

Monday, March 26 (Day 1)

9:00-9:50 Registration

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

Session 1: Maintenance of Tissue Integrity

Chair: Fumio Matsuzaki

10:00-10:30 S1-1

Developmental origins, induction processes and unconventional functions of heterogeneous stem cells in the hair follicle

Hironobu Fujiwara (RIKEN Center for Developmental Biology, Japan)

10:30-10:50 S1-2*

Defining the stem cell lineages in adult skin epidermis

Aiko Sada (University of Tsukuba, Japan)

10:50-11:20 *Coffee Break*

11:20-11:50 S1-3

Dissecting lung stem cells and cancer initiation at single cell resolution

Mark Krasnow (Stanford University School of Medicine and Howard Hughes Medical Institute, USA)

11:50-12:20 S1-4

A unifying theory of branching morphogenesis

Benjamin D. Simons (University of Cambridge, UK)

12:20-13:20 *Lunch*

13:20-13:50 S1-5

Dynamical regulation of spermatogenic stem cells in homeostasis and after transplantation

Shosei Yoshida (National Institute for Basic Biology, Japan)

13:50-14:20 S1-6

Regulation of homeostasis in mammalian epidermis

Fiona M. Watt (King's College London, Centre for Stem Cells and Regenerative Medicine, UK)

14:20-15:50 **Poster Session 1**

14:20-15:05 Presenters of Odd numbered posters

15:05-15:50 Presenters of Even numbered posters

Session 2: Systemic Control and Metabolism

Chair: Sa Kan Yoo

15:50-16:20 S2-1

Stress and the developmental origins of longevity

Alex P. Gould (The Francis Crick Institute, UK)

16:20-16:40 S2-2*

Dietary control of stem cell division through S-adenosylmethionine in *Drosophila* intestine

Fumiaki Obata (The University of Tokyo, Japan)

16:40-17:00 S2-3*

Systemic TGF β /Activin signaling governs adaptive metabolic responses to nutrient balances of *Drosophila* species

Yukako Hattori (Graduate School of Biostudies, Kyoto University, Japan)

17:00-17:20

Coffee Break

17:20-17:50 S2-4

Circadian regulation of metabolism for the prevention and treatment of metabolic diseases

Satchidananda Panda (Salk Institute for Biological Studies, USA)

17:50-18:20 S2-5

Thermogenic fat in energy homeostasis

Shingo Kajimura (University of California, San Francisco, USA)

18:20-18:40 S2-6*

Active hypometabolism in inbred mice as a model of suppressed homeostasis of body temperature

Genshiro A. Sunagawa (RIKEN Center for Developmental Biology, Japan)

18:40-20:30 Reception at CDB Salon

Tuesday, March 27 (Day 2)

Session 3: Homeostatic Disorder

Chair: Mitsuru Morimoto

9:30-10:00 S3-1

Intrinsic tumor suppression and epithelial maintenance by cell competition

Tatsushi Igaki (Graduate School of Biostudies, Kyoto University, Japan)

10:00-10:30 S3-2

The evolving roles of organoids in disease biology

Toshiro Sato (Keio University School of Medicine, Japan)

10:30-10:50 S3-3*

Spermatogonial stem cell self-renewal requires telomerase through a catalytic activity-independent mechanism

Kazuteru Hasegawa (Stanford University school of Medicine, USA)

10:50-11:20

Coffee Break

11:20-11:50 S3-4

Mechanisms of regeneration of the damaged liver

Stuart Forbes (University of Edinburgh, UK)

11:50-12:20 S3-5

Distinct genetic pathways govern the emergence of skeletal muscle stem cells and their niches

Shahragim Tajbakhsh (Institut Pasteur, France)

12:20-12:40 S3-6*

Studies on skeletal muscle atrophy in space - what zebrafish experienced in a space tour

Atsuko Sehara-Fujisawa (Institute for Frontier Life and Medical Sciences, Kyoto University, Japan)

12:40-13:40

Lunch

13:40-15:40 Poster Session 2

13:40-14:40 Presenters of posters with category "A"

14:40-15:40 Presenters of posters with category "B"

Session 4: Cell Lineage and Single Cell Analysis

Chair: Ichiro Hiratani

15:40-16:10 S4-1

Spatial genomics and single cell lineage dynamics by seqFISH and MEMOIR

Long Cai (California Institute of Technology, USA)

16:10-16:40 S4-2

Whole organism lineage tracing with CRISPR/Cas9

Aaron McKenna (University of Washington, USA)

16:40-17:10 S4-3

Polylox barcoding for tissue deconvolution

Hans-Reimer Rodewald (German Cancer Research Center, Germany)

17:10-

Speakers' Dinner

Wednesday, March 28

Session 5: Chromosomal and Epigenetic Control

Chair: Wolf Reik

9:30-10:00 S5-1

Dissecting the higher-order chromatin organisation at single-cell resolution by single-cell Hi-C

Takashi Nagano (Babraham Institute, UK)

10:00-10:30 S5-2

Single-cell DNA replication timing profiling and the 3D genome organization dynamics during development

Ichiro Hiratani (RIKEN Center for Developmental Biology, Japan)

10:30-11:00

Coffee Break

11:00-11:30 S5-3

Elucidating the principles of cancer cell immortality using genetically defined human stem cell models

Dirk Hockemeyer (University of California, Berkeley, USA)

11:30-11:50 S5-4*

Dynamics and spatial genomics of single cells by intron seqFISH

Yodai Takei (California Institute of Technology, USA)

11:50-12:10 S5-5*

ChILT- an Epigenomic Profiling for Single Cell Analysis

Yasuyuki Ohkawa (Kyushu University, Japan)

12:10-13:20

Lunch and Poster Session 3

Free discussion, all posters

Session 6: Aging

Chair: Hironobu Fujiwara

13:20-13:50 S6-1

Hypothalamic regulation of sleep and aging through mammalian sirtuins

Akiko Satoh (National Center for Geriatrics and Gerontology, Japan)

13:50-14:10 S6-2*

Defects in progeroid Cockayne syndrome are recapitulated during normal cellular senescence

Miria Ricchetti (Institut Pasteur, France)

14:10-14:30

Coffee Break

14:30-15:00 S6-3

Aging-induced dysregulation of intestinal stem cells in *Drosophila*

Sa Kan Yoo (RIKEN, Japan)

15:00-15:30 S6-4

TBA

Emmanuelle Passegué (Columbia University, USA)

15:30-16:00 S6-5

Transcriptional profiling of quiescent stem cells in vivo

Thomas Rando (Stanford University, USA)

16:00-16:10 Closing Remarks by Benjamin D. Simons

*Selected talks