**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*

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

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

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**
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

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

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

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

* 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](https://www.keystonesymposia.org).
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)
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

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

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (X7)
Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (X8)

THURSDAY, APRIL 27
Departure