

[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 **Session 1: Epigenetics and Computational Biology**

Chairs: Ryuichiro Nakato & Guillaume Bourque

**Sushmita Roy (online)**

Unsupervised learning to decipher gene regulatory programs from bulk and single cell omic datasets

**Guillaume Bourque**

EpiATLAS and pangenome graphs - new resources for human epigenomic research

**Ryuichiro Nakato**

Large language models to identify syntax and function of the epigenome

Short Break (10 min)

**Akiharu Kubo**

An Epigenetic Mosaic Disorder of the Skin: Asymptomatic Epigenetic Mosaicism of *FDFT1* Underlies Localized Porokeratosis

**Naoko Satoh-Takayama**

Deciphering disease pathogenesis via spatial profiling of immune cells

12:20-13:50 Lunch Break

13:50-16:30 **Session 2: Regulation of Neural Development**

Chairs: Yukiko Gotoh & Kinichi Nakashima

**Hirofumi Morishita**

Targeting vulnerable circuits in control of social and cognitive development

**Ileana L. Hanganu-Opatz**

Critical periods of cognitive development in health and disease

**Kinichi Nakashima**

Mechanism of pathogenicity induction by endogenous DNA ligands shared among models of autism spectrum disorders

Short Break (10 min)

**Aya Ito-Ishida**

Cortical network disruption in a mouse model of neurodevelopmental disorders

**Kazuo Emoto**

Early-life control of nociceptive development

**Chiaki Ohtaka-Maruyama**

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	<p><b>Session 3: Decoding the early-life immunity and microbiome</b> Chairs: Koji Hase &amp; Motoko Kimura</p> <p><b>Hideki Ueno</b> Biological features of cord-blood naive CD4+ T cells and their association with pediatric allergy</p> <p><b>Motoko Kimura</b> Exploring neonatal T cell biology: Recent findings and insights</p> <p><b>Melody Y. Zeng</b> Regulation of early gut-brain immune axis by the microbiota</p> <p>Short Break (10 min)</p> <p><b>Parag Kundu</b> Maternal gut microbiota shapes neuronal and intestinal stem cells in offspring</p> <p><b>Koji Hase</b> Influence of maternal microbiota on fetal development and uterus immunity</p>
11:45-12:45	Lunch Break
12:45-15:00	<p><b>Session 4: Nutrition, physiology, and Metabolism in Early-life</b> Chairs: Fumiaki Obata &amp; Joji Kusuyama</p> <p><b>Joji Kusuyama</b> Placenta-derived signaling molecules and maternal-fetal interaction</p> <p><b>Marika Charalambous</b> Untangling the developmental pathways linking early life growth, adiposity and appetite regulation</p> <p><b>Juro Sakai</b> Transgenerational Programming of Human Brown Adipose Tissue by Cold Exposure at Fertilization: Evidence for the PFOHaD Hypothesis</p> <p>Short Break (10 min)</p> <p><b>Sally Dunwoodie</b> NAD deficiency and congenital malformation: Genetic and environmental impact on NAD metabolism</p> <p><b>Fumiaki Obata</b> Dietary amino acids and longevity in Drosophila</p>
15:00-15:30	Coffee Break

15:30-17:45	<p><b>Session 5: Early-life impact on adult diseases</b> Chairs: Toshikazu Ushijima &amp; TBD</p> <p><b>Yasuhiro Takashima</b> Naive human PSCs model pre- to post-implantation development</p> <p><b>Guo-Liang Xu</b> Intrinsic de novo DNA methylation in early embryos enables the generation of mice from methylation-deficient haploid ESCs</p> <p><b>Makoto Tachibana</b> Epigenetic regulation of mouse male sex determination</p> <p>Short Break (10 min)</p> <p><b>Toshikazu Ushijima</b> Epigenetic Plasticity in Youth Turns into Fragility in Inflammation</p> <p><b>Ilaria Panzeri</b> The Developmental Epigenetic Origin of Cancer Susceptibility</p>
17:45-17:50	Closing remarks: Hiroyuki Takeda
18:00 onwards	Speaker's Dinner (only speakers & organizing committee members)