

The 64th annual

Montagna Symposium on the Biology of Skin

presents

Harnessing Stem Cells to Reveal Novel Skin Biology and Disease Treatment

October 15 – 19, 2015
Salishan Resort, Gleneden Beach, Oregon, USA

Program Chairs
Xiao-Jing Wang, MD, PhD
Valerie Horsley, PhD

Symposium Director
Molly Kulesz-Martin, PhD

Program

Thursday, October 15

THURSDAY EVENING

4:30 pm

Hotel check-in (front desk) and Symposium check-in (in Long House Lobby)

6:00 pm

Opening Reception *(in Cedar Tree)*

KEYNOTE SESSION

(in Long House)

7:00 pm

Xiao-Jing Wang, MD, PhD *(University of Colorado Denver)*
Valerie Horsley, PhD *(Yale University)*

Welcome and introductions

7:15 pm

Keynote: **Haifan Lin, PhD**

Professor of Cell Biology, of Genetics and of Obstetrics, Gynecology, and Reproductive Sciences, Yale University; Director, Yale Stem Cell Center

"The role of piRNAs in uniting major constituents of the genome"

Friday, October 16

FRIDAY MORNING

7:00 – 7:55 am

Breakfast (in Council House)

8:00 am **Molly Kulesz-Martin, PhD** (*Oregon Health & Science University*)

Welcome and thanks (*in Long House*)

STEM CELLS IN DEVELOPMENT AND DISEASES

(in Long House)

Session Chair: Mayumi Ito

8:15 am **Mayumi Ito, PhD** (*New York University*)

“Critical role of Wnt signaling in follicular melanocyte stem cells in adult skin”

8:55 am **Tudorita Tumber (Doina), PhD** (*Cornell University*)

“Defining the cellular lineage hierarchy in adult skin epidermis”

9:35 am

Break (in Long House Lobby)

9:50 am

Takahiro Kunisada, PhD (*Gifu University*)

“Kitl and other factors forming the niches for melanocyte stem cells”

10:30 am **George Sen, PhD** (*University of California, San Diego*)

“Post-transcriptional regulation of epidermal stem cell self-renewal and differentiation”

11:10 am **Andrew B. Gladden, PhD** (*University of Texas MD Anderson Cancer Center*)

“Mechanisms underlying primordial bulge stem cell niche development”

11:25 am **Ryan Driskell** (*King’s College London*)

“Lineage relationships of fibroblasts in neonatal mammalian skin”

11:40 am – 1:00 pm

Lunch (in Council House)

FRIDAY AFTERNOON

GENETIC AND EPIGENETIC REGULATION OF STEM CELLS

(in Long House)

Session Chair: Rui Yi

- 1:00 pm **Rui Yi, PhD** (*University of Colorado Boulder*)
 "Adaptive control of hair follicle stem cells"
- 1:40 pm **Yali Dou, PhD** (*University of Michigan*)
 "Probing the function of H3 K4 methyltransferase MLL1 in stem cells"
- 2:20 pm **William Lowry, PhD** (*University of California, Los Angeles*)
 "Molecular mechanisms underlying the initiation and heterogeneity of squamous cell carcinoma"
- 3:00 pm
 Break (in Long House Lobby)
- 3:15 pm **Elena Ezhkova, PhD** (*Icahn School of Medicine at Mt. Sinai*)
 "PRC complex/histone methylation in skin stem cells"
- 3:55 pm **Kif Liakath-Ali, PhD** (*University of Cambridge/King's College London*)
 "Alkaline ceramidase 1 (*Acer1*) is essential for mammalian skin and energy homeostasis"
- 4:10 pm **Naoki Oshimori** (*The Rockefeller University*)
 "TGF- β signaling in cancer stem cells: Tumor heterogeneity and drug resistance"
- 4:25 pm **Michael Rendl** (*Icahn School of Medicine at Mt. Sinai*)
 "Molecular signatures of stem cell precursors and their niche from developing hair follicles"

POSTER SESSION

- 4:40 pm **Molly Kulesz-Martin, PhD** (*Oregon Health & Science University*)
 Presentation of
- Society for Investigative Dermatology Eugene M. Farber Travel Awards for Young Investigators
 - Japanese Society for Investigative Dermatology Young Investigator Travel Award
 - Epidermolysis Bullosa Medical Research Foundation Young Investigator Travel Award
 - Director's Award for Fostering Skin Research Among Underrepresented Scientists

4:55 – 7:00 pm

Poster Reception (*in Long House Lobby and Long House*)

Poster tour for residents and clinicians led by **David A. Norris, MD**

Saturday, October 17

SATURDAY MORNING

7:00 – 7:55 am

Breakfast (in Council House)

MICROENVIRONMENT OF STEM CELLS IN SKIN

(in Long House)

Session Chair: Valerie Horsley

8:00 am **Valerie Horsley, PhD** (*Yale University*)

“Regulation of mesenchymal adipocyte precursor cells in the skin”

8:40 am **Yosef Refaeli, PhD** (*University of Colorado Denver*)

“Expansion of human and murine HSPCs *ex vivo* by modulation of MYC and Bcl-2”

9:20 am **Fiona Watt, DPhil** (*Kings College London*)

“Communication between the epidermis and dermis”

10:00 am

Break (in Long House Lobby)

10:15 am **Melissa Wong, PhD** (*Oregon Health & Science University*)

“Cancer stem cell and macrophage fusion: A novel mechanism that potentiates metastases”

10:55 am **Matthew Rodeheffer, PhD** (*Yale University*)

“Understanding how we get fat: Dietary regulation of adipocyte precursors”

11:35 am **Pritinder Kaur, PhD** (*Hudson Institute of Medical Research*)

“Pericytes as critical regulators of human skin regeneration and repair”

11:50 am – 1:15 pm

Lunch on own

SATURDAY AFTERNOON

1:15 pm

Coastal Hills Hike - *meet to form carpools to hike trailhead OR free time*

SATURDAY EVENING

6:15 pm

Banquet Dinner (*in Council House*)

George Cotsarelis, MD

Milton Bixler Hartzell Professor and Chair

Department of Dermatology, University of Pennsylvania

“Skin stem cells—the past, present and future”

Sunday, October 18

SUNDAY MORNING

7:00 – 7:55 am

Breakfast (in Council House)

STEM CELL-BASED THERAPIES & INNOVATIVE REPROGRAMMING TECHNOLOGIES

(in Long House)

Session Chair: John McGrath

8:00 am **John McGrath, MD** (*Kings College London*)

“Cell-based therapies for inherited blistering skin diseases”

8:40 am **Angela M. Christiano, PhD** (*Columbia University*)

“Generation of complex 3D skin equivalents using iPSC-derived cells”

9:20 am **Jakub Tolar, MD, PhD** (*University of Minnesota*)

“Mucocutaneous engraftment and type VII collagen (C7) replacement after allogeneic hematopoietic cell transplantation (HCT) in patients with recessive dystrophic epidermolysis bullosa (RDEB)”

10:00 am

Break (in Long House Lobby)

10:15 am **Markus H. Frank, MD** (*Harvard University*)

“Advances in stem cell therapy-related/melanoma stem cell-related research”

10:55 am **Anthony Oro** (*Stanford University*)

“Therapeutic reprogramming for epidermolysis bullosa”

11:35 am **Brett Shook, PhD** (*Yale University*)

“The contribution of pre-existing adipocytes to skin wound healing”

11:50 am – 1:00 pm

Lunch (in Council House)

SUNDAY AFTERNOON

NORMAL STEM CELL TO CANCER STEM CELL CONVERSION

(in Long House)

Session Chair: Xiao-Jing Wang

- 1:00 pm **Xiao-Jing Wang, PhD** (*University of Colorado Denver*)
 "Therapeutic strategies of eradicating metastasis-associated cancer stem cells in skin and oral cancer"
- 1:40 pm **Markus Schober, PhD** (*New York University*)
 "Defining a quiescent tumor propagating cell state in cutaneous squamous cell carcinoma"
- 2:20 pm
 Break (in Long House Lobby)
- 2:35 pm **Marcus Bosenberg, MD, PhD** (*Yale University*)
 "Cancer stem cells and melanoma tumor heterogeneity"
- 3:15 pm **Sarah Millar, PhD** (*University of Pennsylvania*)
 "Wnt10A/ β -catenin signaling drives progenitor cell proliferation in multiple epithelial tissues"
- 3:55 – 5:25 pm

BEYOND THE DATA: TIPS FOR A SUCCESSFUL CAREER

Moderators: Xiao-Jing Wang and Valerie Horsley

Group discussion of all meeting participants on tactics for success in investigative dermatology

Show me the money: Successful funding strategies

Panelists: Carl Baker (NIAMS), Molly Kulesz-Martin, Jakub Tolar

Getting the word out: Publishing your work

Panelists: Mayumi Ito, Anthony Oro, Rui Yi

Finding the right fit: Strategies for job searches

Panelists: Mélanie Berta (Galderma), Robert Binder (Procter & Gamble), Sarah Millar

SUNDAY EVENING

- 6:00 pm
Potlatch Northwest-Style Salmon Barbecue
At the home of Drs. Jim & Diane Baker, on the beach
(weather permitting - alternative site Cedar Tree Room at Salishan)
Bus departs 5:50 pm, returns 8:30 pm

Monday, October 19

- 7:30 – 8:30 am
 Breakfast (in Council House)
- 8:45 am
 Airport bus loading (*outside hotel lobby*)
- 9:00 am
 Airport bus departs