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 Tumbar (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