

Program Agenda

The Lung Epithelium in Health and Disease

July 29-August 3, 2018

Sunday, July 29, 2018

Time	Title/Topic Event	
4:00 PM - 9:00 PM	Conference Registration	
6:00 PM - 7:00 PM	Welcome Reception	
7:00 PM - 8:00 PM	DINNER	
8:00 PM - 9:30 PM	Keynote Lecture	Michael Welsh (University of Iowa, HHMI) <i>Abnormal Submucosal Gland Mucus Impairs Mucociliary Transport in Cystic Fibrosis Airways</i>
9:30 PM - 12:00 AM	Discussion/Open Bar	

Monday, July 30, 2018

Time	Title/Topic Event	
7:30 AM - 9:00 AM	BREAKFAST	
9:00 AM - 9:15 AM	FASEB Opening Remarks	
9:15 AM - 12:30 PM	Scientific Session 1: Critical Junctures in Early Lung Morphogenesis	Chair: Susan Guttentag (Vanderbilt U)
9:15 AM - 9:45 AM		Celeste Nelson (Princeton University) <i>Mechanical forces, airway smooth muscle, and epithelial branching</i>
9:45 AM - 10:15 AM		Edward Morrissey (University of Pennsylvania) <i>Generating and regenerating the lung alveolus</i>
10:15 AM - 10:30 AM		Rashika Joshi (Cincinnati Childrens Hospital) <i>Impact of CDH and Fetal Tracheal Occlusion on Conducting Airway Epithelial Cell Populations</i>
10:30 AM - 10:45 AM	COFFEE BREAK	
10:45 AM - 11:15 AM		Xin Sun (UCSD) <i>Consider the Lung as a Sensory Organ</i>
11:15 AM - 11:45 AM		Jianwen Que (Columbia University) <i>Regulation of tracheal basal progenitor cells</i>
11:45 AM - 12:00 PM		Maria Stupnikov-Kselman (Columbia University Medical Center)

Notch-mediated regulation of the pulmonary neuroendocrine microenvironment

12:00 PM - 12:15 PM

John Benjamin (Vanderbilt University Medical Center)
Neutrophils Mediate the Epithelial-Mesenchymal Cross-Talk that Disrupts Elastic Fiber Assembly in the Saccular Stage Lung

12:15 PM - 1:30 PM LUNCH

1:30 PM - 2:30 PM

**Workshop 1:
Careers in Industry**

**Aron Jaffe (Novartis)
Jeff Crosby**

2:30 PM - 4:30 PM

Poster Session #1

6:00 PM - 7:00 PM

DINNER

7:00 PM - 10:00 PM

**Scientific Session 2:
Diseases of Aberrant Lung
Morphogenesis**

**Chair:
Brian Varisco (Cincinnati Children's Hospital Medical Center)**

7:00 PM - 7:30 PM

Bernard Thébaud (Ottawa Hospital Research Institute - Ottawa, CAN)
Angiogenic growth factor and endothelial progenitor cells in normal and impaired lung development

7:30 PM - 8:00 PM

Lawrence Prince (University of California, San Diego, Rady Children)
Role of Perinatal Inflammation in Bronchopulmonary Dysplasia

8:00 PM - 8:15 PM

Jennifer Sucre (Vanderbilt University)
Hyperoxia Exposure of the Developing Lung Promotes Activated Wnt Signaling Mediated By Mesenchymal Expression of Wnt 5A

8:15 PM - 8:30 PM

BREAK

8:30 PM - 9:00 PM

Lawrence Nogee (Johns Hopkins University School of Medicine)
Congenital Lung Disease

9:00 PM - 9:30 PM

Lisa Young (Vanderbilt)
Neuroendocrine cell Hyperplasia and other Pediatric Rare Lung Diseases

9:30 PM - 9:45 PM

Kseniya Obratsova (University of Pennsylvania)
Tsc2-dependent mTORC1 activation deregulates lung homeostasis.

9:45 PM - 10:00 PM

Sneha Sitaraman (Cincinnati Children's Hospital Medical Center)
Proteasome dysfunction in alveolar type 2 epithelial cells results in acute respiratory distress syndrome

10:00 PM - 12:00 AM Discussion/Open Bar

Tuesday, July 31, 2018

Time Title/Topic Event

7:30 AM - 9:00 AM	BREAKFAST	
9:00 AM - 12:00 PM	Scientific Session 3: Regulation of Airway Epithelial Cell Differentiation	Chair: Xingbin Ai, BWH
9:00 AM - 9:30 AM	Wellington Cardoso (Columbia University) <i>Ontogeny and regulation of the airway progenitor cell pool in the lung</i>	
9:30 AM - 10:00 AM	Jeffrey Whitsett (CCHMC) <i>Using Complementary Technologies to Uncover Cell Specific Roles in Complex Lung Disease</i>	
10:00 AM - 10:15 AM	Yuru Liu (U Illinois) Dlk 1-mediated regulation of Notch signaling is required for differentiation of alveolar type II to type I cells during lung repair	
10:15 AM - 10:45 AM	COFFEE BREAK and Group Photo	
10:45 AM - 11:15 AM	Carla Kim (Boston Children's Hospital) <i>Regulation of Progenitor Cells in the Adult Lung and in Lung Cancer</i>	
11:15 AM - 11:45 AM	Nan Tang (National Institute of Biological Sciences, Beijing - Beijing, CHN) <i>The strength of mechanical forces determines the differentiation of alveolar epithelial cells</i>	
11:45 AM - 12:00 PM	Yan Ting Shue (Stanford University) <i>The control of neuroendocrine fate-switch in small cell lung cancer</i>	
12:00 PM - 12:15 PM	Zea Borok (University of Southern California) <i>Alveolar Epithelial Cell (AEC) Injury and Aberrant Repair Lead to Endoplasmic Reticulum (ER) Stress-Mediated Pulmonary Fibrosis in AEC-Specific Grp78 Knockout Mice</i>	
12:15 PM - 1:00 PM	LUNCH	
1:00 PM - 2:00 PM	Workshop 2: Negotiating a faculty position and starting a lab	Jeff Whitsett (CCHMC) Finn Hawkins (BUSM) Christine Brainson (U Kentucky)
2:00 PM - 4:30 PM	Free Time	
4:30 PM - 6:00 PM	Poster Session #1	
6:00 PM - 7:00 PM	DINNER	
7:00 PM - 10:00 PM	Scientific Session 4: Diseases of Mucociliary Dysfunction	Chair: Scott Randell (UNC)
7:00 PM - 7:30 PM	Barry Stripp (Cedars-Sinai Medical Center) <i>Drivers of Progenitor Cell Dysfunction and Tissue Remodeling in Chronic Lung Disease</i>	
7:30 PM - 8:00 PM	Wa XIAN (UT Health)	

Pathogenic Stem Cell Variation in Chronic Lung Disease

8:00 PM - 8:15 PM

Lauren Donoghue (University of North Carolina)
Genetic Analysis of Secreted Airway Mucins in Mice Reveals a Novel Regulator of MUC5B

8:15 PM - 8:30 PM BREAK

8:30 PM - 9:00 PM

Steven Brody (Washington University School of Medicine)
Cellular and genetic components of motile cilia assembly

9:00 PM - 9:30 PM

Laura Elizabeth Niklason (Yale University)
Proximal Epithelium in Regenerative Medicine

9:30 PM - 9:45 PM

Jining Lu (Columbia University Medical Center)
miR-29 in adult lung homeostasis

9:45 PM - 10:00 PM

Shi (Wyatt) Chia (University of Vermont)
Glutaredoxin-1 regulates allergic remodeling in house dust mite-induced allergic airways disease.

10:00 PM - 12:00 AM Discussion/Open Bar

Wednesday, August 1, 2018**Time****Title/Topic Event**

7:30 AM - 9:00 AM

BREAKFAST

9:00 AM - 12:00 PM

**Scientific Session 5:
 Mucosal Immunity, Host Defense,
 and Barrier Functions of the
 Epithelium**

Chair:**Jin-Ah Park (Harvard T.H. Chan School of Public Health)**

9:00 AM - 9:30 AM

Bryan Hurley (Massachusetts General Hospital)
Deciphering Signals that Direct Neutrophils Across Infected Epithelium into the Airspace

9:30 AM - 10:00 AM

Lisa Miller (UC Davis School of Veterinary Medicine)
Epithelial Responses to Environmental Challenges

10:00 AM - 10:15 AM

Robin Lochbaum (Ulm University - Ulm, DEU)
GATA3 controls Claudin 1 expression in human airway epithelia

10:15 AM - 10:30 AM COFFEE BREAK

10:30 AM - 11:00 AM

Michael Koval (Emory University School of Medicine)
Differential regulation of pulmonary tight junctions in acute respiratory distress syndrome

11:00 AM - 11:30 AM

Hongmei Mou (Massachusetts General Hospital)
Brush Cell Fate Regulation in Human Airway and Their Abnormalities in Cystic Fibrosis

11:30 AM - 11:45 AM

Caspar Schiffrers (University of Vermont)
Downregulation of lung DUOX1 during aging attenuates innate epithelial injury responses and may predispose development of pulmonary emphysema

11:45 AM - 12:00 PM

Michael Beers (University of Pennsylvania)

Cellular Quality Control Pathways In Alveolar Type 2 Epithelial Cells

12:00 PM - 1:00 PM	LUNCH	
1:00 PM - 2:00 PM	Workshop 3: Mentorship and Transition to Independence	Tim Blackwell/Jon Kropski (Vanderbilt U) Ed Morrisey/Jarod Zepp (U Penn)
2:00 PM - 4:30 PM	Free Time	
4:30 PM - 6:00 PM	Poster Session #2	
6:00 PM - 7:00 PM	DINNER	
7:00 PM - 7:30 PM	Business Meeting	
7:30 PM - 10:00 PM	Scientific Session 6: Immune & Inflammatory Lung Diseases	Chair: Tim Blackwell (Vanderbilt U)
7:30 PM - 8:00 PM		Darrell Kotton (Boston University) <i>Induced pluripotent stem cells for modeling lung development and disease</i>
8:00 PM - 8:30 PM		Hal Chapman (UCSF) <i>Local lung hypoxia determines epithelial fate decisions during alveolar regeneration.</i>
8:30 PM - 8:45 PM	BREAK	
8:45 PM - 9:15 PM		Bradley Richmond (Vanderbilt University Medical Center) <i>Regulation of the SigA Immunobarrier by the Airway Epithelium</i>
9:15 PM - 9:45 PM		Marsha Wills-Karp (Johns Hopkins University) <i>New Insights into the Regulation of Epithelial Cell IL-33 Release</i>
9:45 PM - 10:00 PM		Rania Dagher (MedImmune) <i>IL-33-ST2 axis governs airway macrophage differentiation and their regenerative functions of epithelial niche</i>
10:00 PM - 12:00 AM	Discussion/Open Bar	

Thursday, August 2, 2018

Time	Title/Topic Event	
7:30 AM - 9:00 AM	BREAKFAST	
9:00 AM - 12:00 PM	Scientific Session 7: Precision Medicine Approaches to Lung Disease	Chair: Finn Hawkins (BUSM)
9:00 AM - 9:30 AM		Aron Jaffe (Novartis Institutes for BioMedical Research) <i>A single cell atlas of the airway epithelium reveals the CFTR-rich pulmonary ionocyte</i>
9:30 AM - 10:00 AM		Yan Xu (Cincinnati Children's Hospital Medical Center)

Understanding Complex Signaling Networks In Pulmonary Health And Disease Using Single Cell Transcriptomics

10:00 AM - 10:15 AM

Rachel Zemans (University of Michigan)
Single cell RNA-Seq identifies TGF-beta as a Critical Regulator of Alveolar Regeneration

10:15 AM - 10:30 AM COFFEE BREAK

10:30 AM - 11:00 AM

Xiaobo Zhou (BWH/Harvard Medical School)
Identification of Functional Variants in the FAM13A COPD GWAS locus by Massively Parallel Reporter Assays

11:00 AM - 11:30 AM

Xingbin Ai (Brigham & Women's Hospital)
Precision cut lung slices as an invaluable tool for lung research

11:30 AM - 11:45 AM

Britney Helling (University of Chicago)
Gene-environment interactions in asthma: RV and the 17q locus

11:45 AM - 12:00 PM

Yuliang Sun (Boston University School of Medicine)
Establishing a PSC-derived AEC2 model to study normal and diseased ABCA3 function in chILD

12:00 PM - 1:00 PM LUNCH

1:00 PM - 2:00 PM **Workshop 4:
Lung MAP**

Robert Clark (RTI International)
David Warburton (Children's Hospital LA)

2:00 PM - 4:30 PM **Soccer game**

Epithelium vs. Mesenchyme

4:30 PM - 6:00 PM **Poster Session #2**

6:00 PM - 7:00 PM DINNER

7:00 PM - 7:15 PM Travel Award and Jo Rae Wright Award

7:15 PM - 10:00 PM **Scientific Session 8:
Genetics & Genomics of Lung Disease**

**Chair:
Tim Blackwell (Vanderbilt U)**

7:15 PM - 7:45 PM

Francis McCormack (University of Cincinnati)
Pulmonary alveolar microlithiasis

7:45 PM - 8:15 PM

Ivana Yang (University of Colorado)
MOLECULAR HETEROGENEITY OF IPF

8:15 PM - 8:30 PM

Christine Brainson (University of Kentucky)
Shared Epigenetic Dysregulation in Lung Cancer and COPD

8:30 PM - 8:45 PM BREAK

8:45 PM - 9:15 PM

Steven Rowe (Univ. of Alabama at Birmingham)
Acquired CFTR Dysfunction as a Therapeutic Target in Chronic Bronchitis

9:15 PM - 9:30 PM

Ling Chu (Children's Hospital Los Angeles)
Abrogation of mesenchymal Flcn causes pulmonary cystic lesions seen in Bert-Hogg-Dube syndrome.

9:30 PM - 10:00 PM

Timothy Blackwell (Vanderbilt University Medical Center)
Promise and challenge of genetic approaches to study lung disease: Lessons from IPF

10:00 PM - 12:00 AM Discussion/Open Bar

Friday, August 3, 2018

Time **Title/Topic Event**

7:30 AM - 9:00 AM BREAKFAST

9:00 AM Boxed Lunches to Go and
DEPARTURES
