Pulmonary Hypertension Summit 2017

October 5 – 7, 2017
- InterContinental Hotel and Bank of America Conference Center, Cleveland, OH
- Hilton Fort Lauderdale, Fort Lauderdale, FL

TWO LOCATIONS! Choose the best for you!

Optional Cleveland Only
Pre-Symposium Precision Care in Lung Diseases
Hands-on Echocardiography Workshop

Register Today! ccfcme.org/17pulmonary
You Don’t Want to Miss This Activity

Many clinicians care for survivors of acute pulmonary embolism without knowing that a proportion of these will develop chronic thromboembolic pulmonary hypertension (CTEPH). The Summit addresses this with a review of the evaluation, diagnosis, and therapy of pulmonary hypertension, CTEPH, and acute pulmonary embolism. In addition, the Summit will review the most recent advances in the context of challenges faced by physicians and other health care providers caring for these patients.

Be a part of the unique opportunity to learn from an international faculty and interact with colleagues throughout the United States. Take advantage of the opportunity and learn from shared experts broadcast between two locations – Cleveland, OH and Fort Lauderdale, FL.

Learning Objectives

• Describe the properties of novel anticoagulants to be able to prescribe them according to specific patient characteristics
• Identify the role of multidisciplinary teams in the management of acute pulmonary embolism
• Explain the importance of the ventilation-perfusion lung scan in the screening for chronic thromboembolic pulmonary hypertension (CTEPH)
• Recognize when to refer patients with suspected or known CTEPH to specialized centers for surgical evaluation
• Discuss the shift toward early and upfront combination therapy
• Detail the expected adverse events associated with pulmonary hypertension therapeutics and discuss their management
• Describe the frequency, severity, and treatment of pulmonary hypertension as a complication of chronic obstructive pulmonary disease and interstitial lung disease
• Summarize the evidence base supporting recent clinical developments in the pathobiology, epidemiology, diagnosis, and treatment of acute and chronic pulmonary embolism
• Discuss the pharmacoeconomics of pulmonary hypertension therapeutics and review new findings exploring cost effectiveness of care

Who Should Attend

These educational activities are directed to cardiologists, pulmonologists, critical care physicians, physician assistants, advanced practice nurses, researchers and other health care professionals.

New This Year in Cleveland

Precision Care in Lung Diseases is an optional one-day pre-symposium that will provide an update on pulmonary genomics in the areas of airway diseases, lung cancer, pulmonary hypertension, and interstitial lung disease. Pharmacogenetics has revolutionized patient care and the therapy of lung diseases in particular. While the practice of medicine continues to be limited to guidelines that treat all patients equally, precision medicine aims at tailoring medical therapy to the clinical and genetic characteristics of each patient. Attend this pre-symposium for an update on the rapidly evolving discipline of genomics and new advances that can be applied to your clinical practice.

In addition, an optional, hands-on Echocardiography Workshop will focus on the use of echocardiography related to the evaluation of pulmonary hypertension patients. Attendees will be introduced to the various aspects of echocardiography with use of live models and image interpretation.
Pulmonary Hypertension Summit Faculty

Cleveland Clinic Activity Co-Directors

Raed A. Dweik, MD
Director, Pulmonary Vascular Program
Professor of Medicine
Cleveland Clinic Lerner College of Medicine
Department of Pulmonary, Allergy and Critical Care Medicine
Respiratory Institute

Gustavo A. Heresi, MD
Medical Director, Pulmonary Thromboendarterectomy Program
Department of Pulmonary, Allergy and Critical Care Medicine
Respiratory Institute

Franck Rahaghi, MD
Chairman, Department of Pulmonary Medicine
Director, Advanced Lung Disease Program
Respiratory Center Quality Officer
Cleveland Clinic Florida

Guest Faculty

William R. Auger, MD
Professor of Clinical Medicine
Director, CTEPH Program
University of California, San Diego
La Jolla, CA

Charles D. Burger, MD, FCCP
Professor of Medicine
Pulmonary Medicine
Director, Pulmonary Vascular Disease Center
Mayo Clinic
Jacksonville, FL

Harrison W. Farber, MD
Professor of Medicine
Director
Pulmonary Hypertension Center
Boston University/Boston Medical Center
Boston, MA

Wassim H. Fares, MD, MSc
Assistant Professor of Medicine
Director, Pulmonary Vascular Disease Center
Pulmonary, Critical Care, and Sleep Medicine
Department of Internal Medicine
Yale School of Medicine
New Haven, CT

Anna R. Hemnes, MD
Associate Professor of Medicine
Assistant Director, Pulmonary Vascular Center
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Department of Medicine
Vanderbilt University Medical Center
Nashville, TN

Harrison W. Farber, MD
Assistant Professor of Medicine
Director
Pulmonary Vascular Disease Center
Pulmonary, Critical Care, and Sleep Medicine
Department of Internal Medicine
Yale School of Medicine
New Haven, CT

Wassim H. Fares, MD, MSc
Assistant Professor of Medicine
Director, Pulmonary Vascular Disease Center
Pulmonary, Critical Care, and Sleep Medicine
Department of Internal Medicine
Yale School of Medicine
New Haven, CT

Cleveland Clinic Faculty

Narendrakumar Alappan, MD
Respiratory Institute

John R. Bartholomew, MD
Heart and Vascular Institute

Neal Chaisson, MD
Respiratory Institute

Siddharth Dugar, MD
Respiratory Institute

Tarik Hanane, MD
Department of Laboratory Medicine

Kristin Highland, MD, MSCR
Respiratory Institute

Mani Latifi, MD
Respiratory Institute

Jinesh P. Mehta, MD
Respiratory Center, Florida

Ajit Moghekar, MD
Respiratory Institute

Rahul Renapurkar, MD
Imaging Institute

Joe Parambil, MD
Respiratory Institute

Margaret Park
Heart and Vascular Institute

Nicholas Smedira, MD
Heart and Vascular Institute

Adriano Tonelli, MD
Respiratory Institute

Optional, Hands-on Echocardiography Workshop

Thursday, October 5 | Cleveland, OH

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>7:15 am</td>
<td>Registration and Continental Breakfast</td>
</tr>
<tr>
<td>8:00 am</td>
<td>Welcome, Overview, and Pretest</td>
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<tr>
<td>8:20 am</td>
<td>Ultrasound Basics and Knobology</td>
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<tr>
<td>8:50 am</td>
<td>Cardiac Basics</td>
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<tr>
<td>9:20 am</td>
<td>Break</td>
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<tr>
<td>9:35 am</td>
<td>Basic Cardiac Workshop</td>
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<tr>
<td>11:35 am</td>
<td>Lunch</td>
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<tr>
<td>12:35 pm</td>
<td>Introduction to Doppler</td>
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<tr>
<td>1:05 pm</td>
<td>RV Assessment Using Echo</td>
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<tr>
<td>1:50 pm</td>
<td>Break</td>
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<tr>
<td>2:05 pm</td>
<td>Doppler/RV Assessment Workshop</td>
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<td>4:05 pm</td>
<td>Post-test</td>
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<tr>
<td>4:30 pm</td>
<td>Adjourn</td>
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# Pulmonary Hypertension Summit

**Friday, October 6**

7:00 am  Registration, Continental Breakfast, and Visit Exhibits
7:45 am  Welcome

**Session I – Acute and Chronic Pulmonary Embolism**

8:00 am  Acute Pulmonary Embolism: Current Concepts
         *John R. Bartholomew, MD*

8:30 am  From Acute to Chronic PE: Pathobiology
         *Irene Marthe Lang, MD*

9:00 am  Epidemiology and Diagnosis of Chronic Thromboembolic Disease
         *William R. Auger, MD*

9:30 am  Panel Discussion/Question and Answer Period

10:00 am Break and Visit Exhibits

**Session II – CTEPH**

10:30 am Medical and Surgical Treatment of CTEPH
        *William R. Auger, MD*

11:00 am Balloon Pulmonary Angioplasty for CTEPH
        *Irene Marthe Lang, MD*

11:30 am Panel Discussion/Question and Answer Period

12:00 pm Lunch Break

**Session III – Basic Pulmonary Hypertension**

1:15 pm  Diagnosis and Evaluation of PAH
         *Wassim H. Fares, MD, MSc*

1:45 pm  Contemporary Management of PAH
         *Anna R. Hemnes, MD*

2:15 pm  Panel Discussion/Question and Answer Period

2:45 pm  Break and Visit Exhibits

**Session IV – Therapeutic Choice**

3:15 pm  Precision Medicine in PAH Therapy
         *Adriano Tonelli, MD*

3:45 pm  Combination Therapy, Upfront, Add-On
         *Jinesh Mehta, MD*

4:15 pm  Adverse Event Management
         *Franck Rahaghi, MD*

4:45 pm  Panel Discussion/Question and Answer Period

5:15 pm  Adjourn

**Session VI – Looking to the Future**

10:30 am Pharmacoeconomics and Cost Effectiveness of Care in Pulmonary Hypertension
        *Charles D. Burger, MD*

11:00 am The Next Horizons of Pulmonary Hypertension
        *Harrison W. Farber, MD*

11:30 am Panel Discussion/Question and Answer Period

12:00 pm Adjourn

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**Saturday, October 7**

7:30 am  Continental Breakfast and Visit Exhibits

**Session V – Chronic Obstructive Pulmonary Disease and Interstitial Lung Disease**

8:30 am  Pulmonary Hypertension in Chronic Obstructive Pulmonary Disease
         *Joseph Parambil, MD*

9:00 am  Pulmonary Hypertension in Interstitial Lung Disease
         *Kristin Highland, MD*

9:30 am  Panel Discussion/Question and Answer Period

10:00 am Break and Visit Exhibits

**Session VI – Looking to the Future**

10:30 am Pharmacoeconomics and Cost Effectiveness of Care in Pulmonary Hypertension
        *Charles D. Burger, MD*

11:00 am The Next Horizons of Pulmonary Hypertension
        *Harrison W. Farber, MD*

11:30 am Panel Discussion/Question and Answer Period

12:00 pm Adjourn
Learning Objectives

- Identify new discoveries in molecular characterization, detection biomarkers and targeted therapy of lung diseases
- Highlight recent discoveries in clinical genomics and how they apply to pulmonary medicine
- Describe the current state and future trends of precision medicine in lung diseases

Precision Care in Lung Diseases Faculty

Cleveland Clinic Activity Director

Joe Zein, MD
Department of Pulmonary, Allergy and Critical Care Medicine
Respiratory Institute

Guest Faculty

Eugene Bleecker, MD
Director, Center for Genomics and Personalized Medicine Research
Professor, Center for Genomics and Personalized Medicine Research
Pulmonary, Critical Care, Allergy, and Immunologic Medicine
Pediatrics
Wake Forest Baptist Health
Winston-Salem, NC

Deborah A. Meyers, PhD
Co-Director, Center for Genomics and Personalized Medicine Research
Professor, Pediatrics - Medical Genetics
Center for Genomics and Personalized Medicine Research
Pulmonary, Critical Care, Allergy, and Immunologic Medicine
Wake Forest School of Medicine
Winston-Salem, NC

Agenda

8:00 am Registration, Continental Breakfast, and Visit Exhibits
8:45 am Welcome Remarks

Session I – Introduction

9:00 am The Future of Precision Care in Medicine
Serpil Erzurum, MD

9:20 am Precision Care in Lung Diseases: A Pathologist Perspective
Carol Farver, MD

9:45 am Break and Visit Exhibits

Session II – Airway Diseases

10:15 am Genetics of Asthma and COPD
Deborah A. Meyers, PhD

11:00 am Precision Care in Airway Diseases
Eugene Bleecker, MD

11:45 am Diagnostic and Therapeutic Challenges in Alpha-1 antitrypsin Deficiency
James K. Stoller, MD, MS

12:05 pm Panel Discussion/Question and Answer Period

12:15 pm Lunch

Session III – Lung Cancer

1:15 pm Molecular Characterization and Diagnosis of Lung Cancer
Jordan Reynolds, MD

1:35 pm Early Detection Biomarkers
Peter Mazzone, MD, MPH

1:55 pm It’s Personal Now: My Personal Experience with ALK Inhibitors
James Hiznay, BS

2:15 pm Panel Discussion/Question and Answer Period

2:30 pm Break and Visit Exhibits

Session IV – Pulmonary Hypertension

3:00 pm The Genetics of Pulmonary Arterial Hypertension
Michela Aldred, PhD

3:30 pm Precision Care in Pulmonary Vascular Diseases
Joseph Parambil, MD

3:50 pm Panel Discussion/Question and Answer Period

Session V – Interstitial Lung Disease

4:00 pm Clinical Genomic Testing for Interstitial Lung Diseases/Idiopathic Pulmonary Fibrosis
Mitchell Ofman, MD

4:20 pm Precision Care in Lymphangioleiomyomatosis and Pulmonary Alveolar Proteinosis
Robert Kotloff, MD

4:40 pm Panel Discussion/Question and Answer Period

4:50 pm Adjourn
General Information

Locations
InterContinental Hotel and Bank of America Conference Center
9801 Carnegie Avenue
Cleveland, OH 44106
Phone: 216.707.4100 or 877.707.8999

Hilton Fort Lauderdale
505 North Fort Lauderdale Beach Boulevard
Fort Lauderdale, FL 33304
Phone: 954.414.2222

Hotel Accommodations
InterContinental Hotel, Cleveland
A limited block of rooms has been reserved at the InterContinental Hotel only until September 14, 2017 at 5:00 pm ET. To make your reservations, contact the hotel at 216.707.4100 or 877.707.8999 and identify yourself as an attendee for the Cleveland Clinic Pulmonary Hypertension Summit for special rates of $205, plus taxes.

Hilton Fort Lauderdale
A limited block of rooms has been reserved at the Hilton Fort Lauderdale only until Tuesday, September 5, 2017. To make your reservations, contact the hotel at 1-800-HILTONS and identify yourself as an attendee for the Cleveland Clinic Pulmonary Hypertension Summit for special rates of $179, plus taxes.

Accreditation
The Cleveland Clinic Foundation Center for Continuing Education is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Cleveland Clinic Foundation Center for Continuing Education designates:
- Pre-symposium Precision Care in Lung Diseases live activity for a maximum of 6.0 AMA PRA Category 1 Credits™.
- Echocardiography Workshop live activity for a maximum of 7.0 AMA PRA Category 1 Credits™.
- Pulmonary Hypertension Summit live activity for a maximum of 10.0 AMA PRA Category 1 Credits™.

Participants claiming CME credit from these activities may submit the credit hours to the American Osteopathic Association for Category 2 credit.

Other Health Care Professionals
A certificate of attendance will be provided to other health care professionals for requesting credits in accordance with state nursing boards, specialty societies, or other professional associations.

Need More Information?
For further information about these activities, including Americans with Disabilities Act and Faculty Disclosure, contact the Cleveland Clinic Center for Continuing Education.
Local: 216.444.9990
Website: ccfcme.org/17pulmonary

Are time constraints preventing you from attending the Pulmonary Hypertension Summit? We have the solution!
Register to watch via LIVE stream. Available from the convenience of your personal computer, all presentations will be streamed live on October 6-7.
Access instructions will be emailed to you within 24 hours of the Summit.

Study References
Included with your full registration is a complimentary mobile App available for download on tablets and smartphones incorporating PowerPoint slides with note-taking and highlighting ability. Take notes at the activity and continue reviewing when you get home.
Faculty presentations will also be available online in PDF format on a password protected website. You will have access prior to the activity to allow you to download or print the slides.
Register Online at ccfcmef.org/17pulmonary

Pulmonary Hypertension Summit
October 6 – 7, 2017

Fee includes: continental breakfasts, refreshment breaks, and faculty PowerPoint presentations in PDF format, available online

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<td>Resident*/Fellow*</td>
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*Letter from program director is required to receive the discounted fee. If letter is not received two weeks prior to the activity, the full physician fee will be charged

Patients and caregivers are invited to attend the Pulmonary Hypertension Summit at no charge. Please call 216.445.5763 to register.

Optional, Hands-on Echocardiography Workshop
October 5, 2017, Cleveland, OH

Fee includes: continental breakfast, refreshment breaks, lunch, and faculty PowerPoint presentations in PDF format, available online

Space is limited, so early online registration is recommended.

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Optional, Pre-Symposium Precision Care in Lung Diseases
October 5, 2017, Cleveland, OH

Fee includes: continental breakfast, refreshment breaks, lunch, and faculty PowerPoint presentations in PDF format, available online

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Visit www.ccfcmef.org/17pulmonary for complete registration information.

Registration and Cancellation

Preregistrations are accepted until 2:00 pm ET, October 3, 2017. Register on site after this date.

In case of cancellation, email notification is required to process your refund. A full refund will be issued if canceled by August 31, 2017.

After August 31, 2017, the following cancellation fees will be deducted from your refund:

- Echocardiography Workshop $200
- Precision Care in Lung Diseases $100
- Pulmonary Hypertension Summit $100

No refunds will be issued after September 28, 2017.

For questions about registration or cancellation, email us at cmeregistration@ccf.org or call 216.448.8710.

Cleveland Clinic Center for Continuing Education reserves the right to cancel or postpone an activity at our sole discretion. In the unlikely event that this occurs, any registration fee(s) paid will be refunded. Be advised that Cleveland Clinic is not responsible for related costs including airline tickets, hotel costs, or any similar fee penalties incurred as a result of any trip cancellations or changes.
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