

International Symposium on Skin Stem Cell Dynamics

14-15 May 2023

Ito Hall, Ito International Research Center, the University of Tokyo

Symposium Program

Sunday, May 14 (Day 1)

*Selected Talks

8:30-9:30 Registration

9:30-9:40 Opening Remarks by Hironobu Fujiwara

Session 1: Stem Cell Dynamics in Space and Time

Chair: Aiko Sada

9:40-10:10 S1-1

Spatial and temporal regulation of stem cell fate in the upper hair follicle

Kim B. Jensen (University of Copenhagen, Denmark)

10:10-10:40 S1-2

Inferring the rules of cell interactions in tissues using nonequilibrium physics and graph-based machine learning

Kyogo Kawaguchi (RIKEN Center for Biosystems Dynamics Research, Japan)

10:40-11:00 S1-3*

Multiple ways to guide tissue patterning in developing skin, organoids, and regenerative wounds

Cheng-Ming Chuong (University of Southern California, USA)

11:00-11:20 Coffee Break

Keynote Lecture sponsored by Pola Chemical Industries

Chair: Hironobu Fujiwara

11:20-12:05 K1-1

Stem cell fate, dynamics and quality control during aging

Emi K. Nishimura (The University of Tokyo, Japan)

12:10-12:50 Luncheon Seminar by PlasMEDi

Human keratinocyte stem cell dynamics regulated by EGFR signaling
Daisuke Nanba (The University of Tokyo, Japan)

Poster Session

12:50-13:35 Odd number discussion

13:35-14:20 Even number discussion

Session 2: Stem Cell Microenvironment sponsored by Eli Lilly Japan

Chair: Ken Natsuga

14:20-14:50 S2-1

Regulation of Hair Follicle Stem Cells by Short- and Long-range Niche Signals
Maksim Plikus (University of California Irvine, USA)

14:50-15:20 S2-2

Skin Remodeling During Life Stages
Fumiko Toyoshima (Kyoto University, Japan)

15:20-15:40 S2-3*

Low temperature and mTOR inhibition maintain human epidermal stem cell in vitro
Jun-Ichi Sakabe (Duke-NUS Medical School, Singapore)

15:40-16:10 Group photo+Coffee Break

Session 3: Regeneration and Ageing sponsored by Sun Pharma Japan

Chair: Jun-Ichi Sakabe

16:10-16:40 S3-1

In vivo reprogramming of wound-resident cells toward developing skin cells generates skin with skin appendages
Masakazu Kurita (University of Tokyo Hospital, Japan)

16:40-17:10 S3-2

Stem cell division dynamics underlying skin regeneration and aging
Aiko Sada (Kumamoto University, Japan)

17:10-17:30 S3-3*

Single-cell transcriptome atlas of adult human skin tissue regeneration during the hair cycle
Jun Yokota (POLA Chemical Industries and RIKEN Center for Biosystems Dynamics Research, Japan)

17:30-18:00 Evening Seminar by Shiseido

Efficacy of autologous cell-based therapy for male and female pattern hair loss using dermal sheath cup cells: A proof of concept and confirmatory phase III equivalent clinical study

Manabu Ohyama (Kyorin University Faculty of Medicine, Japan)

18:00-20:00 Meet the Expert (Banquet)

Monday, May 15 (Day 2)

Session 3: continued

Chair: Daisuke Nanba

9:00-9:20 S3-4*

Niche adipocytes activate hair follicle stem cells through metabolic priming in stressed conditions

Sung-Jan Lin (Academia Sinica and National Taiwan University, Taiwan)

9:20-9:40 S3-5*

Reservoir stem cells repair tissue injury in nail

Hideyuki Kosumi (Hokkaido University, Japan)

Session 4: Modelling Development and Diseases

Chair: Takeshi Matsui

9:40-10:10 S4-1

Skin organoids for developmental modeling and cell therapy

Karl Koehler (Boston Children's Hospital, USA)

10:10-10:30 Coffee Break

10:30-11:00 S4-2

Skin regional differences in regeneration and disease

Ting Chen (National Institute of Biological Sciences Beijing, China)

11:00-11:20 S4-3*

Wound memory predisposes to tumorigenesis

Mika Watanabe (University of Turin, Italy)

11:20-11:40 S4-4*

Epidermal aPKC polarity signaling suppresses field cancerization upon loss of p53

Carien M. Niessen (University of Cologne, Germany)

11:40-11:50 Closing remarks by Emi Nishimura

This Symposium is a part of the RIKEN Symposium Series.