

Monday, March 27 (Day 1)

9:00-9:50 Registration

9:50-10:00 Welcoming Address by Hiroshi Hamada

Session 1: Germline Development

Chair: Austin Smith

10:00-10:30 S1-1

Human germline: Specification and epigenetic programming

Azim Surani (Wellcome Trust Cancer Center Research UK Gurdon Institute, University of Cambridge, UK)

10:30-11:00 S1-2

Importance of the germ line mitochondrial genetic bottleneck in humans

Patrick F Chinnery (University of Cambridge, UK)

11:00-11:30 *Coffee Break*

11:30-12:00 S1-3

Dnmt3C, a DNA methylation enzyme at the front in the battle against transposons

Deborah Bourc'his (Institut Curie, France)

12:00-12:30 S1-4

Major causes of age-related aneuploidy in eggs

Tomoya Kitajima (RIKEN Center for Developmental Biology, Japan)

12:30-13:00 S1-5

Mechanism and reconstitution in vitro of germ cell development in mice, monkeys, and humans

Mitinori Saitou (Kyoto University, JST ERATO, Japan)

13:00-14:00 *Lunch*

14:00-15:30 **Poster Session 1**

14:00-14:45 Presenters of Odd numbered posters

14:45-15:30 Presenters of Even numbered posters

Session 2: Early Embryogenesis & Epigenetics

Chair: Mitinori Saitou

15:30-16:00 S2-1

Single-cell gene expression analyses reveal principles of allelic transcription in mammalian cells

Rickard Sandberg (Karolinska Institutet, Sweden)

16:00-16:30 S2-2

The pluripotency continuum in mammals: phases and states

Austin Smith (Wellcome Trust-Medical Research Council Cambridge Stem Cell Institute, University of Cambridge, UK)

16:30-17:00 S2-3

The developmental dynamics of X-chromosome inactivation

Edith Heard (Institut Curie, France)

17:00-17:30

Coffee Break

17:30-17:50 S2-4*

Hemimethylated DNA and NP95 as novel regulators for endogenous retrovirus (ERV) expression in mammalian cells

Jafar Sharif (RIKEN Center for Integrative Medical Sciences, Japan)

17:50-18:20 S2-5

Variable silencing of the repeat genome – implications for non-genetic inheritance

Anne Ferguson-Smith (University of Cambridge, UK)

18:20-18:50 S2-6

Managing health and disease using big data

Michael Snyder (Stanford University, USA)

18:50-21:00 Reception at CDB Salon

Tuesday, March 28 (Day 2)

Session 3: Organogenesis

Chair: Fumio Matsuzaki

9:30-10:00 S3-1

Epigenetics, stem cells and disease research

Rudolf Jaenisch (MIT, Whitehead Institute for Biomedical Research and Department of Biology, USA)

10:00-10:30 S3-2

Self-organization of patterned tissues from mouse and human stem cells

Mototsugu Eiraku (RIKEN Center for Developmental Biology, Japan)

10:30-11:00 S3-3

Genomic insights into human cortical development, lissencephaly, and Zika microcephaly

Arnold Kriegstein (University of California, San Francisco, USA)

11:00-11:30

Coffee Break

Chair: Mototsugu Eiraku

11:30-11:50 S3-4*

Generation of human limb progenitors from embryonic stem cells

Ernesto Lujan (Harvard Medical School, USA)

11:50-12:20 S3-5

Functional ectodermal organ regeneration by bioengineered organ germs between epithelial and mesenchymal stem cells

Takashi Tsuji (RIKEN Center for Developmental Biology, Japan)

12:20-12:50 S3-6

Building tissues to understand how tissues build themselves

Zev J Gartner (University of California, San Francisco, USA)

12:50-14:00

Lunch

14:00-16:00 Poster Session 2

14:00-15:00 Presenters of posters with category "A"

15:00-16:00 Presenters of posters with category "B"

16:00-16:30 S3-7

Building the kidney from pluripotent stem cells

Ryuichi Nishinakamura (Institute of Molecular Embryology and Genetics, Kumamoto University, Japan)

16:30-17:00 S3-8

Non-cell autonomous regulation in pancreatic organogenesis, regeneration and cancer

Yoshiya Kawaguchi (Center for iPS Cell Research and Application, Kyoto University, Japan)

17:00-17:20 S3-9*

Establishment of a pluripotent stem cell based model of the segmentation clock

Cantas Alev (Center for iPS Cell Research and Application, Japan)

17:20-17:50 *Coffee Break*

Session 4: Human Genetics and Evolution

Chair: Tomoya Kitajima

17:50-18:20 S4-1

Using comparative epigenomics to better understand non-coding DNA

Guillaume Bourque (McGill University, Canada)

18:20-18:40 S4-2*

FOXC1-related Dandy-Walker malformation of the human cerebellum is caused by aberrant migration of progenitors destined to form the posterior cerebellar vermis

Parthiv Haldipur (Seattle Children's Research Institute, Center for Integrative Brain Research, USA)

18:40- *Speaker dinner*

Wednesday, March 29

Chair: Anne Ferguson-Smith

9:30-10:00 S4-3

Virtual ancient DNA: Reconstructing genomes of ancestors from living descendants

Agnar Helgason (deCODE Genetics, University of Iceland, Iceland)

10:00-10:30 S4-4

Identifying genetic variants that affect viability in large cohorts

Molly Przeworski (Columbia University, USA)

10:30-10:50 S4-5*

Deciphering the molecular mechanisms linking development and evolution of the human cerebral cortex

Ikuo K. Suzuki (Institute of Interdisciplinary Research and ULB Neuroscience Institute (UNI), University of Brussels (ULB), Belgium)

10:50-11:20

Coffee Break

11:20-11:40 S4-6*

Evolution of your IQ and the High Price you pay to have it

Pavel Prosselkov (RIKEN Brain Science Institute, Japan, Tokyo University, Japan)

11:40-12:10 S4-7

Evaluating human genetic (and epigenetic) adaption to pathogen pressures

Lluis Quintana-Murci (Institut Pasteur, France)

12:10-13:30

Lunch and Poster Session 3

Free discussion

Session 5: Origin of Humans

Chair: Edith Heard

13:30-13:50 S5-1*

Tail reduction process during human embryonic development

Sayaka Tojima (Kyoto University, Japan)

13:50-14:20 S5-2

Unravelling human evolution: a holistic approach based on the fossil record

Gen Suwa (The University Museum, The University of Tokyo, Japan)

14:20-14:50 S5-3

The genomic footprints of human physiological adaptation

Rasmus Nielsen (UC Berkeley, USA)

14:50-15:00 Closing Remarks by Edith Heard