

Molecular Mechanisms of Lung Disease
September 21, 2023 – September 22, 2023
 Hyatt Centric Chicago Magnificent Mile
 633 N St Clair St, Chicago, IL 60611

Day 1: Thursday, September 21st	
8:30-8:50am	Breakfast
8:50-9:05am	Welcome and Introduction GR Scott Budinger, MD Chief of Pulmonary and Critical Care in the Department of Medicine Ernest S. Bazley Professor of Airway Diseases Northwestern University, Feinberg School of Medicine
Morning Session	
9:05-9:10am	Session Chair Cara Gottardi, PhD Associate Professor Northwestern University, Feinberg School of Medicine
9:10-9:40am	Considering the Lung as a Sensory Organ Xin Sun, PhD Professor, Department of Pediatrics and Cell and Developmental Biology University of California San Diego <i>25-min talk, 5-min discussion</i>
9:40-10:10am	The 4-Dimensional Fabric of the Lung: Development and Regeneration Across Space and Time Jennifer Sucre, MD Assistant Professor of Pediatrics and Cell and Developmental Biology Vanderbilt University School of Medicine <i>25-min talk, 5-min discussion</i>
10:10-10:30am	Coffee Break
10:30-10:50am	Machine Learning Identifies Distinct Clinical States in Patients with Suspected Pneumonia Requiring Mechanical Ventilation Catherine Gao, MD NRSA Post-doctoral Fellow Northwestern University, Feinberg School of Medicine <i>15-min talk, 5-min discussion</i>
10:50-11:10am	Myeloid Contributions to Pulmonary Fibrosis Progression Isis Fernandez, MD, PhD Research Area Leader: Immunometabolic Reprogramming Institute for Lung Health and Immunity, Helmholtz-Munich Fellow, Division of Pulmonary Medicine University Hospital Großhadern Ludwig-Maximilian University, Munich <i>15-min talk, 5-min discussion</i>
11:10-11:30am	Activation of the Integrated Stress Response in Alveolar Type 2 Cells Leads to Spontaneous Pulmonary Fibrosis and Impaired Alveolar Epithelial Differentiation Mariana Maciel Herrerias, PhD Post-doctoral Research Fellow Northwestern University, Feinberg School of Medicine <i>15-min talk, 5-min discussion</i>

11:30-11:50am	<p>Understanding and Utilizing the Immunomechanistic Pathway of Primary Graft Dysfunction after Lung Transplantation</p> <p>Melissa L Querrey, MD, PhD Physician Scientist Training Program McGaw Medical Center of Northwestern University <i>15-min talk, 5-min discussion</i></p>
11:50-12:20pm	<p>Mechanisms of Chronic Lung Allograft Rejection: Implications for Improved Diagnostics and Therapeutics in Lung Transplantation</p> <p>Tereza Martinu Associate Professor of Medicine, Clinician-Scientist University Health Network, University of Toronto <i>25-min talk, 5-min discussion</i></p>
12:20-3:00pm	Lunch and Poster Session
Afternoon Session	
3:00-3:05pm	<p>Session Chair</p> <p>Roxana Wasnick, MD, PhD Science Manager Institute for Lung Health and Immunity, Helmholtz Munich</p>
3:05-3:35pm	<p>Fibroblast's Role in Inflammation and Aging (Inflammaging) in the Lung</p> <p>Tien Peng, MD Associate Professor of Medicine Department of Medicine, Bakar Aging Research Institute, Bakar ImmunoX Initiative University of California, San Francisco <i>25-min talk, 5-min discussion</i></p>
3:35-4:05pm	<p>Immune and Molecular Mechanisms of COPD</p> <p>Francesca Polverino, MD, PhD Lester and Sue Smith Associate Professor of Medicine Baylor College of Medicine <i>25-min talk, 5-min discussion</i></p>
4:05-4:25pm	<p>Decoding Myeloid Cell Heterogeneity in the COPD lung: Lessons From Multi-Omics Technologies</p> <p>Theodoros Kapellos, PhD Junior Group Leader Institute for Lung Health and Immunity, Helmholtz Munich, Germany <i>15-min talk, 5-min discussion</i></p>
4:25-4:45pm	<p>Novel Immune-Therapeutic Targets in COPD</p> <p>Thomas Conlon, PhD Group Leader Institute for Lung Health and Immunity, Helmholtz-Munich, Germany <i>15-min talk, 5-min discussion</i></p>
4:45-5:00pm	<p>Closing Remarks</p> <p>GR Scott Budinger, MD Chief of Pulmonary and Critical Care in the Department of Medicine Ernest S. Bazley Professor of Airway Diseases Northwestern University, Feinberg School of Medicine</p>
5:00-6:30pm	Conference Reception

Day 2: Friday, September 22nd	
8:30-9:00am	Breakfast
9:00-9:15am	Welcome and Introduction Ali Önder Yildirim, MD Director of Institute for Lung Biology and Disease (ILBD), Comprehensive Pneumology Center (CPC) Helmholtz Zentrum Muenchen
Morning Session	
9:15-9:20am	Session Chair Victor Thannickal, MD Chair, John W. Deming Department of Medicine Professor of Medicine Tulane University School of Medicine
9:20-9:50am	Macrophage Heterogeneity in Acute Lung Injury William J. Janssen, MD Professor of Medicine and Section Head for Critical Care National Jewish Health <i>25-min talk, 5-min discussion</i>
9:50-10:20am	Targeted Alveolar Regeneration with Frizzled-Specific Agonists Kim Newton, PhD Distinguished Scientist, Physiological Chemistry Department Genentech <i>25-min talk, 5-min discussion</i>
10:20-10:40am	Coffee Break
10:40-11:00am	Impact of Cellular Senescence and Inflammaging on Alveolar Regeneration Programs Mareike Lehmann, PhD Institute for Lung Health and Immunity, Helmholtz Munich, Germany Institute for Lung Research, Philipps-University Marburg, Germany <i>15-min talk, 5-min discussion</i>
11:00-11:20am	Chronic Lung Allograft Dysfunction: Phenotyping and Translational Research Jürgen Behr, MD Professor of Internal Medicine – Pneumology, Ludwig-Maximilians University Director of the Department of Internal Medicine V, Ludwig-Maximilians University Hospital <i>15-min talk, 5-min discussion</i>
11:20-11:40am	Monocyte-Derived Inflammation in Pediatric Viral Pneumonia Bria Coates Assistant Professor Department of Pediatrics (Critical Care) <i>15-min talk, 5-min discussion</i>
11:40-12:00pm	Single-cell RNA Sequencing Reveals Dynamics of Pulmonary Inflammation After Nanomaterial Inhalation Driven by Material Specific Cellular Perturbations Tobias Stöger, PhD Research Area Leader: Environmental Barrier Immunity Institute for Lung Health and Immunity, Helmholtz Munich, Germany <i>15-min talk, 5-min discussion</i>
12:00-1:00pm	Boxed Lunches
Afternoon Session	

1:00-1:05pm	Session Chair Navdeep Chandel, PhD Professor Northwestern University, Feinberg School of Medicine
1:05-1:55	Keynote Speaker: Metabolism and Cancer Progression in Patients Ralph DeBerardinis, MD, PhD Investigator, Howard Hughes Medical Institute and Professor, Children's Research Institute University of Texas Southwestern Medical Center <i>40-min talk, 10-min discussion</i>
1:55-2:25pm	Host-Pathogen Interactions: Harnessing Co-Evolution to Treat Disease Janelle Ayres, PhD Professor Salk Institute <i>25-min talk, 5-min discussion</i>
2:25-2:55pm	Understanding and Modulating Ferroptosis in Lung Cancer Scott Dixon, PhD Associate Professor, Department of Biology Stanford University <i>25-min talk, 5-min discussion</i>
2:55-3:15pm	Coffee Break
3:15-3:45pm	Ferroptosis in Lung Transplantation Aicha Jeridi, PhD Postdoctoral fellow Institute for Lung Health and Immunity, Helmholtz Munich, Germany <i>15-min talk, 5-min discussion</i>
3:45-4:05pm	AMPK is Required for Treg Cell Function Under Metabolic Stress During Viral Pneumonia Manuel A Torres Acosta, PhD Candidate Graduate Student, Medical Scientist Training Program Northwestern University, Feinberg School of Medicine <i>15-min talk, 5-min discussion</i>
4:05-4:25pm	Mitochondrial-Dependent ISR Controls Lung Epithelial Cell Fate SeungHye Han, MD, MPH Assistant Professor Northwestern University, Feinberg School of Medicine <i>15-min talk, 5-min discussion</i>
4:25-4:45pm	Spatial Assessment of Metabolism Shawn Davidson, PhD Assistant Professor Northwestern University, Feinberg School of Medicine <i>15-min talk, 5-min discussion</i>

4:45-5:00pm	<p>Closing Remarks GR Scott Budinger, MD Chief of Pulmonary and Critical Care in the Department of Medicine Ernest S. Bazley Professor of Airway Diseases Northwestern University, Feinberg School of Medicine</p> <p>Ali Önder Yildirim, MD Director of Institute for Lung Biology and Disease (ILBD), Comprehensive Pneumology Center (CPC) Helmholtz Zentrum Muenchen</p>
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