

The 62<sup>nd</sup> annual

# Montagna Symposium on the Biology of Skin

presents

## Light and Skin: How Light Sustains, Damages, Treats, Images and Modifies Skin Biology

October 10 – 14, 2013  
Skamania Lodge, Stevenson, Washington, USA

**Program Chair**  
R. Rox Anderson, MD

**Symposium Director**  
Molly Kulesz-Martin, PhD

### Program

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#### Thursday, October 10

##### THURSDAY EVENING

##### KEYNOTE SESSION

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4:00 pm

*Hotel check-in (front desk) and Symposium check-in (outside Stevenson Ballroom)*

6:00 pm

**Opening Reception** *(Conference Center Lobby & adjacent Sequoia Terrace)*

7:00 pm

**R. Rox Anderson, MD**

Welcome and Introductions *(Stevenson Ballroom)*

7:15 pm

Keynote: **Antony Young, MD, PhD**

*Professor of Experimental Photobiology, Division of Genetics and Molecular  
Medicine, St. John's Institute of Dermatology, King's College London*

**"The impact of climate change on skin"**

## **Friday, October 11**

### **FRIDAY MORNING**

7:00 – 8:00 am

*Breakfast (Stevenson A)*

8:00 am        **Molly Kulesz-Martin, PhD**

Welcome and thanks

### **PIGMENTATION AND PHOTOBIOLOGY**

**Session Chair: David E. Fisher**

8:15 am        **David E. Fisher, MD, PhD**

“Cutaneous responses to UV radiation”

9:00 am        **Sergiy Kyryachenko, PhD**

“The role of keratinocyte-derived  $\alpha$ -melanocyte-stimulating hormone and endothelin 1 signaling in a murine melanoma-susceptible model”

9:15 am        **Emi K. Nishimura, MD, PhD**

“Identification of melanocyte stem cells and their radiosensitivity”

10:00 am

*Break*

10:15 am        **Arup K. Indra, PhD**

“Retinoid-X-Receptors ( $\alpha/\beta$ ) in melanocytes modulate innate immune responses and differentially regulate cell survival following UV irradiation”

10:30 am        **Andrew W. Borkowski**

“TLR3 activation is important for skin barrier repair following UV exposure”

10:45 am        **Sancy A. Leachman, MD, PhD**

“Melanoma risk and prevention: A story of pigmentation, genetics and environment”

11:30 – 1:00 pm

*Lunch on own*

## FRIDAY AFTERNOON

### CHRONIC EFFECTS OF LIGHT AND LIGHT-RELATED THERAPIES

*Session Chair: Barbara A. Gilchrest*

- 1:00 pm      **Barbara A. Gilchrest, MD**  
                  "Presumptive role of telomeres in UV-responses"
- 1:45 pm      **Craig A. Elmets, MD**  
                  "Cyclooxygenase -2: A mediator of UV-induced non-melanoma skin cancer  
                  and a potential target for prevention"
- 2:30 pm      **Richard L. Gallo, MD, PhD**  
                  "Role of noncoding RNA in the innate immune response to UVB injury"
- 3:15 pm  
                  *Break*
- 3:30 pm      **Thomas M. Runger, MD, PhD**  
                  "Relative contribution of longwave and shortwave ultraviolet light (UVA and  
                  UVB) to photoaging"
- 4:15 pm      **Philip L. Tong, MD**  
                  "The immune atlas: A topographical three-dimensional study of the skin  
                  immune system using multiphoton microscopy and multi-parameter flow  
                  cytometry"

### POSTER SESSION

- 5:00 pm      **Molly Kulesz-Martin, PhD**  
                  Presentation of Society for Investigative Dermatology  
                  Eugene M. Farber Travel Awards for Young Investigators
- 5:15 – 7:00 pm  
                  *Poster Reception* (*Conference Center Lobby & Stevenson Ballroom*)  
                  Poster tour for residents and clinicians lead by **David A. Norris, MD**

## Saturday, October 12

### SATURDAY MORNING

7:00 – 8:00 am

*Breakfast (Stevenson A)*

### ADVANCES IN OPTICAL IMAGING AND MICROSCOPY

*Session Chair: Steven L. Jacques*

8:00 am      **Steven L. Jacques, PhD**

“Probing nano-, micro- and meso-architecture of tissues using light scattering, and probing biomolecules using light absorption, fluorescence, and non-linear effects”

8:45 am      **Anthony J. Durkin, PhD**

“Spatial frequency domain imaging of skin”

9:30 am      **Haishan Zeng, PhD**

“An integrated multiphoton microscopy and micro-Raman spectroscopy system for accurate targeting and biochemical analysis of microstructures in human skin *in vivo*”

9:45 am

*Break*

10:00 am     **Milind Rajadhyaksha, PhD**

“Confocal microscopy and laser ablation of basal cell carcinomas: Image-guided diagnosis, treatment and monitoring directly on the patient?”

10:45 am     **Ruikang Wang, PhD**

“Non-invasive optical 3D imaging of microstructure and microcirculation within skin tissue beds *in vivo*”

11:30 am     **Daniel Gareau, PhD**

“Computer vision differentiates dysplastic nevi versus melanoma”

12:15 pm

*Lunch on own*

### SATURDAY AFTERNOON

1:15 pm

**Eagle Creek Hike** (*Carpools to hike trailhead gather at Conference Center entrance; if govt shutdown has ended, drivers will need to buy a Northwest Forest Pass at the hotel*)

### SATURDAY EVENING

6:00 pm

**Banquet Dinner** (*Stevenson Ballroom*)

**R. Rox Anderson, MD, and Barbara A. Gilchrest, MD**

**“Simple Observations, with John A. Parrish, MD”**

*Chief Executive Officer, Center for Integration of Medicine and Innovative Technology, Boston, MA*

## **Sunday, October 13**

### **SUNDAY MORNING**

7:00 – 8:00 am

*Breakfast (Stevenson A)*

### **L I G H T T H E R A P Y (Part 1)**

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**Session Chair: R. Rox Anderson**

8:00 am

**R. Rox Anderson, MD**

“Skin target-selective optical treatments: What now, what next?”

8:45 am

**Conor L. Evans, PhD**

“Advanced microscopy to visualize the therapy of acne in skin”

9:30 am

**Wesley Moy, MS**

“Preclinical *in vivo* evaluation of pulsed dye laser and photodynamic therapies on normal vasculature”

9:45 am

*Break*

10:00 am

**Tracy (Hequn) Wang, PhD**

“Imaging directed photothermolysis through two-photon absorption demonstrated on mouse skin: A potential novel tool for highly targeted skin treatment”

10:15 am

**Merete Haedersdal, MD, PhD**

“Fractional lasers to deliver photodynamic therapy for skin cancer”

11:00 am

**Kristen Kelly, MD**

“New advances to improve light based treatment of cutaneous vascular lesions”

11:45 – 1:00 pm

*Lunch on own*

## SUNDAY AFTERNOON

### L I G H T T H E R A P Y (Part 2)

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**Session Chair: R. Rox Anderson**

1:00 pm      **Dieter Manstein, MD**

“Fractional laser treatments”

1:45 pm      **Trevor Jones**

“Ultraviolet photography impact on the sun safety awareness and behavior of skiers and snowboarders”

2:00 pm      **Richard Weller, MD, FRCP**

“Sun, skin and hypertension”

2:45 pm

*Break with snacks (Conference Center Lobby)*

3:00 – 5:00 pm

**Provocative Problems and Questions Panel—“So What?”** (Stevenson Ballroom)

Panelists:      R. Rox Anderson, MD  
Barbara A. Gilchrest, MD  
William Ju, MD  
Harvey Lui, MD  
David A. Norris, MD

## SUNDAY EVENING *(Columbia Gorge Interpretive Center)*

6:15 pm

Museum visit

6:30 – 7:45 pm

*Buffet Dinner*

## **Monday, October 14**

7:30 – 8:30 am

*Breakfast (Stevenson A)*

8:45 am

Airport bus loading *(outside Conference Center entrance)*

9:00 am

Airport bus departs