

[Day1] MONDAY 10<sup>TH</sup> NOVEMBER 2025

9:30-10:00	Arrival
10:00-10:05	Opening Remarks: Hiroyuki Sasaki
10:05-12:20	<b>Session 1: Epigenetics and Computational Biology</b> Chairs: Ryuichiro Nakato & Guillaume Bourque
	<b>Sushmita Roy</b> (online) Unsupervised learning to decipher gene regulatory programs from bulk and single cell omic datasets <b>Guillaume Bourque</b> EpiATLAS and pangenome graphs - new resources for human epigenomic research <b>Ryuichiro Nakato</b> Large language models to identify syntax and function of the epigenome <b>Akiharu Kubo</b> An Epigenetic Mosaic Disorder of the Skin: Asymptomatic Epigenetic Mosaicism of FDFT1 Localized Porokeratosis <b>Naoko Satoh-Takayama</b> Deciphering disease pathogenesis via spatial profiling of immune cells
12:20-13:50	Lunch Break
13:50-16:30	<b>Session 2: Regulation of Neural Development</b> Chairs: Yukiko Gotoh & Kinichi Nakashima
	<b>Hirofumi Morishita</b> Targeting vulnerable circuits in control of social and cognitive development <b>Ileana L. Hanganu-Opatz</b> Critical periods of cognitive development in health and disease <b>Kinichi Nakashima</b> Mechanism of pathogenicity induction by endogenous DNA ligands shared among models of autism spectrum disorders <b>Aya Ito-Ishida</b> Cortical network disruption in a mouse model of neurodevelopmental disorders <b>Kazuo Emoto</b> Early-life control of nociceptive development <b>Chiaki Ohtaka-Maruyama</b> Subplate Dynamics: Sculpting the Neocortex Across Evolution
16:30-17:50	Poster Session
18:00-20:00	Mixer (invited speakers, AMED researchers/advisers, etc.)

[Day2] TUESDAY 11<sup>TH</sup> NOVEMBER 2025

9:30-11:45

**Session 3: Decoding the early-life immunity and microbiome**

Chairs: Koji Hase & Motoko Kimura

**Hideki Ueno**

Biological features of cord-blood naive CD4+ T cells and their association with pediatric allergy

**Motoko Kimura**

Exploring neonatal T cell biology: Recent findings and insights

**Melody Y. Zeng**

Regulation of early gut-brain immune axis by the microbiota

**Parag Kundu**

Maternal gut microbiota shapes neuronal and intestinal stem cells in offspring

**Koji Hase**

Influence of maternal microbiota on fetal development and uterus immunity

11:45-12:45

Lunch Break

12:45-15:00

**Session 4: Nutrition, physiology, and metabolism in early-life**

Chairs: Fumiaki Obata & Joji Kusuyama

**Joji Kusuyama**

Placenta-derived signaling molecules and maternal-fetal interaction

**Marika Charalambous**

Untangling the developmental pathways linking early life growth, adiposity and appetite regulation

**Juro Sakai**

Transgenerational Programming of Human Brown Adipose Tissue by Cold Exposure at Fertilization: Evidence for the PfOHaD Hypothesis

**Sally Dunwoodie**

NAD deficiency and congenital malformation: Genetic and environmental impact on NAD metabolism

**Fumiaki Obata**

Dietary amino acids and longevity in Drosophila

15:00-15:30

Coffee Break

15:30-17:45 **Session 5: Early-life impact on adult diseases**

Chairs: Toshikazu Ushijima & TBD

**Yasuhiro Takashima**

Naive human PSCs model pre- to post-implantation development

**Guo-Liang Xu**

Intrinsic de novo DNA methylation in early embryos enables the generation of mice from methylation-deficient haploid ESCs

**Makoto Tachibana**

Epigenetic regulation of mouse male sex determination

**Toshikazu Ushijima**

Epigenetic Plasticity in Youth Turns into Fragility in Inflammation

**Ilaria Panzeri**

The Developmental Epigenetic Origin of Cancer Susceptibility

17:45-17:50 Closing remarks