Japan - Singapore International Skin Conference 2019

CONFERENCE PROGRAMME

WEDNESDAY 10th APRIL - DAY 1

08:00 – 16:00 REGISTRATION

09:00 CONFERENCE OPENING AND WELCOME

Oliver DREESEN
Skin Research Institute of Singapore, A*STAR, Singapore
Daisuke NANBA
Tokyo Medical and Dental University, Japan

09:15 – 10:35 SESSION 1: SKIN AGING AND HOMEOSTASIS

Chairs: David LANE and Daisuke NANBA

09:15 – 09:40 Emi NISHIMURA, Tokyo Medical and Dental University, Japan
Stem cell competition underlies skin homeostasis and aging

09:40 – 09:55 Pritinder KAUR, Curtin University, Australia
Decreased tissue regenerative potential of aging human skin can be attributed partly to changes in the dermal microenvironment

09:55 – 10:20 Oliver DREESEN, Skin Research Institute of Singapore, Singapore
The role of heterochromatin in the accelerated aging syndrome Hutchinson-Gilford Progeria (HGPS)

10:20 – 10:35 Kentaro KAJIYA, Shiseido Global Innovation Center, Japan
3-dimensional visualization of vasculature in skin and its relevance in skin aging

10:35 – 11:05 Morning tea break

11:05 – 12:40 SESSION 2: STEM CELLS AND REGENERATION I

Chairs: Nick BARKER and Aiko SADA

11:05 – 11:30 Sophie BELLANGER, Skin Research Institute of Singapore, Singapore
Nicotinamide metabolism modulates the proliferation-
**SESSION 3: STEM CELLS AND REGENERATION II**

**Chairs:** Yann BARRANDON and Ken NATSUGA

**14:15 – 14:40**

**Nick BARKER,** Institute of Medical Biology, Singapore  
*LGR5*+ stem cells in epithelial maintenance, repair and cancer of the stomach

**14:40 – 14:55**

**Ryuichiro KURATA,** Osaka University, Japan  
Sweat gland stem cells in human sweat glands

**14:55 – 15:20**

**Daisuke NANBA,** Tokyo Medical and Dental University, Japan  
Tracing stem cell motion in human keratinocyte colonies using deep learning-based object tracking

**15:20 – 15:35**

**Jun-ichi SAKABE,** Institute of Medical Biology, Singapore  
Breaking boundaries: The tale of thymus and epidermis

**15:35 – 16:00**

**Aiko SADA,** University of Tsukuba, Japan  
Maintenance of heterogeneous epidermal stem cell populations by the distinct niche

**16:00 – 18:00**

**Poster Session**

Wine and cheese

End of Day 1
THURSDAY 11th APRIL - DAY 2

08:30 REGISTRATION

09:00 – 10:35 SESSION 4: SKIN CANCER

Chairs: Oliver DREESEN and Pritinder KAUR

09:00 – 09:25 David LANE, A*STAR, Singapore
Regulation of expression of wild type and mutant p53 proteins in normal skin and in skin cancer

09:25 – 09:40 Audrey WANG, Skin Research Institute of Singapore, Singapore
A diagnostic toolkit to detect and quantify senescent cells in age-related skin pathologies

09:40 – 10:05 Kiarash KHOSROTEHRANI, The University of Queensland, Australia
Molecular determinants of endothelial cell hierarchy and plasticity: Functional consequences in skin and skin cancer

10:05 – 10:20 Daisuke UTSUMI, University of the Ryukyus, Japan
Identifying the origin of metastatic skin carcinoma of unknown primary site using machine learning approach based on transcriptome data

10:20 – 10:35 Karen CRASTA, Nanyang Technological University, Singapore
Cell non-autonomous effects of chemotherapy-induced delayed wound healing

10:35 – 11:05 Morning tea break

11:05 – 13:00 SESSION 5: SKIN DISEASES

Chairs: Riichiro ABE and Hideyuki UJIIE

11:05 – 11:30 Birgitte LANE, Skin Research Institute of Singapore, Singapore
What keratins do in skin

11:30 – 11:45 Osamu ANSAI, Niigata University, Japan
Aberrant keratin assembly causes impaired mitochondrial movement and function: Implications for epidermolysis bullosa simplex pathogenesis

11:45 – 12:10 Hideyuki UJIIE, Hokkaido University, Japan
Mechanism of autoantibody production in bullous pemphigoid

12:10 – 12:35 Riichiro ABE, Niigata University, Japan
Necroptosis in Stevens-Johnson syndrome/toxic epidermal necrolysis

12:35 – 13:00 Maurice VAN STEENSEL, Skin Research Institute Singapore, Singapore
Zebrafish in dermatology: Cans and cannots

13:00 – 14:30 Lunch break
14:30 – 16:05  
SESSION 6: SKIN IMMUNOLOGY I

Chairs: Baptiste JANELA and Mariko MORIYAMA

14:30 – 14:55  
Masayuki AMAGAI, Keio University, Japan  
*Stratum corneum as niche to control skin microbiota*

14:55 – 15:10  
Satoshi NAKAMIZO, Skin Research Institute Singapore & Singapore Immunology Network, Singapore  
*Neutrophilc folliculitis is facilitated by a Western diet via induction of follicular hyperkeratosis and activation of sebaceous cells*

15:10 – 15:25  
Sayuri YAMAZAKI, Nagoya City University, Japan  
*Skin dendritic cells expressing a unique set of genes associated with immunological tolerance are specialized to expand thymus-derived Foxp3+ regulatory T cells upon ultraviolet B exposure*

15:25 – 15:40  
Chisa NAKASHIMA, Kyoto University, Japan  
*Both basophils and peripheral nerves are involved in the development of Staphylococcus aureus-induced skin inflammation*

15:40 – 16:05  
Niranjan NAGARAJAN, Genome Institute of Singapore, Singapore  
*Skin microbiome dermotypes in atopic dermatitis are linked to host immunity and microbial virulence*

16:05 – 16:35  
Afternoon tea break

16:35 – 17:45  
WOMEN IN SCIENCE KEYNOTE LECTURE

David LANE – Introduction

Yoshiko TAKAHASHI, Kyoto University, Japan  
*To live with neural crest cells, without which no one is happy*

End of Day 2
FRIDAY 12th APRIL - DAY 3

08:30  REGISTRATION

09:00 – 10:20  SESSION 7: SKIN IMMUNOLOGY II
Chairs: Satoshi NAKAMIZO and Takehiko YOKOMIZO

09:00 – 09:25  Kenji KABASHIMA, Kyoto University, Japan
*Cutaneous immune responses to external stimuli*

09:25 – 09:40  James WELLS, The University of Queensland, Australia
*Peripheral CD4+CD8+ T cells are a stable population that emerge from CD4+ T cells to mediate CD8+ T cell regulation in the skin*

09:40 – 09:55  Mika TAKAICHI, Osaka City University, Japan
*The effect of CRH on connective tissue- and mucosal-type mast cells degranulation and proliferation in situ ~CRH is a stimulator for mast cells~*

09:55 – 10:20  Baptiste JANELA, Skin Research Institute Singapore & Singapore Immunology Network, Singapore
*Skin dendritic cells: The sentinel paradox*

10:20 – 10:50  *Morning tea break*

10:50 – 12:35  SESSION 8: TECHNOLOGIES TO STUDY SKIN HEALTH
Chairs: Sierin LIM and James WELLS

10:50 – 11:15  Takehiko YOKOMIZO, Juntendo University, Japan
*Roles of 12-HHT/BLT2 axis in skin*

11:15 – 11:30  Daniel LIO, Nanyang Technological University, Singapore
*Temporal pressure enhanced transdermal delivery through micropore formation*

11:30 – 11:55  Sierin LIM, Nanyang Technological University, Singapore
*Protein cages for consumer care formulation*

11:55 – 12:10  Yingrou TAN, Singapore Immunology Network & National Skin Center, Singapore
*Three-dimensional optical clearing and imaging of pruritic atopic dermatitis and psoriasis skin reveals downregulation of epidermal innervation*

12:10 – 12:35  Markus WENK, National University of Singapore, Singapore
*Translation of lipidomic technologies towards quantification of blood lipids.*

12:35 – 14:05  *Lunch break*
SESSION 9: HAIR BIOLOGY AND SKIN BARRIER

Chairs: Carlos CLAVEL and Mayumi ITO

14:05 – 14:30 Colin JAHODA, Durham University, UK
The multifaceted roles of hair follicle mesenchymal cells and their epigenetic status in vivo and in vitro

14:30 – 14:45 Chin Yan LIM, Skin Research Institute of Singapore, Singapore
Dynamic changes in chromatin mediate epidermal development and keratinocyte function

14:45 – 15:00 Mikiro TAKAISHI, Kochi University, Japan
Ahed, an uncharacterized nuclear protein, is required for epidermal cell growth and differentiation

15:00 – 15:15 Nikolaos PANTELIREIS, Imperial College London, UK
Modelling epigenetic changes regulating hair follicle induction

15:15 – 15:30 Joy NG, Skin Research Institute of Singapore, Singapore
Sox2 in the dermal papilla regulates hair follicle pigmentation

15:30 – 16:00 Afternoon tea break

SESSION 10: HAIR BIOLOGY

Chairs: Colin JAHODA and Emi NISHIMURA

16:00 – 16:25 Mayumi ITO, New York University, USA
SHH signal in hair follicle neogenesis

16:25 – 16:40 Etienne WANG, National Skin Centre, Singapore
Oncostatin M from a distinct subset of TREM2+ macrophages inhibits hair follicle stem cells proliferation during telogen

16:40 – 16:55 Kenneth LAY, Institute of Medical Biology, Singapore
Hair follicle stem cells repurpose proliferation and recruit immune cells to contain a breach in their niche barrier

16:55 – 17:20 Hironobu FUJIWARA, RIKEN Center for Biosystems Dynamics Research, Japan
Developmental origin and induction processes of hair follicle stem cells

17:20 – 17:40 PRIZE CEREMONY AND CONFERENCE CLOSING

Thomas DAWSON, President, Skin Research Society Singapore
End of conference

CONFERENCE DINNER @ Privé, Asian Civilisations Museum