



2022 PITTSBURGH INTERNATIONAL LUNG CONFERENCE  
*Metabolism and the Lung: Homeostasis, Immunity, and Disease*  
PROGRAM AGENDA

**Thursday, September 8, 2022**

7:00 – 8:00 AM      **Registration and Refreshments**  
LOBBY & BALLROOM A, FIRST FLOOR

MAIN MEETING SESSION: BALLROOM B, SECOND FLOOR:

8:00 – 8:10 AM      **Welcome and Opening Remarks**  
*Alison Morris, MD, MS; University of Pittsburgh*  
*Janet S. Lee, MD; University of Pittsburgh*  
*Tomeka Suber, MD, PhD; University of Pittsburgh*

**Session 1:**      **THE STATE OF METABOLISM RESEARCH IN HEALTH SCIENCES:  
METABOLISM, BIOENERGETICS, AND THE TOOLS OF THE TRADE**  
*Session Chairs: Janet S. Lee, MD; University of Pittsburgh*  
*Anuradha Ray, PhD; University of Pittsburgh*  
*Nathaniel Weathington, MD, PhD; UPMC*

8:10 – 8:20 AM      **Session Chair Introduction**

8:20 – 8:40 AM      **Aging, Metabolism and Autophagy**  
*Toren Finkel, MD, PhD*  
*University of Pittsburgh*

8:40 – 8:45 AM      Q&A

8:45 – 9:05 AM      **Overview of Metabolomics Analysis**  
*Stacy Gelhaus Wendell, PhD*  
*University of Pittsburgh*

9:05 – 9:10 AM      Q&A

9:10 – 9:30 AM      **Cellular Measurements and Metabolism**  
*William M. Oldham, MD, PhD*  
*Harvard Medical School*

9:30 – 9:35 AM      Q&A

9:35 – 9:55 AM      **Refreshment Break**  
BALLROOM A, FIRST FLOOR

**Thursday, September 8, 2022 (continued)**

MAIN MEETING SESSION: BALLROOM B, SECOND FLOOR:

|                        |  |
|------------------------|--|
| <b>Session 2:</b>      | <b>ALTERATIONS TO METABOLISM AS A DRIVER OF PULMONARY VASCULAR DISEASE</b>                         |
| <i>Session Chairs:</i> | <i>Mark Gladwin, MD; University of Pittsburgh<br/>Brett Kaufman, PhD; University of Pittsburgh</i> |

- 9:55 – 10:00 AM      **Session Chair Introduction**
- 10:00 – 10:20 AM      **Alterations to Metabolism as a Driver of Pulmonary Vascular Disease**  
*Sruti Shiva, PhD  
University of Pittsburgh School of Medicine*
- 10:20 – 10:25 AM      Q&A
- 10:25 – 10:45 AM      **Noncoding RNAs Direct Metabolism in Pulmonary Hypertension Physiology**  
*Stephen Y. Chan, MD, PhD, FAHA  
University of Pittsburgh School of Medicine*
- 10:45 – 10:50 AM      Q&A
- 10:50 – 11:05 AM      **Refreshment Break**  
BALLROOM A, FIRST FLOOR

MAIN MEETING SESSION: BALLROOM B, SECOND FLOOR:

|                       |   |
|-----------------------|---|
| <b>Rapid Fire #1:</b> | <b>YOUNG INVESTIGATOR ORAL PRESENTATIONS</b>  |
| <i>Moderators:</i>    | <i>Fernando Holguin, MD; University of Colorado, Denver<br/>Tomeka Suber, MD, PhD; University of Pittsburgh</i> |

- 11:05 – 11:10 AM      **Introductions**
- 11:10 – 11:20 AM      *Abstract Oral Presentation #1:*  
**TBD**  
*TBD*
- 11:20 – 11:25 AM      Q&A
- 11:25 – 11:35 AM      *Abstract Oral Presentation #2:*  
**TBD**  
*TBD*
- 11:35 – 11:40 AM      Q&A

**Thursday, September 8, 2022 (continued)**

- 11:40 – 11:50 AM *Abstract Oral Presentation #3:*  
**TBD**  
*TBD*
- 11:50 – 11:55 AM Q&A
- 12:00 – 12:45 PM **Lunch (provided)**  
GOLD ROOM, SECOND FLOOR
- 12:45 – 2:00 PM **Poster Session and Refreshments**  
**BALLROOM A, FIRST FLOOR**

MAIN MEETING SESSION: BALLROOM B, SECOND FLOOR

|   |   |
|---|---|
| <b>Session 3:</b><br><i>Session Chairs:</i> | <b>STUDYING AIRWAYS DISEASE THROUGH THE LENS OF METABOLISM</b><br><i>Oliver Eickelberg, MD; University of Pittsburgh</i><br><i>Frank Scirba, MD; University of Pittsburgh</i> |
|---|---|

- 2:00 – 2:10 PM **Session Chair Introduction**
- 2:10 – 2:30 PM **Immunometabolism Changes in COPD Patients**  
*Suzanne Cloonan, PhD*  
*Trinity College, Dublin*
- 2:30 – 2:35 PM Q&A
- 2:35 – 2:55 PM **The Interplay of Metabolism and Regenerative Signaling Pathways in Chronic Lung Disease**  
*Melanie Königshoff, MD, PhD*  
*University of Pittsburgh*
- 2:55 – 3:00 PM Q&A
- 3:00 – 3:20 PM **Airway Neutrophil Metabolism Impacts Cystic Fibrosis Bacterial Colonization**  
*Prof Gerry McElvaney*  
*Royal College of Surgeons in Ireland*
- 3:20 – 3:25 PM Q&A
- 3:25 – 3:45 PM **Refreshment Break**  
BALLROOM A, FIRST FLOOR

MAIN MEETING SESSION: BALLROOM B, SECOND FLOOR:

|   |  |
|---|--|
| <b>Session 4:</b><br><i>Session Chairs:</i> | <b>UNLOCKING THE ROLE OF METABOLISM AND MITOCHONDRIA IN LUNG PARENCHYMAL DISEASE AND CANCER</b><br><i>Mauricio Rojas, MD; Ohio State University</i><br><i>Nadia Hansel, MD; Johns Hopkins School of Medicine</i> |
|---|--|

**Thursday, September 8, 2022 (continued)**

- 3:45 – 3:50 PM      **Session Chair Introduction**
- 3:50 – 4:10 PM      **Mitochondrial Changes in Idiopathic Pulmonary Fibrosis**  
*Ana Mora, MD*  
*Ohio State University*
- 4:10 – 4:15 PM      Q&A
- 4:15 – 4:35 PM      **Diverse Metabolic Signaling in Myeloid Cells as a Driver of Fibrotic Lung Disease**  
*GR Scott Budinger, MD*  
*Northwestern Feinberg School of Medicine*
- 4:35 – 4:40 PM      Q&A
- 4:40 – 5:00 PM      **Crosstalk Between Tumor and Immune Metabolism in the Cancer Microenvironment**  
*Greg M. Delgoffe, PhD*  
*University of Pittsburgh*
- 5:00 – 5:05 PM      Q&A
- 5:05 – 5:25 PM      **Mitochondria of Alveolar Type 2 Cells Determine Severity of the Lung's Innate Immunity**  
*Jahar Bhattacharya, MD, DPhil*  
*Vagelos Columbia College of P&S*
- 5:25 – 5:30 PM      Q&A
- 5:45 PM              **Adjournment**
- 5:45 – 6:15 PM      **Travel Time to Reception**
- 6:00 – 9:00 PM      **Reception**  
CARNEGIE SCIENCE CENTER  
*(please wear your name badge for admittance)*
- Special guest speaker:  
**Augustine M.K. Choi, MD**  
*Stephen and Suzanne Weiss Dean, Weill Cornell Medicine*  
*Provost for Medical Affairs, Cornell University*
- 9:00 PM              **Return Transportation to Hotels**

**Friday, September 9, 2022**

7:30 – 8:00 AM      **Registration and Refreshments**  
LOBBY & BALLROOM A, FIRST FLOOR

MAIN MEETING SESSION: BALLROOM B, SECOND FLOOR:

8:00 – 8:10 AM      **WELCOME**

|                        |  |
|------------------------|--|
| <b>Session 5:</b>      | <b>METABOLISM AS A DRIVER OF IMMUNE RESPONSES AND IN PULMONARY TRANSPLANT</b>                                      |
| <i>Session Chairs:</i> | <i>Mark Snyder, MD; University of Pittsburgh</i><br><i>Jason D. Christie, MD, MSCE; University of Pennsylvania</i> |

8:10 – 8:15 AM      **Session Chair Introduction**

8:15 – 8:35 AM      **Mitochondrial ROS Fine-tunes Lung Dendritic Cells to Regulate Allergic Disease**  
*Anuradha Ray, PhD*  
*University of Pittsburgh*

8:35 – 8:40 AM      Q&A

8:40 – 9:00 AM      **Immunometabolism as a Determinant in Success or Failure of Bone Marrow Transplant**  
*Craig A. Byersdorfer, MD, PhD*  
*University of Pittsburgh*

9:00 – 9:05 AM      Q&A

9:05 – 9:20 AM      **Refreshment Break**  
BALLROOM A, FIRST FLOOR

MAIN MEETING SESSION: BALLROOM B, SECOND FLOOR:

|                        |   |
|------------------------|---|
| <b>Session 6:</b>      | <b>MODULATIONS OF METABOLISM IN IMMUNITY AND INFECTION</b>  |
| <i>Session Chairs:</i> | <i>Barbara Methé, PhD; University of Pittsburgh</i><br><i>Prabir Ray, PhD; University of Pittsburgh</i> |

9:20 – 9:25 AM      **Session Chair Introduction**

9:25 – 9:45 AM      **Persistence of Klebsiella and Pseudomonas in the Respiratory Tract by Metabolite Adaptation and Implications in Pathogenicity**  
*Alice Prince, MD*  
*Columbia University*

9:45 – 9:50 AM      Q&A

**Friday, September 9, 2022 (continued)**

- 9:50 – 10:10 AM      **Metabolic Determinants in the Pathogenesis of Legionella Infection**  
*Sunny Shin, PhD*  
*University of Pennsylvania*
- 10:10 – 10:15 AM      Q&A
- 10:15 – 10:35 AM      **Pseudomonas Microbial Metabolism and Adaptation in the CF Microenvironment**  
*Jennifer M. Bomberger, PhD*  
*University of Pittsburgh*
- 10:35 – 10:40 AM      Q&A
- 10:40 – 11:00 AM      **Refreshment Break**  
BALLROOM A, FIRST FLOOR

MAIN MEETING SESSION: BALLROOM B, SECOND FLOOR:

|  |  |
|--|--|
| <b>Rapid Fire #2:</b><br><i>Moderator:</i> | <b>YOUNG INVESTIGATOR ORAL PRESENTATIONS</b><br><i>Jessica Bon, MD, MS; University of Pittsburgh</i><br><i>Anna Zemke, MD, PhD; University of Pittsburgh</i> |
|--|--|

- 11:00 – 11:05 AM      **Introductions**
- 11:05 – 11:15 AM      *Abstract Oral Presentation #4:*  
**TBD**  
*TBD*
- 11:15 – 11:20 AM      Q&A
- 11:20 – 11:30 AM      *Abstract Oral Presentation #5:*  
**TBD**  
*TBD*
- 11:30 – 11:35 AM      Q&A
- 11:35 – 11:45 AM      *Abstract Oral Presentation #6:*  
**TBD**  
*TBD*
- 11:45 – 11:50 AM      Q&A

**Friday, September 9, 2022 (continued)**

- 11:50 AM – 1:00 PM      **Lunch (provided)**  
GOLD ROOM, SECOND FLOOR

**MAIN MEETING SESSION: BALLROOM B, SECOND FLOOR:**

1:00 – 2:00 PM **Panel Discussion**

**CHANGING PATTERNS OF PUBLICATIONS AND ITS IMPACT ON ACADEMIC SUCCESS**

- **Jason D. Christie, MD, MSCE**; Editor for American Thoracic Society
- **Mark Gladwin, MD**; Editor for American Thoracic Society
- **Lorraine Ware, MD**; Director, Vanderbilt Medical Scholars Program
- **Corrine Williams, PhD**; Senior Science Editor, The Journal of Clinical Investigation

2:00 – 2:15 PM **Refreshment Break**  
BALLROOM A, FIRST FLOOR

**MAIN MEETING SESSION: BALLROOM B, SECOND FLOOR:**

**Session 7: METABOLIC AND PHYSIOLOGIC DETERMINANTS OF COVID PATHOGENESIS**

*Session Chairs: Georgios Kitsios, MD, PhD; University of Pittsburgh  
John McDyer, MD; University of Pittsburgh*

2:15 – 2:20 PM **Session Chair Introduction**

2:20 – 2:40 PM **Immuno-metabolomes and Immuno-lipidomes in COVID-19**  
*Charles Dela Cruz, MD, PhD  
Yale University*

2:40 – 2:45 PM Q&A

2:45 – 3:05 PM **Metabolic Vulnerabilities in COVID-19**  
*Peter Mullen, PhD  
USC Keck School of Medicine*

3:05 – 3:10 PM Q&A

3:10 – 3:35 PM **Refreshment Break**  
BALLROOM A, FIRST FLOOR

**MAIN MEETING SESSION: BALLROOM B, SECOND FLOOR:**

**Session 8: TARGETING METABOLISM FOR NOVEL THERAPIES**

*Session Chairs: Faraaz Shah, MD, MPH; University of Pittsburgh  
Bruce Levy, MD; Harvard University School of Medicine*

3:35 – 3:40 PM **Session Chair Introduction**

**Friday, September 9, 2022 (continued)**

- 3:40 – 4:00 PM      **Understanding Metabolic Changes in Patients with Sepsis**  
*Matthew Rosengart, MD, MPH*  
*University of Pittsburgh*
- 4:00 – 4:05 PM      Q&A
- 4:05 – 4:25 PM      **The Interplay of Metabolism and Sleep Physiology**  
*Vsevolod Y. Polotsky, MD, PhD*  
*Johns Hopkins University*
- 4:25 – 4:30 PM      Q&A
- 4:30 – 4:45 PM      **Poster Recognitions**
- 4:45 – 5:00 PM      **Concluding Remarks**  
*Alison Morris, MD, MS*
- 5:00 PM              **Adjournment**