

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Asthma: New Discoveries and Therapies in the Age of COVID (EK9)

December 1-2, 2020 • Virtual at your computer

Scientific Organizers: Michael J. Holtzman, Philippa C. Marrack, Anne I. Sperling and Prescott G. Woodruff

Sponsored by Ionis Pharmaceuticals, Inc.

TUESDAY, DECEMBER 1

Welcoming Remarks (8am Denver/Mountain Time Start)

Michael J. Holtzman, Washington University in St. Louis / NuPeak Therapeutics, USA

Upstream and Downstream Ways to Stop Airway Disease (8:05am Denver/Mountain Time Start)

***Philippa C. Marrack**, HHMI/National Jewish Health, USA
Session Chair

Karen Affleck, GlaxoSmithKline, UK
System-Based Approaches to Learn from Asthma Remissions

***Michael J. Holtzman**, Washington University in St. Louis / NuPeak Therapeutics, USA

Correcting Post-Viral Disease (including COVID and Its Cousins)

Jonathan Corren, University of California, Los Angeles, USA
Progress with TSLP Therapeutics in Lung Disease

David B. Corry, Baylor College of Medicine, USA
Silencing Transcription Factors and Pathogens in Asthma and COVID-19: Two Biotechnology Vignettes

Joseph R. Arron, Genentech, Inc., USA
Navigating New Therapeutics for Asthma and COVID

Ivy Aneas-Swanson, University of Chicago, USA
Short Talk: Asthma-Associated Variants Induce IL33 Differential Expression through a Novel Regulatory Region

Gregg Duncan, University of Maryland, USA
Short Talk: Modeling Airway Dysfunction in Asthma Using Synthetic Mucus Biomaterials

Career Roundtable (12:30pm Denver/Mountain Time Start)

Prescott G. Woodruff, University of California, San Francisco, USA

Karen Affleck, GlaxoSmithKline, UK

Jeffrey Haspel, Washington University in St. Louis, USA

New Controls in Asthma (2pm Denver/Mountain Time Start)

Alexander Scheffold, Christian-Albrechts-Universität zu Kiel, Germany
The Role of Pre-Existing T Cell Memory and Cross-Reactivity for Allergic Inflammation and COVID-19

***Anuradha Ray**, University of Pittsburgh School of Medicine, USA
Type 1 Immune Response in Severe Asthma and Implications in COVID-19

Vijay K. Kuchroo, Harvard Medical School and Brigham and Women's Hospital, USA
Neuro-Immune Interactions in Regulation of Type II Inflammation in Lung

***Anne I. Sperling**, University of Chicago, USA
Dendritic Cells in Type 2 Inflammation

Jeffrey Haspel, Washington University in St. Louis, USA
Circadian Approaches to Asthma and Viral Infection

Carlos A. Castellanos, University of California, San Francisco, USA
Short Talk: Type 2 Immune Development Depends on MARCH1-mediated MHCII and CD86 Turnover in Lymph Node Resident Dendritic Cells

Nathan R. Schoettler, University of Chicago, USA
Short Talk: CD4 Tissue Resident Memory T Cells Promote Inflammatory Pathways Associated with Asthma

WEDNESDAY, DECEMBER 2

New Targets in Asthma (8am Denver/Mountain Time Start)

***Rafeul Alam**, National Jewish Health, USA
ILC2 Memory in Asthma

Maria Belvisi, Imperial College London / AstraZeneca, UK
Asthma Therapeutics: Now and Future Directions

Elliot Israel, Harvard Medical School/Brigham & Women's Hospital, USA

Tyrosine Kinase Inhibition in Asthma

***Jenny P.Y. Ting**, University of North Carolina at Chapel Hill, USA
Innate Immunity in Host Defense and Asthma

Martijn C. Nawijn, University Medical Center Groningen, Netherlands
Lung Cell Maps for Asthma and COVID

Bart N. Lambrecht, VIB, Ghent University, Belgium
Innate Immunity and DCs in Response to Allergens and Virus Infection

Lorena Riol Blanco, Genentech, Inc., USA
Short Talk: A TRPA1 Inhibitor Suppresses Neurogenic Inflammation and Smooth Muscle Contraction for the Treatment of Asthma

Amanda Poholek, University of Pittsburgh, USA
Short Talk: Blimp-1 Is Essential for Allergen-Induced Asthma and Th2 Cell Development in the Lung

Poster Session (12pm Denver/Mountain Time Start)

New Systems for Personalized Therapeutics (2pm Denver/Mountain Time Start)

***Clare M. Lloyd**, Imperial College London, UK
Early Versus Later Life Lung Remodeling and Repair

Parameswaran Nair, McMaster University, Canada
Biologicals for Severe Asthma during the COVID Pandemic

Bali Pulendran, Stanford University School of Medicine, USA
Systems Immunology of Asthma and COVID-19

***Prescott G. Woodruff**, University of California, San Francisco, USA
Biomarkers for Asthma and COVID-19

Nora A. Barrett, Brigham and Women's Hospital, USA
Revisiting Airway Epithelial Remodeling in Type 2 Inflammation

Kristina Johansson, University of California, San Francisco, USA
Short Talk: MicroRNA Regulation of Airway Mucus Production

Katherine Cahill, Vanderbilt University, USA
Short Talk: Glucagon-like Peptide-1 Receptor Agonists Decrease Type-2 Biomarker in Asthma