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
Using omics and big data to manage health and disease
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