



# **Practical Applications of Multiomics in Atopic Dermatitis**

**Monday, May 7, 2025 • 8 am-Noon PT  
Hilton San Diego Bayfront Hotel • Room Sapphire AB • San Diego, CA, USA**

***An International Eczema Council Symposium at the  
2025 Society for Investigative Dermatology (SID)  
Annual Meeting***

## AGENDA

**8-8:10 am**

### Welcome from the IEC

Lawrence F. Eichenfield, MD; IEC President-Elect; Rady Children's Hospital-San Diego; San Diego, CA, USA

**8:10-8:15 am**

### Program Overview

Sara Brown, MBChB MD; IEC Councilor; The University of Edinburgh, Scotland, UK

Patrick Brunner, MD MSc; IEC Councilor; Icahn School of Medicine at Mount Sinai, New York, NY, USA

**8:15-8:45 am**

### Genetic and -omic Analyses Give Insight into Fundamental Mechanisms in Atopic Dermatitis

Sara Brown, MBChB MD; IEC Councilor; The University of Edinburgh, Scotland, UK

**8:45-9:15 am**

### AD and its Mimickers

Patrick Brunner, MD MSc; IEC Councilor; Icahn School of Medicine at Mount Sinai; New York, NY, USA

**9:15-9:45 am**

### Obtaining Samples: Minimally Invasive Approaches

Helen He, MD; Icahn School of Medicine at Mount Sinai; New York, NY, USA

**9:45-10 am**

### Break

**10-10:30 am**

### Leveraging Genetic and Molecular Data to Investigate the Aetiology of Eczema Susceptibility and Severity

Lavinia Paternoster, BSc MSc(Edin.) PhD; University of Bristol, England, UK

**10:30-11 am**

### Translating Omics into Clinical Practice

Michel Gilliet, MD; University of Lausanne, Switzerland

**11-11:30 am**

### Beyond Molecular Omics

Katrina Abuabara, MD MA MSCE; IEC Board Member & Councilor; University of California-San Francisco, San Francisco, CA, USA

**11:30-11:40 am**

### Flash Talk: Blood Gene Expression Reveals Endotypes of Atopic Dermatitis Patients with Distinct Responses to Dupilumab

Sneha Shrotri, MS; AMPEL BioSolutions; Charlottesville, VA, USA

**11:40-11:50 am**

### Flash Talk: Tape Strip Transcriptomic Analysis of Thai Patients with Atopic Dermatitis Shows Greater Immune and Barrier Abnormalities in the Setting of Comorbid Food Allergy

Daniel Liu, BA; Icahn School of Medicine at Mount Sinai; New York, NY, USA

**11:50-Noon**

### Flash Talk: Serum Proteomic Characterization of the East Asian and Asian American Atopic Dermatitis Molecular Phenotype

Daniel Liu, BA; Icahn School of Medicine at Mount Sinai; New York, NY, USA

**Noon**

### Concluding Remarks & QR Code Session Evaluation

Sara Brown, MBChB MD; IEC Councilor; The University of Edinburgh, Scotland, UK

Patrick Brunner, MD MSc; IEC Councilor; Icahn School of Medicine at Mount Sinai, New York, NY, USA

## IEC BREAKFAST AT SID

7-8:30 am May 8

The IEC is welcoming PhDs to join the council to further our shared mission through collaboration. To help introduce PhDs with an interest in eczema to the IEC community, the Council will host a special complimentary breakfast during the Society for Investigative Dermatology (SID) Meeting.

During this casual event, attendees will enjoy breakfast while networking with current Council members and leaders. You'll learn more about the IEC mission and find out how to apply to join us. If you hold a PhD and would like to attend the IEC breakfast at SID, [sign up now](#).

PhDs who are passionate about atopic dermatitis research are invited be part of our global community of experts dedicated to advancing eczema knowledge and treatment. We invite you to join us as we work together across borders and roles to transform the lives of people with atopic dermatitis.

[Learn More About Joining the IEC](#)

## LEARNING OBJECTIVES

By the end of the session, participants will be able to:

- Identify at least three specific biomarkers derived from multiomic analyses that are relevant to the pathophysiology and personalized treatment of atopic dermatitis.
- Evaluate at least two real-world examples of multiomic approaches in clinical research or practice.
- Describe the principles of multiomics (genomics, transcriptomics, proteomics, and metabolomics) and their relevance to understanding atopic dermatitis.

## IEC PRESIDENT-ELECT



### Lawrence F. Eichenfield, MD; IEC President-Elect

Lawrence Eichenfield is chief of pediatric and adolescent dermatology at Rady Children's Hospital-San Diego in San Diego, CA, USA, and the vice chair of the department of dermatology and professor of dermatology and pediatrics at the University of California San Diego (UCSD) School of Medicine.

His clinical interests include atopic dermatitis, acne, psoriasis, vascular lesions including port wine stains and hemangiomas, neonatal dermatology, laser surgery, nevi, and skin signs of systemic disease. He has authored more than 400 journal articles, chapters, abstracts, and books on these topics and has served as the senior editor of *Neonatal and Infant Dermatology* and *The Eczemas*. He served as editor-in-chief of *Pediatric Dermatology* for 12 years and serves on the editorial boards of multiple journals and periodicals.

He has received extensive honors and served in various leadership capacities for the Society for Pediatric Dermatology, American Academy of Dermatology, American Acne and Rosacea Society, and Pediatric Dermatology Research Alliance (PeDRA).

Dr. Eichenfield received his medical degree from Mount Sinai School of Medicine, was a pediatric resident and chief resident at Children's Hospital of Philadelphia, and completed his dermatology residency at the Hospital of the University of Pennsylvania.

## PROGRAM CO-CHAIRS



### Sara Brown, MBChB MD; IEC Councilor

Sara Brown is a Wellcome Trust Senior Research Fellow and grant chair of dermatology at the University of Edinburgh, Scotland. She is an honorary consultant dermatologist in NHS Lothian, with specialist clinics for adult and paediatric eczema as well as genetic skin disease.

Dr. Brown leads a functional genomics laboratory group whose aim is to understand molecular genetic mechanisms of atopic skin disease and associated conditions, towards targeted therapy development. In collaborative work, she has investigated shared and divergent genomic risk for eczema and psoriasis and applied causal inference methods to assess important comorbidities.



### Patrick Brunner, MD MSc; IEC Councilor

Patrick Brunner is the associate professor of dermatology and director of the Cutaneous Lymphoma Clinic in the Kimberly and Eric J. Waldman Department of Dermatology at Icahn School of Medicine at Mount Sinai in New York, NY, USA.

As a clinician scientist with a strong interest in skin immunology, Dr. Brunner sees patients suffering from primary cutaneous immune cell malignancies and also has an interest in chronic inflammatory skin diseases such as vitiligo, atopic dermatitis, alopecia areata, and scarring alopecias.

Dr. Brunner obtained his MD from the Medical University of Vienna, Austria. He completed his residency in Dermatology at the Department of Dermatology at the Medical University of Vienna (General Hospital Vienna), under the mentorship of Dr. Georg Stingl. Afterwards, Dr. Brunner joined the Laboratory for Investigative Dermatology at The Rockefeller University in New York, obtaining a master's degree in clinical and translational sciences, and performed research on atopic dermatitis under the mentorship of Drs. Emma Guttman and James G. Krueger. In 2018, he returned to Vienna to build a research group focusing on cutaneous immunobiology of chronic inflammatory skin diseases and primary cutaneous lymphomas, to better understand how individual immune cells orchestrate skin inflammation in benign and malignant conditions. He assumed his current role in 2021.

## PROGRAM FACULTY



### **Katrina Abuabara, MD MA MSCE; IEC Board Member & Councilor**

Katrina Abuabara is an associate professor of dermatology at the University of California San Francisco (UCSF) in San Francisco, CA, USA. She also holds a joint appointment in the new UCSF-University of California Berkeley Computational Precision Health Graduate Group and a secondary appointment in Epidemiology and biostatistics at the University of California Berkeley's School of Public Health.

Her research examines how environmental and sociocultural factors interact with biological factors to influence chronic inflammatory conditions. She has studied atopic dermatitis disease course and comorbidities, the role of the skin barrier in inflammation and aging, and the impact of environmental microbes and soil biodiversity on allergic diseases.

Dr. Abuabara was named the 2019 American Academy of Dermatology Young Investigator of the year and is a recipient of the 2020 National Academy of Medicine's Healthy Longevity Global Grand Challenge. She is co-chair of the International Eczema Council's Research Committee and an associate editor for the *British Journal of Dermatology*.



### **Michel Gilliet, MD**

Michel Gilliet is a Swiss dermatologist and immunologist who is chair of the Department of Dermatology at the University of Lausanne, CHUV in Lausanne, Switzerland. His research has focused primarily on translational research studying immune responses in inflammatory skin diseases and melanoma. He was involved in the discovery of the role of thymic stromal lymphopoietin (TSLP) in atopic dermatitis.

A respected researcher and clinician, Dr. Gilliet has published more than 100 peer-reviewed articles in leading scientific journals, and his work has been cited more than 19,000 times. He is a member of many prestigious medical societies and has served as president of ESDR. In 2016, he was one of the two annual recipients of the Cloëtta Prize, which honors those who have rendered outstanding services to specific areas of medical research in Switzerland, for his "for his fundamental discoveries on the link between innate immune answers and autoimmune and inflammatory diseases, notably of the skin."

Dr. Gilliet received his medical training at the University of Zürich, Switzerland, and his research training in immunology at the DNAX Research Institute in Palo Alto, CA, USA. In 2004, he joined the MD Anderson Cancer Center in Houston, TX, USA, as an assistant professor in dermatology and immunology. He was promoted to tenured associate professor with a clinical appointment in dermatology, a translational research appointment in melanoma oncology, and a basic science appointment in immunology. He returned to Switzerland and assumed his current role in 2010.



### **Helen He, MD**

Helen He, MD, is assistant professor in the Department of Dermatology, director of Lasers and Cosmetic Surgery, and co-director of the Mount Sinai-Clinique Healthy Skin Dermatology Center at the Icahn School of Medicine at Mount Sinai in New York, NY, USA.

Dr. He specializes in cosmetic and medical dermatology, with an expertise in inflammatory skin diseases like eczema. Her research is focused on studying the molecular mechanisms of inflammatory skin diseases and skin aging, with the goal of developing new targeted therapeutic strategies. She has published extensively in high-impact journals on molecular phenotyping of atopic dermatitis, using minimally invasive sampling techniques like tape strips.

Dr. He received her bachelor of science degree in biological engineering at the Massachusetts Institute of Technology in Cambridge, MA, USA, and her doctor of medicine degree at Mount Sinai. She completed her dermatology residency at Mount Sinai, where she was funded by a T32 NIH research training grant.



### **Lavinia Paternoster, BSc MSc(Edin.) PhD**

Lavinia Paternoster is a genetic epidemiologist, based at the MRC Integrative Epidemiology Unit at the University of Bristol, UK.

She has led several large-scale genomewide associations in atopic dermatitis (AD) and related conditions. She is part of the European academic-industry collaboration BIOMAP (which studies biomarkers for AD and psoriasis), where she has led a multi-omic study on AD disease severity as well as conducting several studies using genetic data to investigate causal relationships between molecular markers, AD, and related comorbidities (including mental health outcomes). She has recently expanded her research portfolio to include a broader spectrum of skin diseases and has a keen interest in the use of genetic data to inform drug target prioritisation.

## FLASH TALK PRESENTERS



### Daniel Liu, BA

Daniel Liu is a research fellow in the Laboratory for Inflammatory Skin Diseases under the mentorship of Dr. Emma Guttman-Yassky at the Icahn School of Medicine at Mount Sinai in New York, NY, USA. He is currently a medical student at Mount Sinai and received the 2024 Pediatric Dermatology Research Alliance (PeDRA) Research Fellowship.

His research focuses on translational and molecular studies aimed at elucidating the pathophysiology of atopic dermatitis with a particular focus on characterizing the molecular endotype of immigrant communities and their native populations.

More recently, under the mentorship of Dr. Guttman, Daniel has expanded his interests to explore the intersections of atopic conditions—including atopic dermatitis, allergic asthma, and food allergy—and their molecular impacts and manifestations in the skin. He aspires to become a clinician-scientist dedicated to advancing targeted therapeutics to improve patient outcomes.



### Sneha Shrotri, MS

Sneha Shrotri is a bioinformatics scientist at AMPEL BioSolutions, specializing in investigating precision medicine strategies for autoimmune and inflammatory skin diseases. With a master's degree in bioinformatics from Indiana University in Indiana, USA, she brings a strong academic foundation to her research.

Sneha is passionate about leveraging computational biology and machine learning to enhance disease prediction, drug response assessment, and patient stratification. Her goal is to drive impactful discoveries in precision medicine and contribute to the development of innovative therapies for complex diseases.

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## IEC MEMBERSHIP CREATES OPPORTUNITIES FOR RESEARCHERS



### Collaborate with Leading Experts & Grow Your Network

Build valuable relationships across roles and borders with dermatologists, allergists, and researchers at the forefront of eczema research and care.



### Elevate Translational Research

Shape the future of eczema care. Take an active role in IEC's research initiatives, sharing your discoveries worldwide.



### Increase Your Visibility & Professional Reputation

Contribute to global symposia, articles printed in top journals, and other high-profile IEC projects. Advance your professional development and reputation.



### Participate in Global Symposia

Attend IEC educational symposia and events to learn the latest advancements in eczema research and treatment.

[Learn More About Joining the IEC](#)

## IEC THANKS OUR CORPORATE SUPPORTERS

The support of our corporate partners makes it possible for the International Eczema Council (IEC) to advance its mission of improving patient care by promoting research, education, and best practices in treatment for atopic dermatitis in people worldwide.

Learn how to join these companies in advancing the IEC mission; visit [eczemacouncil.org/corporate-membership](https://eczemacouncil.org/corporate-membership) and email CEO Alan Stiles at [astiles@eczemacouncil.org](mailto:astiles@eczemacouncil.org).

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# INTERNATIONAL ECZEMA COUNCIL

## ABOUT THE INTERNATIONAL ECZEMA COUNCIL

Founded in late 2014 and led by experts in atopic dermatitis, the International Eczema Council (IEC) is a global nonprofit organization. Dermatologists and allergists from around the globe serve as Councilors and Associates, contributing their expertise to support the IEC's research, programs, events, and education. The IEC has [151 Councilors and Associates in 33 countries](#), and this group continues to grow.

**Mission:** Improve patient care by promoting research, education, and best practices in treatment for atopic dermatitis in people worldwide.

**Vision:** Transforming the lives of people with atopic dermatitis.

### Corporate Support

The support of our corporate partners makes it possible for the International Eczema Council (IEC) to advance its mission of improving patient care by promoting research, education, and best practices in treatment for atopic dermatitis in people worldwide. See who is supporting our mission and how you can join them at [eczemacouncil.org/corporate-membership](https://eczemacouncil.org/corporate-membership).

### Upcoming Symposia

Save the date to attend the remaining 2025 IEC symposium. Go to [EczemaCouncil.org/symposia](https://eczemacouncil.org/symposia) to learn more.

Date(s)	In Conjunction With	Location	Symposium Title
Sept. 20	European Academy of Dermatology and Venereology (EADV)	Paris, France	<i>Atopic Dermatitis and Cutaneous T-Cell Lymphoma</i>

[Visit the Symposia Page](#)

## CONNECT WITH THE IEC ON SOCIAL MEDIA!



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