

Keystone Symposia in Hannover

Skin Health and Disease: Immune, Epithelial and Microbiome Crosstalk

Herrenhausen Palace | Hannover, Germany | April 8–11, 2019

Scientific Organizers:

Michel Gilliet, University Hospital of Lausanne, Switzerland

Emma Guttman, Mount Sinai Hospital, USA

Anthony Oro, Stanford University, USA

Manolis Pasparakis, University of Cologne, Germany

Organized in collaboration with Volkswagen Foundation

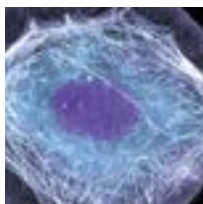
The skin is the largest human organ and the primary interface between the body and the environment. It provides the first line of defense against invading pathogens and trauma via its physical barrier properties but also via active defense mechanisms orchestrated by a coordinated interplay between epithelial and immune cells. Recently, the skin microbiota has emerged as an important third player that critically influences skin homeostasis and inflammation by interacting with epithelial and immune cells. This conference aims to illustrate these reciprocal interactions and describe their impact on skin physiology and pathophysiology. A central focus will be to discuss how the composition of the skin microbiota regulates homeostasis and determines susceptibility to inflammatory, allergic and neoplastic diseases of the skin and other epithelial tissues. Emerging concepts concerning the mechanisms influencing epithelial-immune-microbiota crosstalk and opportunities for therapeutic interventions will be discussed. The symposium will also provide a unique setting for in-depth, cross-disciplinary discussions between basic skin scientists and biologists studying immune responses in other barrier organs, dermatologists, cancer biologists, immunologists and many researchers from disparate fields who normally do not have opportunities to meet. Finally, the conference will also foster interaction with potential industry partners, who increasingly see the skin as a major focus for gaining insights into immune mechanisms and for development of targeted therapies for patients with chronic inflammatory diseases, allergic diseases and cancer.

Session Topics:

- Epithelial-Microbiome Interactions in the Skin
- Epithelial-Immune Interactions in the Skin
- Microbiota-Immune Interactions in Skin and other Epithelial Surfaces
- Workshop: Therapeutic Innovation for Skin Diseases
- Skin Dysbiosis and Allergic Inflammation
- Epithelial-Microbiota-Immune Interactions in Tumorigenesis and Systemic Diseases
- Emerging Therapeutic Concepts Treatment *plus one additional workshop*

Global Health Travel Award Deadline: Nov 13, 2018; Scholarship/Discounted Abstract Deadline: Dec 12, 2018; Abstract Deadline: Jan 10, 2019; Discounted Registration Deadline: Feb 7, 2019

Visit www.keystonesymposia.org/19D4 for more details.



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Left image of skin cell courtesy of National Institutes of Health

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Skin Health and Disease: Immune, Epithelial and Microbiome Crosstalk (D4)

April 8-11, 2019 • Herrenhausen Palace • Hannover, Germany

Scientific Organizers: Michel Gilliet, Emma Guttman, Anthony Oro and Manolis Pasparakis

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MONDAY, APRIL 8

Arrival and Registration

TUESDAY, APRIL 9

Welcome and Keynote Address

Richard L. Gallo, University of California, San Diego, USA
Skin Microbiome in Health and Disease

Epithelial-Microbiome Interactions in the Skin

***Julie A. Segre**, NHGRI, National Institutes of Health, USA
Structure and Function of the Human Skin Microbiome

Yasmine Belkaid, NIAID, National Institutes of Health, USA
The Skin Microbiota in the Control of Skin Immunity

Elizabeth A. Grice, University of Pennsylvania, USA
Microbial Roles in Skin Barrier Function and Repair

Short Talk(s) Chosen from Abstracts

Workshop 1

Short Talks Chosen from Abstracts

Epithelial-Immune Interactions in the Skin

***Manolis Pasparakis**, University of Cologne, Germany
Epithelial Cell Death and Skin Inflammation

Amy S. Paller, Northwestern University, USA
Genetic Barrier Disorders with Inflammation and Microbiome Abnormalities

Angela M. Christiano, Columbia University, USA
Immune Control of Hair Follicles

Short Talk(s) Chosen from Abstracts

Poster Session 1

WEDNESDAY, APRIL 10

Microbiota-Immune Interactions in Skin and other Epithelial Surfaces

***Michel Gilliet**, University Hospital of Lausanne, Switzerland
Role of Microbiota in Innate Immune Responses of the Skin

Daniel H. Kaplan, University of Pittsburgh, USA
Immune Shaping of Skin Microbiota

Dan R. Littman, HHMI/New York University School of Medicine, USA
Intestinal Microbiome in Immunity and Autoimmunity

Speaker to be Announced

Short Talk(s) Chosen from Abstracts

Workshop 2: Therapeutic Innovation for Skin Diseases

Short Talks Chosen from Abstracts

Skin Dysbiosis and Allergic Inflammation

***Emma Guttman**, Mount Sinai Hospital, USA
Th2/Th22 Driven Allergic Inflammation

Heidi H. Kong, National Institutes of Health, USA
Skin Microbiota and Development of Atopic Dermatitis

Brian Kim, Washington University School of Medicine, USA
Restoring Dysbiosis in Atopic Dermatitis

Short Talk(s) Chosen from Abstracts

Poster Session 2

THURSDAY, APRIL 11

Epithelial-Microbiota-Immune Interactions in Tumorigenesis and Systemic Diseases

***Anthony Oro**, Stanford University, USA
Microenvironment Signaling in Skin Tumor Development and Resistance

Gian Paolo Dotto, University of Lausanne, Switzerland
Genetic and Epigenetic Determinants of Cancer associated Fibroblast Activation in Field Cancerisation

Tiffany C. Scharschmidt, University of California, San Francisco, USA
Early Life Immune-Microbe Crosstalk in Skin

Short Talk(s) Chosen from Abstracts

Emerging Therapeutic Concepts

Sunil Kochhar, Nestlé Research Center, Switzerland
Modulation of Gut/Skin Microbiota by Pre- and Pro-Biotics

Kari Nadeau, Stanford University, USA
Novel Therapies and Regulation of Food Allergies

***James G. Krueger**, Rockefeller University, USA
Therapeutic Targeting Epithelial/Immune Pathways in Inflammatory Skin Diseases

Short Talk Chosen from Abstracts

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)

FRIDAY, APRIL 12

Departure