biomimicry of human physiological systems
Dan Huh (University of Pennsylvania, USA)

17:50-18:05 **S8-5***
Emergence of Embryo-Like Organization upon Artificial Input to hPSC epithelium
Zhe Wang (Kyoto University, Japan)

(Speaker Dinner)

*Selected Talk

Wednesday, March 5 (Day 3)

Plenary Talk
Chair: Yasushi Okada

9:30-9:55 **PT-1**
Computational Approaches for COVID-19 Countermeasures and Implications for Policy Decision-Making
Hiroaki Kitano (Okinawa Institute of Science and Technology / The Systems Biology Institute, Japan)

Session 9
Chair: Yumi Konagaya

9:55-10:20 **S9-1**
Cytoplasmic fluidization triggers dormancy breaking in fission yeast spores
Kazhiro Aoki (Kyoto University, Japan)

10:20-10:45 **S9-2**
Cardiovascular diseases and drugs: where are we with hiPSC models?
Christine Mummery (Leiden University Medical Center, The Netherlands)

10:45-11:10 *Coffee Break*

Session 10
Chair: Fumiaki Obata

11:10-11:35 **S10-1**
Mechanisms of healthy aging in the longest-lived rodent, the naked mole-rat
Kyoko Miura (Kumamoto University, Japan)

11:35-12:00 **S10-2***
Neonatal gut microbial propionate prevents onset of later bronchial asthma
Hiroshi Ohno (RIKEN Center for Integrative Medical Sciences, Japan)

*Selected Talk

12:00-12:05	Poster Awards
12:05-12:10	Closing Remarks by Miki Ebisuya

*Selected Talk