

Program

DAY 1, TUESDAY, JULY 8, 2025

15:00–17:00 Registration

17:10–17:15 Opening Remarks: Katsuhiko HAYASHI

17:15–18:55 Plenary Lecturers

Chairs: Katsuhiko HAYASHI
Shosei YOSHIDA

17:15–18:05 [PL1]

In vitro gametogenesis: a window into germline integrity and continuity30
Katsuhiko HAYASHI
(The University of Osaka, Japan)

18:05–18:55 [PL2]

C. elegans transgenerational avoidance of three Pseudomonas species is mediated by three small RNAs targeting multiple C. elegans genes32
Coleen Tara MURPHY
(Princeton University, USA)

19:05–20:30 Welcome Reception

DAY 2, WEDNESDAY, JULY 9, 2025

9:00–11:30 Session A

Variable inheritance for continuity

Chair: Shosei YOSHIDA

9:00–9:30 [A-1]

Cell biological mechanisms of aging-associated egg aneuploidy34
Tomoya KITAJIMA
(RIKEN Center for Biosystems Dynamics Research, Japan)

9:30–10:00 [A-2]

Meiotic spindle assembly in oocytes36
Hiroyuki OKURA
(The University of Edinburgh, UK)

10:00–10:30 Coffee Break

10:30–11:00 [A-3]

Sperm-egg incompatibility as a reproductive isolating barrier between closely-related mouse species38
Takashi AKERA
(NIH, USA)

11:00–11:30	[A-4] Programmed DNA Elimination in the Nematode <i>Caenorhabditis auriculariae</i>40 <u>Asako SUGIMOTO</u> (Tohoku University, Japan)
11:30–14:00	Lunch after taking Group photo
14:00–17:00	Session B Reset for continuity Chair: Tomoya KITAJIMA
14:00–14:30	[B-1] Tracking Dynamic Chromatin Changes During Spermiogenesis: Implications for the Diagnosis of Male Infertility42 <u>Yuki OKADA</u> (The University of Tokyo, Japan)
14:30–15:00	[B-2] Transmission of the human maternal genome - a tale of triumph over tribulation44 <u>Mary HERBERT</u> (Biomedicine Discovery Institute, Monash University, Australia)
15:00–15:30	[B-3] Heritable epigenome formation via Polycomb-Trithorax counteraction in mouse oocytes48 <u>Azusa INOUE</u> (RIKEN Center for Integrative Medical Sciences, Japan)
15:30–15:50	Coffee Break
15:50–16:20	[B-4] Rise and SINE: Mechanisms of transcriptional “awakening” at the start of life50 <u>Kikuë TACHIBANA</u> (Max Planck Institute of Biochemistry, Germany)
16:20–16:50	[B-5] Precision genetic perturbations reveal the functional role of chromatin marks in oogenesis & epigenetic inheritance54 <u>Jamie HACKETT</u> (European Molecular Biology Laboratory, Italy)
16:50–17:00	Short Break
17:00–18:10	Short Talk Session I Chair: Takashi AKERA
17:00–17:10	[PS-21] <u>Ryuki SHIMADA</u>120 (IMEG, Kumamoto University, Japan)

17:10–17:20 [PS-27]	
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(RIKEN Center for Integrative Medical Sciences, Japan)	
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<u>Yohei HAYASHI</u>	100
(Tohoku University, Japan)	
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<u>Kai OTSUKA</u>	139
(Tokyo University of Science, Japan)	
17:40–17:50 [PS-03]	
<u>Jianxi LI</u>	95
(The University of Tokyo, IQB, Japan)	
17:50–18:00 [PS-11]	
<u>Gera PAVLOVA</u>	105
(The University of Edinburgh, UK)	
18:00–18:10 [PS-19]	
<u>Kaori ISHIKAWA</u>	117
(University of Tsukuba, Japan)	

18:20–19:20 Dinner

19:30–21:30 Poster Session I (Odd Number Posters)

DAY 3, THURSDAY, JULY 10, 2025

9:00–12:00 Session C

Genetic resilience for continuity

Chair: Katsuhiko HAYASHI

9:00–9:30 [C-1]	
Unequal distribution of histone modification promotes yeast aging through rDNA instability	56
<u>Takehiko KOBAYASHI</u>	
(The University of Tokyo, Japan)	
9:30–10:00 [C-2]	
Germline immortality and evolution	58
<u>Yukiko YAMASHITA</u>	
(MIT/Whitehead Institute/HHMI, USA)	
10:00–10:30 [C-3]	
Germline clone dynamics in mice across the lifespan and generations	60
<u>Shosei YOSHIDA</u>	
(National Institute for Basic Biology, Japan)	

10:30–11:00 Coffee Break

11:00–11:30 [C-4]
Causes and consequences of selfish selection in the male germline62

Anne GORIELY
 (University of Oxford, UK)

11:30–12:00 [C-5]
Mutational landscape and clonal dynamics in human germline cells64

Rahelah RAHBARI
 (Wellcome Sanger Institute, UK)

12:00–14:00 Lunch

14:00–17:00 Session D
Brink of discontinuity

Chair: Kyoko MIURA

14:00–14:30 [D-1]
Somatic and germline mutational landscapes across species66

Alex CAGAN
 (University of Cambridge, UK)

14:30–15:00 [D-2]
Somatic mosaicism and cancer68

Seishi OGAWA
 (Kyoto University, Japan)

15:00–15:30 [D-3]
Analysis of metabolic and epigenetic alterations in senescent cells70

Akiko TAKAHASHI
 (The Cancer Institute Of JFCR, Japan)

15:30–15:50 Coffee Break

15:50–16:20 [D-4]
In vivo reprogramming drives development of cancer resembling human germ cell tumors with features of totipotency74

Yasuhiro YAMADA
 (The University of Tokyo, Japan)

16:20–16:50 [D-5]
Quantifying Aging, Longevity and Rejuvenation76

Vadim N. GLADYSHEV
 (Brigham and Women's Hospital, Harvard Medical School, USA)

16:50–17:00 Short Break

17:00–18:10 Short Talk Session II

Chair: Yukiko YAMASHITA

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(University of Tsukuba, Japan)	
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(The University of Tokyo, Japan)	
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(Kobe University, Japan/RIKEN, Japan)	
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(Kyoto University, Japan)	
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(Radiation Effects Research Foundation, Japan)	
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(Wellcome Sanger Institute, UK)	
18:00–18:10 [PS-20]	
Atsushi HATTORI	118
(National Research Institute for Child Health and Development, Japan/ Tohoku University, Japan)	

18:20–19:20 Dinner**19:30–21:30 Poster Session II (Even Number Posters)****DAY 4, FRIDAY, JULY 11, 2025****9:00–11:45 Session E****Diverse behavior avoiding discontinuity**

Chair: Eisuke NISHIDA

9:00–9:30 [E-1]	
Regeneration and lifespan in basal metazoans: insights from the jellyfish <i>Cladonema pacificum</i>	80
Yuichiro NAKAJIMA	
(The University of Tokyo, Japan)	
9:30–10:00 [E-2]	
Studying the link between aging and sociality in ants	82
Akiko KOTO	
(National Institute of Advanced Industrial Science and Technology, Japan)	

10:00–10:30 [E-3]
Accumulation of mutations in trees and their impacts on gene-environment interactions84
Akiko SATAKE
(Kyushu University, Japan)

10:30–10:45 Coffee Break

10:45–11:15 [E-4]
Molecular mechanism promoting longevity in response to signals from the gonad86
Shuhei NAKAMURA
(Nara Medical University, Japan)

11:15–11:45 [E-5]
Elucidating the molecular basis of the healthy aging system in the longest-lived rodent, the naked mole-rat88
Kyoko MIURA
(Kumamoto University, Japan/Kyushu University, Japan)

11:45–11:50 Information of Naito Grants

11:50–12:00 Announcement of Award Recipients

12:00–12:05 Closing Remarks: Katsuhiko HAYASHI

12:05–13:00 Lunch

13:15 Departure of Charter Buses