

The 63rd annual

Montagna Symposium on the Biology of Skin

presents

Skin Aging: Molecular Mechanisms and Tissue Consequences

October 9 – 13, 2014

Salishan Resort, Gleneden Beach, Oregon, USA

Program Chair
Barbara A. Gilchrest, MD

Symposium Director
Molly Kulesz-Martin, PhD

Program

Thursday, October 9

THURSDAY EVENING

4:00 pm

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

6:00 pm

Opening Reception (in Cedar Tree)

KEYNOTE SESSION

(in Long House)

7:00 pm

Barbara A. Gilchrest, MD

Welcome and introductions

7:15 pm

Keynote: **Jan Vijg, PhD**

Professor and Chair, Department of Genetics, and Professor, Department of Ophthalmology & Visual Sciences, Albert Einstein College of Medicine, New York, NY

"Genome mosaicism, aging and disease"

Friday, October 10

FRIDAY MORNING

7:00 – 7:55 am

Breakfast (in Cedar Tree)

8:00 am **Molly Kulesz-Martin, PhD** (*in Long House*)

Welcome and thanks

ROLE OF SIGNALING IMBALANCES AND STEM CELL NICHES IN AGING AND FAILED TISSUE HOMEOSTASIS

(in Long House)

Session Chair: Howard Y. Chang

8:15 am **Howard Y. Chang, MD, PhD** (*Stanford/HHMI*)

"Aging, rejuvenation, and epigenetic reprogramming"

9:00 am **Ruby Ghadially, MB, ChB** (*UCSF*)

"Skin aging, tissue homeostasis and stem cells"

9:45 am **Valentina Greco, PhD** (*Yale*)

"Uncovering cellular and signaling mechanisms of skin regeneration using two-photon microscopy"

10:30 am

Break

10:45 am **Raymond Monnat, Jr, MD** (*U Washington*)

"Werner syndrome: Clues to skin aging from a heritable human progeroid syndrome"

11:30 am **Danica Chen, PhD** (*UC Berkeley*)

"Metabolic regulation of hematopoietic stem cell maintenance and aging"

12:15 – 1:30 pm

Lunch on own

Saturday, October 11

SATURDAY MORNING

7:00 – 7:55 am

Breakfast (in Cedar Tree)

DERMAL CHANGES WITH AGING AND PHOTOAGING

(in Long House)

Session Chair: Gary J. Fisher

8:00 am **Gary J. Fisher, PhD** (*U Michigan*)

“Human skin aging: Role of dermal extracellular matrix in functional decline and rejuvenation”

8:45 am **Richard A. Clark, MD** (*Stony Brook*)

“A fibronectin peptide corrects slow growth and poor matrix deposition in fibroblasts from the elderly”

9:00 am **Vera Gorbunova, PhD** (*U Rochester*)

“High molecular weight hyaluronan protects from cancer, stress and aging”

9:45 am **Yong Li, PhD** (*U Michigan*)

“Prostaglandin E₂ mediates age-dependent skin collagen deficiency”

10:00 am

Break

10:15 am **Vincent M. Monnier, MD** (*Case Western*)

“Advanced glycation endproducts (AGEs): Structural and biological implications for the aging skin”

11:00 am **Sewon Kang, MD, MPH** (*Johns Hopkins*)

“Retinoid effects on skin aging”

11:45 am

Lunch on own

SATURDAY AFTERNOON

1:00 pm

Coastal Hills Hike OR Oregon Coast Aquarium Excursion (*bus to Aquarium departs from outside hotel lobby at 1:00 pm; carpools to hike trailhead depart at 1:05 pm*)

SATURDAY EVENING

6:00 pm

Banquet Dinner (*in Council House*)

Sunday, October 12

SUNDAY MORNING

7:00 – 7:55 am

Breakfast (in Cedar Tree)

INNOVATIVE STRATEGIES TO TREAT AND PREVENT SKIN AGING

(in Long House)

Session Chair: Barbara A. Gilchrest

8:00 am **Vladimir Botchkarev, MD, PhD** (*Boston U/U Bradford*)

“Epigenetic regulation of epidermal development and aging”

8:45 am **Calvin B. Harley, PhD** (*Telomere Diagnostics*)

“Targeted telomere-based diagnostics and treatment, from skin to bone”

9:30 am **J. Silvio Gutkind, PhD** (*NIDCR*)

“Exploiting the mTOR paradox to prevent epithelial stem cell senescence and skin aging”

10:15 am

Break

10:30 am **Maria Eriksson, PhD** (*Karolinska Inst*)

“Mutations in *LMNA* and suggestive premature aging in Hutchinson-Gilford progeria syndrome”

11:15 am **Rosemarie Osborne, PhD** (*Procter & Gamble*)

“Understanding skin aging via transcriptomics profiling”

11:30 am **Abbas Raza, PhD** (*U Minnesota*)

“Acyclothyridine dinucleosides (aTds) protect skin against UV induced damage: A biomimetic approach to DNA photoprotection”

11:45 am **Abdoelwaheb El Ghalbzouri, PhD** (*Leiden U*)

“Reticular and papillary fibroblasts and their differential mode of action: Functional implications in skin aging”

12:00 – 1:15 pm

Lunch on own

SUNDAY AFTERNOON

EXAMPLES OF CURRENT RESEARCH APPROACHES IN INDUSTRY

(in Long House)

Session Chair: Barbara A. Gilchrest

- 1:15 pm **Raaj Khusial, PhD** (*Avon*)
 “A role for autophagy in epidermal differentiation”
- 1:30 pm **Michael Milane, MD, MPH** (*DUSA*)
 “A phase 2 study comparing the occurrence of facial actinic keratoses in high-risk individuals after cryotherapy followed by blue light ALA photodynamic therapy (PDT) versus cryotherapy + sham blue light PDT”
- 1:45 pm **Florence Nadal-Wollbold, PhD** (*Pierre Fabre*)
 “Photo-induced modifications of elastin by 4-hydroxynonenal adducts: A key role in skin photoaging?”
- 2:00 pm **Tracy Shafizadeh, PhD** (*Metabolon*)
 “Exploring the metabolome effectively to advance skincare research”
- 2:15 pm **Betty Yu, ScD** (*Living Proof*)
 “Applications of micron thin, skin mimetic, cross-linked polymer layers in dermatology”
- 2:30 pm
 Break

2:45 – 4:45 pm

FUTURE DIRECTIONS PANEL

Moderators: Barbara A. Gilchrest, Sewon Kang

Opportunities/barriers to new dermatologic products, drugs, and cosmeceuticals and implications for translational research

Panelists: **Chris de Bruyne**, *Director, Licensing & Alliance Management, Galderma*
 John Doux, MD, MBA *Investment Research, Palo Alto Investors*
 Serge Lichtsteiner, PhD, *Vice-President, Research, KYTHERA Biopharmaceuticals*

SUNDAY EVENING

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

Monday, October 13

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