**SUNDAY, APRIL 23**
Arrival and Registration

**MONDAY, APRIL 24**
Welcome and Keynote Session (Joint)
Edward E. Morrisey, University of Pennsylvania, USA
*Building the Lung Gas Exchange Barrier*

Ronald N. Germain, NIAID, National Institutes of Health, USA
*Immunity in the Lung Studied Multidimensionally Through a Microscope*

Interfering with the Virus: Interferons at the Crossroads of Protection and Tissue Damage (X8)
Ivan Zanoni, Harvard Medical School - Boston Children's Hospital, USA
*Yin and Yang of Interferons in Lung Viral Infections*

Thirumala-Devi Kanneganti, St. Jude Children's Research Hospital, USA
*PANoptosis Driving Severity in Respiratory Viral Infections*

Arnaud Didierlaurent, University of Geneva, Switzerland
*Pediatric Lung Infections: The Power of Interferons*

Short Talks Chosen from Abstracts

Through the First Breath: Lung Development and Formation (X7)
Xin Sun, University of California, San Diego, USA
*The Lung as a Sensory Organ*

Enid R. Neptune, Johns Hopkins University, USA
*Growth Factor Signaling in Airspace Homeostasis*

Emma Rawlins, University of Cambridge, UK
*The Molecular and Cellular Mechanisms Regulating Human Lung Development*

Short Talks Chosen from Abstracts

Workshop 1 (X7)

Cleaning Up: The Host Immune Response to Infection (Joint)
Susanne Herold, University of Giessen Lung Center, Germany
*Targeting the Immune System Response to Respiratory Viral Infection*

Jason Rock, Genentech, USA
*Talk Title to be Announced*

Herbert Schiller, Helmholtz Zentrum München, Germany
*Cell State Alterations in Inflammation and Injury*

Joseph P. Mizgerd, Boston University School of Medicine, USA
*Integrated Immune Responses to Pneumonia*

Short Talks Chosen from Abstracts

**TUESDAY, APRIL 25**

Location, Location, Location: Lung-Resident Immune Cells Shape the Response to Viral Infections (X8)
Sylvia Knapp, Medical Univ. Vienna, Austria
*Cytokine-Driven Immunopathology in SARS-Cov-2 Infection*

Christopher Chiu, Imperial College London, UK
*Human Immune Responses to Respiratory Infections - Lessons from Human Challenge Studies*

Donna L. Farber, Columbia University Medical Center, USA
*Development of Lung Tissue Resident Memory T Cells*

Short Talks Chosen from Abstracts

Pathways to Health and Disease through the Ages: Metabolism, Senescence and Epigenetics (X7)
Benjamin D. Singer, Northwestern University Feinberg School of Medicine, USA
*Epigenetic and Metabolic Alterations in Reparative Cell Function during Aging*

Alexandra L. McCubbrey, National Jewish Health, USA
*Metabolic Control of Lung Phagocyte Function*

Jose Ordovas-Montanes, Boston Children's Hospital and Harvard Medical School, USA
*Single-Cell Biology of Barrier Tissues and COVID-19*

Short Talks Chosen from Abstracts

Same Same, but Different: Macrophage Diversity Dictates Inflammation in the Lung (X8)
Alexander V. Misharin, Northwestern University, USA
*How Aging and Inflammation Shape Alveolar Macrophage Function*

Sunny Shin, University of Pennsylvania Perelman School of Medicine, USA
*The Inflammasome Shapes Macrophage Responses in the Lung*

Andreas Wack, Francis Crick Institute, UK
*Lung Immunity and Alveolar Macrophages: Do Prior Infections Matter?*

Short Talks Chosen from Abstracts

Reaching Out: Cell-Cell Interactions and Cellular Stress Response (X7)
Nan Tang, National Institute of Biological Sciences, China
*Mechanical Force in Alveolar Regeneration and Diseases*

Mitsuru Morimoto, RIKEN, Center for Developmental Biology, Japan
*Epithelial-Mesenchymal Interactions Visualized in Development*

Robert Dickson, University of Michigan Medical School, USA
*Microbial Ecology of the Respiratory System*

Short Talks Chosen from Abstracts

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* Session Chair † Invited but not yet accepted  Program current as of November 17, 2022 Meal formats are based on meeting venue. For the most up-to-date details, visit https://www.keystonesymposia.org.
**KEYSTONE SYMPOSIA**  
**on Molecular and Cellular Biology**  

**Inflammation in the Lung: Friend or Foe in Viral Infections? (X8)**  
Scientific Organizers: Andreas Wack, Cecilia Johansson and Ivan Zanoni  
Supported by the Directors' Fund  

**From First Breath: Lung Development, Infection, Repair and Aging (X7)**  
Scientific Organizers: Carla F. Kim, Benjamin D. Singer and Nan Tang  
April 23-26, 2023 • Snowbird Resort • Snowbird, UT, USA  
Supported by the Directors' Fund  

Scholarship Deadline: January 24, 2023 / Abstract Deadline: January 24, 2023 / Discounted Registration Deadline: February 23, 2023

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**Poster Session 2**

**WEDNESDAY, APRIL 26**

**Rebuilding after Damage: Repair and Regeneration (Joint)**
*Joo-Hyeon Lee*, Cambridge Stem Cell Institute, UK  
*Inflammation and Plasticity of Airway Progenitors during Alveolar Regeneration*

*Andrew E. Vaughan*, University of Pennsylvania, USA  
*Adaptive and Maladaptive Repair Pathways Post Influenza Injury*

*Rachel L. Zemans*, University of Michigan, USA  
*Epithelial Transdifferentiation after Lung Injury*

*Ana Pardo-Saganta*, Justus Liebig University, Germany  
*Lung Tissue Repair by Stimulating Lung Stem Cells*

**Short Talks Chosen from Abstracts**

**Workshop 2 (X7)**

**Every Cell is an Immune Cell: Lung Inflammation, a Play with Many Actors (X8)**
*Carolina B. López*, Washington University School of Medicine, USA  
*Infection of Epithelial Cells Drive Anti-Viral Immunity*

*Cecilia Johansson*, Imperial College London, UK  
*Initiation and Regulation of Immunity during Respiratory Viral Infections*

*Miriam Merad*, Mount Sinai School of Medicine, USA  
*Macrophage Heterogeneity and Outcome of COVID-19*

**Short Talks Chosen from Abstracts**

**Deconstruction and Reconstruction: Building Models in Diseases and Cancer (X7)**
*Carla F. Kim*, Boston Children's Hospital, USA  
*Organoid Platforms for Mechanisms of Lung Disease and Transplantation*

*Darrell N. Kotton*, Boston University, USA  
*Dissecting Disease with Pluripotent Cell-Derived Lung Cell Lineages*

**Short Talks Chosen from Abstracts**

**Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (X8)**

**Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (X7)**

**THURSDAY, APRIL 27**

**Departure**