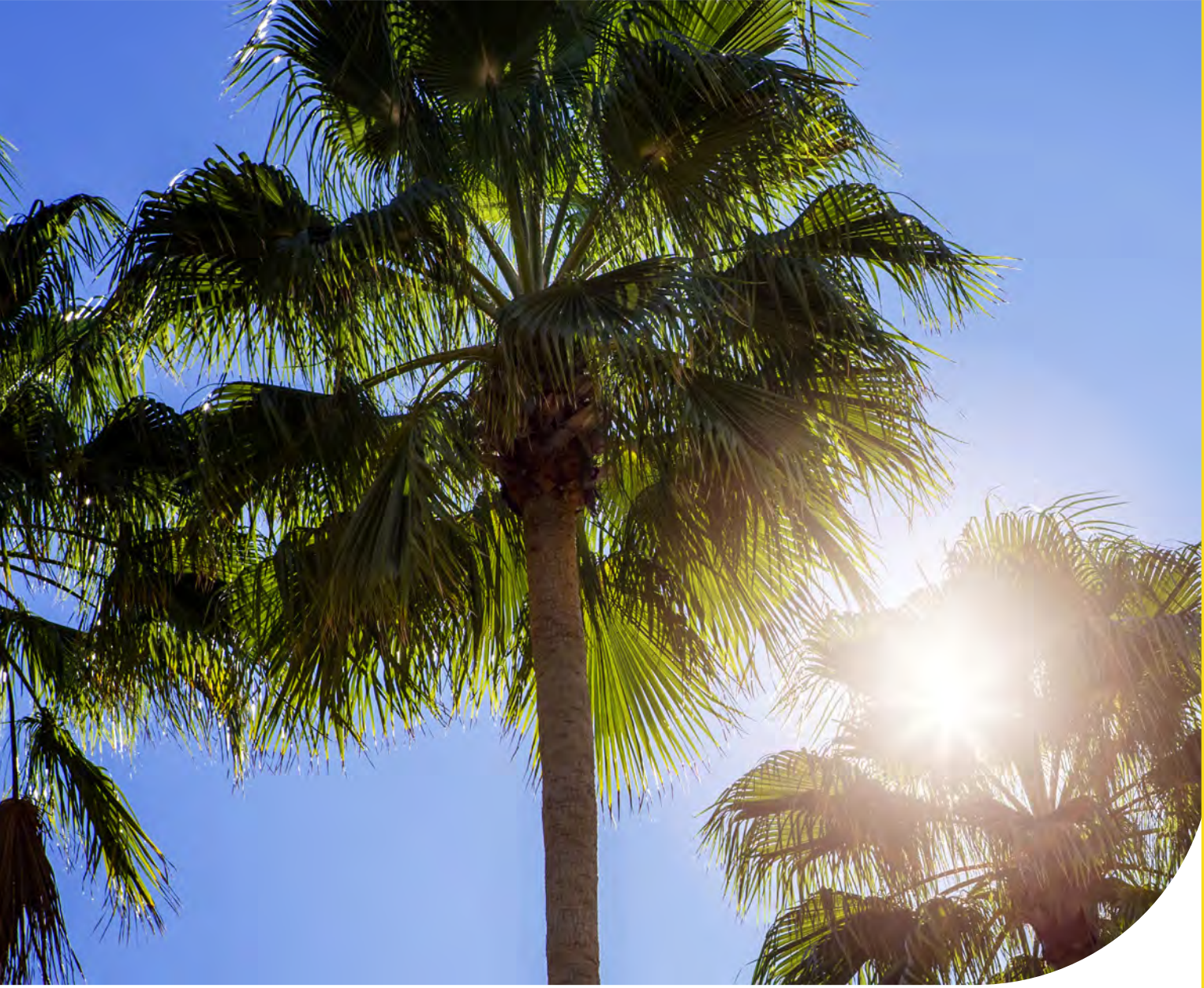

Advance Program

ATS 2026

Orlando | May 15-20
conference.thoracic.org

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ATS 2026 INTERNATIONAL CONFERENCE
MAY 15-20, Orlando, FL

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While every effort is made to ensure accuracy, ATS makes no warranties, expressed or implied, related to the information. Information contained herein is subject to change without notice.

The information contained in this program is up to date as of January 20,2026.

Click on the session title to view more information about ATS events, assemblies and sections.

https://conference.thoracic.org/attendees/

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As an accredited provider of the Accreditation Council for Continuing Medical Education (ACCME), the ATS must ensure objectivity, scientific rigor, balance, and freedom from commercial bias in Conference presentations.

ATS relies on the assistance of Conference Session organizers, chairs and presenters, Assembly Program Committees, and the ATS International Conference Committee to accomplish this. In keeping with ACCME standards and ATS policies on management of conflict of interest, all moderators and speakers must complete conflict of interest review and resolution prior to the Conference.

ATS thanks Conference presenters for their cooperation in completing disclosure forms by announced deadlines, and thanks Conference session organizers and all those involved in this important process.

POSTGRADUATE COURSES

Friday, May 14

CLINICAL

POSTGRADUATE COURSE

PG1A TAKE IT ALL IN!: COMPREHENSIVE REVIEW OF PEDIATRIC PULMONOLOGY AND PREPARATION FOR THE BOARDS

This is part 1 of a two-part course which includes PG1B on Saturday, May 16. Those registering for PG1A will registered for PG1A and PG1B. Pre-registration and additional fees required. Attendance is limited.

Member $930	In-Training Member $550
LMIC Member $650	LMIC In-Training Member $385
Non-Member $1140	In-Training Non-Member $810

Assemblies on Pediatrics, Steering Committee on Advancement and Learning (SCALe)

8:00 A.M. - 4:00 P.M.

Target Audience

This course is relevant to all pediatric pulmonologists, fellows, and advanced providers. Our specific target audience is individuals preparing to take the 2026 certifying board exam in pediatric pulmonology.

Objectives

At the conclusion of this session, the participant will be able to:

- apply knowledge and resources from this comprehensive review of pediatric pulmonology to board exam preparation as well as clinical practice.
- incorporate the forthcoming American Board of Pediatrics pediatric pulmonary content outline, as well as clinical guidelines (where applicable), into board exam preparation and clinical care.
- at the conclusion of this program, the learner will be better prepared for the American Board of Pediatrics initial certification exam, as well as for clinical practice.

This postgraduate course will serve as a comprehensive review of contemporary topics in pediatric pulmonology. It will serve an unmet need by providing board review for test takers preparing for the 2026 American Board of Pediatrics initial certification examination. It will also be relevant and applicable to all pediatric pulmonologists, nurse practitioners, and others who may benefit from this extensive learning opportunity from experts in the field.

8:00 Welcome

8:10 Lung Development

8:45 Respiratory Disorders of the Neonate and Infant

9:20 Respiratory Infections 1

9:55 Break

10:05 Cystic Fibrosis
10:40 Sleep and Control of Breathing
11:15 Respiratory Failure
11:50 Lunch
12:20 Physiology Small Groups 1
1:15 Interstitial Lung Disease
1:50 Pulmonary Function Testing
2:25 Break
2:35 Imaging
3:10 Lung Diseases Associated with Systemic Disorders
3:45 Wrap-Up

CLINICAL

POSTGRADUATE COURSE

PG2 ULTRASOUND UNLOCKED: ADVANCING ULTRASOUND PRACTICE AND INSTRUCTION

Pre-registration and additional fees required. Attendance is limited.

Member $630	In-Training Member $405
LMIC Member $441	LMIC In-Training Member $284
Non-Member $735	In-Training Non-Member $530

Assemblies on Critical Care, Behavioral Science and Health Services Research, Clinical Problems, Critical Care, Nursing, Pediatrics, Pulmonary Circulation; Section on Medical Education

8:00 A.M. - 4:00 P.M.

Target Audience
This session is designed for a multidisciplinary audience of healthcare professionals who use or teach point-of-care ultrasound (POCUS) in the care of acutely ill patients.

Objectives
At the conclusion of this session, the participant will be able to:

- perform and interpret lung, cardiac, and vascular ultrasound to diagnose respiratory failure, assess hemodynamic instability, and guide vascular access in critically ill patients.
- integrate standardized ultrasound protocols and dynamic parameters into clinical decision-making to improve diagnostic accuracy and procedural safety.
- enhance ultrasound teaching effectiveness by identifying technical pitfalls, applying ergonomic techniques, and utilizing evidence-based strategies for bedside instruction and learner assessment.

This interactive session is designed for clinicians and educators seeking to reinforce basic point of care ultrasound skills for acutely ill patients. Participants will review diagnostic protocols, refine image acquisition and interpretation techniques with live models, and review tips and tricks of ultrasonography with expert faculty. The session will also focus on practical strategies for using and teaching ultrasound effectively, addressing common pitfalls, ergonomic techniques, and learner engagement across experience levels. This course bridges clinical application and education, equipping participants to both perform and teach high-quality ultrasound at the bedside.

8:00 Introduction
8:15 Part 1: Ultrasound for Respiratory Failure and Vascular
9:05 Movement
9:10 Practical Skills Session
10:10 Break
10:40 Part 2: Ultrasound for Hemodynamic Instability
11:30 Movement
11:35 Practical Skills Session
12:35 Lunch
1:05 Lunch & Demonstration
1:45 Part 3: Tips and Tricks for Ultrasonography and Education
2:35 Movement
2:40 Practical Skills Session
3:40 Movement
3:45 Conclusion

CLINICAL

POSTGRADUATE COURSE

PG3 BRONCH DAY 2026: A COMPREHENSIVE, HANDS-ON GUIDE TO BASIC BRONCHOSCOPY, EBUS, AND GUIDED BRONCHOSCOPY

Pre-registration and additional fees required. Attendance is limited.

Member $630	In-Training Member $405
LMIC Member $441	LMIC In-Training Member $284
Non-Member $735	In-Training Non-Member $530

Assemblies on Clinical Problems, Thoracic Oncology

8:00 A.M. - 4:00 P.M.

Target Audience
Adult and pediatric pulmonologists and intensivists, thoracic surgeons, physicians in training, allied health professionals, anesthesiologists interested in improving their skills in diagnostic and therapeutic flexible bronchoscopy and EBUS

Objectives
At the conclusion of this session, the participant will be able to:

- Diagnose and manage adults with benign and malignant respiratory diseases that require bronchoscopic intervention.
- Understand the indications for basic and adavanced bronchoscopy, linear and radial endobronchial ultrasound as well as endobronchial valves and the skills necessary to perform these procedures.
- Improve knowledge of navigational and robotic bronchoscopy and strengthen these procedural skills.

This course is designed to provide a comprehensive introduction to diagnostic and therapeutic flexible bronchoscopy. Participants will acquire the knowledge and skills to improve their proficiency in basic bronchoscopic techniques and be exposed to advanced skills such as linear EBUS, radial EBUS, navigational and robotic bronchoscopy. A series of lectures will be followed by intensive, hands-on stations. Through the use of physical and virtual reality simulators, participants will strengthen their procedural skills. This course is of particular interest to providers seeking to refine their bronchoscopy skills and who wish to review the most up-to-date data behind the various bronchoscopic techniques used today.

8:00 **Introduction**

8:05 **Optimizing Basic Bronchoscopy Skills**

8:30 **Maximize Bronchoscopic Outcomes in High Risk Patients**

8:55 **Role of Flexible Bronchoscopy in Management of Hemoptysis**

9:20 **Foreign Body Aspiration**

9:45 **Break**

10:00 **The Fundamentals of Linear EBUS**

10:25 **Navigational Bronchoscopy: From Fluoroscopy to Robotics**

10:50 **Bronchoscopic Lung Volume Reduction**

11:15 **Lunch**

12:05 **Practical Skills Session: Bronchoscopy With Biopsy and Needle Aspiration of Endobronchial Lesion**

12:30 **Practical Skills Session: Bronchoscopic Management of Hemoptysis**

12:55 **Practical Skills Session: Management of the Difficult Airway Including Trachcostomy Tubes**

1:20 **Practical Skills Session: Techniques for Foreign Body Removal Using Flexible Bronchoscopy**

1:45 **Practical Skills Session: Navigational Bronchoscopy With Radial Endobronchial Ultrasound**

2:10 **Break**

2:20 **Practical Skills Session: Robotic Bronchoscopy**

2:45 **Practical Skills Session: Endobronchial Ultrasound Anatomy**

3:10 **Practical Skills Session: Endobronchial Ultrasound-Guided Transbronchial Needle Aspiration**

3:35 **Practical Skills Session: Endobronchial Valves**

BASIC • CLINICAL

POSTGRADUATE COURSE

PG4 SARCOIDOSIS: WHAT WE NEED TO KNOW TODAY

R Pre-registration and additional fees required. Attendance is limited.

Member $465	In-Training Member $275
LMIC Member $326	LMIC In-Training Member $193
Non-Member $570	In-Training Non-Member $405

Assemblies on Clinical Problems, Allergy, Immunology and Inflammation, Behavioral Science and Health Services Research

8:00 A.M. - 4:00 P.M.

Target Audience
Providers of lung health; those serving patients with pulmonary and extrapulmonary sarcoidosis.

Objectives
At the conclusion of this session, the participant will be able to:

- at the conclusion of this session, the learner will be better able to define, implement, and counsel patients on updated strategies, guidelines, and new approaches in the diagnosis, treatment, and follow-up of patients with pulmonary sarcoidosis.
- the learner will better understand the management of and the need for early referral of patients with severe forms of

pulmonary sarcoidosis, including fibrotic pulmonary sarcoidosis and sarcoidosis-associated pulmonary hypertension.

- the learner will be better able to screen for, diagnose, and manage important extrapulmonary manifestations of sarcoidosis-such as cardiac sarcoidosis, neurosarcoidosis, fatigue, and sarcoidosis-associated small fiber neuropathy.

The last decade has seen an explosion in the number of published studies including clinical trials and novel treatment approaches in sarcoidosis and it is important that practicing pulmonologist stay abreast of these changes. This session aims to provide updates in the diagnosis, evaluation, and management of patients with pulmonary and extrapulmonary sarcoidosis. We will provide a synopsis of current practice with emphasis on recent updates. The goal is to equip the learners with the most up to date information necessary to provide an evidence based comprehensive care to patients with pulmonary and extrapulmonary sarcoidosis.

8:00 Introduction

8:05 I Have Sarcoidosis and This Is My Story - Keeping the Patient Front & Center

8:20 The Epidemiology of Sarcoidosis - Focus on Recent Patterns and Trends of Disease

8:40 The Etiology of Sarcoidosis - Genetics & Environmental/Occupational ExposuresThe Etiology of Sarcoidosis - Genetics &Environmental/Occupational Exposures

9:15 Understanding The Pathobiology & Immunology of Sarcoid Granuloma Formation

9:35 Break

10:00 The Diagnosis of Sarcoidosis

10:10 The Treatment of Pulmonary Sarcoidosis

10:35 Updates on Emerging Therapies & New Treatment Approaches in Sarcoidosis

11:00 Monitoring The Patient with Pulmonary Sarcoidosis - The Role of PFTs, Symptom & QoL Assessments, and Imaging

11:25 Breakout Session with Case Discussions & Review

11:55 Summary of Morning Session

12:00 Lunch

1:00 Fibrotic Pulmonary Sarcoidosis

1:25 Sarcoidosis Associated Pulmonary Hypertension (SAPH)

2:15 Neurosarcoidosis and Sarcoidosis Associated Small Fiber Neuropathy (SSFN)

2:45 Break

2:55 Fatigue, Cognitive Difficulty, Brain Fog, and Depression in Sarcoidosis

3:15 Mind the Gap - The Psycosocial & Economic Burden of Sarcoidosis

3:35 A Pragmatic Approach to Shared Decision Making & Multi-Disciplinary Care in Pulmonary Sarcoidosis

3:55 Wrap up of the day

CLINICAL

POSTGRADUATE COURSE

PG5 ADVOCACY TOOLS FOR PULMONARY, CRITICAL CARE AND SLEEP MEDICINE

R Pre-registration and additional fees required. Attendance is limited.

Member $465	In-Training Member $275
LMIC Member $326	LMIC In-Training Member $193
Non-Member $570	In-Training Non-Member $405

Assemblies on Pediatrics, Nursing; Health Policy Committee Pediatric Advocacy Committee

8:00 A.M. - 4:00 P.M.

Target Audience

Early career professionals who are looking to be more involved in advocacy however this would be applicable to mid and late career individuals too. It is not clinically focused and open to researchers and health care providers

Objectives

At the conclusion of this session, the participant will be able to:

- apply lessons learned in advocacy training to real-world advocacy
- at the conclusion of the session participants will be able to identify key issues affecting their communities.
- participants should be able to articulate their message clearly to various audiences including policymakers, the public and other stakeholders

Advocacy in pulmonary, critical care and sleep medicine has become increasingly more important for both clinicians and scientists. Lessons on effective advocacy in healthcare are critical for the growth and development of ATS members. The morning session includes exemplars in advocacy, experts will share foundational elements of effective advocacy at all levels followed by engagement with group dialogue. Different from

previous symposia, this provides active engagement, so attendees will leave with a toolkit and foundation for future advocacy activities and leadership. Providing a primer on the broad range of advocacy in ATS to better understand the emerging advocacy environment.

8:00 **Introduction**

8:10 **Integrating Advocacy Roles into Career Opportunities and Responsibilities**

8:55 **Levels of Advocacy**

9:40 **Break**

10:00 **Current ATS advocacy Landscape**

10:45 **Voice of a legislator**

11:30 **Lunch**

12:30 **Advocacy Journey**

1:30 **Advocacy in the Media - Breakout Session**

1:50 **OP Eds - Finding your Lede - Breakout**

2:10 **Meeting with your Legislator - Break Out**

2:30 **Break**

2:50 **Local Advocacy -Breakout**

3:10 **State and Federal Testimonies**

3:30 **Debrief - End of Session**

CLINICAL

POSTGRADUATE COURSE

PG6 BEST PRACTICES IN PULMONARY FUNCTION TESTING

Pre-registration and additional fees required. Attendance is limited.

Member $465	In-Training Member $275
LMIC Member $326	LMIC In-Training Member $193
Non-Member $570	In-Training Non-Member $405

Assemblies on Respiratory Structure and Function, Clinical Problems

8:00 A.M. - 4:00 P.M.

Target Audience
The target audience includes Current and future directors of PFT labs, attending physicians, respiratory therapists, trainees, fellows, and other interested health care providers including advance practice providers.

Objectives
At the conclusion of this session, the participant will be able to:

- to gain further understanding of the principles and practice of pulmonary function diagnostic tests
- to develop greater confidence interpreting pulmonary function test results in clinical practice
- to identify strategies to approach the interpretation of pulmonary function test results in complex patients

This course focuses on clinical lung function testing, integrating recent technical standards and interpretive strategies with interactive, small-group learning. Participants will engage in didactic lectures, case-based instruction, and live demonstrations of pulmonary function testing (PFT). A multidisciplinary team-including clinicians, respiratory therapists, and lab directors-will guide discussions. Emphasis will be placed on race-neutral equations in PFT, reflecting evolving literature. The course concludes with expert panel discussions of complex cases, offering diverse perspectives and practical insights into PFT performance, interpretation, and reporting.

8:00 **Introduction**

8:05 **Spirometry Measurement and Interpretation**

8:30 **Spirometry Reference Equations**

8:55 **Assessment and Interpretation of Static Lung Volumes**

9:20 **Diffusing Capacity Assessment and Interpretation**

9:45 **Break**

10:00 **Use of the Forced Oscillation Technique in Clinical Practice**

10:30 **Real-time Demonstration of PFT Assessment and Troubleshooting**

11:10 **PFT Small Group Case Discussion #1**

11:50 **Lunch**

12:30 **Pediatric Considerations in Pulmonary Function Testing**

1:00 **Bronchial Challenge Testing: Insights into Current Guidelines**

1:40 **Break**

1:55 **Complex Patterns in Pulmonary Function**

2:25 **Small Group PFT Case Discussions #2**

3:05 **Break**

3:15 **Full of Hot Air: Expert Panel Case Debate**

3:50 **Concluding Remarks**

BASIC • CLINICAL • TRANSLATIONAL

POSTGRADUATE COURSE

PG7 COPD 2026: STATE OF THE ART

Pre-registration and additional fees required. Attendance is limited.

Member $465	In-Training Member $275
LMIC Member $326	LMIC In-Training Member $193
Non-Member $570	In-Training Non-Member $405

Assemblies on Clinical Problems, Allergy, Immunology and Inflammation, Pulmonary Rehabilitation, Respiratory Structure and Function

8:00 A.M. - 4:00 P.M.

Target Audience
Clinicians, basic scientists, nurses, other allied health staff, researchers, investigators in basic and clinical science pertinent to COPD, and sponsors of research

Objectives
At the conclusion of this session, the participant will be able to:

- identify challenges associated with the contemporary assessment and management of COPD based on evidence-based clinical practice guidelines recommendations and improve knowledge on COPD pathophysiology, clinical presentation, and assessment
- understand the clinical, physiological and radiological phenotypes of COPD and learn new findings and gain competence in providing pharmacological and non-pharmacological management of COPD
- become familiar with recent and ongoing clinical trials for COPD management and recognize unmet needs for future research in the field

This course will provide a state-of-the-art update on the understanding of the pathophysiology, clinical course, assessment and management of COPD. It will shed light on recent and ongoing clinical trials and outline evidence-based pharmacological and non-pharmacological management strategies. Attendees will be updated on understanding COPD phenotypes, endotypes and biomarkers as well as recent advances in disease management. The course will also outline unmet and future research needs.

8:00 Welcome and Introductions
8:05 Immunologic Underpinnings of COPD
8:20 Shedding Light on Genetics of COPD
8:35 Decoding COPD Using Big Data: Mapping Disease Phenotypes Through Time
8:50 Update on Chronic Bronchitis
9:05 Is Pharmacotherapy for Emphysema Possible?
9:20 Questions and Answers
9:45 Break
10:15 Diagnosis of COPD: A Multidimensional Approach
10:30 Evaluating Exercise Intolerance in COPD
10:45 Biomarkers in COPD
11:00 Disease Trajectories in COPD
11:15 GOLD 2026. What's New?
11:30 Questions and Answers
11:45 Lunch
12:45 Treatable Traits in COPD
1:00 Type 2 Biologicals in COPD
1:15 Targeting Alarmins in COPD
1:30 Preventing and Managing COPD Exacerbation
1:45 Questions and Answers
2:00 Break
2:30 Update on Bronchoscopic Interventions
2:45 Non-Invasive Ventilation in COPD
3:00 Update on Pulmonary Rehabilitation
3:15 Oxygen Therapy: Progress and hurdles
3:30 Managing the Multimorbidity of COPD
3:45 Questions and Answers
3:55 Closing Remarks

CLINICAL • TRANSLATIONAL

POSTGRADUATE COURSE

PG8 BRONCHIECTASIS AND NTM PULMONARY DISEASE: ETIOLOGIES, COMPLEX CASE MANAGEMENT, AND UPDATED GUIDELINES

Pre-registration and additional fees required. Attendance is limited.

Member $465	In-Training Member $275
LMIC Member $326	LMIC In-Training Member $193
Non-Member $570	In-Training Non-Member $405

Assembly on Pulmonary Infections and Tuberculosis

8:00 A.M. - 4:00 P.M.

Target Audience
Respiratory therapists, pulmonologists/respirologists, post graduate trainees, advanced practitioner, those seeing patients with NTM and bronchiectasis without frequent access to expert guidance, those starting or directing specialized programs

Objectives
At the conclusion of this session, the participant will be able to:

- describe recent advances in translational research and clinical studies that inform evolving approaches to the diagnosis and management of bronchiectasis and NTM pulmonary disease.
- apply evidence-based treatment strategies for bronchiectasis, including approaches to airway clearance, exacerbation prevention, and use of new therapeutic options.
- incorporate advanced treatment options and emerging therapies for NTM pulmonary disease into clinical practice to improve patient outcomes.

The diagnosis and management of bronchiectasis and nontuberculous mycobacteria (NTM) pulmonary infections are challenging due to the complexity of these chronic lung diseases and limited evidence-based management strategies. There have fortunately been multiple significant advances, and this session will provide learners on the evolving landscape. Topics include current epidemiology, environmental risk factors, pathophysiology, and diagnostic considerations. The session will review new bronchiectasis management guidelines expected in late 2025 and explore novel approaches being pursued in active clinical trials. Through a combination of didactic presentations and expert panel discussions, participants will gain practical insights to enhance patient care and clinical decision-making.

8:00 **Introduction: Day of Bronchiectasis and NTM**

8:05 **Global Perspectives on NTM Epidemiology, Acquisition, and Clinical Significance**

8:25 **Bronchiectasis Insights From Global Epidemiology and Registry-Driven Advances**

8:45 **Panel Discussion: Epidemiology**

8:55 **Unraveling the Diverse Etiologies of Bronchiectasis**

9:15 **Genetic Etiologies of Bronchiectasis: What, When, and How to Test**

9:35 **Panel Discussion: Etiologies**

9:45 **Break**

10:15 **Update in Bronchiectasis Guidelines: New Recommendations and Clinical Implications**

10:35 **New Horizons in Bronchiectasis: Targeting Endotypes with Novel Therapies**

10:55 **Panel Discussion**

11:05 **Breakout Discussion: Advanced Bronchiectasis Cases**

11:45 **Lunch**

12:45 **Practicalities of Airway Clearance**

1:10 **Beyond the Guidelines: Advanced Management of MAC and M. Abscessus**

1:30 **Advanced Management of Other Clinically Significant NTM**

1:50 **Breakout Discussion: Implementing Guidelines in the Real-World**

2:35 **Break**

3:05 **Rapid Fire: NTM Therapeutic Pipeline: Trials, Novel Diagnostics, and Recruitment Challenges**

3:30 **Rapid Fire: Bronchiectasis Clinical Trials and Emerging Therapies: Opportunities and Barriers**

3:55 **Closing Remarks**

BEHAVIORAL • CLINICAL • TRANSLATIONAL

POSTGRADUATE COURSE

PG9 STATE OF THE ART: LUNG CANCER IN 2026

Pre-registration and additional fees required. Attendance is limited.

Member $465	In-Training Member $275
LMIC Member $326	LMIC In-Training Member $193
Non-Member $570	In-Training Non-Member $405

Assembly on Thoracic Oncology

8:00 A.M. - 4:00 P.M.

Target Audience
All providers caring for patients with known or suspected lung cancer (pulmonologist, thoracic surgeons, radiation oncologist, medical oncologist, APPs) and those interested in translational research in this field.

Objectives
At the conclusion of this session, the participant will be able to:

- review and understand recent advances and changes in the personalized treatment of lung cancer.
- understand the role of biomarkers across the spectrum of lung cancer from early detection to treatment response.
- understand the practical implications of lung cancer staging guidelines on invasive staging procedures and impact on patient treatment and outcomes.

This course will provide a comprehensive review of topics in the evaluation and management of patients with known and suspected lung cancer. We will discuss recent developments in the areas of tobacco control, updated guidelines for lung cancer staging, advances in lung cancer screening, invasive diagnostic approaches for patients with lung nodules and mediastinal staging, biomarkers across the spectrum of lung cancer, and updates in multimodal treatment approaches for lung cancer. Attention will be given to global variations and potential disparities across the lung cancer continuum. Interactive tumor boards will be held to highlight these topics and encourage participant engagement.

8:00 **Introduction**

8:05 **Lung Cancer Across the Globe: Shifts in Epidemiology That Should Impact Research Priorities**

8:30 **Lung Cancer Screening US and Global Updates**

8:55 **Evolution of Surgery for Early-Stage Lung Cancer Treatments**

9:20 **Updates in Interventional Pulmonary for the Diagnosis, Staging, Treatment of Lung Cancer**

9:45 **Break**

10:05 **Updates in Multimodality Treatment for Early-Stage Lung Cancer: an Oncologist's Perspective**

10:30 **Updates in Radiation Oncology and Other Ablative Methods for Lung Cancer**

10:55 **Thoracic Tumor Board #1**

11:30 **Lunch**

12:35 **Prioritizing Tobacco Treatment Across the Lung Cancer Continuum.**

1:00 **Lung Cancer Staging: Changes and Impact on Management and Outcomes**

1:25 **The Importance of Biomarker Testing: Practical Updates**

1:50 **Addressing Disparities Across the Lung Cancer Continuum**

2:15 **Break**

2:35 **Updates in Mesothelioma**

3:00 **Thoracic Tumor Board #2**

3:35 **The Top 5 in Thoracic Oncology: This Year's Most Important Articles**

Saturday, May 16

CLINICAL

POSTGRADUATE COURSE

PG1B TAKE IT ALL IN!: COMPREHENSIVE REVIEW OF PEDIATRIC PULMONOLOGY AND PREPARATION FOR THE BOARDS

This is part 2 of a two-part course which includes PG1A on Friday, May 15. Pre-registration and additional fees required. Attendance is limited. See PG1A for course fees.

Assemblies on Pediatrics, Steering Committee on Advancement and Learning (SCALe)

8:00 A.M. - 4:00 P.M.

Target Audience
This course is relevant to all pediatric pulmonologists, fellows and advanced providers. Our specific target audience are individuals preparing to take the 2026 certifying board exam in pediatric pulmonology.

Objectives
At the conclusion of this session, the participant will be able to:

- apply knowledge and resources from this comprehensive review of pediatric pulmonology to board exam preparation as well as clinical practice.
- incorporate the forthcoming American Board of Pediatrics pediatric pulmonary content outline, as well as clinical guidelines (where applicable) into board exam preparation and clinical care,
- at the conclusion of this program, the learner will be better prepared for the American Board of Pediatrics initial certification exam, as well as for clinical practice.

This postgraduate course will serve as a comprehensive review of contemporary topics in pediatric pulmonology. It will serve an unmet need by providing board review for test takers preparing for the 2026 American Board of Pediatrics initial certification examination. It will also be relevant and applicable to all pediatric pulmonologists, nurse practitioners, and others who may benefit from this extensive learning opportunity from experts in the field.

8:00	**Welcome to Course**
8:10	**Congenital and Acquired Malformations of the Lungs**
8:45	**Respiratory Infections 2**
9:20	**Non-CF Bronchiectasis**
9:55	**Break**
10:05	**Asthma**
10:40	**Restrictive Lung Disease**
11:00	**Pulmonary Vascular Disease and Lymphatic Disorders**
11:50	**Small Groups 2**
12:45	**Lunch**
1:15	**Lung Diseases Associated with Systemic Disorders 2**
1:50	**Environmental Injuries and Exposures**
2:25	**Break**
2:25	**Respiratory System Under Stress**
3:10	**Core Knowledge in Scholarly Activities**
3:45	**Wrap-Up**

CLINICAL

POSTGRADUATE COURSE

PG10 MECHANISTIC AND MULTIMODAL OSA TREATMENT: NERVE STIMULATION, SURGERY, ORAL APPLIANCES, AND EMERGING PHARMACOTHERAPY

Pre-registration and additional fees required. Attendance is limited.

Member $630	In-Training Member $405
LMIC Member $441	LMIC In-Training Member $284
Non-Member $735	In-Training Non-Member $530

Assemblies on Sleep and Respiratory Neurobiology, Clinical Problems, Nursing, Pediatrics

8:00 A.M. - 4:00 P.M.

Objectives
At the conclusion of this session, the participant will be able to:

- describe new findings about HNS, OA, MMA surgery, and emerging pharmacologic agents as evidence-based alternatives to positive airway pressure (PAP) in the treatment of obstructive sleep apnea (OSA).
- apply patient-specific criteria to identify and refer candidates for appropriate non-PAP therapies, incorporating current clinical evidence, anatomical considerations, and comorbidity profiles into individualized treatment plans.
- improve the quality of life and health status of patients with OSA by integrating multimodal, mechanism-based treatment strategies into practice when PAP therapy is not used.

Hypoglossal Nerve Stimulation (HNS), Oral Appliance (OA), Maxillary Mandibular Advancement (MMA) surgery, and pharmacotherapy are evidence-based positive airway pressure (PAP) treatment alternatives for obstructive sleep apnea (OSA). Dual GLP-1 and GIP receptor agonist and mechanistically targeted combination treatment (aroxybutynin and atomoxetine) are expected to become viable alternatives to PAP for selected patients. This session will review recent clinical evidence and technical advancements in non-PAP OSA therapies. Interactive case studies and hands-on workshops will provide participants with practical training in HNS titration, OA device selection, and adherence tracking technologies.

8:00 **Introduction to Course Outline and Objectives**

8:10 **Hypoglossal Nerve Stimulation (HNS) for OSA: Mechanisms, Evidence, and Indications**

8:40 **Before the Stimulation: Interdisciplinary Sleep Medicine and ENT Evaluation for HNS Success**

9:10 **Break**

9:25 **Precision and Progress: Surgical and Device Innovations in HNS, Ansa Cervicalis Stimulation**

9:55 **Dialing it in: Monitoring and Titration Strategies for HNS Success**

10:25 **Lunch**

11:10 **Bite-Sized Innovation: Advances in Oral Appliance Therapy for OSA**

11:40 **Weight Loss as Airway Therapy: Tirzepatide and the Metabolic Approach to OSA**

12:10 **Break**

12:25 **Mechanistic Drug Therapy for OSA with Aroxybutynin and Atomoxetine**

12:55 **Personalized Pathways in OSA: Combining Modalities for Optimal Outcomes**

1:25 **Break**

1:40 **Practical Skills Session: Nuts and Bolts of Single Lead HNS Device**

2:30 **Practical Skills Session: Bilateral Hypoglossal Nerve Stimulator Therapy**

3:10 **Practical Skills Session: Optimizing Patient Selection and Outcomes of OSA with Dental Sleep Medicine**

3:55 **Summarize the Course and Open Questions and Answers**

CLINICAL

POSTGRADUATE COURSE

PG11 PEDIATRIC ADVANCED DIAGNOSTIC AND INTERVENTIONAL BRONCHOSCOPY

Pre-registration and additional fees required. Attendance is limited.

Member $630	In-Training Member $405
LMIC Member $441	LMIC In-Training Member $284
Non-Member $735	In-Training Non-Member $530

Assembly on Pediatrics

8:00 A.M. - 4:00 P.M.

Target Audience
Clinicians, Pediatric Pulmonologists, and Clinical Fellows Who Perform Bronchoscopy

Objectives
At the conclusion of this session, the participant will be able to:

- describe new advanced diagnostic and interventional bronchoscopy techniques in children.
- more appropriately refer and provide care to children who could benefit from advanced diagnostic and therapeutic bronchoscopy procedures.
- define likely complications and management strategies for advanced bronchoscopic procedures in children.

This course will introduce attendees to a broad spectrum of advanced diagnostic and interventional pediatric flexible bronchoscopy techniques including cryotherapy, electrocautery, transbronchial biopsy, endobronchial ultrasound, navigational biopsies, and endobronchial valves. Indications, risks, and benefits will be discussed as well was strategies for starting a program and

partnering with adult pulmonologists. This will be followed with hands-on practice under the guidance of leaders in the field of advanced pediatric bronchoscopy. The course will offer insights relevant to both trainees and experienced bronchoscopists.

8:00 **Introduction**

8:05 **Endoscopic Cryotherapy**

8:27 **Pediatric Advanced Diagnostic Bronchoscopy**

8:49 **Persistant Air Leak and Endobronchial Valves in Pediatrics**

9:11 **Break**

9:41 **Management of Complications of Interventional Pulmonary Procedures**

10:03 **Starting An Advanced Diagnostic Program**

10:25 **Lunch**

11:25 **Introduction to Hands-On Portion**

11:30 **Endobronchial Valve Placement and Chest Tube Drainage System Hands On Station**

12:10 **Practical Skills Session: Endoscopic Extraction**

1:30 **Break**

2:00 **Practical Skills Session: Endobronchial Ultrasound Guided Transbronchial Needle Aspiration**

2:40 **Practical Skills Session: CT Navigation, Radial EBUS, and Transbronchial Needle Biopsy**

3:20 **Practical Skills Session: Management of Complications**

CLINICAL

POSTGRADUATE COURSE

PG12 SUPPORTING THE FAILING HEART: MCS AND VA-ECMO FOR THE PRACTICING INTENSIVIST

Pre-registration and additional fees required. Attendance is limited.

Member $300
LMIC Member $230
Non-Member $360
In-Training Member $155
LMIC In-Training Member $120
In-Training Non-Member $280

Assembly on Critical Care

12:00 P.M. - 4:00 P.M.

Target Audience
Professionals working in Critical Care: Physicians, Trainees, Allied Health

Objectives
At the conclusion of this session, the participant will be able to:

- understand when to refer patients with cardiogenic shock for mechanical circulatory support
- explain the physiology of the most common MCS devices (IABP and Impella) and VA-ECMO, and develop a system of picking the first device modality
- review the basic physiology, functioning, and management of the most common MCS modalities (IABP and Impella) and VA ECMO

There is a steady trend of increased use of mechanical circulatory support (MCS) and veno arterial extracorporeal membrane oxygenation (VA-ECMO) for hemodynamic support in cardiogenic shock. Given the growing complexity of critically ill patients, an understanding of when to refer patients for MCS or ECMO, and how these support modalities work, is becoming essential for critical care providers. Despite this, resources and education for general intensivists are lacking. The goal of this session is to provide a broad overview of MCS ECMO for ICU providers, and to review the basic physiology, assessment, and troubleshooting of the three most common MCS modalities: VA-ECMO, Impellas, and intra-aortic balloon pumps.

12:00 **Welcome & Introduction**

12:05 **Early identification of Cardiogenic Shock and Review of SCAI Stages**

12:20 **Pressure Volume Loops and the Physiology of Cardiogenic Shock**

12:40 **Medical Management in Cardiogenic Shock**

1:00 **IABP Hands-On Session (Didactic)**

1:20 **IABP Hands-On Session (Facilitator A)**

2:00 **Impella Hands-On Station (Didactic)**

2:20 **Impella Hands-On (Facilitator A)**

3:00 **ECMO Hands-On Station (Didactic)**

3:20 **ECMO Hands-On Station. (Facilitator A)**

CLINICAL

POSTGRADUATE COURSE

PG13 INTERSTITIAL LUNG DISEASE: A PRACTICAL APPROACH TO DIAGNOSIS AND MANAGEMENT

Pre-registration and additional fees required. Attendance is limited.

Member $465	In-Training Member $275
LMIC Member $326	LMIC In-Training Member $193
Non-Member $570	In-Training Non-Member $405

Assemblies on Clinical Problems, Allergy, Immunology and Inflammation, Behavioral Science and Health Services Research, Critical Care, Nursing, Pulmonary Circulation, Pulmonary Rehabilitation

8:00 A.M. - 4:00 P.M.

Target Audience
This session should be broadly relevant to those who provide clinical care for patients with ILD including pulmonary fellows, general pulmonologists, ILD specialists, and advanced care nurses.

Objectives
At the conclusion of this session, the participant will be able to:

- be able to apply a consistent, effective strategy to ILD/IPF diagnosis
- understand the range of therapeutics available for ILD and how and when to prescribe them
- be able to integrate a holistic and interdisciplinary approach to ILD patient care

This session will provide a practical approach to the diagnosis and management of patients with ILD with a particular focus on risk for disease progression. It will bring the most recent recommendations and guidelines into a usable strategy that will facilitate the care of patients with ILD. This will be accomplished through didactics, simulated MDD and panel discussion of difficult cases—providing a range of learning methods to reach the largest number of learners.

8:00 **Welcome and Introduction**

8:10 **Let's Keep This Simple: A Practical Approach to the Diagnosis of ILD**

8:35 **No Longer in the Dark: Using Radiologic Patterns in the Diagnosis of ILD**

9:00 **Not All Progress is Good: Predictors of Progression in Patients with IPF and HP**

9:25 **What's Ro52 Got to do with it?: Identifying Risk of Progression in Patients with CTD-ILD**

9:50 **Break**

10:20 **Care of Critically Ill Patients with ILD: ECMO, Ventilation and Lung Transplantation**

10:45 **Pulling it All Together: Speed MDD**

11:55 **Lunch**

12:55 **Therapies for Pulmonary Fibrosis and What to Do if Patients Progress**

1:20 **Therapies for CTD-ILD and What to Do if Patients Progress**

1:45 **Feels & Functions: Managing Cough, Dyspnea and Fatigue in ILD**

2:10 **Break**

2:40 **Let's Make it Complicated: Tough Cases**

3:50 **Wrap Up: Putting Together the Puzzle of ILD**

CLINICAL

POSTGRADUATE COURSE

PG14 CARDIOPULMONARY EXERCISE TESTING: ADVANCES AND APPLICATIONS

Pre-registration and additional fees required. Attendance is limited.

Member $465	In-Training Member $275
LMIC Member $326	LMIC In-Training Member $193
Non-Member $570	In-Training Non-Member $405

Assemblies on Pulmonary Rehabilitation, Clinical Problems, Respiratory Structure and Function

8:00 A.M. - 4:00 P.M.

Target Audience
CPET lab directors, attending physicians, clinical physiologists, exercise physiologists, clinical fellows, research fellows.

Objectives
At the conclusion of this session, the participant will be able to:

- to better understand the physiologic principles of CPET that determine the pulmonary, cardiovascular and neuromuscular responses during exercise in health, and how these are modified in chronic cardiopulmonary disease.
- to better understand the utility of CPET to: 1) assess mechanisms of dyspnea and exercise intolerance; 2) stratify disease severity or prognosis.

This course focuses on the cardiopulmonary exercise test (CPET). This includes education on the physiologic basis for CPET, current guidelines, quality control and advances in CPET methods to assess the pulmonary system and central hemodynamics during exercise. Interpretative strategies and common CPET responses in disease states will be presented in didactic sessions and followed by practice-based learning in an interactive small group setting. Learners will be supported during practice-based learning by expert Faculty. The inclusion of a live CPET demonstration will complement the didactic sessions, and highlight the multidisciplinary components necessary for performing high-quality CPET.

8:00 **Physiologic Basis for CPET**

8:45 **Understanding Pulmonary System Limitations to Exercise**

9:15 **Open Panel Q&A on the Fundamental Principles of CPET**

9:30 **Break**

9:45 **Exercise and the Heart: Invasive CPET**

10:30 **Use of CPET in Exercise Rehabilitation Programs**

11:00 **Initial Case Discussion**

11:20 **Conducting the Test: Practical Issues**

11:50 **Lunch**

12:20 **CPET Demonstration**

1:05 **Quality Control and Troubleshooting**

1:35 **Data Analysis from Graphic Display**

2:05 **References Values**

2:35 **Spectrum of CPET Responses Among Disease States**

3:05 **Making the Case - Round Table Discussions**

3:10 **Round Table Discussions**

CLINICAL • TRANSLATIONAL

POSTGRADUATE COURSE

PG15 ASTHMA AND BEYOND: MOLECULAR MECHANISMS, PHYSIOLOGY, AND TREATMENT

Pre-registration and additional fees required. Attendance is limited.

Member $235
LMIC Member $165
Non-Member $290
In-Training Member $140
LMIC In-Training Member $98
In-Training Non-Member $210

Assemblies on Allergy, Immunology and Inflammation, Environmental, Occupational and Population Health, Pediatrics, Respiratory Structure and Function

12:00 P.M. - 4:00 P.M.

Target Audience
Providers of lung health; those serving a specific patient group or multiple groups; those with clinical, research, or administrative responsibilities; those needing instruction in areas of medicine outside of their specialty

Objectives
At the conclusion of this session, the participant will be able to:

- understand mechanisms of airway inflammation with a focus on type 2 inflammation. Review methods for scientific investigation in immune-mediated airway diseases such as asthma and COPD.
- understand the physiology and environmental factors that drive asthma and COPD pathophysiology.
- discuss the current and future state of advanced therapies for asthma and COPD. Special sessions dedication to discussion of disparities in therapy and considerations for pediatric asthma.

This session will provide a state of the art summary of the current understanding of the mechanisms, physiology and management of immune mediated airway diseases such as asthma and COPD, with a focus on type 2 inflammation. The course will also present a comprehensive review of the factors that influence disease progression and the current management paradigm.

12:00 **The Immunology of Type 2 Inflammation in Asthma: What a Pulmonologist Needs to Know**

12:30 **Pediatric Asthma - Special Considerations and Treatment**

1:00 **Non-Type 2 Asthma - Mechanisms**

1:30 **Small Airways Dysfunction in Asthma and COPD**

2:00 **Break**

2:20 **Type 2 Inflammation in COPD**

2:50 **Molecular Phenotyping in Asthma**

3:20 **New Therapeutic Targets for Asthma**

BEHAVIORAL • CLINICAL

POSTGRADUATE COURSE

PG16 BUILDING BETTER CARE: A HANDS-ON GUIDE TO QUALITY IMPROVEMENT

Pre-registration and additional fees required. Attendance is limited.

Member $235	In-Training Member $140
LMIC Member $165	LMIC In-Training Member $98
Non-Member $290	In-Training Non-Member $210

Assemblies on Behavioral Science and Health Services Research, QIIC committee is sponsoring this post graduate course

12:00 P.M. - 4:00 P.M.

Target Audience
Early career faculty, clinicians and inter-professional members in new QI leadership positions or seeking QI leadership positions; members interested in QI scholarly work, medical educators, trainees with a career focus in QI

Objectives
At the conclusion of this session, the participant will be able to:

- participants will be able to demonstrate strategic project selection in QI, apply key QI methods and tools (e.g. process map, pareto chart),navigate data collection and tracking for optimal project execution
- participants will acquire useful skills to teach QI principles, mentor in QI projects at their institutions and how to leverage work for publication and academic promotion.
- participants will be able to apply sustainable implementation strategies for their proposed QI projects including troubleshooting common roadblocks

This course, being offered by the ATS Quality Improvement and Implementation Committee (QIIC), will teach attendees foundational quality improvement (QI) principles and methodologies to meaningfully integrate QI into clinical work and improve processes and outcomes at their institutions. The sessions will broadly cover components of strategic project selection and design, data collection and tracking, implementation of QI innovations, how to set up QI work for success in terms of patient outcomes as well as for publication and academic promotion. The course will feature breakout sessions during which attendees will have the opportunity to consult with QI expert faculty on their own current/active projects to further enhance their experience.

12:00 Introduction

12:05 Basics of QI: Project Selection, Review Of Diagnostic Tools Methods and Project Measures

12:25 Breakout: Basics of QI: Project Selection, Review of Diagnostic Tools, Methods and Project Measures

12:55 Break and Networking

1:15 How to Collect and Utilize Data in QI: Pearls and Pitfalls

1:35 Breakout: How to collect and utilize data in QI: pearls and pitfalls

2:00 Project Implementation

2:20 Breakout: Project Implementation

2:40 Forming Alliances: How to Leverage your Stakeholders for Success

3:00 Breakout: Forming Alliances: How to Leverage Your Stakeholders for Success

3:20 Break and Networking

3:40 Ask the Experts Panel Discussion

CLINICAL • TRANSLATIONAL

POSTGRADUATE COURSE

PG17 FROM VENTILATOR SETUP TO LIBERATION: PRACTICAL FOUNDATIONS AND IMPLEMENTATION AT THE BEDSIDE.

Pre-registration and additional fees required. Attendance is limited.

Member $235	In-Training Member $140
LMIC Member $165	LMIC In-Training Member $98
Non-Member $290	In-Training Non-Member $210

Assembly on Critical Care

12:00 P.M. - 4:00 P.M.

Target Audience
Pulmonary and critical care physicians, PCCM fellows, anesthesiologists, emergency medicine providers, respiratory therapists, and ICU advanced practice providers seeking to improve practical skills in mechanical ventilation.

Objectives
At the conclusion of this session, the participant will be able to:

- at the conclusion of this session, the learner will be better able to apply patient-centered approaches to ventilator setup and titration using physiologic parameters such as P0.1, driving pressure, and esophageal pressure.

- at the conclusion of this session, the learner will be better able to identify and address patient-ventilator dyssynchrony using ventilator waveforms and adjust support settings to optimize synchrony and diaphragm protection.
- at the conclusion of this session, the learner will be better able to integrate ventilator liberation strategies including spontaneous breathing trial criteria, sedation optimization, and diaphragm-protective weaning approaches.

Educational Objectives By the conclusion of this session, participants will be able to: 1. Interpret ventilator waveforms to detect and manage common forms of patient-ventilator dyssynchrony. 2. Apply principles of driving pressure and mechanical power to ventilator titration. 3. Evaluate patient respiratory drive using tools such as P0.1 and esophageal pressure to reduce the risk of P-SILI. 4. Compare PEEP titration strategies including those based on esophageal pressure monitoring. 5. Implement protocols for safe and effective liberation from mechanical ventilation.

12:00 Welcome and Framing the Day: What Every ICU Clinician Should Know in 2026

12:10 Waveforms at the Bedside: What to Look For and When to Act

12:35 P0.1 and the Physiology of Effort: Using Drive to Prevent P-SILI

1:00 Driving Pressure, Mechanical Power, and Other Metrics to Target

1:25 PEEP Titration: Esophageal Manometry and Other Strategies

1:50 Break

2:10 Protecting the Diaphragm: When Less Support May Be More

2:35 Liberation From Mechanical Ventilation: Protocols and Pitfalls

3:00 Case-Based Audience Panel: What Would You Do

BEHAVIORAL • CLINICAL

POSTGRADUATE COURSE

PG18 AI IN MEDICINE: EDUCATING THE FUTURE, TRANSFORMING PRACTICE

Pre-registration and additional fees required. Attendance is limited.

Member $235
LMIC Member $165
Non-Member $290
In-Training Member $140
LMIC In-Training Member $98
In-Training Non-Member $210

Assemblies on Clinical Problems, Behavioral Science and Health Services Research, Clinical Problems, Sleep and Respiratory Neurobiology

12:00 P.M. - 4:00 P.M.

Target Audience
All fellows, junior and senior faculty

Objectives
At the conclusion of this session, the participant will be able to:

- analyze how LLMs influence curiosity, critical thinking, and uncertainty in medical education and clinical care, while evaluating ethical concerns like bias, validity, and transparency.
- apply prompt engineering and use AI tools for tasks such as case writing, data analysis, letters, and study aids; critique their educational value and limitations.
- construct faculty development strageties and perspectives on AI use in learner assessment and coaching with reflection on pedagogical, technical, and ethical implications and preserving critical thinking and preventing cognitive deskilling.

This dynamic session explores strategies for medical educators navigating the evolving landscape of AI in education. Focusing on preclerkship and clerkship learning, assessment practices, and faculty development, it addresses the ethical, valid, and unbiased integration of AI tools. Participants will examine the opportunities and challenges AI presents in enhancing learning while guarding against cognitive deskilling. Through case-based discussion and practical frameworks, the session offers guidance on fostering adaptive expertise, ensuring assessment integrity, and promoting critical engagement with technology. Educators will leave equipped to thoughtfully harness AI's potential while preserving core clinical reasoning and judgment in medical training.

12:00 Part A: Didactics Intro

12:05 AI, Curiosity, and Critical Thinking: Evolving Core Competencies in the Age of Algorithms

12:25 Navigating Uncertainty: The Role of AI in Medical Education vs. Clinical Decision-Making

12:45 How Do Large Language Models Work? A Primer for Medical Educators

1:05 Prompt Engineering for Educators and Clinicians: From Good to Great Prompting

1:25 AI Tools in Action: A Survey of Practical Applications in Medical Education

1:45 Practical Skills Session 1: Prompt Engineering for Case Generation

2:05 **Practical Skills Session: Simple Data Analysis Using AI**

2:25 **Practical Skills Session: Letters with AI - Efficiency and Ethics**

2:45 **Practical Skills Session: AI as a Study Tool - Design and Evaluate**

3:05 **Practical Skills Session Can AI Be a Coach?**

3:19 **Practical Skills Session Debate - Should AI Be Used in Learner Assessment?**

3:25 **Questions and Answers**

CLINICAL

POSTGRADUATE COURSE

PG19 WAVE GOODBYE TO CONFUSION: RIGHT HEART CATHETERIZATION AND WAVEFORM INTERPRETATION

Pre-registration and additional fees required. Attendance is limited.

Member $235	In-Training Member $140
LMIC Member $165	LMIC In-Training Member $98
Non-Member $290	In-Training Non-Member $210

Assemblies on Pulmonary Circulation, Critical Care

12:00 P.M. - 4:00 P.M.

Target Audience
Cardiopulmonary providers, intensivists, providers using or encountering pulmonary artery catheters, trainees and staff (nurses, PA/NP) encountering or using pulmonary artery catheters

Objectives
At the conclusion of this session, the participant will be able to:

- learn expert procedural technique for catheter insertion, preparation, and troubleshooting, to acquire accurate, reliable, and reproducible cardiopulmonary hemodynamic data.
- assess pulmonary artery catheter waveforms and interpret resulting hemodynamic data, quantify flow through the cardiopulmonary system, calculate shunting. Learners will be able to confidently interpret PAC data to guide management.
- use pulmonary artery catheter data for advanced calculations, such as shunt calculations, use of exercise testing, and applying PAC data to the critically ill patient

This course will review the technical considerations, execution, and interpretation of pulmonary artery catheterization (waveforms and data). Using both case-based lectures and multiple small group practice sessions interpreting cases and waveforms (led by experienced faculty), learners will enhance their understanding of how to correctly acquire data using pulmonary artery catheters, how to troubleshoot during the procedure and ensure high-quality data capture, and how to interpret the resulting data to guide clinical decision-making in both inpatient and outpatient settings.

12:00 **Nuts and Bolts of Performing Right Heart Catheterization.**

12:20 **Case Based Discussion 1**

12:40 **Breakout Session 1**

1:20 **Waveforms, Cardiac Output Calculations and Vasoreactivity Testing,**

1:40 **Exercise RHC: Who, What, When, Why and How**

2:00 **Breakout Session 2**

2:26 **Break**

2:40 **Case Based Discussion 2**

3:00 **Breakout Session 3**

CLINICAL

POSTGRADUATE COURSE

PG20 CONTEMPORARY QUESTIONS IN PULMONARY INFECTIONS IN THE IMMUNOCOMPROMISED HOST

Pre-registration and additional fees required. Attendance is limited.

Member $235	In-Training Member $140
LMIC Member $165	LMIC In-Training Member $98
Non-Member $290	In-Training Non-Member $210

Assembly on Pulmonary Infections and Tuberculosis

12:00 P.M. - 4:00 P.M.

Target Audience
Clinicians who manage immunocompromised patients with lung infections

Objectives
At the conclusion of this session, the participant will be able to:

- appreciate recent advances in the diagnostic and therapeutic approaches to invasive pulmonary aspergillosis in the immunocompromised host.
- recognize the at-risk patient who may have a non-traditional immunosuppressed state such as receipt of a novel biologic agent.
- become familiar with contemporary thinking regarding prevention of viral and pneumocystis infection in the immunocompromised host.

In this course, a multidisciplinary group of speakers will expose clinicians to six current and vexing challenges in pulmonary infections in the immunocompromised host. The focus will center on, but will not be limited to, fungal and viral pathogens. The course will also include an overview of nontraditional immunocompromised states. Each talk will begin with a representative case example followed by a multiple-choice question, which the attendees will answer using an audience response system (ARS). The chairs will moderate a panel discussion between the attendees and speakers after each pair of talks.

12:00 **Introduction**

12:05 **Nontraditional Immunocompromised States: What Are They and is the Risk Real?**

12:30 **Emerging Biologics: What's New and What's the Infection Risk?**

12:55 **Panel Discussion**

1:10 **Break**

1:30 **Who Needs Pneumocystis Prophylaxis in 2026?**

1:55 **Are We Ready for Precision Prevention of Viral Infections in the Immunocompromised Host?**

2:20 **Panel Discussion**

2:35 **Break**

2:55 **Nonculture Diagnostics for IPA: What Do We Have and What Do We Need?**

3:20 **What Do Recent Guidelines Say About Combination Therapy for IPA?**

3:45 **Panel Discussion and Wrap Up**

BASIC • TRANSLATIONAL

POSTGRADUATE COURSE

PG21 TRANSLATIONAL WINDOWS INTO THE LUNG MICROENVIRONMENT: ADVANCES WITH PRECISION-CUT LUNG SLICES

Pre-registration and additional fees required. Attendance is limited.

Member $235	In-Training Member $140
LMIC Member $165	LMIC In-Training Member $98
Non-Member $290	In-Training Non-Member $210

Assemblies on Respiratory Cell and Molecular Biology, Allergy, Immunology and Inflammation, Pediatrics, Respiratory Structure and Function

12:00 P.M. - 4:00 P.M.

Target Audience
Basic scientist and clinician scientist and clinicians with an interest in translational research

Objectives
At the conclusion of this session, the participant will be able to:

- at the end of the session the learner will be able to name different, clinical relevant ex vivo models based on PCLS.
- at the end of the session the learner will be able to discuss advantages and disadvantages of PCLS as a preclinical human model for chronic lung diseases such as IPF and be able to pick a fitting ex vivo model to answer their scientific question.
- at the end of the session, the learner will be able to describe the application of state-of-the-art technologies to PCLS.

The PG course on the emerging human lung tissue-based translational model precision cut lung slices (PCLS) highlights the need for advanced model systems in lung disease research. It explores recent advances in PCLS for studying infection and fibrosis, the use of ex vivo models to measure tissue function and understand COPD, and the application of PCLS for studying aging-related hallmarks and identifying biomarkers for premature lung aging. The adaptation of PCLS to incorporate cyclical stretching and the use of mathematical modeling for predicting antifibrotic therapeutic targets will also be discussed, alongside future challenges and perspectives in human PCLS use for drug development and validation.

12:00 **The PCLS Path for Pulmonary Science and Medicine**

12:25 **Live Demonstration**

12:50 **How to Get PCLS if You Cannot Make Them Yourself**

1:05 **Using PCLS to Study Infection and Fibrosis in the Human Lung**

1:30 **Watching Alveologenesis in Real Time**

1:55 **Break**

2:20 **Human Lung Aging in a Dish**

2:45 **Using PCLS to Close the Therapeutic Gap in Pulmonary Fibrosis**

3:10 **Taking it to the Next Level- Mechanobiology on Ex Vivo Models**

3:35 **Exploring PCLS - One Niche at a Time**

4:30 - 5:30 p.m.

OPENING CEREMONY

The ATS is thrilled to kick off the 2026 International Conference with an inspiring Opening Ceremony on Saturday, May 16, in Orlando. The Opening Ceremony is free for all registered attendees, offering a unique opportunity to connect with peers and be inspired by one of medicine's most dynamic voices.

The ATS thanks GSK for its support of the ATS 2026 Plenary Session.

NETWORKING SUPER CENTER

Stop by the Networking Super Center to visit the ATS Center, the International Participants Center, and the Learning Studio. The Learning Studio and the International Participants Center offer unique programming, and the ATS Center hosts resources to help you maximize your conference experience.

COLLABORATE, EDUCATE, CONNECT AND LEARN

5:30 - 6:30 p.m.

THE NETWORKING EXCHANGE FOR EARLY CAREER PROFESSIONALS

Join us for a welcome networking event for all Early Career Professionals immediately following the Opening Ceremony. This one-hour networking event offers the opportunity to connect with peers, meet ATS leadership, and learn more about conference offerings and ways to get involved with ATS. Enjoy drinks and appetizers while mingling in a relaxed setting. Members of the Professional Development Committee and ATS leadership will be on hand to answer questions, share insights, or simply say hello. Attendees can also learn how to become an ATS in-training member—for FREE!

Sunday Morning, May 17

MEET THE EXPERT SEMINARS

Pre-registration and additional fees required. Attendance is limited.
$100 Member/Non-Members
10:45 a.m. - 11:45 a.m.

MTE1 TRIALS IN THE TRENCHES ? PRACTICALITIES OF INITIATION AND CONDUCT OF CLINICAL TRIALS IN CRITICALLY ILL POPULATIONS

MTE2 A PRACTICAL GUIDE TO USING GENERATIVE AI IN RESEARCH

MTE3 REWIRING MOTOR CIRCUITS: PRECISION DOSING OF INTERMITTENT HYPOXIA THERAPY

MTE4 SMALL BUT MIGHTY-EVS IN LUNG HEALTH AND DISEASE

MTE5 BRONCHIECTASIS: A SILENT STORM BEHIND THE COUGH

MTE6 THE MULTIFACETED ROLE OF FLEXIBLE BRONCHOSCOPY IN ASTHMA: FROM DIAGNOSIS TO PHENOTYPING AND PRECISION CARE

MTE7 EXPLORING PUBLIC DATASETS AND INTEGRATING MULTI-OMICS FOR TRANSLATIONAL RESEARCH: AN INVESTIGATOR'S GUIDE TO NAVIGATING THE WORLD OF OMICS

MTE8 ADVANCING PULMONARY REHAB: RESPIRATORY MUSCLE TRAINING ACROSS CARE SETTINGS

MTE9 COMPLICATED PLEURAL DISEASE: AN EVIDENCED BASED APPROACH

MTE10 USE OF BIOLOGIC THERAPIES IN THE TREATMENT OF INTERSTITIAL LUNG DISEASE

MTE11 SELECTION AND MANAGEMENT OF "HIGH RISK" LUNG TRANSPLANT CANDIDATES

MTE12 SHARED DECISIONS = SHARED SUCCESS: A GUIDE TO LCS SHARED-DECISION MAKING?

MTE13 MICROPLASTICS: RESEARCH CHALLENGES, OPPORTUNITIES, AND APPROACHES

KEYNOTE SERIES

8:00 a.m. -8:45 a.m.

K1 The Science and History of Vaccines

The ATS Keynote Series focuses on timely topics of high relevance to the pulmonary, critical care, and sleep medicine community.

Keynote lectures feature leaders who have made major contributions in the important themes programmed at the 2026 conference and are unopposed by any other programming.

Keynote Speaker: Demetre Daskalakis, MD, MPH

YEAR IN REVIEW

A1 CLINICAL YEAR IN REVIEW

9:15 A.M. - 10:45 A.M.

Target Audience
Pulmonary, critical care, and sleep providers

Objectives
At the conclusion of this session, the participant will be able to:

- be able to apply new clinical research knowledge to clinical practice
- learn new findings about key conditions in pulmonary, critical care and sleep
- have new strategies to manage the care of common conditions in pulmonary, critical care, and sleep

This program has been developed to include core topics in pulmonary, critical care, and sleep medicine. The goal of the session is to discuss critical state-of-the-art topics and evolving

concepts. The learner will be exposed to a carefully curated review of the current literature by emerging leaders in the field. After the course, participants will better understand novel concepts in each specific domain that we hope will translate to improved patient care.

9:15 **Asthma**

9:37 **Pulmonary Vascular Disease**

10:00 **Vaccines**

10:23 **Sleep**

BASIC • CLINICAL • TRANSLATIONAL

BASIC SCIENCE CORE

A2 VISUALIZING THE TARGET: IMAGE-BASED MULTIMODAL PROFILING OF MICRO AND MACROENVIRONMENT IN LUNG DISEASE

Assemblies on Clinical Problems, Respiratory Cell and Molecular Biology

9:15 A.M. - 10:45 A.M.

Target Audience
Basic, translational, and clinical researchers; providers of lung health care

Objectives
At the conclusion of this session, the participant will be able to:

- describe new strategies to apply image-based transcriptomic and proteomic findings in lung disease profiling
- describe new findings for preclinical and clinical imaging of pulmonary disease
- integrate novel imaging tools into clinical trials

A deeper molecular understanding of lung disease pathobiology is essential for developing targeted therapies and improving disease monitoring. Recent advances in spatial omics, and microscopic and molecular imaging methods have opened new frontiers in biomarker discovery and spatial characterization of lung disease initiation and development. This session will first outline clinical challenges and unmet needs, followed by highlighting cutting-edge multimodal approaches that are reshaping our understanding of pulmonary diseases, including spatial transcriptomics and proteomics, optical coherence tomography, and molecular PET imaging. Finally, it will focus on applying these tools in clinical trials, drawing insights from other disciplines (e.g.: oncology).

9:15 **Multimodal Profiling for Pulmonary Disease: Clinical Needs and Applications**

9:20 **Image-Based Spatial Transcriptomics for Molecular Characterization of Cellular Niches in Lung Fibrosis**

9:34 **Identification of Novel Protein Biomarkers of CT-Based Quantitative Interstitial Abnormalities**

9:48 **Optical Coherence Tomography for Early, Microscopic Detection, Diagnosis, and Monitoring of Lung Disease**

10:02 **Visualizing Pathobiology: PET Imaging of Cellular and Molecular Drivers of Lung Disease**

10:16 **Seeing is Believing: Using Advanced Imaging Technologies in Clinical Trials**

10:30 **Placeholder**

CLINICAL

CLINICAL TOPICS IN PULMONARY MEDICINE

A3 FELLOWS CASE CONFERENCE

Assemblies on Behavioral Science and Health Services Research, Clinical Problems; SCALe: Professional Development Committee

9:15 A.M. - 10:45 A.M.

Target Audience
Trainees including fellows, residents and students; educators; clinicians; nurses; and researchers aiming to broaden their clinical acumen to facilitate clinical and translational research and education.

Objectives
At the conclusion of this session, the participant will be able to:

- Recognize clinical, radiographic, and pathologic findings of rare diseases.
- Gain insight into clinical decision-making skills demonstrated by master clinicians, radiologists, and pathologists which will improve the quality of learners' practice and potentially improve the quality of care for the learner's patients.
- Develop strategies to evaluate patients with common symptoms that include uncommon/ rare diseases in the differential diagnosis when appropriate.

Four unknown cases will be presented by adult PCCM fellows to a panel of experts in a traditional Clinical Pathology Conference (CPC) format. The panel of experts includes three master clinicians , a chest radiologist , and a pathologist. The clinician experts will discuss the key clinical elements of the history and a differential diagnosis. The expert radiologist and pathologist will interpret the imaging and pathology, respectively, which the expert clinicians will use to further discussion and make a diagnosis. High yield summarizing teaching points will be incorporated into each presentation.

9:15 **Expert Clinician**

9:33 **Expert Clinician**

9:51 **Expert Clinician**

10:09 **Expert Radiologist**

10:27 **Expert Pathologist**

CLINICAL • TRANSLATIONAL

CRITICAL CARE TRACK

A4 HOST-DIRECTED THERAPEUTICS IN SEPSIS: LESSONS LEARNED AND FUTURE DIRECTIONS

Assemblies on Critical Care, Pulmonary Infections and Tuberculosis

9:15 A.M. - 10:45 A.M.

Target Audience
Clinicians and researchers who care for or conduct research on adult patients with sepsis, pneumonia, infection in a hospitalized setting

Objectives
At the conclusion of this session, the participant will be able to:

- understand the role of modulating the host response in sepsis to improve patient outcomes
- understand the variation in immunological susceptibility for a dysregulated host response in sepsis and how corticosteroids may modify the host response and improve patient outcomes
- become familiar with ongoing clinical trials that are applying molecular diagnostics and testing HDT for sepsis

Sepsis, defined as a dysregulated host response to infection, remains a major cause of morbidity and mortality. Yet treatment largely focuses on antibiotics and source control, with limited strategies to modulate the host response. Identifying pathways to recalibrate immune responses has emerged as a priority for NHLBI and ATS. The success of host-directed therapies (HDTs) in COVID-19-such as dexamethasone and tocilizumab-has reinvigorated interest in HDTs for sepsis. This symposium will feature international leaders discussing the current HDT landscape, key lessons from past trials, and how ongoing studies aim to advance precision immunomodulation in sepsis.

9:15 **Back to Basics: The Dysregulated Host Response in Sepsis**

9:30 **Genetics: Differences in Immunologic Susceptibility to a Dysregulated Host Response**

9:45 **Still in Flux: Immunomodulatory Therapies and Sepsis - A Case Yet to Be Closed**

10:00 **Molecular Diagnostics: Are We There Yet?**

10:15 **Outsmarting the Host: Implementing HDT in Sepsis Clinical Trials**

10:30 **Looking Forward: How to Catalyze Implementation of HDT in Sepsis**

BASIC • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

A6 THE OBESE LUNG MICROENVIRONMENT: NEW INSIGHTS INTO ASTHMA PATHWAYS AND THERAPEUTIC TARGETS

Assemblies on Respiratory Structure and Function, Allergy, Immunology and Inflammation, Pediatrics, Respiratory Structure and Function

9:15 A.M. - 10:45 A.M.

Target Audience
Investigators from diverse disciplines including molecular and cellular biology, systems biology, translational science, and clinical research

Objectives
At the conclusion of this session, the participant will be able to:

- describe new findings about the mechanistic links between metabolic dysregulation and airway inflammation, smooth muscle function, and immune responses in obesity-related asthma
- integrate emerging omics approaches and systems biology insights to better define the heterogeneity of obesity-related asthma and identify novel therapeutic targets
- apply new knowledge of neuro-immune-endocrine interactions to improve patient stratification and inform the development of

personalized treatment strategies for individuals with obesity-related asthma

Obesity-related asthma is a phenotype with increasing prevalence, marked by poor symptom control, reduced treatment response, and complex, systemic pathophysiology. This symposium will explore multifaceted mechanisms that link metabolic dysregulation within cells or in the context of metabolic disease. to airway inflammation, smooth muscle function, neural regulation, and immune responses. We aim to bring together investigators across disciplines- from molecular and cellular biology to systems biology, translational science and clinical research. This session will highlight emerging basic and translational research-from smooth muscle remodeling, neuro-immune-endocrine interactions, and emerging omics approaches that offer insight into disease heterogeneity and potential therapeutic targets.

9:15 **Cross Talk between CD4+ T cells and Airway Smooth Muscle in Pediatric Obesity-Related Asthma**

9:33 **Integrating Genomics as Clinical Biomarkers in Obesity-Associated Asthma**

9:51 **Neuro-Immune-Endocrine Interactions in Obesity-Related Asthma**

10:09 **Diet, Obesity, and Asthma**

10:27 **Gaps and Future Directions in Clinical Research on Obesity-Related Asthma**

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

A7 FROM EARLY DEVELOPMENT THROUGH AGING: SEX AND GENDER EFFECTS ON CARDIOPULMONARY DISEASE

Assemblies on Pulmonary Circulation, Pediatrics, Respiratory Cell and Molecular Biology

9:15 A.M. - 10:45 A.M.

Target Audience
Clinicians and researchers involved in the diagnosis, management, or investigation of pulmonary vascular and right heart disease, with a focus on effects of sex differences, hormonal influences, and aging on cardiopulmonary disease.

Objectives
At the conclusion of this session, the participant will be able to:

- describe new findings about how sex hormones, chromosomal factors, and gendered exposures influence lung and heart development and disease risk at key life stages
- apply sex- and gender-informed approaches to research design and clinical care for patients with pulmonary vascular and right heart disease
- better counsel patients on sex-specific risk factors and life-stage-dependent influences (e.g., pregnancy, menopause) on lung and heart health

This session will explore how biologic sex and gender influence pulmonary vascular and right ventricular health from fetal life through aging. Speakers will examine hormonal, chromosomal, and lifestyle factors that drive remodeling of the pulmonary circulation and RV, affecting disease susceptibility, progression, and treatment response in pulmonary hypertension. Through life stages including fetal development, childhood through adolescence, pregnancy, loss of gonadal function, and aging, the symposium will present integrated basic, translational, and clinical perspectives. The session will conclude by addressing sex-based disparities in treatment decisions and drug development, offering a roadmap toward individualized therapies in pulmonary vascular disease.

9:15 **Sex and Hormones in Cardiopulmonary Development in Neonates**

9:30 **From Childhood to Adolescence: Emerging Sex Differences in Lung and Cardiovascular Health**

9:45 **Sex Chromosome Effects in Cardiopulmonary Vascular Disease**

10:00 **Cardiopulmonary Stress and Adaptation in Pregnancy**

10:15 **Aging and Sex Hormone Loss in the Lungs and RV**

10:30 **Toward Individualized Treatments: Sex Differences in PH Therapies**

BASIC • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

A8 THE WOUNDED LUNG: CELLULAR STRESS, INFLAMMATION AND CARCINOGENESIS

Assemblies on Thoracic Oncology, Allergy, Immunology and Inflammation, Respiratory Cell and Molecular Biology

9:15 A.M. - 10:45 A.M.

Target Audience
Researchers in basic, translational and clinical fields interested in understanding the immunopathogenesis of lung injury and lung cancer

Objectives
At the conclusion of this session, the participant will be able to:

- describe the cellular and immunologic mechanisms by which chronic lung injury, including in IPF and COPD, promotes epithelial plasticity and malignant transformation
- explain how chronic inflammation remodels the lung immune microenvironment to facilitate immune evasion and tumor progression
- evaluate experimental model systems that recapitulate chronic lung injury and its transition to cancer, and assess their utility in studying disease mechanisms and testing novel interventions

This symposium will explore how cellular stress and immune dysregulation contribute to the pathogenesis of lung injury and carcinogenesis. Experts in basic and translational research will highlight emerging mechanisms by which epithelial damage, chronic inflammation, and immune remodeling shape the injured lung microenvironment and drive malignant transformation. Emphasis will be placed on the intersection of stress signaling, host immunity, and epithelial plasticity as convergent pathways linking injury to cancer.

9:15 **Epithelial Cell Response to Classic and Emerging Exposures in Lung Carcinogenesis**

9:33 **The Inflammatory Continuum: COPD-Associated Lung Microenvironment as a Fertile Ground for Lung Cancer Progression**

9:51 **Complement in the Lung: A Double-Edged Sword in Immune Defense and Tumor Promotion**

10:09 **Tracing Lung Cancer Back to its Progenitors**

10:27 **Lung Organoids: Windows to Regulation of Progenitors in Lung Homeostasis, Injury Repair, and Cancer**

CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

A9 PRIMARY CILIARY DYSKINESIA IN A GENOMIC THERAPEUTIC ERA

Assemblies on Pediatrics, Pulmonary Infections and Tuberculosis

9:15 A.M. - 10:45 A.M.

Target Audience
Paediatricians, clinicians, pulmonologists, geneticists, basic scientists

Objectives
At the conclusion of this session, the participant will be able to:

- identify patients with primary ciliary dyskinesia - including those in resource limited regions
- accurately diagnose primary ciliary dyskinesia
- recommend treatment options and future treatments available

Primary ciliary dyskinesia is a multimorbid inherited lung condition. Symptoms include neonatal respiratory distress, oto-sino- pulmonary disease and recurrent infections leading to bronchiectasis in adults. It is significantly underdiagnosed. Advances in genomic medicine pave the way for neonatal diagnosis and genetic therapies. This session will cover state of the art in diagnosis and treatment with a focus on improving health disparities in genetic diseases to improve equity, and inclusion. The session will highlight the first joint ATS/ERS diagnostic guideline (to be published end 2025), the completion of the 4 year NIH clingen gene project defining disease - gene associations, patient priorities and access in low resource settings and the latest in therapeutic trials.

9:15 **ERS/ ATS clinical practice guidelines for the diagnosis of primary ciliary dyskinesia**

9:35 **Genetics of primary ciliary dyskinesia: Gene-disease relationships**

9:55 **Setting up a PCD centre and strategies for managment**

10:15 **Translational research and new therapies for Primary ciliary dyskinesia**

BASIC • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

A10 IS IT SARCOIDOSIS? - I DON'T KNOW

Assemblies on Allergy, Immunology and Inflammation, Clinical Problems, Environmental, Occupational and Population Health, Pulmonary Infections and Tuberculosis, Respiratory Cell and Molecular Biology

9:15 A.M. - 10:45 A.M.

Target Audience
Pulmonologists, rheumatologists, immunologists, cell biologists, and clinical researchers involved in sarcoidosis or other granulomatoues diseases

Objectives
At the conclusion of this session, the participant will be able to:

- differentiate granulomatous lung diseases using integrated clinical, radiographic, and pathological data.
- expanding knowledge of the granuloma biology and their impact on targeted therapeutic strategies.
- discuss challenges and pitfalls in the diagnosis of granulomatous lung diseases

The diagnosis of sarcoidosis can be challenging, often mimicking other granulomatous diseases and requiring careful exclusion of alternative etiologies. This session will provide a unique opportunity for clinicians to engage with leading experts on the diagnostic dilemmas encountered in sarcoidosis. The session will focus on distinguishing sarcoidosis from other conditions presenting with granulomas, leveraging cutting-edge molecular and spatial analysis techniques, and bridging the gap between basic research and clinical practice.

9:15 **Unraveling the Microarchitecture of Sarcoidosis, the Prototypical Granulomatous Disease**

9:33 **Granulomas of Infectious Origin: A Deep Dive into Tuberculosis and Other Pathogens**

9:51 **Granuloma in Rheumatological Diseases: Mimics and Associations**

10:09 **All Granulomas Are Not Sarcoidosis: Chronic Beryllium Disease and Other Exposures Causing Granulomas**

10:27 **Bench to Bedside: Translating Granuloma Research into the clinics**

BEHAVIORAL • CLINICAL

SCIENTIFIC SYMPOSIUM

A11 ADVANCING HEALTHCARE QUALITY THROUGH WORKFORCE EQUITY

Assemblies on Nursing, Behavioral Science and Health Services Research, Critical Care, Pediatrics

9:15 A.M. - 10:45 A.M.

Target Audience
Administrators, providers (nurses, MDs, APPs), researchers, trainees. Applicable to all ATS members

Objectives
At the conclusion of this session, the participant will be able to:

- explain the benefits of a diverse and inclusive healthcare workforce for improving healthcare quality and equity
- assess institutional structures that may inhibit equitable practice or diverse workforce engagement
- implement policies and programs that support diversity, equity, and inclusion to enhance patient outcomes and workforce satisfaction

The Agency for Healthcare Research and Quality (AHRQ) identifies six dimensions of healthcare quality: safety, efficacy, timeliness, efficiency, patient-centeredness, and equity. Yet equity remains underemphasized despite persistent disparities in outcomes. Recent U.S. policy shifts further challenge traditional strategies, creating urgency for innovative, actionable approaches. This symposium presents evidence-based strategies to embed equity into workforce development and institutional quality improvement. Sessions move from a big-picture view of equity in healthcare quality to targeted approaches in evaluation, mentorship, and data analytics, concluding with concrete steps to build an inclusive, high-performing workforce delivering consistently high-quality, equitable care across settings.

9:15 **Introduction**

9:20 **Addressing Bias in Professional Evaluation to Advance Healthcare Quality**

9:32 **Breaking the Glass Ceiling: Strengthening the Nursing Workforce for Equity-Driven Quality**

9:44 **Uncovering Inequities Through Big Data to Improve Care Quality**

9:56 **Mentorship as a Workforce Strategy for Sustaining Equity and Quality**

10:08 **Training the Next Generation: ACGME Strategies for an Inclusive, High-Quality Workforce**

10:20 **International Medical Graduates (IMGs) in the Workforce**

10:32 **Summary & Action Framework From Equity Principles to Quality Outcomes: A Practical Roadmap**

10:39 **Discussion & Q&A**

BEHAVIORAL • CLINICAL

SCIENTIFIC SYMPOSIUM

A12 DO NO HARM, UNLESS THE AI SAYS OTHERWISE - AI ETHICS

Committee on Ethics and Conflict of Interest

9:15 A.M. - 10:45 A.M.

Target Audience
All providers and researchers who interact with electronic health records that utilize or could utilize artificial intelligence as well as researchers who evaluate or create proposals that utilize or could utilize artificial intelligence

Objectives
At the conclusion of this session, the participant will be able to:

- apply structured ethical frameworks to assess the risks and benefits of AI tools in clinical and research contexts, including transparency, accountability, and equity
- identify ethical challenges unique to different AI applications (e.g., diagnostic, informatic, analytic), and distinguish when traditional ethical oversight (e.g. clinical ethics committee or institutional review board) may require modernization
- choose individual AI applications to use in specific scenarios, based on understanding of opportunities and ethical challenges, that will benefit the patient in front us without introducing bias or propagating disparities
- AI tools are being implemented at a dizzying pace, yet the decision-making processes of these tools are not necessarily bound to the personal, societal, and professional ethics of human healthcare providers and researchers. This creates questions we must answer including who is responsible when AI recommendations cause harm, when and how do we tell patients that AI was involved in their care, how should clinical ethics committees and IRBs evaluate bias in AI tools, and how are ethical principles integrated in learning algorithms. This session will feature a series of pro/con discussions addressing these questions and others.

9:15 **Introduction**

9:25 **AI Reduces Clinician Burnout Without Negatively Impacting Patients**

9:37 **AI Reduces Clinician Burnout Without Negatively Impacting Patients**

9:49 **AI Reduces Clinician Burnout Without Negatively Impacting Patients - Discussion**

10:01 **AI Enhances Research Innovation and Productivity Without Perpetuating Bias or Impacting Privacy**

10:13 **AI Enhances Research Innovation and Productivity Without Perpetuating Bias or Impacting Privacy**

10:25 **AI Enhances Research Innovation and Productivity Without Perpetuating Bias or Impacting Privacy**

10:37 **Questions/Discussion**

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

MEDICAL EDUCATION SEMINAR

ME101 COMMUNICATING AND TEACHING ABOUT UNCERTAINTY IN CLINICAL, EDUCATION, AND RESEARCH SETTINGS

Assemblies on Behavioral Science and Health Services Research

10:45 A.M. - 11:45 A.M.

Target Audience
Clinicians, investigators, educators, public health professionals, trainees, nurses, APPs

Objectives
At the conclusion of this session, the participant will be able to:

- By the end of this MTE session, learners will be able to define uncertainty, distinguish it from confidence, and describe how it impacts patient care, research, and scientific communication.
- By the end of this MTE session, learners will be able to apply new skills and techniques to mitigate diagnostic uncertainty, by learning about how both medical and non-medical professionals manage uncertainty.
- By the end of this MTE session, learners will be able to employ new skills and techniques to communicate about diagnostic

uncertainty to (a) patients and families, (b) other clinicians, and (c) the general public.

Uncertainty is rampant in medicine following the pandemic and in the current socio-political environment where everything from Medicaid to NIH funding changes daily. In this interactive session, learners will be able to define uncertainty and distinguish it from confidence, review literature on its relevance to critical care, learn strategies used by other professions who deal routinely with uncertainty (e.g. engineers, meteorologists, military, and public health experts), and employ techniques on how to manage uncertainty. Participants will leave the session with skills in communicating with patients and families, trainees, and the public which will facilitate their roles as advocates and leaders.FacultyFaculty

CLINICAL

ADULT CLINICAL CORE CURRICULUM

CC1 ADULT SLEEP CORE CURRICULUM

SCALe: Core Curriculum Committee

11:30 A.M. - 1:00 P.M.

Target Audience
Practicing physicians, trainees, students, Advanced Practice Providers

Objectives
At the conclusion of this session, the participant will be able to:

- Identify new strategies to manage patients with sleep disordered breathing
- better counsel patients and families on treatment options for sleep disordered breathing
- identify knowledge gaps in the treatment of patients with sleep disordered breathing.

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects included in recertification requirements.

11:30 **OSA, PH, ILD, OH MY!**

11:55 **Show Me the Data: Cardiovascular Disease and OSA**

12:20 **COMISA: Two Diseases Too Much?**

12:45 **Panel Discussion**

CLINICAL

PEDIATRIC CLINICAL CORE CURRICULUM

PCC1 PEDIATRIC CLINICAL CORE CURRICULUM

SCALe: Core Curriculum Committee

12:00 P.M. - 1:00 P.M.

Target Audience
Advanced Practice Providers,Clinicians,Medical Educators

Objectives
At the conclusion of this session, the participant will be able to:

- define new strategies to manage pediatric patients with pulmonary disease and critical illness
- better counsel pediatric patients and families on new treatment options for pulmonary disease and critical illness
- better counsel pediatric patients and families on treatment options available for management of pulmonary diseases and critical illness.

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects included in recertification requirements.

12:00 **Pediatric Bronchiectasis: A Comprehensive Approach**

12:25 **Cystic Fibrosis: The Latest Therapeutic Advances**

12:50 **Panel Discussion**

11:45 a.m. - 1:15 p.m.

DIVERSITY FORUM

The annual ATS Diversity Forum celebrates diversity within the fields of pulmonary, critical care, and sleep medicine and research. All ATS members are invited to attend this inspiring event, which provides valuable career insights and networking opportunities.

This year's theme is "Resilience in a Time of Challenge." We are thrilled to welcome our featured speaker, Jennifer Taylor-Cousar, MD, ATSF, who will bring this theme to life in a truly impactful way.

We also honor the recipients of the Underrepresented Trainee Development Scholarships (UTDS). These scholarships are designed to help increase diversity among underrepresented trainees in medicine by sponsoring attendance at the ATS International Conference. Recipients are selected based on the quality of the science presented in their submitted abstracts, along with other criteria.

The recipient of the ATS Fellowship in Health Equity and Diversity will also be recognized during the forum. These fellowships support senior fellows, postdoctoral trainees, and junior faculty in advancing health equity through research, clinical care, education, and policy initiatives for patients with respiratory diseases, critical illness or injury, and sleep-disordered breathing.

The Diversity Forum is organized and presented by the ATS Health Equity and Diversity Committee. This year's event will be hosted by the committee's chair, Stephanie Lovinsky-Desir, MD, MS. The Underrepresented Trainee Development Scholarships and the Health Equity and Diversity Fellowship award are supported by the American Thoracic Society

Pre-registration and an additional fee are required. $45 members/non-members

ATS thanks
Genentech
for their generous support of the Diversity Forum.

Sunday Mid-Day, May 17

BASIC • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD1 RED JOURNAL IN ACTION 1: EARLY CAREER LUNG RESEARCH HIGHLIGHTS

American Journal of Respiratory Cell and Molecular Biology;

12:00 P.M. - 1:00 P.M.

Target Audience
Individuals interested in in basic science research of lung disease and development; Individuals who publish mechanistic translational research; Individuals interested in the peer review and editorial process; Early career researchers

Objectives
At the conclusion of this session, the participant will be able to:

- describe new findings about emerging breakthroughs of molecular and cellular mechanisms for lung disease as reported in American Journal of Respiratory Cell and Molecular Biology
- better understand the peer review process, in particular the most effective approaches to address comments from reviews and how associate editors facilitate author-reviewer interactions.
- better understand the features of mechanism-deciphering lung pathobiology research, and elements that create potential for future impact in the field.

This is a continuation of an annual series started in 2023. The audience-interactive session will include early career researchers who authored exemplary articles on basic mechanisms of lung disease published in the May Issue of the American Journal of Respiratory Cell and Molecular Biology. The session highlights the individual review process for these articles, with Associate Editors highlighting novelty and relevance of the work alongside critical comments from reviewers. Authors present the study and highlight how they addressed reviewer comments to achieve acceptance.

12:00 Overview of Session

12:05 Introduction of First Paper

12:10 First Highlighted Research Paper

12:26 Q & A

12:31 Introduction of Second Paper

12:36 Second Highlighted Research Paper

12:52 Q & A

12:57 Closing Remarks

MID-DAY SYMPOSIUM

MD2 CREATIVE APPROACHES IN AN UNSTABLE FUNDING ENVIRONMENT: TIPS AND TRICKS FOR SUCCESS

12:00 P.M. - 1:00 P.M.

Target Audience
Students, trainees, early-career investigators, mid-career faculty, and senior clinician-scientists with clinical, academic, research, and/or funding responsibilities who seek pragmatic guidance for navigating today's complex funding landscape

Objectives
At the conclusion of this session, the participant will be able to:

- compare how funding priorities and decision-making processes differ across federal agencies, professional societies, foundations, and healthcare systems during periods of fiscal constraint
- apply cross-sector strategies to align research goals with funder missions while maintaining scientific rigor and personal or programmatic purpose
- identify creative approaches-including alternative funding pathways, partnerships, and visual communication strategies-to enhance competitiveness in an unstable funding environment

Periods of fiscal uncertainty and shifting priorities pose significant challenges for clinician-scientists and researchers seeking to sustain impactful programs of work. This one-hour session brings together research funders and successful awardees representing federal funding agencies, professional societies, philanthropic organizations, and healthcare systems to explore creative, strategic approaches to pursuing research support in an unstable funding environment.

12:00 Introduction

12:05 Federal Perspectives: What Endures When Paylines Tighten

12:13 Building Momentum and De-Risking Ideas: Lessons from an ATS Awardee

12:21 Patient-Centered Perspective: Letting Your "Why" Drive Competitiveness

12:29 Foundation Perspective: Story, Mission, and Catalytic Funding

12:37 Leveraging Institutional Support through Clinical & Translational Science Awards (CTSAs): Sustaining Impact Beyond Grant Cycles

12:45 Moderated Panel Discussion

TRANSLATIONAL

MID-DAY SYMPOSIUM

MD3 THE COLLABORATION CATALYST: ACCELERATING CLINICAL IMPACT THROUGH ACADEMIC-INDUSTRY SYNERGY

Assemblies on Allergy, Immunology and Inflammation, Clinical Problems, Environmental, Occupational and Population Health, Respiratory Structure and Function; Drug, Device, Discovery and Development Committee;

12:00 P.M. - 1:00 P.M.

Target Audience
Physicians, scientists, trainees, fellows, industry professionals, clinicians, and government representatives

Objectives
At the conclusion of this session, the participant will be able to:

- recognize and optimize opportunities to advance research through academic-industry collaborations while addressing potential challenges to ensure ethical partnerships
- describe the possible role(s) and opportunities for academic physicians and scientists in multiple work environments, including industry, governmental agencies and biotechnology companies
- develop strategies to build and sustain productive academic-industry partnerships that align with scientific goals, institutional values, and patient-centered outcomes

This symposium will explore topics of critical relevance to academic translational investigators and industry professionals, emphasizing the pivotal role of academia-industry collaboration in advancing scientific discoveries into clinical practice. Four focused presentations will be followed by dynamic panel discussions and audience engagement, fostering debate and knowledge exchange. The session will highlight successful models of collaborative innovation, with a focus on accelerating therapeutic development and expanding career pathways for the next generation of physician-scientists and translational researchers.

12:00 Academia-Industry Collaboration: Potential for Innovation and Pitfalls to Avoid

12:10 The Future Career Paths of Physician Scientists

12:20 Opportunities for Physicians and Scientists in the Medtech, Biotech and Pharma Sectors

CLINICAL • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD4 NIOSH OCCUPATIONAL RESPIRATORY DISEASE UPDATES

CDC - National Institute for Occupational Safety and Health;

12:00 P.M. - 1:00 P.M.

Target Audience
Providers of lung health; those interested in preventing occupational respiratory disease

Objectives
At the conclusion of this session, the participant will be able to:

- learn about the NIOSH Health Hazard Evaluation Program, its utility in sentinel surveillance, how to engage the program in evaluating potential work-related outbreaks of respiratory disease, and about recent examples of Health Hazard Evaluations
- learn about the importance of the ILO system for classifying chest radiographs for findings of pneumoconiosis, the role of the B Reader in performing classifications, and how to become a B Reader
- learn about the potential for using artificial intelligence methods to evaluate chest radiographs for findings of pneumoconiosis and recent NIOSH efforts in this area

The session will provide attendees with useful new information relevant to occupational respiratory disease including updates from the NIOSH Health Hazard Evaluation and B Reader programs, and emerging information about using artificial intelligence to evaluate (“classify”) chest radiographs for findings of pneumoconiosis.

12:00 Introduction to Session

12:03 NIOSH Health Hazard Evaluation Program Update

12:22 NIOSH B Reader Program Update

12:41 Classification of Chest Radiographs for Findings of Pneumoconiosis Using Artificial Intelligence

CLINICAL

MID-DAY SYMPOSIUM

MD5 UPDATES ON ARDS, PNEUMONIA, AND SPESIS PHENOTYPING CONSORTIUM

Division of Lung Disease, National Heart, Lung, and Blood Institute, National Institutes of Health;

12:00 P.M. - 1:00 P.M.

Target Audience
providers of lung health, investigators in lung physiology and pathophysiology, specific patient groups or multiple stakeholder groups

Objectives
At the conclusion of this session, the participant will be able to:

- learn about the APS Phenotype Consortium. Updates and progress made.
- understand the APS phenotype consortium center-specific projects

NHLBI and NIGMS awarded the ARDS, Pneumonia, and Sepsis (APS) consortium on May 1, 2023. APS Consortium goals are to 1) understand the heterogeneity and underlying mechanisms of critical illness syndromes and recovery, specifically in adults w/ARDS, pneumonia, and/or sepsis, as well as the relationship

and biological overlap among these syndromes; 2) collect and disseminate data and biospecimens as a resource to the broader research community. It consists of one coordinating center and six clinical centers that plan to enroll 4000 patients and conduct consortium-wide studies as well as center-specific studies. The session will highlight/showcase research goals, scopes, novel findings and advocate the resource for the broader community to advance research and knowledge in this field.

12:00 Progress on APS consortium

12:07 Description of first 500 participants data and biospecimens

12:14 Initial preliminary results and publications (1)

12:21 Initial preliminary results and publications (2)

12:28 Initial preliminary results and publications (3)

12:35 Initial preliminary results and publications (4)

12:42 Initial preliminary results and publications (5)

12:49 Q & A Session

BEHAVIORAL • CLINICAL • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD6 VHA LUNG PRECISION ONCOLOGY PROGRAM: KEY FINDINGS FROM SCREENING RESEARCH

VHA Office of Research and Development;

12:00 P.M. - 1:00 P.M.

Target Audience
Providers of lung health serving patients at high risk for lung cancer; those engaged in administering lung cancer screening programs or conducting research relating to such programs; all lung health providers who are VA-based

Objectives
At the conclusion of this session, the participant will be able to:

- assess a patient's candidacy for lung cancer screening through use of objective criteria, such as CAN scores and Elixhauser Comorbidity indices, to assess pre-screening health status
- assess whether use of Sybil would permit risk stratifying those in a screening cohort, thus improving the efficiency of the screening program
- have a better understanding of how AI algorithms can assist screening programs improve early detection of idiopathic pulmonary fibrosis before the development of extensive scarring of the lung

In 11/2020, VHA embarked on a 5-year lung cancer program called LPOP, one goal of which was to improve early detection through screening. The program has grown to include 118 VA facilities nationally, making it an outstanding venue for research aimed at improving outcomes. This session will describe research studies with the following goals: to better understand the impact of pre-screening health status on outcomes; to incorporate risk factors beyond age and smoking in patient selection; to use artificial intelligence for risk stratifying screening cohorts; and to characterize the impact of early detection of interstitial lung abnormalities and pulmonary fibrosis in screening programs.

12:00 Outcomes for Early-Stage Lung Cancer in Screened Veterans by Pre-screening Health Status

12:15 Expanding Lung Cancer Screening Criteria in Veterans

12:30 Evaluation of an AI-Based Assessment of Lung Cancer Risk from a Single Low-Dose CT Scan

12:45 AI Surveillance for Timely Detection of Pulmonary Fibrosis and Care Pathway Optimization

BASIC • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD7 ENVIRONMENTAL EXPOSURES AND CHRONIC PULMONARY MORBIDITY

National Institute of Environmental Health Science;

12:00 P.M. - 1:00 P.M.

Target Audience
Basic science researchers, clinicians, medical educators

Objectives
At the conclusion of this session, the participant will be able to:

- gain knowledge from the emerging studies demonstrating how acute exposure depending on the lifestage contributes to long-term consequences in respiratory health
- gain comprehensive understanding on the utility of integrating multiomics analyses in developing potential biomarkers of exposure and response to predict effects on chronic pulmonary morbidity

The NIEHS supported research to understand the impacts of environmental pollutants, especially inhaled air pollutants over

the past five decades. The research findings from these efforts contributed to regular evaluation and updating ambient air quality standards. Though the ambient levels of fine particulate matter, ozone and other toxic chemicals are under current standards in most parts of the US, there is accumulating evidence of their impacts on pulmonary morbidity. Additionally, exposure to air pollutants during childhood are found to impact later in life. This session will provide a snapshot on our current understanding on exposure-induced chronic respiratory morbidity.

12:00 Introduction

12:05 Early Life Exposure to Particulate Matter Air Pollution Affects Epigenome and Transcriptome Later in Life

12:22 Naphthalene Metabolism and Genotoxicity: Early Indicators of Lung Cancer Potential

12:39 Exposure to the Air Pollutant Ozone and Adverse Respiratory Health Effects: Results from Studies with Genetically Diverse Mice

12:56 Moderated Discussion

BASIC • CLINICAL

MID-DAY SYMPOSIUM

MD8 NIH RECOVER AND C4R COHORTS: PULMONARY COMPLICATIONS AND IMMUNE DYSFUNCTION IN LONG-COVID ACROSS THE LIFESPAN

Division of Lung Disease, National Heart, Lung, Blood Institute, National Institutes of Health;

12:00 P.M. - 1:00 P.M.

Target Audience
Fellow/Junior / Established Professional

Objectives
At the conclusion of this session, the participant will be able to:

- learn new findings about the risk factors and mechanisms underlying long COVID (PASC) identified through the NIH RECOVER and C4R cohorts, with a focus on pulmonary and immune dysfunction.
- be better able to diagnose and characterize long COVID complications in diverse patient populations by integrating objective clinical measures, symptom indices, and phenotyping strategies developed by leading investigators.
- have new strategies to manage the care of patients with long COVID by applying evidence-based approaches, improving early referral, and incorporating multidisciplinary resources to enhance patient outcomes and quality of life.

Recent research leveraging the NIH RECOVER and C4R cohorts has revealed persistent pulmonary and immune complications in long COVID. Studies identify ongoing respiratory symptoms, declines in lung function, and both restrictive and obstructive defects, with radiographic evidence of lung injury. SARS-CoV-2 can disrupt airway integrity, impair mucociliary clearance, and promote chronic inflammation. Immunological research demonstrates sustained elevation of pro-inflammatory cytokines and altered T-cell responses, contributing to fatigue and breathlessness. These findings highlight the heterogeneity of long COVID and the need for integrated, longitudinal assessment, guiding targeted interventions to improve outcomes for affected individuals.

12:00 Introduction: RECOVER and C4R Resources for Ancillary Studies

12:10 Understanding Long COVID: Insights from the RECOVER Adult Cohort Study and Clinical Trials

12:20 From Mechanism to the Clinic: Characterizing Long COVID in Children and Adolescents in RECOVER

12:30 Epidemiologic Features of Recovery From SARS-CoV-2 Infection from the C4R Cohort

12:40 Characteristics and Determinants of Pulmonary Long COVID

12:50 Panel Discussion

BASIC • CLINICAL • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD9 GENERIC DRUG DEVELOPMENT FOR RESPIRATORY PRODUCTS, US FOOD AND DRUG ADMINISTRATION UPDATE

US Food and Drug Administration;

12:00 P.M. - 1:00 P.M.

Target Audience
Clinicians in practice, researchers, pharmaceutical industry representatives, international drug regulators

Objectives
At the conclusion of this session, the participant will be able to:

- recognize key aspects of the generic drug regulatory approval process, and how the Office of Generic Drugs (OGD) evaluates comparative clinical information to support bioequivalence for complex inhaled generic drug products
- describe product-specific guidances for generic drug products recently posted by the Office of Generic Drugs (OGD), with a focus on how these can inform complex orally inhaled and nasal generic drug development
- articulate how emerging technologies and innovative approaches are being utilized for FDA-funded research, FDA guidance development, and regulatory decision-making

This session will describe respiratory product development of generic drugs within the US, focusing on paths forward to bring safe and effective generic respiratory products to the American public. A general overview will summarize the generic drug approval process, including demonstration of bioequivalence and therapeutic equivalence utilizing comparative clinical information. Discussion of recent generic product approvals and posted regulatory guidance will provide the audience a greater understanding of the generic approval process, and how the use of emerging technologies and outcomes of research projects contribute to scientific understanding for these complex orally inhaled and nasal drug products to inform regulatory actions.

12:00 Introduction

12:03 Update for Generic Orally Inhaled and Nasal Drug Products

12:20 Emerging Concepts and New Technologies for Bioequivalence of Orally Inhaled and Nasal Drug Products

12:37 Comparative Clinical Considerations in the Determination of Sameness

12:54 Questions/Answers

BASIC • CLINICAL • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD10 ADVANCES IN THE DIAGNOSIS , RISK STRATIFICATION AND TREATMENT OF PULMONARY EMBOLISM

Division of Lung Disease, National Heart, Lung, and Blood Institute, National Institutes of Health;

12:00 P.M. - 1:00 P.M.

Target Audience
Basic and Clinical researchers interested in understanding the latest developments for PE

Objectives
At the conclusion of this session, the participant will be able to:

- understand the shortcomings of current PE diagniosis and treatment
- learn about novel preclinical models that are helping researchers study PE
- improve outcomes of PE patients by integrating treatment options.

Pulmonary embolism (PE) presents significant challenges, necessitating improved diagnostic and therapeutic strategies to address acute complications like hemodynamic shock and RV dysfunction and long-term issues such as pulmonary fibrosis and recurrence. This session increases knowledge of issues with presentations that seek to improve 1) competence in identifying at-risk patients, 2) understanding of limitations of plasmin-based therapies and introducing a potentially more effective treatment, and 3) refining treatment protocols to reduce right ventricular dysfunction efficiently. Collectively, this symposium introduces recent advances that will help refine PE treatment strategies, mitigate complications, and improve patient outcomes, addressing a significant health challenge.

12:00 Investigating Pulmonary Embolism Biology with Targeted Molecular Imaging and Inflammation Profiling

12:15 Plasmin-Independant Thrombolytic Agent for the Treatment of PE

12:30 Advances in the Diagnosis and Treatment of Acute Pulmonary Embolism

12:50 Open Discussion (all presenters)

CLINICAL • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD11 STUDY UPDATES FROM THE AMERICAN LUNG ASSOCIATION'S AIRWAY CLINICAL RESEARCH CENTERS NETWORK

American Lung Association Airways Clinical Research Centers;

12:00 P.M. - 1:00 P.M.

Target Audience
Physicians, clinical scientists, nurses, paraprofessionals, educators, health care providers

Objectives
At the conclusion of this session, the participant will be able to:

- describe the role of oxidative stress and circulating mitochondrial DNA in predicting which emphysema patients will show progression or regression of emphysema.
- define new strategies to care for people with emphysema through dietary interventions.
- improve the quality of life in adolescents and young adults with asthma through effective telehealth strategies

The purpose of the session is to discuss ongoing research initiatives within the American Lung Association Airways Clinical Research Centers network.

12:00 Introduction

12:05 MATCH Design and Recruitment

12:15 MATCH Primary Results

12:25 Urinary Mitochondrial DNA Copy Number Predicts Emphysema Progression in Female COPD Patients

12:35 Influence of Inflammation-Resolving Compounds on Respiratory Outcomes in Patients with Emphysema

12:45 Questions

BASIC • CLINICAL • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD12 CLINICAL AND OMICS FINDINGS FROM PVDOMICS PATIENTS WITH PULMONARY HYPERTENSION

Division of Lung Disease, National Heart, Lung, and Blood, Institute, National Institutes of Health;

12:00 P.M. - 1:00 P.M.

Target Audience
Health providers, trainees, and researchers

Objectives
At the conclusion of this session, the participant will be able to:

- learn about new clinical groupings of pulmonary hypertension and how they relate to prognosis.
- learn about rare and common variant analysis related to lung and heart phenotypes across all five WSPH groups.
- learn about DNA methylation biomarkers and RNA-based groupings of pulmonary hypertension, how they provide insight into disease mechanisms, and how they relate to prognosis.

Pulmonary hypertension (PH) has no cure, and PH research remains a high priority for NHLBI. The current PH classification is difficult to apply clinically for precision medicine therapy. In 2014, NHLBI launched a multi-center clinical study named: Redefining Pulmonary Hypertension through Pulmonary Vascular Disease Phenomics (PVDOMICS), which includes 1 Data Coordinating Center & 7 clinical centers to conduct an observational study in PH patients. The overall goal of the PVDOMICS is to perform deep phenotyping across all PH groups and intermediate phenotypes to reconstruct the traditional classification and define new meaningful subclassifications. 1193 participants were enrolled, and clinical and omics results from these subjects will be presented at this Mid-day session.

12:00 Clinical Clustering Reveals Novel Phenotypes of Pulmonary Hypertension

12:15 Whole Genome Sequence Analysis Across All Five WSPH Group

12:30 Comprehensive Characterization of Blood DNA Methylation Landscape for Pulmonary Hypertension

12:45 Clustering Across Pulmonary Hypertension Using Blood RNA Profiles

Sunday Afternoon, May 17

CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

A81 PEDIATRIC YEAR IN REVIEW

Assembly on Pediatrics

2:15 P.M. - 3:45 P.M.

Target Audience
This session will appeal to physicians, trainees, advanced practice providers, nurses, and respiratory therapists who care for children with chronic lung diseases, as well as researchers in pediatric pulmonary medicine.

Objectives
At the conclusion of this session, the participant will be able to:

- review emerging research on bronchopulmonary dysplasia and pulmonary hypertension
- discuss new perspectives on the origins and management of childhood asthma and updates on pulmonary function testing
- evaluate clinical and translational advances on childhood interstitial lung diseases

Pediatric Year in Review is one of the most popular sessions organized by the ATS Assembly on Pediatrics. It features four timely and clinically relevant topics that highlight recent advancements in both clinical practice and research. This year, the session will include presentations on the following topics: 1) bronchopulmonary dysplasia and pulmonary hypertension, 2) pulmonary function testing, 3) childhood interstitial lung diseases, and 4) childhood asthma.

2:15 Introduction to This Year's Pediatric Year In Review

2:25 Emerging Research on Bronchopulmonary Dysplasia and Pulmonary Hypertension

2:45 Updates on Pulmonary Function Testing

3:05 Clinical and Translational Advances on Childhood Interstitial Lung Diseases

3:25 New Perspectives on the Origins and Management of Childhood Asthma

SCIENTIFIC SYMPOSIUM

A82 CLINICAL TRIALS SESSION

2:15 P.M. - 3:45 P.M.

Check ATSConference365 for the latest information as it becomes available

Click Here

CLINICAL

CLINICAL TOPICS IN PULMONARY MEDICINE

A83 GREAT CASES: CLINICAL, RADIOLOGIC, AND PATHOLOGIC CORRELATIONS BY MASTER CLINICIANS

Council of Chapter Representatives

2:15 P.M. - 3:45 P.M.

Target Audience
All clinical practitioners in adult and pediatric pulmonary and critical care medicine

Objectives
At the conclusion of this session, the participant will be able to:

- improve recognition of clinical findings of patients in correlation with rare and common pulmonary diseases using a multidisciplinary approach
- apply clinical reasoning approaches to formulate differential diagnoses from complex patient presentations from real-time sharing of clinical knowledge, correlations, and inclusive of radiologic, and pathologic assessment by Master Clinicians
- increase clinical knowledge of management and treatment approaches of pathologies presented

Residents, fellows, and early career physicians present diagnostically difficult and interesting cases to a multidisciplinary expert panel consisting of adult and pediatric pulmonologists, thoracic radiologists, and pulmonary pathologists to demonstrate a collaborative team approach to diagnosing and managing challenging cases. This session enhances audience medical knowledge, and diagnostic and management skills as you get the opportunity to work through multiple case studies with a team master clinicians.

2:15 Radiological Findings

2:33 Pathology Findings

2:51 Master Clinician

3:09 Master Clinician

3:27 Master Clinician

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

CLINICAL TOPICS IN PULMONARY MEDICINE

A84 PRISM, GOLD 0, AND PRE-COPD: USEFUL CONCEPTS OR DIAGNOSTIC OVERREACH?

Assemblies on Clinical Problems, Allergy, Immunology and Inflammation, Environmental, Occupational and Population Health, Respiratory Cell and Molecular Biology, Respiratory Structure and Function

2:15 P.M. - 3:45 P.M.

Target Audience
Basic and translational scientists and clinicians with interest in COPD

Objectives
At the conclusion of this session, the participant will be able to:

- define and differentiate between the terms Pre-COPD, PRISm, and GOLD 0, and understand their diagnostic criteria and clinical significance
- understand the historical evolution and current debates surrounding the use of Pre-COPD, PRISm, and GOLD 0 in clinical practice and research
- recognize the spirometric and imaging features that differentiate early COPD phenotypes-such as PRISm and GOLD 0-from classic obstructive COPD, and evaluate how these classifications may inform patient management and clinical trial design

This session will critically examine the growing use of terms like PRISm (Preserved Ratio Impaired Spirometry), GOLD 0, and Pre-COPD to describe individuals with respiratory symptoms, structural abnormalities, or early functional impairment who do not meet classic COPD diagnostic criteria. We will explore the clinical relevance, prognostic value, and potential pitfalls of these labels. Are they helpful for early detection and intervention, or do they risk medicalizing uncertain findings? Drawing on evidence from large cohorts and imaging studies, this session will debate whether these emerging categories advance clinical care-or complicate it.

2:15 Beyond Obstruction: Has the GOLD Era Reached Its Limit?

2:30 PRISm, Pre-COPD, and GOLD 0: What Does the Genome Tell Us?

2:45 COPD in Progress: What Lung Tissue Teaches Us About Its Beginnings

3:00 Imaging the Gray Zone: Are Early COPD Phenotypes Truly Distinct?

3:15 Natural History of Pre-Obstructive COPD: What Are We Really Preventing?

3:30 Intervening Early: Therapeutic Development for Pre-Obstructive COPD

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

CRITICAL CARE TRACK

A86 ILLNESS & IDENTITY: SYSTEMIC OPPRESSION & THE ETHICS OF CARE

Assemblies on Critical Care, Behavioral Science and Health Services Research, Critical Care, Nursing; Health Equity and Diversity Committee; LGBTQIA+ Interest Group

2:15 P.M. - 3:45 P.M.

Target Audience
Clinicians, advocates; educators, clinical researchers; clinical ethics consultants; health policy researchers; administrative leaders; translational researchers

Objectives
At the conclusion of this session, the participant will be able to:

- summarize analytic frameworks for understanding systemic oppression — such as racism, sexism, ableism, and LGBTQIA stigma — as a critical factor influencing illness experiences and outcomes in acute & critical illnesses.

- discuss the evidence for disparities in access and outcomes in critical & acute illness among racialized minorities, LGBTQIA+ patients, neurodiverse people and patients with poorly understood medical conditions such as Long COVID
- facilitate interdisciplinary discussions aimed at actionable strategies to improve the study of systemic oppression and their impact on outcomes in critical & acute illnesses

This symposium highlights the ways in which structural oppression shapes the lived experience of illness and contributes to health inequities in pulmonary and critical care medicine. Drawing on interdisciplinary frameworks, clinical insights, and empirical data, this session will move beyond a general disparities lens to provide advanced perspectives on how power, knowledge, and embodiment intersect in the ICU and beyond. The session is designed to engage both newcomers and experienced scholars in health equity and offers strategies to promote justice-centered care practices in pulmonary and critical care medicine.

2:15 **Welcome and Introductions**

2:20 **On the Ethics of Identity: From Patient to Research Coordinator**

2:32 **Embodied Inequality: Analytic Frameworks for Understanding Stress, Stigma and Health Outcomes in Marginalized Communities**

2:44 **The Legacy of Race-Based Oppression and the Microbiome**

2:56 **Delays, Dismissals & Disregard: Identity, Illness & Epistemic Injustice**

3:08 **From Disability to Difference: Confronting Ableism and Embracing Neurodiversity in Critical Care**

3:20 **Queerly Healing: Resistant Imaginations & Radical Solidarity**

3:32 **Panel Discussion**

BASIC • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

A87 YOU BREATHE WHAT YOU EAT - EFFECTS OF NUTRITION ON LUNG HEALTH AND DISEASE

Assemblies on Respiratory Cell and Molecular Biology, Allergy, Immunology and Inflammation, Environmental, Occupational and Population Health, Respiratory Structure and Function

2:15 P.M. - 3:45 P.M.

Target Audience
Clinicians and scientists with an interest in pathophysiology of disease, novel therapies and biomarker

Objectives
At the conclusion of this session, the participant will be able to:

- summarize and interpret current epidemiological and interventional data that link macro- and micronutrient patterns, obesity, and life-stage nutrition to lung development, function, and the course of major pediatric and adult respiratory disorders
- better counsel and more appropriately refer patients and at-risk groups to multidisciplinary nutrition and lifestyle programs, substantiating earlier intervention that enhances long-term pulmonary function and quality of life

Modern lifestyles have led to rising obesity rates, now a major global health concern linked to chronic diseases, including respiratory conditions. Nutrition plays a dual role: while high-calorie diets and maternal obesity contribute to lung disease, specific nutrients (e.g., DHA, vitamin E, retinoic acid) may support lung development and immune function. Emerging evidence highlights complex interactions between diet, obesity, and the pulmonary microenvironment across the lifespan. This symposium brings together clinical and basic science experts to explore how macro- and micronutrients shape lung health, identify key knowledge gaps, and assess the potential of nutritional strategies in preventing and treating chronic lung diseases.

2:15 **How Obesity Tips the Scales in Lung Disease**

2:33 **Metabolic Signals Shaping Lung Development and Disease**

2:51 **Feeding the Flame: Western Diet Sensitizes the Lung to Smoke**

3:09 **Calories, Carbs, and Chronic Lung Disease: Metabolic Therapies in a New Light**

3:27 **From Diet to Disease Prevention: Translating Lung-Phenotype Insights into Public Health Action**

BASIC • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

A88 PHARMACOLOGIC THERAPIES FOR OSA: A NEW FRONTIER

Assemblies on Sleep and Respiratory Neurobiology, Sleep and Respiratory Neurobiology

2:15 P.M. - 3:45 P.M.

Target Audience
Pulmonary and sleep medicine providers as well as pulmonary and sleep medicine trainees/fellows clinician-researchers in sleep apnea, respiratory physiology, and obesity

Objectives
At the conclusion of this session, the participant will be able to:

- describe novel pharmacologic mechanisms being investigated for the treatment of OSA, targeting metabolic modulation, ventilatory control, airway patency via upper airway tone modulation
- understand trial evidence and safety considerations for agents such as GLP-1 receptor agonists and other metabolic modulators, AD109 and upper airway tone modulators, and carbonic anhydrase inhibitors in OSA management
- apply emerging pharmacotherapy and combination therapy options to personalize care in patients with OSA, especially those who are PAP-intolerant or have specific mechanistic and phenotypic features

The treatment landscape for obstructive sleep apnea (OSA) is rapidly evolving. While positive airway pressure (PAP) remains the cornerstone therapy, new pharmacologic approaches are expanding our options beyond PAP therapy. This session will explore the rationale, mechanisms, and emerging evidence for pharmacotherapy in OSA, including GLP-1 receptor agonists, carbonic anhydrase inhibitors, and novel agents targeting upper-airway muscle responsiveness. We will highlight how these treatments target specific endotypes and may offer alternatives or combination therapy options for patients with poor adherence or residual symptoms, while addressing the potential for truly personalized OSA management.

2:15 **Why Pharmacotherapy for OSA, and Why Now?**

2:25 **Obesity and Metabolic Modulation for OSA treatment (10 min + 5 min Q&A)**

2:40 **Pharmacologic Neuromuscular Modulation of Upper Airway Tone in OSA (10 min + 5 min Q&A)**

2:55 **Carbonic Anhydrase Inhibitors in OSA: Mechanisms and Emerging Evidence**

3:10 **Patient Selection for Pharmacotherapy in OSA: Who, When, and How? (10 mins, 5 mins Q&A)**

3:25 **Future Directions: Toward a Pharmacologic Toolbox for OSA (10 min + 10 min Q&A)**

CLINICAL

SCIENTIFIC SYMPOSIUM

A89 REDEFINING CARE: STRATEGIES FOR EFFECTIVE PATIENT_CENTERED MANAGEMENT ACROSS THE CONTINUUM IN SERIOUS RESPIRATORY ILLNESS

Assemblies on Nursing, Clinical Problems

2:15 P.M. - 3:45 P.M.

Target Audience
Physicians, nurses, allied health professionals and advanced practice providers

Objectives
At the conclusion of this session, the participant will be able to:

- integrate patient-centered care with new referrals to palliative care and hospice
- refer to pulmonary rehabilitation earlier during a patient's journey living with serious respiratory illness
- improve the quality of life/health status of this patient by early and evidence-guided initiation of supplemental oxygen in serious respiratory illness

Centering care around the patient during new referrals is crucial to have uptake of additional services by patients living with serious respiratory illness. Initiating supplemental oxygen, pulmonary rehabilitation, palliative care, and hospice should be directed by the patient and their caregiver to promote quality of life.

2:15 **Optimizing Oxygen: Best Practices for Initiation of Supplemental Oxygen Therapy**

2:45 **The Physiology and Power of Early Referral in Serious Respiratory Illness**

3:05 **Supporting the Whole Patient: Palliative Care as a Core Component of Serious Respiratory Illness**

3:25 **Evidence-Based Hospice Care for Serious Respiratory Illness: Guidelines and Gaps**

BASIC • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

A90 ONE AIRWAY, MANY OUTCOMES: RETHINKING ASTHMA AND COPD ACROSS THE LIFESPAN

Assemblies on Allergy, Immunology and Inflammation, Clinical Problems, Pediatrics, Respiratory Cell and Molecular Biology, Respiratory Structure and Function

2:15 P.M. - 3:45 P.M.

Target Audience
Basic and translational scientists and clinicians with interest in asthma and COPD

Objectives
At the conclusion of this session, the participant will be able to:

- differentiate the key pathobiological features of asthma and COPD, and identify areas of mechanistic and clinical overlap
- evaluate recent clinical trial data, including the use of biologics such as dupilumab, and their implications for treating COPD with type 2 inflammation
- apply current knowledge to improve diagnostic accuracy including imaging outcomes and biomarkers

This session challenges the traditional dichotomy between asthma and COPD by exploring their overlapping features and shared mechanisms. While historically treated as distinct diseases, recent research highlights common pathways in inflammation, airway remodeling, and immune response. The talk will examine clinical, molecular, and imaging data that blur the boundaries between the two conditions, and discuss how a more integrated understanding could reshape diagnosis, treatment, and research strategies.

2:15 **Developmental Origins and Diverging Pathways in Chronic Obstructive Lung Diseases**

2:30 **From Childhood Asthma to Adult COPD: Evidence from Longitudinal Cohorts**

2:45 **Same Storm, Different Skies: Understanding Inflammation Across Asthma and COPD**

3:00 **Shared Scars: What Imaging Reveals About Asthma and COPD**

3:15 **The Airway Transcriptome Doesn't Care About Labels**

3:30 **From Wheeze to Obstruction: Is it Possible to Integrate Asthma and COPD Guidelines?**

TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

A91 AIR POLLUTION AND CLEAN AIR ZONES: NATURAL EXPERIMENTS FOR RESPIRATORY HEALTH IN THREE GLOBAL CITIES

Assemblies on Environmental, Occupational and Population Health, Environmental, Occupational and Population Health, Pediatrics

2:15 P.M. - 3:45 P.M.

Target Audience
environmental and occupational health researchers, pediatric pulmonologists, public health professionals, and clinicians managing asthma and other respiratory diseases.

Objectives
At the conclusion of this session, the participant will be able to:

- describe new findings about the respiratory health impacts of Clean Air Zones and congestion pricing policies, including effects on asthma exacerbations, lung function and growth, and health disparities
- apply knowledge of natural experiment methodologies and real-world evaluations to critically assess the effectiveness of environmental interventions in reducing respiratory disease burden across diverse urban populations
- improve the quality of life and respiratory health of patients by incorporating air quality awareness and clean-air policy advocacy into clinical practice, patient counseling, and community engagement

This session explores the respiratory health impacts of Clean Air Zones (areas where vehicle access is restricted or priced) through natural experiments in cities including Stockholm, London, and New York. Presentations will highlight changes in air pollution and links to asthma exacerbations and lung growth in children, using diverse study designs including hospital data, longitudinal cohorts, and exposure modelling. The symposium will also examine health equity, urban policy design, and behavioural shifts such as increased physical activity. Attendees will gain practical insights into how policy-level environmental interventions can improve respiratory outcomes and reduce health disparities in urban populations worldwide.

2:15 **Chair Introduction**

2:25 **From Traffic to Triage: Early Health Insights from New York's Clean Air Zone**

2:45 **Reducing Pediatric Asthma Hospitalizations Through Urban Policy: A Natural Experiment from Stockholm**

3:05 **Impact of London's Ultra Low Emission Zone on Lung Development in Children: the Children's Health in London and Luton (CHILL) Cohort Study**

3:25 **Concluding Remarks and Q&A**

CLINICAL

SCIENTIFIC SYMPOSIUM

A92 FUNGAL INFECTIONS IN PULMONARY AND CRITICAL CARE: UPDATES ON EPIDEMIOLOGY, MYCOLOGY, AND MANAGEMENT

Assembly Pulmonary Infections and Tuberculosis

2:15 P.M. - 3:45 P.M.

Target Audience
Clinicians in pulmonary and critical care practice both in the academic and private sector, clinical pharmacists, epidemiologists, microbiologists

Objectives
At the conclusion of this session, the participant will be able to:

- understand the contemporary global epidemiology of fungal lung infections and its impact on local practice.
- appreciate current trends in the approach to treatment of invasive candidiasis and invasive pulmonary aspergillosis, including the role of novel antifungal agents.
- recognize the global health threat posed by candida auris and become familiar with the mechanisms that underlie its resistance profile.

For something so frequently encountered in pulmonary and critical care medicine, fungal infections are perhaps one of the least publicized and most poorly understood entities. Fungal infections span the entire scope of this discipline, from the critically ill to pulmonary outpatients and from the immunocompromised host to those with hyper-reactive immunity. Fungal infection is a dynamic field with evolving diagnostic and therapeutic options and thus it has been the subject of recent ATS guideline updates, the latest of which was published at the end of 2024. The objective of this symposium is to discuss five cutting-edge issues pertaining to fungal infection that ought to inform pulmonary and critical care practice in 2026.

2:15 **Introduction**

2:20 **Shifting Epidemiology of Pulmonary Mycoses: Global Patterns and Local Implications**

2:35 **Pulmonary Mycobiome in Health and Disease: A New Frontier in Fungal Pneumonia**

2:50 **Mechanisms of Antifungal Resistance in Candida Auris: Genomic Drivers and Clinical Impact**

3:05 **Novel Antifungal Targets and Agents: Advances in Mechanism-Driven Therapy**

3:20 **ATS Fungal Infection Guidelines 2026: Translating Evidence Into Practice**

3:35 **Q&A**

CLINICAL

ADULT CLINICAL CORE CURRICULUM

CC2 ADULT CRITICAL CARE CLINICAL CORE CURRICULUM

SCALe: Core Curriculum Committee

2:15 P.M. - 3:45 P.M.

Target Audience
Advanced Practice Providers,Clinicians,Medical Educators

Objectives
At the conclusion of this session, the participant will be able to:

- integrate new critical care practice guidelines in to clinical practice.
- identify knowledge gaps in the treatment of patients with critical illness.
- better counsel patients on treatment options available for critical illness.

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects included in recertification requirements

2:15 **High-Flow Nasal Cannula: Best Practices in the ICU**

2:40 **Use Of Non-Invasive Ventilation: Best Practices in the ICU**

3:05 **Strategies to Improve Outcomes During Intubation**

3:30 **Panel Discussion**

Monday Morning, May 18

MEET THE EXPERT SEMINARS

Pre-registration and additional fees required. Attendance is limited.
$100 Member/Non-Members
10:45 a.m. - 11:45 a.m.

MTE14 IMPROVING REPRESENTATIVENESS IN PROSPECTIVE RESEARCH

MTE15 POTENTIAL AND PITFALLS OF AI FOR CLINICIANS AND EDUCATORS

MTE16 TEACHING IN THE TRENCHES: MASTERING BEDSIDE EDUCATION IN HIGH-ACUITY SETTINGS

MTE17 COPD AND HOMEBASED NIV — INTRODUCTION TO THE NEW CMS COVERAGE DETERMINATION

MTE18 FACILITATING SLEEP DURING CRITICAL ILLNESS AND BEYOND

MTE19 LUNG CANCER SCREENING ADHERENCE: A DEEP DIVE INTO AN IMPORTANT QUALITY METRIC

MTE20 STORIES IN EVERY BREATH: USING NARRATIVE MEDICINE TO STRENGTHEN PHYSICIAN IDENTITY

MTE21 MANAGEMENT OF PULMONARY HYPERTENSION IN PATIENTS WITH OBESITY

MTE22 UNRAVELING THE STORM: MANAGING ACUTE EXACERBATIONS OF INTERSTITIAL LUNG DISEASES

MTE23 FROM SURVIVING TO THRIVING: POST-TRAUMATIC GROWTH FOR HEALTH PROFESSIONALS & TRAINEES IN HIGH-ACUITY SETTINGS

MTE24 CHALLENGES IN THE MANAGEMENT OF TUBERCULOSIS IN LUNG TRANSPLANT PATIENTS

MTE25 HOSPITAL SLEEP MEDICINE: BENCH TO BEDSIDE

MTE26 PRACTICAL APPROACHES TO INCORPORATING NOVEL AI TECHNIQUES INTO CLINICAL/TRANSLATIONAL RESEARCH

KEYNOTE SERIES

8:00 a.m. -8:45 a.m.

K2 JUDICIAL IMPACT ON HEALTHCARE

The ATS Keynote Series focuses on timely topics of high relevance to the pulmonary, critical care, and sleep medicine community. Keynote lectures feature leaders who have made major contributions in the important themes programmed at the 2026 conference and are unopposed by any other programming.

Keynote Speaker: Stephen Vladeck, JD

Moderator: Josh Fessel, MD, PhD, ATSF

YEAR IN REVIEW

B1 CLINICAL YEAR IN REVIEW

9:15 A.M. - 10:45 A.M.

Target Audience
Pulmonary, critical care, and sleep providers

Objectives
At the conclusion of this session, the participant will be able to:

- be able to apply new clinical research knowledge to clinical practice
- learn new findings about key conditions in pulmonary, critical care and sleep
- have new strategies to manage the care of common conditions in pulmonary, critical care, and sleep

This program has been developed to include core topics in pulmonary, critical care, and sleep medicine. The goal of the session is to discuss critical state-of-the-art topics and evolving

concepts. The learner will be exposed to a carefully curated review of the current literature by emerging leaders in the field. After the course, participants will better understand novel concepts in each specific domain that we hope will translate to improved patient care.

9:15 **ARDS/AHRF**

9:37 **Critical Care**

10:00 **Sepsis**

10:23 **Post-ICU Care / ICU rehab**

CLINICAL

CLINICAL TOPICS IN PULMONARY MEDICINE

B2 ACHIEVING EQUITY IN PULMONARY FIBROSIS: FROM PATIENT VOICES TO PRACTICE INNOVATION

9:15 A.M. - 10:45 A.M.

Target Audience
Academic pulmonologists and ILD specialists, community pulmonologists, nurses, RTs, and allied health professionals, as well as clinical trialists and implementation scientists, trainees, and health equity advocates

Objectives
At the conclusion of this session, the participant will be able to:

- recognize the barriers faced by patients with pulmonary fibrosis in accessing timely, high-quality care
- describe how racial, socioeconomic, and geographic disparities affect outcomes and clinical trial representation in PF
- identify strategies to expand ILD expertise beyond academic centers through telehealth and community engagement and discuss innovative approaches to broaden clinical trial access and participation

Pulmonary fibrosis (PF) care remains fragmented and inequitable, particularly for patients facing racial, socioeconomic, and geographic barriers. This session brings together voices from across the PF community - including patients, clinicians, and allied health professionals - to explore how structural disparities shape access to care and research, and to present practical, scalable solutions. Through a combination of lived experience, health equity data, implementation models, and workforce perspectives, this symposium will highlight how interdisciplinary and community-driven approaches can close gaps in diagnosis, treatment, and trial participation for individuals living with PF.

9:15 **Introduction**

9:20 **Lived Experience of Pulmonary Fibrosis Care: Barriers and Patient Priorities**

9:30 **Disparities in Pulmonary Fibrosis: Exploring Racial, Socioeconomic, and Geographic Inequities**

9:45 **Extending ILD Expertise into the Community: Telehealth, Remote Monitoring, and Local Partnerships**

10:00 **Team-Based Care in ILD: Empowering Allied Health Professionals to Improve Outcomes**

10:15 **Bridging the Gap: Expanding Access and Participation in Pulmonary Fibrosis Clinical Trials**

10:30 **Panel Discussion with Q & A**

CLINICAL

CLINICAL TOPICS IN PULMONARY MEDICINE

B3 CHEST MATCH: A PRO/CON DEBATE IN NON-MALIGNANT PLEURAL DISEASE MANAGEMENT

Assemblies on Clinical Problems, Clinical Problems

9:15 A.M. - 10:45 A.M.

Target Audience
Advanced practice providers, clinicians, interventional pulmonologists, medical educators, early career professionals, pharmacists

Objectives
At the conclusion of this session, the participant will be able to:

- evaluate the evidence on safety, optimal dosing, duration and patient selection for intrapleural enzyme therapy in pleural infection, and recognize scenarios where protocol adaptation is appropriate
- define the pleural physiology and apply evidence for pneumothorax management once a chest tube is in place
- describe evidence informing the utilization, timing, and efficacy of medical thoracoscopy in an undiagnosed exudative pleural effusion

This session will delve into three common clinical scenarios and have experts debate pros and cons. The three scenarios include pneumothorax, empyema, and recurrent transudative effusions and the management intricacies associated.

9:15 **Pro: I Always Give 6 Doses of tPA/Dornase when Performing Intrapleural Enzyme Therapy for Empyema as per the MIST-II Protocol**

9:30 **Con: I Always Give 6 Doses of tPA/Dornase when Performing Intrapleural Enzyme Therapy for Empyema as per the MIST-II Protocol**

9:45 **Pro: When Managing an Inpatient Chest Tube, I Always Use Suction to Promote Pleural Apposition, Even if Patients Tolerate Water Seal**

10:00 **Con: When Managing an Inpatient Chest Tube, I Always Use Suction to Promote Pleural Apposition, Even if Patients Tolerate Water Seal**

10:15 **Pro: Medical Thoracoscopy for Non-Malignant Pleural Disease is Dead**

10:30 **Con: Medical Thoracoscopy for Non-Malignant Pleural Disease is Dead**

BEHAVIORAL • CLINICAL

SCIENTIFIC SYMPOSIUM

B4 WORDS MATTER: THE POWER OF LANGUAGE IN SHAPING CRITICAL CARE

Assemblies on Critical Care, Behavioral Science and Health Services Research, Nursing; Aging Interest Group

9:15 A.M. - 10:45 A.M.

Target Audience
All interprofessional ICU team members (APPs/physicians, chaplains, respiratory therapists, nurses, pharmacists, palliative care, rehabilitation professionals, social workers, other allied health professionals); Health services/clinical researchers

Objectives
At the conclusion of this session, the participant will be able to:

- describe how language functions in critical care and contributes to ethical complexities in clinician-patient-family communication
- unearth how commonly used clinical phrases shape meaning, influence patient/family experiences and decision-making, and offer literature-supported alternatives
- identify challenges and strategies for promoting equity, particularly for patients who cannot speak or speak languages other than English

Language does more than convey information among clinicians, patients, and families, it shapes meaning, relationships, and care delivery in less obvious ways. Drawing on insights from palliative medicine and linguistic anthropology, speakers will present leading-edge work on how language, both intentionally and unintentionally, influences ICU care and uncovers ingrained clinical patterns and practices, using common ICU words and phrases as real-world examples. This session will also address challenges and solutions to promoting equitable care for patients who cannot speak or speak different languages. Participants will gain new understanding of ICU language across populations and learn evidence-based language alternatives for clinical practice.

9:15 **Words Matter: An Introduction to the Scientific Symposium**

9:18 **Reconstructing Ethical Problems in Critical Care: Insights from Linguistic Anthropology**

9:32 **Rethinking the Use of "Need"**

9:46 **Banishing "Never" Statements**

10:00 **The "Treatable" Trap: When Treatment Discussions Mislead**

10:14 **Language as a Lens into Health Equity**

10:28 **Q&A**

BASIC • TRANSLATIONAL

BASIC SCIENCE CORE

B5 NOVEL INSIGHTS INTO THE COMPLEMENT INFLUENCE ON LUNG MICROENVIRONMENT IN ACUTE AND CHRONIC DISEASE

Assemblies on Respiratory Cell and Molecular Biology, Allergy, Immunology and Inflammation, Critical Care, Pulmonary Circulation, Pulmonary Infections and Tuberculosis

9:15 A.M. - 10:45 A.M.

Target Audience
Students, residents, fellows, basic/translational scientists at all career levels (physician- and PhD scientists) interested in immunology, ILD, pulmonary hypertension, acute lung injury, cellular biology, lung transplant, pneumonia, lung repair

Objectives
At the conclusion of this session, the participant will be able to:

- understand lung specific complement, the benefit of a normally functioning complement system, and effects of complement dysregulation in lung disease. Specifically in ARDS, pulmonary fibrosis, pulmonary arterial hypertension, and lung transplant
- evaluate advances in technology that can be used to study complement activation and how these techniques can be used at the bench and the bedside to study both canonical and non-canonical complement function in pulmonary patients
- promote awareness of complement as a potential contributor to a wide array of pulmonary diseases, with the goal of encouraging additional research that might lead to drug trials for complement inhibitors for pulmonary diseases

Complement is considered a hepatic protein that operates in circulation. However, studies demonstrate complement is produced in the lung by respiratory epithelia, immune cells, and fibroblasts and is important for regulation of pulmonary immunity, tissue repair, and endothelial function. However critical gaps in our understanding for what happens when this multifunctional system becomes dysregulated during lung injury and fibrosis remain. This session explores mechanisms of complement promotion of ARDS, IPF, and PAH, and how lung transplant outcomes are influenced by increased levels. It will also address if genetic variants in complement regulation alter phenotypes in lung disease. Finally, we will discuss therapeutic interventions and the role of complement inhibition in lung disease.

9:15 **Living with Lung Disease - Patient Perspectives and Call for Research**

9:21 **Introduction to Complement and Techniques for Assessing Complement Activation in the Lungs**

9:35 **Complement Dysregulation is a Hallmark of ARDS**

9:49 **Complement and IPF - Current Understanding, Genetic Associations, and Future Directions**

10:03 **Complement-Mediated Vascular Dysfunction and Its Role in Lung Aging and Disease**

10:17 **The Role of Complement in Graft Dysfunction Following Lung Transplant**

10:31 **Complement Inhibition as Treatment for Acute and Chronic Pulmonary Disease: Past, Present, and Future**

TRANSLATIONAL

CRITICAL CARE TRACK

B6 OMICS TO ACTION: REDESIGNING TRIALS AND CARE IN RESPIRATORY MEDICINE

Assemblies on Allergy, Immunology and Inflammation

9:15 A.M. - 10:45 A.M.

Target Audience
Clinicians, clinical trialists, omics researchers, systems biologists, computational scientists, and industry professionals working across asthma, COPD, ILD, bronchiectasis, and broader respiratory health

Objectives
At the conclusion of this session, the participant will be able to:

- describe strategies for integrating multi-omics (genetics, transcriptomics, proteomics, metabolomics, microbiome) into respiratory research and clinical care
- recognize how real-world data can be used for addressing implementation issues for polygenic risk scores and to validate drug repurposing candidates and novel trial endpoints
- discuss approaches and best practices in translating biomarker discoveries into next-generation trials and precision care models

Multi-omics technologies are rapidly transforming respiratory science. These methods can predict disease risk, poor outcomes, reveal distinct molecular pathways, and identify endotypes. However, translating these findings into clinical trials and clinical care remains limited and inconsistent. This symposium will highlight how integrated omics, spanning genomics, transcriptomics, proteomics, metabolomics, and the microbiome, can inform trial design and real-world implementation. Speakers will present work on Omics-guided trial enrichment, patient stratification, real-world endpoint validation, novel clinical trial designs, and multi-omic biomarker translation. The session will conclude with a panel discussion offering perspectives on embedding these innovations into clinical workflows and trial frameworks.

9:15 **Introduction**

9:17 **From Prediction to Practice: Integrating Polygenic Risk Scores into Pulmonary Practice**

9:32 **Advancing Precision Trials in Critical Illness through Multi-Omics and Real-World Data**

9:47 **Novel Clinical Trials with Omics to Understand COPD Exacerbations**

10:02 **Leveraging Airway Microbiome Profiles to Enrich Clinical Trials in Respiratory Health**

10:17 **Using Real-World Evidence to Inform Clinical Trials in Respiratory Health**

10:32 **Panel Discussion**

BEHAVIORAL • CLINICAL

SCIENTIFIC SYMPOSIUM

B7 CARE OF THE UNDOCUMENTED MIGRANT

Assemblies on Behavioral Science and Health Services Research, Behavioral Science and Health Services Research, Pulmonary Infections and Tuberculosis; Health Equity and Diversity, Health Policy, Ethics

9:15 A.M. - 10:45 A.M.

Target Audience
All healthcare providers or researchers, including medico-legal interfaces, interested in patient-centered care, and equity

Objectives
At the conclusion of this session, the participant will be able to:

- describe how the specialize challenges of working with undocumented patients reinforces essential skillsets in the high-quality care of all patients
- evaluate clinical spaces for their safety and efficacy to undocumented persons
- distinguish between high- and low-efficacy practices in dealing with undocumented migrant or historically disadvantaged populations for clinical care or research

Both local and global politics have been riveted by immigration-related debates. In medicine, these patients present challenges unique in their acuity or social context, which can importantly impact population health. However, the nature of the problems raised are fundamental, broadly applicable principles of high-quality care. In this session, we explore best practices for the care of undocumented migrants as a lens for improving the quality of direct clinical care and research across all populations. A dynamic slate of early career speakers is featured to capture a range of interests across the ATS. This symposium is complimentary to the immigration keynote.

9:15 **Introduction**

9:18 **Building Trust in Marginalized Populations**

9:30 **Screening Tuberculosis in Immigrant Populations**

9:42 **Who Watches the Watchers? Dignity for Institutionalized Patients**

9:54 **Towards a Humane Immigration Policy**

10:21 **Post-Tuberculous Lung Disease**

10:33 **Summary**

10:36 **Discussion**

CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

B8 PULMONARY REHABILITATION IN NON-COPD PATIENTS: UPDATES ON THE EVIDENCE, CLINICAL INDICATIONS AND PHYSIOLOGY

Assemblies on Pulmonary Rehabilitation, Nursing

9:15 A.M. - 10:45 A.M.

Target Audience
Multidisciplinary: Physicians, residents and fellows, nurses, physiotherapists, exercise physiologists, researchers and allied health professionals in all stages of their careers who care for patients with lung diseases

Objectives
At the conclusion of this session, the participant will be able to:

- advance the knowledge pertaining to Pulmonary Rehabilitation in non-COPD patients for clinicians, physiotherapists, exercise physiologists and researchers
- discuss pulmonary rehabilitation interventions to prevent, manage and improve outcomes related to chronic illnesses including asthma, interstitial lung disease, pulmonary hypertension, bronchiectasis, Cystic Fibrosis and asthma
- identify and apply strategies for advocating for the timely referral of eligible patients to pulmonary rehabilitation programs, improving access to care and decreasing inequities

Pulmonary rehabilitation is an evidence-based intervention that improve symptoms, quality of life and exercise capacity in individuals with chronic lung disease. In non-COPD conditions, evidence for the benefits of pulmonary rehabilitation continues to evolve and will be highlighted through presentations on interstitial lung disease, pulmonary hypertension, cystic fibrosis, bronchiectasis and asthma. The presentation will go beyond the ATS 2023 PR guidelines that primarily focused on COPD, with less discussion of interstitial lung disease and pulmonary

hypertension. It will include a patient speaker and a diverse group of chairs and speakers including clinicians, researchers, physiotherapists, early career professionals and senior professionals.

9:15 **Patient Speaker to Share Their Lived Experiences**

9:20 **Pulmonary Rehabilitation in Interstitial Lung Disease**

9:40 **Pulmonary Rehabilitation in Pulmonary Hypertension**

9:55 **Pulmonary Rehabilitation in Bronchiectasis and in Cystic Fibrosis**

10:15 **Pulmonary Rehabilitation in Asthma**

10:30 **Panel Discussion + Q&A**

CLINICAL

SCIENTIFIC SYMPOSIUM

B9 PULMONARY FUNCTION IN CHILDHOOD RESPIRATORY DISEASE: EVIDENCE, SOCIAL DETERMINANTS, AND TRAJECTORIES

Assembly on Pediatrics

9:15 A.M. - 10:45 A.M.

Target Audience
Providers of pediatric pulmonology and adult pulmonology

Objectives
At the conclusion of this session, the participant will be able to:

- Describe new findings about the utility and limitations of lung clearance index, oscillometry, exercise testing, and spirometry in pediatric respiratory diseases.
- Apply emerging evidence to better interpret pulmonary function data in children, with attention to social determinants on lung function, which includes an understanding of the importance of race-neutral reference equations.
- Integrate pediatric pulmonary function trajectories into clinical care and research design by identifying early-life factors that contribute to lung function declines over time

Pulmonary function testing (PFT) in children offers critical insight into pediatric respiratory disease, yet questions remain about its predictability. This session highlights the evolving role of spirometry, lung clearance index, oscillometry, and cardiopulmonary exercise testing across a spectrum of childhood respiratory diseases. Speakers will address the latest evidence linking PFTs to outcomes, and highlight knowledge in asthma, cystic fibrosis, sickle cell disease, and primary ciliary dyskinesia. A cross-cutting theme will examine the impact of social determinants on lung function, and a final talk will examine childhood lung function trajectories into adulthood, highlighting the lifelong implications of pediatric respiratory health.

9:15 **Introduction**

9:17 **Lung Clearance Index and the Small Airways in Childhood Disease**

9:34 **Oscillometry in Severe Asthma: Ready for Primetime?**

9:51 **What Does Exercise Challenge Testing Tell Us about Exercise Safety in Children with Sickle Cell Disease?**

10:08 **Social Determinants of Lung Function in Childhood**

10:25 **Lung function trajectories in childhood and adult outcomes**

10:42 **Conclusion**

BEHAVIORAL • CLINICAL

SCIENTIFIC SYMPOSIUM

B10 RESPIRATORY HEALTH, POLICY, AND THE ENVIRONMENT IN THE 2026 POLITICAL CLIMATE

Assemblies on Environmental, Occupational and Population Health, Pediatrics; 1. Health Equity and Diversity Committee 2. Environmental Health Policy Committee

9:15 A.M. - 10:45 A.M.

Target Audience
Adult, pediatric pulmonologists, critical care physicians, clinicians, researchers, nurses, respiratory therapists, public and global health professionals, and ATS members interested in health equity and advocacy

Objectives
At the conclusion of this session, the participant will be able to:

- describe the national and international threats to environmental health, including policy changes in the current political climate.
- more appropriately, understand how vulnerable populations, including socioeconomically disadvantaged communities, face

an increased risk of lung disease under these environmental threats, and identify research needs in this area.

- apply learned knowledge, including tools provided, to advocate and influence environmental policies to benefit all, but especially vulnerable and marginalized communities.

Climate change, environmental policy, and lung health intersect as respiratory illnesses intensify globally. Vulnerable populations-such as children, the elderly, historically marginalized, and socioeconomically disadvantaged communities-experience disproportionate exposure to air pollutants, heat, and allergens, compounding health inequities. In March 2025, the Environmental Protection Agency (EPA) announced 31 actions to roll back various rules and programs protecting lung health from pollution. Environmental and Health Organizations, including the ATS, have released statements opposing these actions. This symposium will discuss the current environmental threats to lung health, including recent policy changes in the US and climate change globally, and provide tools to advocate and influence policy.

9:15 **Introduction- Lung Health and the Environment in 2026: An Overview of Clinical, Educational and Policy Themes**

9:20 **Pollution, and Respiratory Health: Current Policies Reshaping Respiratory Health**

9:45 **Extreme Weather Events and the Impact of Environmental Hazards on Historically Marginalized Populations**

10:05 **Air Pollution and Climate Change and its Global Impact on the Respiratory Health of Workers**

10:25 **Pulmonologists as Advocates: How to Testify, Lobby, and Influence Policy**

BASIC • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

B11 QUESTION EVERYTHING: RETHINKING CONVENTIONAL APPROACHES TO CAP

Assemblies on Pulmonary Infections and Tuberculosis, PITB Pneumonia Advisory Group

9:15 A.M. - 10:45 A.M.

Target Audience
Clinicians caring for patients with pneumonia; clinical pneumonia researchers; basic/translational pneumonia researchers

Objectives
At the conclusion of this session, the participant will be able to:

- Define new strategies of care for patients with CAP based on patient-specific endotypes.
- Improve patient quality of life by addressing patient-specific acute and post-acute outcomes of interest.
- Integrate new guidelines into current practice, including determining appropriate populations for application.

This session will explore critical controversies in managing hospitalized pneumonia patients. Emphasizing evolving patient priorities and scientific advances in short- and long-term outcomes, it will address the profound heterogeneity observed in clinical management and outcomes that is driven by differences in microbiological etiology and patient-intrinsic characteristics. Experts from the PITB Pneumonia Advisory Group will discuss the urgent need for updated clinical research to bridge knowledge gaps and inform evidence-based practices for this large patient population. Through dynamic presentations and discussions, this session aims to advance understanding and guide future research to optimize pneumonia care.

9:15 **What is CAP, Anyway? Differentiating Between a Disease and a Syndrome in Diagnosis and Management**

9:30 **What Drives CAP Heterogeneity? Recognizing Pneumonia Endotypes in Pathogenesis and Management**

9:45 **What CAP Outcomes Really Matter? Short- and Long-Term Patient Priorities Beyond Mortality**

10:00 **What Else Can We Do? The Future of Host-Directed Therapies in CAP**

10:15 **Who Else Can We Help? Applying CAP Guidelines to Immunocompromised Patients**

10:30 **What Have CAP Trials Taught Us? Lessons Learned and Research Priorities in CAP**

SCIENTIFIC SYMPOSIUM

B12 PRESIDENT'S SYMPOSIUM

9:15 A.M. - 10:45 A.M.

Check ATSConference365 for the latest information as it becomes available

Click Here

COMMITTEE-SPONSORED

B13 NEJM/JAMA PULMONARY SESSION

11:15 A.M. – 1:15 P.M.

Check ATSConference365 for the latest information as it becomes available

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BEHAVIORAL • CLINICAL

MEDICAL EDUCATION SEMINAR

ME102 ICU ROUNDS AS LEARNING LABS: PRACTICAL STRATEGIES FOR THE ICU EDUCATOR

Assemblies on Behavioral Science and Health Services Research

10:45 A.M. - 11:45 A.M.

Target Audience
Academic medicine practitioners, including those still in training or in related interdisciplinary fields.

Objectives
At the conclusion of this session, the participant will be able to:

- Identify strategies to enhance clinical reasoning during ICU rounds by applying evidence-based frameworks that promote diagnostic thinking and team-based decision-making.
- Demonstrate methods to meaningfully incorporate patients into ICU rounds through bedside teaching techniques that prioritize patient engagement, communication, and education.
- Design a structured approach to ICU rounding that leverages pre-rounding preparation and post-rounding reflection to improve learning outcomes, care coordination, and team efficiency.

This interactive session will focus on three key areas of ICU teaching rounds: enhancing clinical reasoning, incorporating patients through bedside teaching, and optimizing pre- and post-rounding activities. Brief presentations will introduce each topic, followed by small-group discussions that promote idea sharing between faculty and attendees. Participants will leave with practical, peer-generated strategies to enhance their bedside teaching.FacultyFaculty

CLINICAL

ADULT CLINICAL CORE CURRICULUM

CC3 ADULT SLEEP CORE CURRICULUM

SCALe: Core Curriculum Committee

11:30 A.M. - 1:00 P.M.

Target Audience
PCCM and CCM Trainees, physicians and advanced practice providers caring for adults with critical illness

Objectives
At the conclusion of this session, the participant will be able to:

- identify new strategies to manage patients with sleep disordered breathing
- better counsel patients and families on new treatment options for critical illness
- identify knowledge gaps in the treatment of patients with sleep disordered breathing.

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects included in recertification requirements.

11:30 **The Computer Will See You Now: Impact of AI Tools in the Sleep Field**

11:55 **Sleepless For Two: Pregnancy and Sleep**

12:20 **Planes, Trains and ...CPAP? Transportation and Medicine**

12:45 **Panel Discussion**

CLINICAL

PEDIATRIC CLINICAL CORE CURRICULUM

PCC2 PEDIATRIC CLINICAL CORE CURRICULUM

SCALe: Core Curriculum Committee

12:00 P.M. - 1:00 P.M.

Target Audience
Advanced Practice Providers,Clinicians,Medical Educators

Objectives
At the conclusion of this session, the participant will be able to:

- define new strategies to manage pediatric patients with pulmonary disease and critical illness

- better counsel pediatric patients and families on ne treatment options for pulmonary disease and critical illness
- identify knowledge gaps in the care of pediatric patients with pulmonary disease including bronchiectasis.

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects included in recertification requirements.

12:00 **Primary Ciliary Dyskinesia: Understanding the Basics and Beyond**

12:25 **Aspiration and Bronchiectasis: The Aerodigestive Team's Role**

12:50 **Panel Discussion**

11:45 a.m. - 1:15 p.m.

ATS WOMEN'S FORUM

The annual ATS Women's Forum recognizes the achievements and supports the advancement of women in pulmonary, critical care, and sleep medicine and research. The forum provides a valuable opportunity for women to find value in the inspirational messages and career insights the speakers share.

This year, the Women's Forum will offer a moderated, conversational panel with brief opening remarks, guided discussion, and audience Q&A.

The panelists will be:
Annie Pardo, PhD
Mary Rice, MD, MPH
Kathleen Lindell, PhD, RN, ATSF
The Elizabeth A. Rich Awardee

Pre-registration and an additional fee are required.
$45 members/non-members

ATS thanks
United Therapeutics and Genentech
for their generous support of the Women's Forum

Monday Mid-day, May 18

BASIC • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD13 RED JOURNAL IN ACTION 2: LUNG REPAIR MODELS AND MECHANISMS

American Journal of Respiratory Cell and Molecular Biology

12:00 P.M. - 1:00 P.M.

Target Audience
Basic and translational researchers interested in cellular repair mechanisms and cell-based therapies for lung disease.

Objectives
At the conclusion of this session, the participant will be able to:

- describe new findings on concepts of lung cell plasticity and its role in lung disease progression.
- define new strategies that are being developed and tested for cell-based therapy of lung disease.
- describe new findings related to lung repair mechanisms and research models that are featured in a special collection featured in the american journal of respiratory cell and molecular biology.

This session features work that aligns with the American Journal of Respiratory Cell and Molecular Biology call for papers on "Lung Repair Models and Mechanisms: Stem Cells, Cell Therapy, and Bioengineering." The featured speakers will discuss recent advances in understanding processes of injury, repair, and cellular plasticity in lung development, and lung disease. The potential and advances in using cell-based therapies in the lung will be featured. Particular focus on pulmonary fibrosis, bronchopulmonary dysplasia and pulmonary hypertension.

12:00 **Introduction and Overview**

12:05 **Alveolar Epithelial Type II (AT2) Cell Plasticity Gone Wrong in Lung Fibrosis**

12:27 **Questions and Answers**

12:32 **Cell Therapies for Pediatric Lung Disease: Are We There Yet?**

12:54 **Questions and Answers**

12:59 **Closing Remarks**

BEHAVIORAL • CLINICAL

MID-DAY SYMPOSIUM

MD14 ATS SCHOLAR: SUCCESSFUL PUBLICATION IN MEDICAL EDUCATION

ATS SCHOLAR

12:00 P.M. - 1:00 P.M.

Target Audience
Medical educators in the health professions

Objectives
At the conclusion of this session, the participant will be able to:

- understand foundational concepts focused on key learning methods in medical education
- select the best submission category based on their educational intervention and understand what educational elements should be included for each category
- understand and address common pitfalls that can impact successful publication on novel topics within medical education

This session is designed to provide an overview of novel topics for publication within medical education. The learner will gain an understanding of what makes for successful publication within novel submission categories such as Patient Education, How I Teach, Narrative Medicine, Video Submissions, and On the Fly submissions. A submission published in Scholar in each topic will be provided as an example, with discussion of each.

12:00 **Keeping Our Patients Informed - Publishing Impactful Patient Education**

12:15 **Tell and Compel - The Importance of Narrative Medicine**

12:30 **Making Your Teaching Come to Life**

12:45 **We All Want to Learn! - Teach Us How You Teach**

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD15 WHEN THE FUNDING STOPS: NAVIGATING RESEARCH IN A SHIFTING LANDSCAPE

Health Equity and Diversity Committee, Centers for Disease Control, ALA Foundation, COPD Foundation

12:00 P.M. - 1:00 P.M.

Target Audience
International and interprofessional pulmonary-critical care and palliative care researchers (nurses, therapists, physicians, social workers), and scientists, medical educators, and trainees (fellows, residents, medical students)

Objectives
At the conclusion of this session, the participant will be able to:

- identify strategies to adapt or reposition research programs in response to changing funding priorities
- apply practical tools to explore new funding opportunities through interdisciplinary or community-based collaborations
- formulate next steps for mentoring junior investigators during times of funding uncertainty

As funding priorities shift, many investigators face the challenge of sustaining research programs that no longer align with sponsor interests. This session brings together experts from academia, federal agencies, industry, and medical foundations to share strategies for maintaining research relevance, reframing scientific narratives, and identifying alternative funding pathways. Speakers will present real-world examples of successful pivots, institutional advocacy, and cross-sector partnerships that have kept important science moving forward. The session will conclude with an interactive panel discussion offering practical, actionable guidance for investigators at all career stages who are navigating a rapidly changing funding landscape.

12:00 **Pivot or Persevere? Making Strategic Shifts Without Losing Your Scientific Identity**

12:12 **Adapting Federal Research Priorities: Insights from CDC's Environmental Health Science and Practice**

12:24 **Industry Insights: Building Strategic Partnerships to Sustain Research**

12:36 **From Bridge Grants to Big Wins: How Foundations Keep At-Risk Science Funded**

BASIC • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD16 USING NASA SATELLITE DATA TO GUIDE NOVEL AIR QUALITY APPLICATIONS

NASA Earth Action Program

12:00 P.M. - 1:00 P.M.

Target Audience
Physicians; nurses; allied health professionals; public health practitioners; community health educators; researchers who are interested in using Earth observation data for environmental and occupational health research applications

Objectives
At the conclusion of this session, the participant will be able to:

- present an overview of the NASA Health and Air Quality Program activities that showcase cross-cutting environmental health applications of interest to clinicians and researchers
- analyze at least three examples where NASA satellite data can help examine the global health risks of air pollution
- inform clinicians and researchers about relevant scientific resources on air quality monitoring as well as training opportunities for applying remote sensing data for air quality topics

Each day, Earth-observing satellite missions collect terabytes of spatial and temporal data related to environmental indicators of public health importance. This session will highlight how NASA satellite data can support novel applications guiding health and policy decision-making related to Earth's changing systems. It will describe updates to NASA projects and missions, such as NASA ASIA-AQ and other airborne campaigns, the NASA GEOS Model, the Tropospheric Emissions: Monitoring of Pollution (TEMPO) satellite, and the Multi-Angle Imager for Aerosols (MAIA) satellite. Each incorporate valuable community stakeholder partnerships examining adverse health risks related to harmful air pollution exposure.

12:00 **Using NASA Satellite Data to Examine Respiratory Health Risks: An Overview of NASA Health and Air Quality Applications**

12:15 **The Role of Airborne Measurements for Better Understanding Air Quality Challenges**

12:30 **The NASA TEMPO Mission: Unprecedented Hourly Daytime Air Pollution Observations from Space for Enhanced Health and Air Quality Applications**

12:45 **Near Real Time Air Quality Forecasts using the NASA GEOS Model**

CLINICAL

MID-DAY SYMPOSIUM

MD17 FUNDAMENTALS OF HIGH-RESOLUTION CT OF THE LUNGS

Society of Thoracic Radiology

12:00 P.M. - 1:00 P.M.

Target Audience
Pulmonologists, radiologists, advanced practice providers who focus on ILD

Objectives
At the conclusion of this session, the participant will be able to:

- describe the key findings and patterns of a variety of diffuse lung diseases on high-resolution chest CT of the lungs, with a focus on the most specific patterns and correlating the HRCT results with clinical factors
- discuss the multi-disciplinary approach to diffuse lung disease and the role of HRCT compared to clinical and histologic findings
- understand both the spectrum of both typical and atypical HRCT manifestations of a variety of common and rare diffuse lung diseases

This session will provide a practical, clinically focused approach to the interpretation of diffuse lung diseases using high-resolution chest CT, with a particular emphasis on the key diagnostic patterns.

12:00 **Algorithmic Approach to Diffuse Nodular Lung Disease**

12:15 **Imaging of Fibrotic Lung Disease: 2026 Update**

12:30 **Mosaic Attenuation: Significance and Differential Diagnosis**

12:45 **Cystic Lung Diseases: Classic HRCT Appearances**

BASIC • CLINICAL

MID-DAY SYMPOSIUM

MD18 NEW RESULTS FROM THE SUBPOPULATIONS AND INTERMEDIATE OUTCOMES IN COPD STUDY (SPIROMICS) FAMILY OF STUDIES

Division of Lung Disease, National Heart, Lung, and Blood Institute

12:00 P.M. - 1:00 P.M.

Target Audience
Researchers, medical trainees, those interested in origins and subtypes of COPD

Objectives
At the conclusion of this session, the participant will be able to:

- understand “pre-copd” as well as plans to investigate early copd
- understand associations between copd and cardiovascular phenotypes
- understand molecular markers associated with copd phenotypes

SPIROMICS is a clinical observational study intended to identify different subpopulations of individuals with COPD and ultimately define endotypes within this heterogeneous disease that are responsive to mechanism-specific interventions. The ongoing study is performing intensive longitudinal phenotyping of a cohort that consists of individuals with smoking history with and without COPD, and control participants without smoking history. SPIROMICS has launched a family of studies, including SOURCE, a cohort designed to investigate the origins of COPD, and SPIROMICS Heart Failure, which is collecting cardiovascular measures in a subset of the SPIROMICS cohort. During this session, investigators will discuss recent results from all three of these studies.

12:00 Early results from the SOURCE Study

12:15 Report from the COPDGene-SPIROMICS Multiomics workshop

12:30 Cell-Free DNA Levels and Tissue Profiles Associated with Severe COPD Exacerbations

12:45 Myocardial Fibrosis in CPFE in the SPIROMICS Heart Failure study

CLINICAL

MID-DAY SYMPOSIUM

MD19 PULMONARY UPDATE FROM THE US FOOD AND DRUG ADMINISTRATION

U.S. Food and Drug Administration

12:00 P.M. - 1:00 P.M.

Target Audience
Clinicians in practice, academic researchers, pharmaceutical industry representatives, international regulators

Objectives
At the conclusion of this session, the participant will be able to:

- better understand how regulatory science is applied in the review of new drug applications
- describe new safety findings and how these were evaluated in the context of regulatory science

The most recent FDA approvals in the pulmonary disease space, research endeavors, safety issues and other hot topics navigated over the past year in the Division of Pulmonology, Allergy, and Critical Care in the Office of New Drugs at FDA.

12:00 Regulatory Considerations for Clinical Development Programs in Pulmonary Fibrosis

12:20 Regulatory Considerations for Clinical Development Programs in Non-Cystic Fibrosis Bronchiectasis (NCFB)

12:40 Updates in Cystic Fibrosis

12:55 Panel Discussion

BASIC • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD20 LEVERAGE HUMAN-BASED APPROACHES TO STUDY LUNG RESILIENCE AND DISEASE

Division of Lung Disease, National Heart, Lung, and Blood Institute, National Institutes of Health

12:00 P.M. - 1:00 P.M.

Target Audience
Researchers, students and trainees, clinicians, other healthcare providers, industry experts, policymakers, public health officials, and health advocates who are interested in lung biology, resilience and diseases, advanced human-based technologies

Objectives
At the conclusion of this session, the participant will be able to:

- master emerging technologies: understand advanced human-based, physiologically relevant experimental systems. select and integrate technologies into their research. enhance relevance and impact of their studies
- innovative research designs: develop research incorporating new approach methods (nams). discover cutting-edge technologies to propel advancements in understanding lung disease pathogenesis, improve therapy testing, and optimize drug screening.
- foster collaboration and networking: increase networking opportunities, foster collaboration among lung disease researchers and engineering fields. facilitate interdisciplinary partnerships and innovative research initiatives.

This scientific program aims to promote the use of human-based emerging technologies and New Approach Methods (NAMs), such as lung organoids, lung-on-chips, bioprinted lungs, and ex vivo tissue preparations (e.g., perfused human lungs, precision-cut lung slices) in lung research. By equipping participants with essential knowledge, skills, and networking opportunities, the program encourages innovative research strategies to advance our understanding of lung resilience, disease mechanisms, and drug development through collaborative efforts. Inspired by NHLBI's 2022 Notice of Special Interest (NOT-HL-22-030), this program supports NIH initiatives that prioritize human-based research technologies

12:00 Use of Explanted Cystic Fibrosis Lung Tissues to Discover Mucociliary Transport Enhancers

12:12 Engineering Vascularized Lung Organoids: Decoding Human Development and Disease in a Dish

12:24 Human-Relevant Crystal Ribcage Models for Multiscale Visualization of Lung Remodeling in Health and Disease

12:36 The Biology of Mechanical Stretch and Compression in Human Lung Organoids

12:48 Microphysiological Systems and Bioinspired Robotics for Modeling Human Lung Pathobiology and Mechanics

TRANSLATIONAL

MID-DAY SYMPOSIUM

MD21 IMMUNE AND EPITHELIAL PREDICTORS OF ASTHMA RISK: LESSONS FROM EARLY LIFE COHORT STUDIES

National Institute of Allergy and Infectious Disease

12:00 P.M. - 1:00 P.M.

Target Audience
Clinicians, basic and clinical researchers

Objectives
At the conclusion of this session, the participant will be able to:

- review data demonstrating divergent patterns of nasal gene expression pathways over the first year of life in a birth cohort at increased risk of asthma, & assess the potential of distinct patterns to influence the development of subsequent disease
- describe single-cell transcriptomic data from early childhood suggesting that airway epithelium in children with wheeze may be developmentally reprogrammed, altering susceptibility to respiratory viral infections and later asthma development
- describe differences in microbial composition in mothers and children recruited for a binational cohort, and assess the association between microbiome features and symptoms during infancy, as well airway epithelial barrier function in vitro

This session will highlight emerging data generated by NIAID-funded birth and early life cohorts describing early life immune and epithelial developmental pathways that may underlie risk for asthma development.

12:00 Early Life Upper Airway Immune Development Trajectories

12:20 Early Life Respiratory Viral Infection, Pulmonary Epithelial Development and Asthma

12:40 The Role of Maternal and Infant Microbiome in the Development of Pulmonary Immune and Epithelial Function

BASIC • CLINICAL • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD22 THE NHLBI LUNG TRANSPLANT CONSORTIUM

Division of Lung Disease, National Heart, Lung, and Blood Institute, National Institutes of Health

12:00 P.M. - 1:00 P.M.

Target Audience
Those with research interests involving the study of lung transplant donors or recipients.

Objectives
At the conclusion of this session, the participant will be able to:

- learn about the impact of certain clinical practices on, and the value of collecting particular data elements to inform, donor lung utilization and early post-transplant outcomes in lung transplant recipients.
- increase awareness among the broader lung transplant research community of the availability of the consortium's resources to support ancillary studies
- more appropriately design and control for clinical variables during the conduct of multi-site research studies involving lung transplant donors or recipients.

The Lung Transplant Consortium (LTC) is an NHLBI-funded multi-site clinical research network aimed at improving lung transplant outcomes. By standardizing data and biospecimen collection across Clinical Centers (CCs), the LTC evaluates selection criteria and management strategies, focusing on complications like primary graft dysfunction (PGD) and acute lung allograft dysfunction (ALAD). Supported by a Data Coordinating Center (DCC), the consortium also conducts hypothesis-driven studies and facilitates future clinical trials. Each CC features multidisciplinary teams collaborating to enhance donor lung utilization and post-transplant outcomes through shared research protocols and innovative observational and mechanistic studies.

12:00 **The PROMISE-LUNG Study**

12:26 **Clinical and Biological Factors Predicting Lung Transplant Textbook Outcomes**

12:43 **Peri-Operative Factors That Drive Cell-Free Hemoglobin-Mediated Primary Graft Dysfunction**

BASIC • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD23 INTERROGATING INTERACTIONS BETWEEN IMMUNITY, MECHANICS, AND ORGAN SYSTEMS IN PULMONARY FIBROSIS

Division of Lung Disease, National Heart, Lung, and Blood Institute, National Institutes of Health

12:00 P.M. - 1:00 P.M.

Target Audience
Fellow/Junior / Established Professional

Objectives
At the conclusion of this session, the participant will be able to:

- understand the role of immune system and interaction between immune cell subtypes in pulmonary fibrosis.
- better understand and apply new findings to the identification and development of novel therapeutic targets and diagnostics in pulmonary fibrosis
- learn new findings about the application of novel models and technologies of pulmonary fibrosis

Pulmonary fibrosis is a terminal hallmark of various lung diseases, resulting in significant morbidity, and mortality. It frequently coincides with fibrosis in other organs, such as the heart, skin, and kidneys, in conditions like systemic sclerosis, lupus, RA, and sarcoidosis. This session will highlight NHLBI-supported studies that explore fibrogenesis mechanisms, innovative strategies, monitoring tools for disease progression, and therapeutic strategies . By examining the common determinants of fibrosis across organ systems, we aim to enhance research awareness, expand knowledge, and refine therapeutic techniques and drugs for pulmonary fibrosis and related disorders.

12:00 **Crystal Ribcage: A Platform for Probing Real-Time Lung Mechanobiology and Mechano-Immunity in Health and Disease**

12:12 **Dendritic Cell Regulation of Lung Fibrosis and Exacerbations**

12:24 **Sex-Specific Differences in Scleroderma Lung Disease**

12:36 **Opportunities to Pharmacologically Target Mechanotransduction in Pulmonary Fibrosis**

12:48 **Discussion**

BASIC • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD24 LUNGMAP PHASE 3- NOVEL TECHNOLOGY, DATA SCIENCE, AND RESOURCES

Division of Lung Disease, National Heart, Lung, and Blood Institute

12:00 P.M. - 1:00 P.M.

Target Audience
Basic and clinical researchers interested in lung biology, developmental biology, lung disease mechanisms, multi-omics, bioinformatics, and systems biology

Objectives
At the conclusion of this session, the participant will be able to:

- learn the innovative technologies for single-cell multiomics, spatial multiomics, and data analysis of the lung
- learn the newest discoveries from lungmap that could inform lung research
- learn how to access and use the lungmap resources

The overall goal of LungMAP is to build a molecular and cellular atlas of the human lung to serve as a reference to better understand both normal biology and disease pathobiology. LungMAP Phase 3 aims to utilize the power of single-cell omics and other innovative technologies to identify the pathogenic mechanisms of lung disease at cellular resolution, including cell types critical to disease initiation and progression, aberrant molecular pathways in abnormal and diseased cell states, and targets for novel lung disease therapies. Speakers will describe cutting-edge technology platforms, e.g., spatial transcriptomics, LungMAP data pipeline, data analysis tools, and LungMAP resources.

12:00 **LungMAP Flight Simulators: Pairing in Vivo with In Vitro Human Disease Modeling**

12:15 **AI for Multi-Omic Single-Cell and Spatial Analysis in LungMAP.net**

12:30 **Lung Cell Nomenclature Integration and BRINDL Repository**

12:45 **Tools for Generating Molecular and Cellular Hypotheses From the LungMap Data Distillery**

Monday Afternoon, May 18

YEAR IN REVIEW

B81 NURSING YEAR IN REVIEW: NAVIGATING CARE TRANSITIONS IN PULMONARY, CRITICAL CARE, AND SLEEP

Assembly on Nursing

2:15 PM - 3:45 PM

Target Audience
Multidisciplinary clinical and research audiences; any training level; those involved in care transitions for patients and families

- Apply evidence-based strategies from recent literature to enhance continuity, communication, and outcomes during transitions, with the goal of improving patient recovery and quality of life.
- Describe recent findings on gaps in transitional care and how these impact patient outcomes, caregivers, and opportunities for system-level improvement.
- Understand the role of family-centered approaches and interdisciplinary collaboration in improving the quality and safety of care transitions.

This symposium provides a focused review of current literature on care transitions within pulmonary, critical care, and sleep medicine. Topics include evidence-based approaches to care transitions after critical illness, palliative and end-of-life care transitions, tobacco and vaping cessation across the lifespan, and family-centered models of transitional care. Presenters will synthesize recent findings, highlight key gaps, and discuss

implications for clinical practice and future research to improve patient and caregiver outcomes during transitional periods.

2:15 **Introduction**

2:25 **Critical Crossroads: Advancing Recovery Through Post-ICU Care Transitions**

2:40 **Family Matters: Strengthening Transitions Through Collaborative Care**

2:55 **Bridging Care and Compassion: Improving Palliative Care and End-of-Life Transitions Across Settings**

3:10 **From First Puff to Final Quit: Supporting Tobacco and Vaping Cessation Across the Lifespan**

3:25 **Session Q & A**

BEHAVIORAL • CLINICAL

CRITICAL CARE TRACK

B82 PRECISION VS PRAGMATISM: STRIKING BALANCE IN THE ICU

Assemblies on Critical Care, Behavioral Science and Health Services Research, Clinical Problems, Environmental, Occupational and Population Health, Pulmonary Infections and Tuberculosis

2:15 P.M. - 3:45 P.M.

Target Audience
Physicians, researchers, nurses, and allied health professionals at all stages of career who care for or research critically ill patients

Objectives
At the conclusion of this session, the participant will be able to:

- explore benefits and potential pitfalls of individualized approaches to care for critically ill patients and review tools that are available to guide personalization in clinical care, where applicable
- evaluate current research methods used to study critical illness and understand how these methods incorporate personalized vs pragmatic approaches to evaluating interventions
- facilitate discussion among panelists and audience members about how to integrate personalized and population-level strategies in research and clinical practice

Recent critical care research has focused on personalization-using cutting-edge methods to optimize treatment decisions for individual patients. However, work by epidemiologists and implementation scientists consistently demonstrates that we often fall short in delivering evidence-based care for patients with common deadly conditions like sepsis and ARDS. This session will highlight the tension between approaches that seek to personalize care versus those that focus on delivering the best care for populations. Formatted as a series of pro/con-style debates followed by expert discussions, the session aims to move beyond apparent conflict towards an integrated, nuanced approach to important topics in critical care.

2:15 **Introduction**

2:18 **Personalized Ventilator Strategies Are the Future**

2:25 **Population-Level Ventilator Protocols Are Needed First**

2:32 **Ventilator Management Discussion**

2:37 **Sepsis Bundles Are the Problem**

2:44 **Sepsis Bundles Are the Solution**

2:51 **Sepsis Bundles Discussion**

2:56 **Balanced Fluid for the Right Patient**

3:03 **Balanced Fluid for Everybody**

3:10 **Fluids Discussion**

3:15 **We Need Precise Trials**

3:22 **We Need Pragmatic Trials**

3:29 **Critical Care Trials Discussion**

3:34 **Panel Discussion**

SCIENTIFIC SYMPOSIUM

B83 NEJM/JAMA CRITICAL CARE SESSION

2:15 P.M. - 4:15 P.M.

Check ATSConference365 for the latest information as it becomes available

Click Here

BEHAVIORAL • CLINICAL • TRANSLATIONAL

CLINICAL TOPICS IN PULMONARY MEDICINE

B84 CONTROVERSIES IN INTERSTITIAL LUNG DISEASE: A PRO-CON

Assembly on Clinical Problems

2:15 P.M. - 3:45 P.M.

Target Audience
ILD clinicians, ILD translational scientists, general pulmonologists, rheumatologists, pathologists, radiologists, trainees

Objectives
At the conclusion of this session, the participant will be able to:

- analyze the evidence supporting immunosuppressant therapy and antifibrotic agents as first-line treatment options for non-IPF ILD, including identifying patient populations most likely to benefit from each therapeutic approach
- evaluate the implications of implementing the 2025 ATS recommendations for ILA/ILD screening, weighing the potential benefits of early detection against radiation exposure risks and healthcare system burden
- apply an evidence-based decision-making framework to controversial areas in ILD diagnosis and management, incorporating both clinical evidence and patient-specific factors when consensus is lacking

This interactive symposium features three pro-con debates addressing the most controversial topics in current ILD practice. Attendees will engage with expert pulmonologists, rheumatologists, and radiologists on whether immunosuppression should constitute first-line therapy for non-IPF ILD, examine the benefits and burdens of the new ATS screening recommendations for interstitial lung abnormalities, and explore the paradigm shift from etiology-based to morphology-based diagnosis with the publication of the new interstitial pneumonia guidelines. Through structured debates and audience participation, the learner will develop a framework for navigating clinical uncertainty and making evidence-based decisions in evolving areas of ILD diagnosis and management.

2:15 **Introduction & Overview**

2:20 **Pro: Immunosuppression**

2:29 **Con: Immunosuppression**

2:38 **Audience Discussion & Introduction to Next Topic**

2:48 **Pro: ILA/ILD Screening**

2:57 **Con: ILA/ILD Screening**

3:06 **Audience Discussion & Introduction to Next Topic**

3:16 **Pro:BIP**

3:25 **Con: BIP**

3:34 **Audience Discussion & Wrap Up**

BASIC • TRANSLATIONAL

BASIC SCIENCE CORE

B85 BEYOND -OMICS: CONNECTING MOLECULAR BIOLOGY TO CELL PATHOPHYSIOLOGY USING SPATIO-TEMPORAL MULTI-MODAL IMAGING

Assemblies on Respiratory Structure and Function, Allergy, Immunology and Inflammation, Respiratory Cell and Molecular Biology, Respiratory Structure and Function

2:15 P.M. - 3:45 P.M.

Target Audience
Those interested in basic to translational pulmonary research across the broad spectrum of pulmonary pathobiology

Objectives
At the conclusion of this session, the participant will be able to:

- increase awareness of the spectrum of available advanced multimodal imaging techniques and associated approaches relevant to pulmonary biology
- learn how the available imaging techniques are used and best applied, and their specific limitations
- acquire information on available resources to gain access to these advanced molecular imaging tools and techniques

This session will feature exciting, innovative, and cutting-edge research methods in pulmonary basic/translational research. High-yield multimodal imaging methodologies are transforming how we conduct research and our fundamental understanding of pulmonary disease pathogenesis. These advanced imaging techniques address the cellular microenvironment and tissue context, some using real-time spatiotemporal resolution. The talks have broad appeal across different pulmonary diseases (e.g., asthma, COPD, emphysema, ILD, fibrosis, remodeling, pulmonary vascular disease, etc.) and will cover complementary approaches. This aligns with the basic science theme "Understanding the Lung Microenvironment in Disease," and will

increase awareness about approaches that will continue to revolutionize pulmonary research.

2:15 **Brief Introduction to the Symposium**

2:20 **Spatial Transcriptomics and its Use in Pulmonary Disease Research**

2:37 **Real-Time Spatiotemporal Imaging Using Biosensors**

2:54 **Spatial Metabolomics Using Mass Spectrometry Imaging**

3:11 **Molecular Imaging of Pulmonary Fibrosis**

3:28 **The Extracellular Matrix as a Driver of Chronic Lung Diseases**

CLINICAL • TRANSLATIONAL

CLINICAL TOPICS IN PULMONARY MEDICINE

B86 NEW AND HOT CONCEPTS IN COPD

Assembly on Clinical Problems

2:15 P.M. - 3:45 P.M.

Target Audience
Physicians, nurse practitioners, physician assistants, nurses, respiratory therapists

Objectives
At the conclusion of this session, the participant will be able to:

- learn about impact of using the new COPD diagnostic schema and how to differentiate this from Pre-COPD and PRISm, strengths and limitations and practical considerations for clinical practice
- learn about which patients may derive cardiac benefits from using COPD medications, with immediate implications for clinical practice
- learn about how to recognize predominant non type 2 inflammation and treat the exacerbator phenotype with this inflammatory endotype

There have been several advances in the understanding of COPD pathobiology, diagnosis and therapeutics in the past few years. In this session, key new and hot topics will be discussed using the most recent evidence, including the new concept of disease stability in COPD, the new multidimensional COPD diagnostic schema and its implications for Pre-COPD and PRISm, emerging ideas about whether emphysema is reversible, cardiac benefits of COPD medications, and the evaluation of and new treatments for non type-2 inflammation in COPD.

2:15 **Disease Stability in COPD**

2:33 **Disease Diagnosis: Making Sense of the Alphabet Soup**

2:51 **Evaluation and Treatment of Non Type 2 Inflammation in COPD**

3:09 **Cardiovascular Disease in COPD: Does Treating the Lungs Make the Heart Better?**

3:27 **Is Emphysema Reversible**

CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

B87 WHEN TREATMENT HURTS: RETHINKING CPAP IN OBSTRUCTIVE SLEEP APNEA THROUGH A PRECISION MEDICINE LENS

Assemblies on Sleep and Respiratory Neurobiology, Clinical Problems, Critical Care, Sleep and Respiratory Neurobiology

2:15 P.M. - 3:45 P.M.

Target Audience
Clinicians, researchers, policy makers

Objectives
At the conclusion of this session, the participant will be able to:

- apply physiologic phenotyping to stratify risk and tailor CPAP treatment in clinical practice
- describe how CPAP may cause harm in specific OSA subgroups and recognize key mechanisms including vascular inflammation, lung stretch, and sleep disruption
- evaluate evidence for intermittent hypoxia-induced cardioprotection and how CPAP may interfere with this adaptive process

This session will explore why CPAP may not benefit all patients with obstructive sleep apnea (OSA) and may even cause harm in certain subgroups. Learners will gain insight into potential mechanisms of harm, including vascular inflammation, sleep disruption, and loss of cardioprotective intermittent hypoxia. The symposium will emphasize emerging evidence supporting a precision medicine approach to CPAP treatment. Attendees will learn how to apply physiologic phenotyping to identify which patients may benefit the most from therapy. The session will conclude with discussion on future research needs and implications for clinical guidelines and trial design.

2:15 **Introduction - Why Have CPAP Trials Been Negative?**

2:31 **Rethinking CPAP: Who Benefits?**

2:47 **CPAP, Angiopoietin-2, and Vascular Inflammation**

3:03 **Are Mild Intermittent Hypoxia and OSA Cardioprotective?**

3:19 **Future Directions: Linking OSA Phenotypes to Potential CPAP Harm**

3:35 **Audience Q&A and Panel Discussion**

BASIC • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

B88 REWRITING THE CODE: PRECISION DELIVERY VECTORS AND GENE THERAPY FOR PULMONARY VASCULAR DISEASES

Assemblies on Pulmonary Circulation, Respiratory Cell and Molecular Biology, Respiratory Structure and Function

2:15 P.M. - 3:45 P.M.

Target Audience
Clinicians, translational researchers, and biotech/pharma professionals interested in bench-to-bedside gene therapy, delivery vectors, and the clinical translation of targeted therapies for pulmonary vascular diseases

Objectives
At the conclusion of this session, the participant will be able to:

- describe new findings about gene delivery platforms-including viral vectors, lipid nanoparticles, extracellular vesicles, and targeted peptides-and their potential application to pulmonary vascular diseases
- incorporate lessons from gene therapy successes in cystic fibrosis and fetal interventions to improve the development and clinical translation of novel therapies for patients with pulmonary vascular diseases
- apply knowledge of delivery barriers and cell-specific targeting strategies to evaluate or design translational approaches for gene therapy in pulmonary arterial hypertension and related vascular disorders

This session is designed for clinicians, scientists, and industry professionals interested in gene therapy and delivery vectors for pulmonary vascular diseases. Speakers will highlight current platforms-including viral vectors, intravenous nanoparticles, and targeted peptides-focusing on translational challenges and strategies from bench to bedside. The session will also draw on lessons from other monogenic lung diseases, such as cystic fibrosis, and from fetal gene therapy, to inform future approaches. Attendees will leave with a deeper understanding of emerging technologies, their therapeutic potential, and the level of evidence supporting their use in pulmonary vascular disease treatment and drug development.

2:15 **From Mutation to Medicine: Lessons in Gene Therapy and Delivery from Cystic Fibrosis**

2:30 **Smart Bombs for Sick Vessels: EC-Targeted Nanotherapies for Pulmonary Vascular Diseases**

2:45 **SORT-of-a-Breakthrough: Targeting the Endothelium with Lipid Nanoparticles**

3:00 **From Bench-to-BARRIER-to-Bedside: The Status of Adenoviral Targeting of the Endothelium**

3:15 **Precision Targeting: CAR-Nanopeptides for Vascular Lesion-Directed Therapy in PAH**

3:30 **The Next Frontier: In-Utero Gene and Molecular Therapy for Developmental Diseases**

BASIC • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

B89 FROM BENCH TO THRIVING: RECENT BREAKTHROUGHS IN CHILDHOOD INTERSTITIAL LUNG DISEASES

Assembly on Pediatrics

2:15 P.M. - 3:45 P.M.

Target Audience
Pediatric pulmonologists, geneticists, clinical/translational and basic science researchers studying ILD or pediatric advanced lung disease, adult ILD specialists, interdisciplinary professionals involved in the care of these patients

- **Objectives**
  At the conclusion of this session, the participant will be able to:
- incorporate new guidelines for the diagnosis and classification of childhood interstitial lung disease into clinical practice
- describe new and upcoming diagnostic and therapeutic advances in the genetics of childhood interstitial lung disease
- describe radiographic and pathologic findings that suggest the diagnosis of pulmonary fibrosis and to explore potential treatment strategies

We will provide a series of talks that highlight recent research findings and connect them with clinical updates in childhood interstitial lung diseases. This will include an update on the new ATS clinical practice guideline on diagnosis of children 2 years and topical talks highlighting recent data and new treatment paradigms. This session will be of interest to a general pediatric pulmonary clinical audience, pediatric pulmonologists specializing in childhood interstitial lung diseases, trainees, researchers, and interdisciplinary care team members.

2:15 **Introduction**

2:20 **Patient Voice**

2:25 **New ATS Clinical Practice Guidelines: Diagnosis of ChILD in Children Under Two**

2:45 **Advances in Genetic Mechanisms of ChILD**

3:05 **Gene Therapy for ChILD: Disorders of Surfactant Metabolism**

3:25 **Fibrosis in ChILD: Radiologic Diagnosis and Potential Treatment Approaches**

BASIC • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

B90 DECODING BACTERIAL PNEUMONIA: INTEGRATING HUMAN TRIALS, TRANSLATIONAL IMMUNOLOGY, AND NEXT-GEN MODELING TO ADVANCE PRECISION MEDICINE

Assemblies on Pulmonary Infections and Tuberculosis, Allergy, Immunology and Inflammation, Critical Care, Pediatrics, Respiratory Cell and Molecular Biology; PhD Basic Translational Science Group

2:15 P.M. - 3:45 P.M.

Target Audience
Clinicians and researchers in pneumonia, immunology, and translational modeling, including those using animal and ex vivo systems, and appeals to anyone advancing precision medicine and biomarkers in lung infection and sepsis

Objectives
At the conclusion of this session, the participant will be able to:

- learn how human studies and clinical trials contribute to precision medicine approaches in bacterial pneumonia and sepsis
- learn about the role of immune profiling and biomarker discovery in understanding host responses to bacterial lung infections
- compare traditional and next-generation model systems-including animal models, lung-on-a-chip, and ex vivo platforms-for their utility in replicating human pneumonia pathophysiology and guiding translational research

This session will provide learners with an integrated perspective on bacterial pneumonia by highlighting advances in human clinical studies, immunologic profiling, and innovative modeling systems. Attendees will explore how animal models, organoids, and lung-on-a-chip platforms complement human research and inform therapeutic strategies. Designed for clinicians, scientists, and trainees, the symposium emphasizes the importance of translational approaches in understanding disease mechanisms and developing precision medicine tools. Learners will gain insight into biomarker development, immune responses, and model refinement, with a focus on bridging experimental findings to patient care in pneumonia and sepsis. This session fosters cross-disciplinary learning and collaborative exploration.

2:15 **Pneumonia in the Precision Medicine Era: Insights from Longitudinal Human Cohorts and Interventional Trials**

2:33 **Biomarkers and Translational Immunology in Human Pneumonia**

2:51 **Refining Animal Models of Bacterial Pneumonia: Mimicking Human Disease and Immune Dynamics**

3:09 **Beyond the Mouse: Using ALI Cultures, Lung-on-a-Chip, Organoids, and EVLP to Model Human Lung Infection**

3:27 **From Animals and Chips to Bedside: Integrative Modeling to Advance Human Pneumonia Care**

CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

B91 INTEGRATING PRAGMATIC CLINICAL TRIALS INTO INTERVENTIONAL PULMONARY OUTCOMES RESEARCH

Assemblies on Thoracic Oncology, Interventional Pulmonary Working Group

2:15 P.M. - 3:45 P.M.

Target Audience
Pulmonologists interested in clinical research; thoracic oncology

and interventional pulmonary providers, researchers, coordinators, and research administrators

Objectives
At the conclusion of this session, the participant will be able to:

- describe challenges of traditional randomized controlled trials in advanced diagnostic bronchoscopy
- apply the definition of diagnostic yield in advanced diagnostic bronchoscopy research
- incorporate pragmatic clinical trial data to patient care

Advanced diagnostic bronchoscopy and adjunct tools to biopsy pulmonary lesions have rapidly evolved over the last several years. Often, new technologies are rushed to market and integrated into clinical practice despite a paucity of supportive evidence. Particularly, comparative effectiveness and randomized controlled trials have been difficult to execute and given the lack of funding and rapid pace of technologic development, leaving technologies outdated by the time a trial could be completed. This session will discuss the major barriers to randomized controlled trials in advanced bronchoscopy and how pragmatic trials have potential to expedite patient recruitment, study completion, and increase external validity.

2:15 Study Design and Ethical Challenges with Pragmatic Clinical Trials

2:35 Clinical and Patient Centered Outcomes for Pragmatic Clinical Trials in Bronchoscopy

2:55 Recent Pragmatic Trials from the Interventional Pulmonary Outcome Group

3:15 Funding Considerations for Comparative Effectiveness Trials

3:35 Discussion

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

B92 ESCALATING USE, EMERGING SCIENCE: VAPE/SMOKE INDUCED LUNG DISEASE

Assemblies on Pediatrics, Behavioral Science and Health Services Research, Environmental, Occupational and Population Health, Respiratory Cell and Molecular Biology; Tobacco Action Committee also co-sponsoring

2:15 P.M. - 3:45 P.M.

Target Audience
Health care providers, tobacco and e-cigarette researchers, patient educators and health care advocates

Objectives
At the conclusion of this session, the participant will be able to:

- describe new findings about the health concerns of nicotine analogues including 6-methyl nicotine
- better counsel patients, families, policy advocates, and decision makers about the harms of electronic tobacco products
- advocate for strategies to better manage to tobacco and e-cigarette epidemic in the US

Nicotine analogues are being promoted as not subject to FDA regulations on nicotine. More is being learned about the toxicity of electronic cigarette (vaping) products, with much of it from animal models. New flavored tobacco products are being introduced in Latin American and are becoming popular with young people. This session will help you to know what the NEW tobacco and vaping products are that young people are using, their toxicity, and how they are being used to addict a new generation.

2:15 Introduction

2:17 Global Trends in New Tobacco Products - Implications for Public Health

2:31 6-Methyl Nicotine and Neotame: What Are These and Why Should We Worry?

2:45 Vaping Research in Translation: From Laboratory Models to Human Studies

2:59 E-Cigarette Vapor Amplifies Inflammation and Proteolytic Extracellular Vesicles in Response to Secondary Insults

3:13 Selling Vapes to Children and Adolescents - Holes in Current Enforcement and How it Needs to Change

3:27 The Science Education and Research on Vaping and Interventions for Community Engagement (SERVICE) Guide

3:41 Conclusions and Next Steps

BASIC • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

B93 LIVING LANDSCAPES: HOW LUNG MICROENVIRONMENTS ORCHESTRATE HOST RESPONSE DURING LUNG INFECTIONS

Assemblies on Respiratory Cell and Molecular Biology, Allergy, Immunology and Inflammation, Clinical Problems, Pediatrics, Pulmonary Infections and Tuberculosis; PBTS (PhD, Basic and Translational Science) Working Group

2:15 P.M. - 3:45 P.M.

Target Audience
Basic and translational researchers; clinical scientists; fellows

Objectives
At the conclusion of this session, the participant will be able to:

- describe how distinct lung microenvironments influence immune responses to diverse pathogens, including viruses, parasites, fungi, and mycobacteria
- identify the mechanisms by which pathogens reshape epithelial, immune, and stromal cell interactions in the lung to promote inflammation, persistence, or fibrosis
- evaluate emerging tools such as spatial transcriptomics and single-cell profiling for uncovering immune-epithelial-stromal interactions during infection and repair

This session will examine how diverse lung microenvironments influence immune responses, infection outcomes, and tissue repair. Speakers will highlight how viruses, helminths, fungi, and mycobacteria reshape local immune, stromal, and epithelial niches. Topics include type 2 immunity, fibrosis, immunometabolism, and granuloma formation. Cutting-edge tools such as spatial transcriptomics and advanced imaging will be discussed to illustrate how lung microenvironments orchestrate inflammation and disease progression. Together, these talks will provide a multidimensional view of how the infected lung evolves across space and time-and how these dynamic landscapes inform pathogenesis and recovery.

2:15 **Introduction**

2:18 **T2-biased Lungs and Influenza: a Microenvironmental Perspective**

2:31 **Metabolic Reprogramming in the Lung During Parasitic Infection**

2:45 **Fungal Triggers of Fibrosis: Immune-Fibroblast Interactions in the Chronically-Exposed Lung**

2:59 **Granuloma Microenvironments in Tuberculosis: Spatial Immune Regulation in the Lung**

3:13 **Spatially Resolved Immune Landscapes in the Infected Lung**

3:27 **Cystic Fibrosis Host Response to Bacterial Infections in the Lung**

3:41 **Conclusion**

CLINICAL

ADULT CLINICAL CORE CURRICULUM

CC4 ADULT CRITICAL CARE CLINICAL CORE CURRICULUM

SCALe: Core Curriculum Committee

2:15 P.M. - 3:45 P.M.

Target Audience
Advanced Practice Providers,Clinicians,Medical Educators

Objectives
At the conclusion of this session, the participant will be able to:

- integrate new critical care guidelines in to clinical practice.
- identify knowledge gaps in the treatment of patients with critical illness.
- better counsel patients on treatment options available for critical illness

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects included in recertification requirements

2:15 **Lung Protective Ventilation Targets and Optimization Of Peep**

2:40 **Dyssynchronies and Complications of Mechanical Ventilation**

3:05 **Weaning From Mechanical Ventilation: When and How?**

3:30 **Panel Discussion**

Tuesday Morning, May 18

MEET THE EXPERT SEMINARS

Pre-registration and additional fees required. Attendance is limited.
$100 Member/Non-Members
10:45 a.m. - 11:45 a.m.

MTE27 FROM FLATLINE TO FIRST DRAFT: A NARRATIVE RESUSCITATION WORKSHOP FOR BURNOUT RECOVERY

MTE28 PERSONALIZED SLEEP HEALTH: A METABOLIC MEDICINE FRONTIER

MTE29 UPDATED BRONCHIECTASIS GUIDELINES: INTEGRATING INTO CLINICAL PRACTICE

MTE30 MAKING WAVES: OSCILLOMETRY BASICS AND INTERPRETATION FOR CLINICAL AND RESEARCH APPLICATION

MTE31 USE OF SOTATERCEPT IN THE REAL WORLD - WHAT HAVE WE LEARNED SO FAR

MTE32 MODELING THE DISEASED LUNG MICROENVIRONMENT: EXPERIMENTAL STRATEGIES FOR COMPLEX CO-MORBID CONDITIONS

MTE33 NAVIGATING INFANT SLEEP APNEA: WHAT TO DO WITH AN OAHI 5

MTE34 TO PNEUMONITIS AND BEYOND: A COMPREHENSIVE REVIEW OF DYSPNEA FROM IMMUNE CHECKPOINT INHIBITORS

MTE35 FROM FEATHERS TO ANTIFIBROTICS: EXPOSURES, DIAGNOSIS, AND TREATMENT IN HYPERSENSITIVITY PNEUMONITIS

MTE36 PH RELATED TO ILD: CURRENT EVIDENCE AND OUTSTANDING QUESTIONS

MTE37 THE CELLULAR LANDSCAPE OF COPD: NOVEL INSIGHTS FROM GENOMICS AND CELL BIOLOGY

KEYNOTE SERIES

8:00 a.m. -8:45 a.m.

K3 *Speaker and Topic: To Be Announced*

YEAR IN REVIEW

C1 CLINICAL YEAR IN REVIEW

9:15 A.M. - 10:45 A.M.

Target Audience
Pulmonary, critical care and sleep providers

Objectives
At the conclusion of this session, the participant will be able to:

- apply new clinical research knowledge to clinical practice
- learn new findings about key conditions in pulmonary, critical care and sleep
- have new strategies to manage the care of common conditions in pulmonary, critical care, and sleep

This program has been developed to include core topics in pulmonary, critical care, and sleep medicine. The goal of the session is to discuss critical state-of-the-art topics and evolving concepts. The learner will be exposed to a carefully curated review of the current literature by emerging leaders in the field. After the course, participants will better understand novel concepts in each specific domain that we hope will translate to improved patient care.BASIC • TRANSLATIONAL

9:15 Cystic Fibrosis / Non-CF bronchiectasis

9:37 Interstitial Lung Disease

10:00 Lung Transplant

10:23 Occupational / Environmental Lung Disease

BASIC • TRANSLATIONAL

BASIC SCIENCE CORE

C2 IMMUNE ACTIVATION AND FIBROSIS WITHIN THE PULMONARY VASCULAR MICROENVIRONMENT

Assembly on Pulmonary Circulation

9:15 A.M. - 10:45 A.M.

Target Audience
Pulmonary clinicians, researchers, and trainees interested in vascular disease, fibrosis, and inflammation, including immunologists and cell biologists studying immune-vascular crosstalk in lung pathogenesis

Objectives
At the conclusion of this session, the participant will be able to:

- describe new findings about how macrophages, regulatory T cells, and redox signaling contribute to immune-driven vascular remodeling and fibrosis in pulmonary diseases
- define new strategies to manage the care of patients with ARDS, pulmonary hypertension, COPD by recognizing immune-mediated mechanisms that sustain vascular injury, even after initial environmental exposures resolve
- apply knowledge of immune-endothelial and immune-epithelial interactions to improve translational research design and identify novel therapeutic targets in pediatric and adult pulmonary vascular disease

This session focuses on immune mechanisms that contribute to fibrosis and vascular remodeling in pulmonary diseases, including pulmonary hypertension, COPD, and bronchopulmonary dysplasia. Presentations will cover alternative polyadenylation, redox signaling, epithelial-immune interactions, and regulatory T cell function. Speakers will discuss how immune responses influence endothelial health, fibroblast behavior, and structural changes in the vasculature. The session includes data from both pediatric and adult models. Attendees will gain practical knowledge of inflammatory pathways involved in vascular pathology and how they may be targeted to modify disease progression across diverse forms of acute and chronic lung disease

9:15 **Introduction**

9:20 **Smoke-Driven p73-SIgA Axis Failure Fuels Chronic Inflammation and Fibrotic Airway Remodeling in COPD**

9:30 **RGC-32 Regulation of EndoMT and Inflammation in PAH**

9:40 **Regulatory T Cells Preserve Lung Endothelial Integrity and Prevent Pulmonary Hypertension in Bronchopulmonary Dysplasia**

9:50 **Alternative Polyadenylation in Macrophages and their Contribution to Lung Injury**

10:00 **Immune Regulation of Vascular Remodeling in Pulmonary Hypertension Associated with Systemic Sclerosis**

10:10 **Cytokine-Cellular Microenvironment Interactions Driving Perivascular Fibrosis in Pulmonary Hypertension**

10:20 **Single-Cell Dissection of Immune-Driven Neointimal Fibrosis in Pulmonary Hypertension**

10:30 **Discussion**

10:40 **Final Remarks**

CLINICAL • TRANSLATIONAL

CLINICAL TOPICS IN PULMONARY MEDICINE

C3 PEDIATRIC CLINICAL CHEST ROUNDS

Assembly on Pediatrics

9:15 A.M. - 10:45 A.M.

Target Audience
Physicians, trainees, advanced practice providers, nurses, and respiratory therapists who care for children with chronic lung diseases, as well as researchers in pediatric pulmonary medicine

Objectives
At the conclusion of this session, the participant will be able to:

- review the case selected among the highest-ranked case reports submitted to the ATS Assembly on Pediatrics
- based on the case selected among the highest-ranked case reports submitted to the ats assembly on pediatrics
- based on the case selected among the highest-ranked case reports submitted to the ATS Assembly on Pediatrics.

Pediatric Clinical Chest Rounds is one of the most popular sessions organized by the ATS Assembly on Pediatrics. It showcases four clinically challenging or intriguing cases involving pediatric lung diseases. These cases are selected from the highest-ranked case reports submitted to the assembly. Each case is presented by a trainee and followed by an expert-led

discussion that highlights relevant literature and key clinical insights.

9:15 **Introduction to this year's Pediatric Clinical Chest Rounds**

9:17 **Case #1 - Presentation by Trainee**

9:29 **Case #1 - Discussion by Expert**

9:39 **Case #2 - Presentation by Trainee**

9:51 **Case #2 - Discussion by Expert**

10:01 **Case #3 - Presentation by Trainee**

10:13 **Case #3 - Discussion by Expert**

10:23 **Case #4 - Presentation by Trainee**

10:35 **Case #4 - Discussion by Expert**

CLINICAL

CLINICAL TOPICS IN PULMONARY MEDICINE

C4 CONTENTIOUS TOPICS IN COPD CARE: A PRO/CON DEBATE

Assemblies on Clinical Problems, Clinical Problems

9:15 A.M. - 10:45 A.M.

Target Audience
Clinicians caring for patients living with COPD, patients living with COPD and their families

Objectives
At the conclusion of this session, the participant will be able to:

- better diagnose what defines the high risk COPD exacerbation phenotype. Improved diagnosis could lead to improved counseling to patients on their personalized preventative treatment options
- define a personalized inhaler treatment strategy to optimize the care of patients with COPD who suffer from 2 moderate or 1 severe exacerbation(s) with or without elevated blood eosinophils
- describe new findings that support inhaled corticosteroids as a cardiovascular risk reduction therapy in contrast to prior evidence which did not support this treatment indication

The scientific symposium on contentious topics in COPD care covered various perspectives on exacerbation risk, treatment, and cardiovascular disease. Key topics included the debate on whether all COPD patients with a history of exacerbations should receive triple inhaler therapy, the definition of high-risk COPD exacerbation phenotypes, and the role of inhaled corticosteroid inhalers in cardiovascular disease risk reduction. The session provided valuable insights into the complexities of COPD management and the ongoing discussions in the medical community.

9:15 **Opening Remarks**

9:18 **Patient Perspective**

9:25 **Pro: High Risk COPD Exacerbation Phenotype Is Defined as 2 Moderate or 1 Severe Exacerbation within Past 1 Year**

9:35 **Con: High Risk COPD Exacerbation Phenotype Is Defined as Any Exacerbation withing Past 1 Year**

9:45 **Question and Answer Topic #1**

9:50 **Pro: All COPD Patients with History of 2 Moderate or 1 Severe Exacerbation Should Be Treated with Triple Inhaler Therapy**

10:00 **Con: Only COPD Patients with 2 Moderate or 1 Severe Exacerbation with Greater than 100 Blood Eosinophiles Should Be Treated with Triple Inhaler Therapy**

10:10 **Question and Answer Topic #2**

10:15 **Pro: Inhaled Corticosteroids Should Be Considered a Cardiovascular Risk Reduction Therapy**

10:25 **Con: Inhaled Corticosteroids Are Not Yet Ready To Be Considered a Cardiovascular Risk Reduction Therapy**

10:35 **Question and Answer Topic #3**

10:40 **Closing Remarks**

CLINICAL

CRITICAL CARE TRACK

C5 FROM CANNULAS TO CONCEPTS: THE PRACTICE, EVIDENCE AND SCIENCE OF VV-ECMO

Assembly on Critical Care

9:15 A.M. - 10:45 A.M.

Target Audience
Clinicians, medical trainees, advance practice providers, pharmacists, nurses, physical therapists, respiratory therapists, and ECMO specialists involved in the care for patients with ARDS and / or supported on VV-ECMO

Objectives
At the conclusion of this session, the participant will be able to:

- assess patients with advanced respiratory failure for VV-ECMO candidacy for acute respiratory distress syndrome and for less traditional indications
- distill best practices, based on increased experience and evidence, for supporting patients with VV-ECMO as a bridge to lung transplantation
- appraise evolving evidence around common management issues for VV-ECMO including sedation and anti-coagulation and design new research initiatives to help answer remaining questions about the care of patients supported on VV-ECMO

The use of veno-venous extracorporeal membrane oxygenation (VV-ECMO) has steadily increased over the past 25 years. It is now widely utilized as a bridge to lung transplantation and as a bridge to recovery for patients with advanced respiratory failure. Despite this increased use, emerging evidence guiding care for patients on VV-ECMO remains specialized and not widely known to many intensivists. This session will present exciting new advances and evolving knowledge around indications, areas of evolving best practices, and methods for future research for the use of VV-ECMO.

9:15 **Introduction to Session**

9:20 **Moving the Needle: Society Guidelines and VV-ECMO for ARDS**

9:32 **VV-ECMO Beyond EOLIA**

9:44 **Best Practices in VV-ECMO for Bridge to Lung Transplantation**

9:56 **Insuring Equity and Access to VV-ECMO**

10:08 **Drugs and the Circuit: Anti-Coagulation and Sedation on VV-ECMO**

10:20 **The Future of VV-ECMO Research**

10:32 **Question and Answer Panel**

CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

C6 EVOLVING FROM SUBJECTIVE DIAGNOSTIC CATEGORIES TO MOLECULAR ENDOTYPES

Assembly on Clinical Problems

9:15 A.M. - 10:45 A.M.

Target Audience
ILD providers general pulmonologists interested in advancing ILD knowledge translational researchers clinical trialists designing ILD studies Industry developing ILD diagnostics and therapeutics trainees seeking cutting-edge ILD knowledge

Objectives
At the conclusion of this session, the participant will be able to:

- apply molecular endotyping concepts to critically evaluate current ILD diagnostic categories and determine when traditional "lumping versus splitting" approaches may inappropriately delineate patients who share similar underlying biological pathways
- describe new findings regarding radiologic features associate with treatment response in autoimmune interstitial lung disease, challenging existing paradigms and supporting a molecularly based assessment in these conditions beyond imaging biomarkers
- define new strategies to manage the care of ILD patients by incorporating imaging-molecular correlations into treatment decision-making and clinical trial design, moving toward precision medicine approaches in ILD

Current ILD diagnosis relies on subjective interpretation creating artificial boundaries that constrain therapeutic advances. This session demonstrates how molecular technologies can transcend traditional diagnostic categories to identify biologically meaningful endotypes. Speakers present: BAL proteomics revealing molecular convergence across ILD subtypes, endobronchial OCT providing objective microscopic assessment, circulating biomarkers democratizing molecular insights, insights from tissue based-diagnostic tools like cryobiopsy and imaging-molecular integration guiding treatment selection. These complementary approaches offer a pathway from historical nomenclature toward precision medicine, transforming ILD care by matching patients to targeted therapies based on underlying biology rather than subjective classification.

9:15 **Chairs Introduction**

9:25 **Circulating Molecular Signatures: High-Throughput Discovery of ILD Endotypes**

9:41 **Endobronchial OCT: Real-time Microscopic Phenotyping Beyond Histologic Patterns**

9:57 **The Role of Advanced Tissue Diagnosis in Treatment Decisions in ILD: Cryobiopsy**

10:13 **BAL Systems Biology: Molecular Endotypes of the Lung Microenvironment**

10:29 **Imaging-Molecular Integration: From Target Discovery to Treatment Prediction**

BEHAVIORAL • CLINICAL

PUBLIC ADVISORY ROUNDTABLE SYMPOSIUM

C7 NEW APPROACHES TO THE PATIENT WITH CHRONIC PRODUCTIVE COUGH

Assembly on Public Advisory Roundtable

9:15 A.M. - 10:45 A.M.

Target Audience
Providers of respiratory care including clinicians and adjunct care team members; basic science and clinical researchers; patient advocacy representatives; patients and patient caregivers

Objectives
At the conclusion of this session, the participant will be able to:

- describe current knowledge gaps in the diagnosis of chronic cough and describe evidence-based strategies to improve diagnostic accuracy
- improve and address the quality of life of patients impacted by chronic cough by illuminating the physical and mental health impacts upon the patient and the importance of addressing both in clinical care
- define new strategies to provide effective pharmacologic and nonpharmacologic interventions for chronic cough as well as practical approaches to integrate these therapies into patient care plans

In the PAR Symposium, “New Approaches to the Patient with Chronic Cough,” attendees will learn from a panel of experts representing clinical, research, and patient experience. Presentations will address the diverse causes of a chronic cough - from environmental triggers to a range of respiratory diseases including asthma, cystic fibrosis, non-CF bronchiectasis, and COPD-chronic bronchitis. Considerations in diagnosing the root cause will be addressed. The significant negative impacts of chronic cough will be addressed, including both physical and mental health complications. Strategies to address chronic productive cough - including nonpharmacologic interventions - will be addressed, as well as therapies in the pipeline.

9:15 **Welcome Remarks**

9:23 **PAR Award Presentation**

9:33 **Diverse Causes of Chronic Cough and How Diagnosed**

9:53 **Pipeline Therapies for Chronic Cough**

10:13 **Nonpharmacologic Strategies to Address Chronic Cough**

10:33 **Patient Perspectives on Chronic Cough**

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

C8 SEEING THE DIFFERENCE: USING IMAGING TO DEFINE COPD SUBGROUPS

Assemblies on Respiratory Structure and Function, Clinical Problems, Respiratory Cell and Molecular Biology

9:15 A.M. - 10:45 A.M.

Target Audience
Basic and translational scientists and clinicians with interest in COPD

Objectives
At the conclusion of this session, the participant will be able to:

- identify key imaging phenotypes of COPD-including airway-predominant disease, emphysema, mucus plugs, and small airway dysfunction-and their clinical implications
- evaluate how imaging-based stratification can inform personalized treatment approaches and guide future research and clinical trials in COPD
- describe how advanced imaging techniques (e.g., CT, MRI) reveal structural lung abnormalities in COPD beyond what spirometry detects

This session explores how advanced imaging techniques-such as quantitative CT and MRI-are transforming our understanding of COPD heterogeneity. By visualizing structural changes like emphysema, airway remodeling, and small airway disease, imaging allows us to identify distinct patient subgroups that may not be evident through spirometry alone. The session will highlight insights from large cohorts, discuss how imaging biomarkers can guide personalized therapy, and examine the future role of imaging in precision medicine for COPD.

9:15 **Imaging the Divide: Airways vs. Alveoli in COPD Phenotyping**

9:30 **Mucus Plugs in COPD: Markers of Type 2 Inflammation or More?**

9:45 **Vascular Pruning: A New Imaging Biomarker for Personalized COPD Care?**

10:00 **Imaging or Obstruction: Which Tells the True Story of COPD Pathogenesis?**

10:15 **Lung MRI for COPD: Redefining Diagnostic Boundaries**

10:30 **Is Imaging the Key to Smarter COPD Trials?**

BEHAVIORAL • CLINICAL

SCIENTIFIC SYMPOSIUM

C9 SOCIAL DETERMINANTS OF RECOVERY

Assemblies on Behavioral Science and Health Services Research

9:15 A.M. - 10:45 A.M.

Target Audience
Professionals who care for or conduct research concerning patients who are critically ill or have survived critical illness

Objectives
At the conclusion of this session, the participant will be able to:

- provide an overview of the current evidence on how social determinants of health affect patients' ability to recover from critical illness
- discuss the tools currently available to clinicians and health systems to mitigate disparities in recovery resulting from these factors, and how these tools are currently accessed and utilized
- explore new novel models of care integration to promote recovery and reduce disparate outcomes from social determinants in ICU survivors

Our speakers will use contemporary evidence, clinical experience, and specialized research expertise to discuss the influence of particular social determinants of health on the ability of patients to recover from acute and critical illnesses.

9:15 **Differences in Healthcare Delivery as a Social Determinant of Recovery**

9:27 **Recovery in Place: How Neighborhoods Influence Recovery and Rehabilitation**

9:39 **Financial Toxicity after Acute and Critical Illness**

9:51 **The Patient and Family Journey to Recovery**

10:00 **Critical Measurement of Social Determinants of Health**

10:12 **Tools to Support Patients After Discharge**

10:24 **Integrating Social and Medical Care to Improve Patient-Centered Outcomes**

10:36 **Group Reflection and Discussion**

CLINICAL

SCIENTIFIC SYMPOSIUM

C10 PULMONARY REHABILITATION AROUND THE WORLD: LEARNING FROM THE FRONTLINES

Assembly on Pulmonary Rehabilitation

9:15 A.M. - 10:45 A.M.

Target Audience
All clinical providers and trainees from medicine, nursing, physiotherapy, exercise physiology, and respiratory therapy

Objectives
At the conclusion of this session, the participant will be able to:

- understand how PR is delivered in low and middle-income countries, and learn from these strategies
- appreciate culturally sensitive adaptations to the components of PR that can be adopted in their own PR programs
- use PR "add-ons" to enhance patient outcomes, access to, and implementation of PR globally

Pulmonary Rehabilitation (PR) is standard of care for patients with chronic lung disease. The core components include aerobic exercise training and disease self-management education. Components have been adapted globally to be culturally appropriate and various "add-ons" have been used in low to middle income settings. Identifying strategies to improve access to PR is a top research priority globally to reduce health inequities. This session will examine lessons learned from adaptations based on cultures, private vs. public healthcare systems, and socioeconomic status, and their impacts on the PR models delivered on the frontlines of care. This session will provide options to facilitate PR program development and implementation globally. The speakers provide PR on the frontlines of clinical care.

9:15 **Introduction**

9:23 **Global Reach of Pulmonary Rehabilitation**

9:35 **Brazil**

9:47 **Saudi Arabia**

9:59 **Hong Kong**

10:11 **South Korea**

10:23 **Australia**

10:35 **Questions and Answers**

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

C11 GLOBAL DISPARITIES AND SOCIAL DETERMINANTS: INNOVATIVE INTERVENTIONS FOR LUNG HEALTH

Assemblies on Environmental, Occupational and Population Health, Allergy, Immunology and Inflammation, Clinical Problems, Pediatrics; Systems Genetics and Genomics Section

9:15 A.M. - 10:45 A.M.

Target Audience
Clinicians and researchers at all levels as well as industry partners engaged in understanding how to better develop therapies for global populations across a range of lived experiences

Objectives
At the conclusion of this session, the participant will be able to:

- describe new findings about various social determinants and how to include for clinical practice and research. At the end of the seesion the learner will be able to identify social deteminants of lung health
- improve understanding about biologic(sex, ancestry) and social constructs (gender, race) and the intersectionality with environments. At the end of the session the learner will be able to consider different constructs driving disparities
- integrate concepts of local (neighborhood) and global (climate) environments into lung health. The learner will understand the threat of neighborhood (eg food scarcity) and climate change (eg temperature) on lung health and disease risk

This symposium will explore social determinants and lung health and will highlight global needs to improve lung health across a range of lived experiences. Experts will present state-of-the-art approaches to evaluating race-neutral spirometry, consideration of local neighborhood and climate change, and will present a framework for sex/gender consideration. Epigenomic plasticity related to social determinants will be proposed as a targetable feature for therapeutic intervention. At the end of this session the learners will understand the understudied aspects of social determinants of lung disease and actionable ways to address each of these in research, therapeutic discovery and equitable clinical care.

9:15 **The Growing Imperative in Lung Health: Spotlight on Social Determinants and the Promise of Omics**

9:25 **The Growing Threat: Climate Change and Lung Health Disparities**

9:45 **Neighborhood Matters: Food, Location and Stress as Drivers of Lung Disparities**

10:05 **Race Neutral Spirometric Equations and Lung Health Equity**

10:25 **Sex, Gender and Hormones: The Triumvirate of Lung Health**

BASIC • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

C12 MYCOBACTERIA RE-IMAGINED: GAME-CHANGING DISCOVERIES IN TB AND NTM SCIENCE

Assembly on Pulmonary Infections and Tuberculosis

9:15 A.M. - 10:45 A.M.

Target Audience
TB and NTM researchers and physician-scientists

Objectives
At the conclusion of this session, the participant will be able to:

- describe new insights into T-cell subsets, humoral correlates, and innate-adaptive immunity in TB and NTM to enhance understanding of disease mechanisms and inform clinical and research applications
- apply advanced imaging, animal models, and pharmacology approaches to improve TB and NTM drug and vaccine development and research translation
- integrate knowledge of malnutrition's impact on immunity to optimize patient care and design effective TB interventions in endemic settings

This symposium highlights cutting-edge discoveries and paradigm-shifting advances in tuberculosis (TB) and nontuberculous mycobacteria (NTM) research. It will explore the evolving immunopathogenesis of TB and NTM, focusing on T-cell subset specialization, humoral correlates of protection, innate-adaptive immune interactions, and the impact of malnutrition on host immunity in TB-endemic settings. Attendees will also learn about advanced imaging techniques, novel animal

models, and pre-clinical drug development strategies. Emphasizing both basic and translational research, the program provides a comprehensive view of the science shaping the future of TB and NTM research.

9:15 **Advancing T Cell Immunity: Emerging Insights and Innovations in TB and NTM Vaccines**

9:30 **Expanding the Immune Paradigm: The Role of Humoral and Innate Responses in Tuberculosis**

9:45 **Advanced Imaging Approaches for TB and NTM Infections**

10:00 **Model-Informed Strategies for Optimizing Preclinical Drug Development in TB and NTM**

10:15 **Nutritional Influences on Host Immunity: Implications for TB Pathogenesis and Treatment**

10:30 **General Discussion**

CLINICAL

SCIENTIFIC SYMPOSIUM

C13 WHAT TO EXPECT WHEN YOUR PATIENT IS EXPECTING: PREGNACY IN PCCM

Assemblies on Clinical Problems, Critical Care, Pulmonary Circulation, Sleep and Respiratory Neurobiology; Medical Education Section & Patient and Family Education Committee; Health Policy Committee

9:15 A.M. - 10:45 A.M.

Target Audience
Anyone interested in clinical care, advocacy, and the impact of policy decision making on health in pulmonary, critical care, sleep, and pediatrics

Objectives
At the conclusion of this session, the participant will be able to:

- better counsel patient who are considering pregnancy on the impact pregnancy may have on their respiratory health
- more appropriately counsel patients who have lung disease on the safety of pregnancy and to be able to have treatment plans in place before pregnancy develops
- advocate for improved access to pre-natal care for the pregnant patient with lung disease and improved access to providers familiar with lung disease in pregnancy

This session will use a series of case vignettes to describe the ways that pregnancy can be complicated by airways disease, pulmonary vascular disease, transplantation, sleep, and critical illness. It will also cover the obstetric approach to the pregnant patient with pulmonary disease or critical illness and will touch upon the ways that policy changes have impacted pregnant patients who are cared for by the ATS community.

9:15 **Lessons Learned from a Case Study of Pregnancy in Airways Disease**

9:25 **Lessons Learned from a Case Study of Pregnancy in Lung Transplantation**

9:35 **Lessons Learned from a Case Study of Sleep Disorders in the Pregnant Patient**

9:45 **Lessons Learned from a Case Study of Pregnancy in Pulmonary Vascular Disease**

9:55 **Lessons Learned from Case Studies of the Critically Ill Pregnant Patient**

10:05 **Approaching the Pregnant Patient with Critical Illness and Lung Disease from the Obstetric Perspective**

10:15 **Impact of Policy Decisions on the Pregnant Patient with Lung Disease and Critical Illness**

10:25 **Question and Answer**

BEHAVIORAL • CLINICAL

MEDICAL EDUCATION SEMINAR

ME103 BLENDING TRADITION AND TECH: NAVIGATING LEARNING RESOURCES IN THE DIGITAL AGE

Assemblies on Behavioral Science and Health Services Research

10:45 A.M. - 11:45 A.M.

Target Audience
Pulmonary Physicians, Critical Care Physicians, Physicians In-Training, Advanced Practice Providers, Medical Students, ICU Nurses, Respiratory Therapists

Objectives
At the conclusion of this session, the participant will be able to:

- identify and gain insights into current resources available to learn pulmonary and critical care medicine including but not limited to ebooks, apps, podcasts, ai chatbots and other platforms that enhance clinical knowledge and patient care.

- review the utility of medical print and online textbooks (ebooks) and journal articles in the digital age.
- provide strategies for educators to guide in developing curricula for trainee education in the current dynamic environment.

This session will explore the integration of different learning tools and resources in pulmonary critical care medicine. Participants will: (1) Identify and gain insights into current resources available to learn pulmonary and critical care medicine including but not limited to ebooks, apps, podcasts, AI chatbots and other platforms that enhance clinical knowledge and patient care. (2) Review the utility of medical print and online textbooks (ebooks) and journal articles in the digital age. (3) Provide strategies for educators to guide trainees through this dynamic environment and to develop curricula for fellow education and fellowship programs. By the end of the session, learners will be equipped with practical strategies to optimally utilize all the tools presented for learningFacultyFaculty

11:45 a.m.- 1 p.m.

PLENARY SESSION

The Plenary Session is open to all registered attendees and will also include the ratification of the 2026-2027 slate of leaders, as well as remarks from outgoing president Raed A. Dweik, MD, MBA, ATSF, and incoming president Michelle Ng Gong, MD, MS, ATSF.

Tuesday Afternoon, May 18

CLINICAL • TRANSLATIONAL

CLINICAL TOPICS IN PULMONARY MEDICINE

C81 NON-TOBACCO COPD - CLASSIFYING DISEASE, IDENTIFYING EXPOSURES AND CLINICAL TRIAL CONSIDERATIONS

Assemblies on Clinical Problems, Environmental, Occupational and Population Health; EHPC, HEDC

2:15 P.M. - 3:45 P.M.

Target Audience
Clinicians, basic and translation science researchers, epidemiologists, advanced healthcare practitioners, medical educators, nurses, respiratory therapists

Objectives
At the conclusion of this session, the participant will be able to:

- describe the clinical classification of non-tobacco forms of COPD
- understand differences in molecular mechanisms of non-tobacco vs. tobacco related COPD
- conceptualize approaches to clinical trial design in non-tobacco COPD taking into account both the heterogeneity and global nature of this disease entity

In this session, you will explore the distinct challenges of non-tobacco COPD, from identifying at-risk populations to developing targeted therapies. You will gain a deeper understanding of environmental and occupational exposures, their role in disease progression, and strategies for early screening. Experts will discuss molecular mechanisms, how they differ from tobacco-related COPD, and implications for treatment.

You will also learn about clinical trial design, addressing gaps in research, and strategies to expand global outreach, particularly in underserved regions. This session will provide you with actionable insights to improve diagnosis, treatment, and research for this underrecognized COPD population.

2:15 **Classifying Non-Tobacco COPD**

2:27 **Identifying "At Risk"/"Exposed" Populations**

2:39 **Environmental Exposures - Impact on Lung Health & Development**

2:51 **Approach to Therapy in Non-Tobacco COPD**

3:03 **Approach to Clinical Trial Design**

3:15 **Global Clinical Trial Design to Optimize Outreach**

3:27 **Panel Discussion**

BASIC • CLINICAL • TRANSLATIONAL

BASIC SCIENCE CORE

C82 LUNG FIBROSIS ACROSS THE LIFESPAN: EMERGING OPPORTUNITIES FOR INTERVENTION

Assemblies on Respiratory Cell and Molecular Biology, Clinical Problems, Environmental, Occupational and Population Health, Pediatrics; PhD and Basic and Translational Scientists (PBTS) Working Group

2:15 P.M. - 3:45 P.M.

Target Audience
Basic, translational, and clinical scientists with an interest in age-spanning mechanisms and emerging preventive and therapeutic strategies across pediatric and adult pulmonary fibrosis

Objectives
At the conclusion of this session, the participant will be able to:

- understand how environmental and occupational exposures contribute to the initiation and progression of pulmonary fibrosis, and how this knowledge can inform prevention strategies across the lifespan
- describe new findings about the role of genetic and cellular factors, including telomere biology, epithelial aging, and alveolar epithelial cell dysfunction, in driving fibrogenesis in both pediatric and adult lung disease
- acknowledge emerging antifibrotic strategies, including gene therapy, senescence modulators, and matrix-targeting approaches, and consider their relevance for their own research

This session explores key drivers of lung fibrosis across the age span, from environmental and genetic risk factors to cellular and extracellular mechanisms. Talks will highlight how environmental exposures contribute to fibrogenesis and how preventive strategies may mitigate risk; genetic predispositions and advances in gene therapy; the role of epithelial aging and cell death in disease onset; and how targeting fibroblasts and fibrotic matrix may halt progression. By bridging pediatric and adult perspectives, the session will showcase emerging opportunities for prevention and intervention across the continuum of lung fibrosis.

2:15 **Environmental and Occupational Triggers of Fibrosis: A Call for Prevention**

2:30 **Genetic Drivers of Lung Fibrosis: Moving from Risk to Pluripotent Stem Cell Therapies**

2:45 **Molecular Mechanisms of Rare Interstitial Lung Diseases: Pediatrics Perspective**

3:00 **Dysregulated Epithelial Proteostasis at the Mechanistic Intersection of Pediatric and Adult Interstitial Lung Disease**

3:15 **Targeting Fibroblasts and Matrix: Breaking the Cycle of Fibrosis**

3:30 **Panel Discussion**

CLINICAL

CLINICAL TOPICS IN PULMONARY MEDICINE

C83 TREATMENT CHALLENGES IN SARCOIDOSIS

Assembly on Clinical Problems

2:15 P.M. - 3:45 P.M.

Target Audience
Clinicians that take care of patients with sarcoidosis, as well as sarcoidosis clinical and translational researchers

Objectives
At the conclusion of this session, the participant will be able to:

- define new strategies to manage the care of pulmonary sarcoidosis including minimizing or avoiding the use of prednisone in treating pulmonary sarcoidosis

- better counsel patients on the treatment of fibrotic pulmonary sarcoidosis, incorporating evidence and underlying mechanisms to support a shared decision making process
- incorporate into practice the most recent data regarding treatment of pulmonary and extra pulmonary sarcoidosis, including use of advanced imaging and recognition of other symptoms of sarcoidosis such as fatigue and multiorgan involvement

Sarcoidosis is a challenging disease with many unknowns. Patients can have a highly variable clinical course and decisions around treatment including whether to initiate therapy, duration of treatment, and choice of agent are often not straightforward. This clinically focused session will review the most recent data, explore the evolving treatment paradigms in sarcoidosis and examine specific challenges in treating patients with sarcoidosis.

2:15 Introduction

2:25 The Beginning of the End for Prednisone? Evolving Treatment Paradigms in Sarcoidosis

2:45 How Much is Too Much? The Role of FDG PET and Other Advanced Imaging in the Assessment and Treatment of Sarcoidosis

3:05 The Chicken or the Egg: How Mechanism Drives Treatment Decisions in Fibrotic Pulmonary Sarcoidosis

3:25 Exploring Subtypes of Fatigue in Sarcoidosis: Implications for Treatment

CLINICAL • TRANSLATIONAL

CRITICAL CARE TRACK

C84 ENDOTHELIAL DYSFUNCTION IN CRITICAL ILLNESS: FROM MECHANISMS TO THERAPIES

Assemblies on Critical Care, Pulmonary Circulation, Pulmonary Infections and Tuberculosis, Respiratory Cell and Molecular Biology

2:15 P.M. - 3:45 P.M.

Target Audience
Clinicians and researchers who care for or conduct research on adult patients with critical illness.

Objectives
At the conclusion of this session, the participant will be able to:

- describe recent advances in endothelial biology with implications for the treatment of critical illness syndromes including sepsis, ARDS, trauma, and AKI
- integrate endothelial specific biomarkers and bedside imaging techniques into design of critical care studies
- define effective clinical trial designs to successfully target endothelial dysfunction in critically ill patients

Targeting endothelial dysfunction is an emerging strategy to improve outcomes in critically ill patients with ARDS, sepsis, trauma, and AKI. This session will explore the clinical and translational implications of endothelial injury and activation, including glycocalyx degradation and disruption of the Angiopoietin-Tie2 signaling axis. Speakers will highlight emerging biomarkers and novel imaging techniques available to detect dysfunction, as well as therapeutic strategies aimed at restoring vascular homeostasis. Attendees will gain insight into how advances in endothelial biology are driving a more precise, mechanism-based approach to the diagnosis, monitoring, and treatment of critical illness.

2:15 Endothelium Unveiled: Unified Mechanisms of Endothelial Dysfunction in Critical Illness

2:27 Advances in Bedside Detection of Endothelial Dysfunction: Biomarkers and Emerging Bedside Technologies

2:39 Endothelial Fragility and the Brain: A Novel Contributor to Poor Critical Illness Outcomes in Older Adults

2:51 Endothelial Injury in the Lung: The Role of Cell-free Hemoglobin and Disruption of Microvascular Endothelial Cell Barrier in Lung Injury

3:03 Endothelial Dysfunction in the Kidney: Lung and Kidney Cross-talk in Perpetuating Organ Injury

3:15 Resetting and Restoring the Endothelium: Therapeutic Targets and Clinical Trials

3:27 Panel Discussion on Endothelial Dysfunction in Critical Illness

CLINICAL

SCIENTIFIC SYMPOSIUM

C85 ATS GUIDELINES AND CLINICAL STATEMENTS: CONTROVERSIES IN RESPIRATORY FAILURE AND ILA/ILD

Documents Development and Implementation Committee; Pulmonary Function Testing Committee; Quality Improvement and Implementation Committee

2:15 P.M. - 3:45 P.M.

Target Audience
Clinicians caring for patients with respiratory failure, ILA/ILD

Objectives
At the conclusion of this session, the participant will be able to:

- understand how evidence is used to inform diagnostic and treatment recommendations
- improve patient outcomes by applying recommendation from recently published clinical practice guidelines and clinical statements
- learn new strategies in the management of acute respiratory failure and in the identification and monitoring of individuals at risk for interstitial lung disease

This session is proposed as the 11th annual scientific symposium sponsored by the Documents Development and Implementation Committee. This symposium will focus on controversial topics in recently published clinical practice guidelines and statements, with presentations of pro and con positions on recommendations related to interstitial lung abnormalities (ILAs)/interstitial lung disease (ILD) and acute respiratory failure.

2:15 **Welcome and Introduction**

2:18 **ATS CPG on Management of Noninvasive Respiratory Support for Acute Respiratory Failure (Part 1)**

2:22 **ATS CPG on Management of Noninvasive Respiratory Support for Acute Respiratory Failure (Part 2)**

2:26 **Pro-HFNO in Hypercapnic Respiratory Failure**

2:39 **Con-HFNO in Hypercapnic Respiratory Failure**

2:52 **Questions: HFNO in Hypercapnic Respiratory Failure**

3:02 **ATS Clinical Statement on the Evaluation and Management of Interstitial Lung Abnormalities**

3:09 **Pro-Screening for ILA/ILD**

3:22 **Con-Screening for ILA/ILD**

3:35 **Questions: Screening for ILA/ILD**

BASIC • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

C86 VASCULOPATHIES IN PULMONARY DISEASE ? THE DARK SIDE OF THE LUNG

Assemblies on Pulmonary Circulation, Allergy, Immunology and Inflammation, Clinical Problems, Pediatrics, Respiratory Cell and Molecular Biology, Respiratory Structure and Function; PhD, Basic, and Translational Scientists Working Group (PBTS WG)

2:15 P.M. - 3:45 P.M.

Target Audience
Providers of lung health care (pediatrics and adult), basic and translational researchers, and clinical researchers

Objectives
At the conclusion of this session, the participant will be able to:

- describe new scientific findings regarding the biochemical and immunological mechanisms responsible for pulmonary vasculopathies
- understand new strategies to manage pulmonary vascular diseases with a deeper insight into the molecular mechanisms at play
- describe new clinical research findings and better counsel their patients on new treatment options and educational resources for patients suffering from pulmonary vasculopathies

This session will provide insights into how vascular alterations interact with/shape the lung microenvironment in disease progression. The talks included in this scientific symposium will explore recent findings regarding the mechanisms and treatment of pulmonary vasculopathies. Speakers will discuss the molecular mechanisms responsible for detrimental vascular changes in pulmonary hypertension and chronic obstructive pulmonary disease, providing an overview of recent pre-clinical and clinical studies on vasculopathies and fostering discussion on ongoing scientific and clinical efforts.

2:15 **The Role of Imaging in Non-Invasive Assessment of the Pulmonary Vasculature**

2:33 **Understanding Endothelial-to-Mesenchymal Transition in Pulmonary Vascular Remodeling**

2:51 **Cigarette Smoke and Air Pollution Compromise Epithelial-Endothelial Interactions**

3:09 **Molecular Mechanisms of Vascular Remodeling in Pulmonary Hypertension**

3:27 **Insights from Precision-Cut Lung Slices: Pulmonary Hypertension Mechanisms and Novel Therapeutics**

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

C87 ADAPTING TO AN EVOLVING RESEARCH FUNDING ENVIRONMENT: A MULTI-NATIONAL APPROACH

Assemblies on Behavioral Science and Health ServicesResearch; Health Policy Committee, Research Advocacy, Committee, International Health Committee ; Health Equity and Diversity Committee

2:15 P.M. - 3:45 P.M.

Target Audience
Anyone interested in research, including all trainees, administrators seeking to understand their reportees' challenges, and all investigative team members

Objectives
At the conclusion of this session, the participant will be able to:

- summarize the impact of recent changes to the healthcare research funding
- assess the viability of non-governmental organizations as alternate funders for research
- develop practically grounded plans for funding research in the face of NIH cutbacks

Research is a fundamental part of medicine and the allied health professions. This has traditionally relied on funding from large, objective, neutral funders supporting investigators in non-profit contexts. Recent pullbacks from large funders represent the most significant changes in living memory. What should public health advocates anticipate in terms of impact? How can individual researchers maintain viable programs? What alternatives exist, and how can they be accessed? This session grapples with a question existential to a significant fraction of ATS membership from an informed global perspective. Attendees will leave with a deeper understanding of the current state and future of health and behavioral science research funding.

2:15 **Introduction**

2:18 **Resilience in Transition: Rethinking Global Health Research**

2:33 **Perspectives on the Federal Trajectory in Health Research**

2:48 **Building a Funding Roadmap: Strategic Opportunities for Early-Career Investigators**

3:03 **Lessons from International Collaborations and NGO Funders**

3:18 **Sustaining Research through NGO Innovation**

3:33 **Discussion**

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

C88 BREATHING NEW LIFE INTO YOUR CAREER: THRIVING THROUGH TRANSITIONS

SCALe: Professional Development

Committee

2:15 P.M. - 3:45 P.M.

Target Audience
Clinicians, clinician-scientists, educators and researchers across all stages of career development and those navigating potential career changes

Objectives
At the conclusion of this session, the participant will be able to:

- identify common drivers and challenges associated with career transitions in pulmonary, critical care, and sleep medicine and science, including burnout, evolving professional interests, and institutional demands
- describe practical strategies and frameworks for navigating transitions between clinical, administrative, research, and hybrid roles, with attention to skill development, mentorship, and identity shifts
- apply insights from real-world case examples to support intentional career planning and foster resilience, fulfillment, and leadership growth across diverse career pathways

This session explores the diverse career trajectories of clinicians and scientists in pulmonary, critical care, and sleep medicine and science. Through personal narratives, practical strategies, evidence-based and interactive discussion, attendees will gain insights into navigating transitions such as moving from clinical to

administrative roles, re-engaging in research, or redefining purpose in mid-career. Targeted towards trainees, early career professionals and those in mid-career considering a new direction, this session will provide tools to support long-term success in aligning career decisions with personal values, maintaining professional satisfaction, and adapting to evolving goals across a range of professional pathways in medicine.

2:15 **Introduction 1**

2:18 **Introduction 2**

2:20 **Revive Your Drive: Strategies for Mitigating Burnout and Enhancing Career Satisfaction**

2:37 **Navigating Your "Second Curve": Mid-Career Transitions**

2:53 **Success Strategies for Shifting Between Research and Clinical Roles**

3:09 **Redefining the Role: Moving to Administrative Leadership**

3:25 **Panel Discussion: Choosing Academic, Private Practice, Community-Focused, or Industry Careers**

BEHAVIORAL • CLINICAL

SCIENTIFIC SYMPOSIUM

C89 TAKING PRIDE IN OUR WORK: ADVANCING LGBTQIA2S+ ALLYSHIP THROUGH EDUCATION AND ADVOCACY

Assemblies on Pediatrics, Clinical Problems, Critical Care; Health Equity and Diversity Committee (HEDC)

2:15 P.M. - 3:45 P.M.

Target Audience
ATS members with an interest equitable care of diverse patients, ATS members with an interest in advocacy for minoritized populations, members with leadership roles, training program directors, international medical graduates

Objectives
At the conclusion of this session, the participant will be able to:

- provide an overview of nomenclature, concepts, and best practices relevant to the care of the LGBTQIA2S+ population and understand why learning to provide culturally competent care for LGBTQIA2S+ should matter to all ATS members
- describe the current executive and legislative climate impacting LGBTQIA2S+ patients and providers
- present real-world data detailing how multidisciplinary cystic fibrosis (CF) care teams deliver healthcare to LGBTQIA2S+ people living with CF, as an example for other patient and clinician groups

Lesbian, gay, bisexual, transgender, queer, intersex, asexual, two spirit (LGBTQIA2S+) patients face well-documented healthcare disparities rooted in long-standing stigma, socioeconomic and political inequality, and a lack of culturally competent medical providers. The health and wellbeing of LGBTQIA2S+ individuals is under increasing threat under recently expanded anti- LGBTQIA2S+ legislation. This symposium will orient participants on the importance of culturally competent care for LGBTQIA2S+ individuals. After establishing a shared understanding, this symposium will cover more advanced topics, including techniques for creating a safe and inclusive space for all patients and strategies for advocacy for minoritized populations in care, education, and research.

2:15 **Introduction**

2:20 **From Acronyms to Allyship: How A Deeper Understanding of Sexual and Gender Identity Can Improve Care for All**

2:40 **What to Say When You Don't Say Gay: How anti-LGBTQ2IA+ Laws Impact Patients and Providers**

3:00 **Physician Advocacy in Research and Care: Lessons Learned from Pride-CF**

3:20 **Why Inclusive Care Matters: Current State and Next Steps**

3:35 **Moderator Wrap-Up**

CLINICAL

SCIENTIFIC SYMPOSIUM

C90 ADVANCING HYPOXEMIA ASSESSMENT AND OXYGEN ACCESS: U.S. AND INTERNATIONAL PERSPECTIVES

Assemblies on Clinical Problems, Nursing; International Health committee ; International Health committee

2:15 P.M. - 3:45 P.M.

Target Audience
Clinicians of any level supporting patients who potentially need supplementary oxygen, either in hospital or at home

Objectives
At the conclusion of this session, the participant will be able to:

- define challenges in the identification of hypoxemia in different healthcare settings and across ethnicities around the world
- define challenges in the diagnosis and access to oxygen in the United States
- define challenges in the diagnosis of hypoxemia and access to oxygen in low- and middle-income countries

An overarching principle of the American Thoracic Society is to improve global lung health and to serve as a resource for global members, of whom more than 30% reside outside the United States across 129 countries. Despite a wide variety of local contexts, common challenges are faced by members in all countries. One such common challenge is access to oxygen therapy. This symposium invites perspectives from multilateral organizations and in-country experts to address challenges and opportunities regarding inequities in the assessment of hypoxemia and oxygen access.

2:15 **Opening Remarks: Why Is it Important to Achieve Equity in Oxygen Access?**

2:27 **Unmasking Racial Bias in Pulse Oximetry: Insights and Imperatives**

2:39 **Advancing Equity and Access: The Medical Oxygen Imperative**

2:49 **Bridging the Gap: Enhancing Medical Oxygen Access in Low- and Middle-Income Countries**

3:01 **Enhancing Pediatric Respiratory Care: Global Initiatives in Oxygen Therapy**

3:13 **Developing Oxygen Equipment for the World: What is the Business Case**

3:25 **Panel Discussion**

BEHAVIORAL • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

C91 PRIMARY PALLIATIVE CARE IN PULMONARY-CRITICAL CARE MEDICINE: A 'PALLIPULM' FRAMEWORK FOR EDUCATION, PRACTICE, AND POLICY

Assemblies on Behavioral Science and Health Services Research, Clinical Problems, Critical Care, Nursing

2:15 P.M. - 3:45 P.M.

Target Audience
An international and interprofessional group of pulmonary-critical care and palliative care clinicians (nurses, therapists, physicians, social workers), scientists, medical educators, and trainees (fellows, residents, medical students).

Objectives
At the conclusion of this session, the participant will be able to:

- describe and implement a "PalliPulm" framework for integrating primary palliative care into PCCM outpatient and inpatient practice, based on priority skills identified by expert consensus
- describe evidence-based medical education strategies for teaching palliative care skills to PCCM trainees and clinicians
- identify principles of culturally appropriate and equitable primary palliative care for diverse patient populations with serious respiratory illness

This session will disseminate findings from the official ATS Workshop Report, "A PalliPulm Framework to Improve Palliative Care Education and Practice in Pulmonary-Critical Care Medicine." It will summarize the development of the framework and showcase its application across education, practice, and policy. Speakers will highlight key results, present prioritized palliative care skills in outpatient and inpatient settings, and describe strategies for clinician training, culturally appropriate care, and systems-level implementation.

2:15 **Propelling Palliative Care in Pulmonary Critical Care through PalliPulm**

2:30 **Core Primary Palliative Care Skills Across Settings**

2:45 **Exemplar Palliative Care Educational Opportunities for Pulmonary-Critical Care Clinicians and Trainees**

3:00 **Delivering Equitable and Culturally Appropriate Primary Palliative Care**

3:15 **Implementation and Future Directions**

3:30 **Panel Discussion: Question and Answer**

CLINICAL

ADULT CLINICAL CORE CURRICULUM

CC5 ADULT PULMONARY CLINICAL CORE CURRICULUM

SCALe: Core Curriculum Committee

2:15 P.M. - 3:45 P.M.

Target Audience
Advanced Practice Providers,Clinicians,Medical Educators

Objectives
At the conclusion of this session, the participant will be able to:

- integrate guidelines on the identification and management of pulmonary vascular disease into clinical practice
- counsel patients and families on efficacy of available treatment options for pulmonary vascular disease
- identify knowledge gaps in the diagnosis and management of pulmonary vascular disease

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects included in recertification requirements.

2:15 **A Little Change Would Do You Good: Pulmonary Hypertension Diagnosis and Classification**

2:40 **Tomorrow Never Knows: Risk Stratification in Pulmonary Hypertension**

3:05 **Under Pressure: Chronic Thromboembolic Pulmonary Disease**

3:30 **Panel Discussion**

Wednesday Morning, May 20

YEAR IN REVIEW

D1 CLINICAL YEAR IN REVIEW

8:15 A.M. - 9:45 A.M.

Target Audience
Pulmonary, critical care, and sleep providers

Objectives
At the conclusion of this session, the participant will be able to:

- apply new clinical research knowledge to clinical practice
- learn new findings about key conditions in pulmonary, critical care and sleep
- have new strategies to manage the care of common conditions in pulmonary, critical care, and sleep

This program has been developed to include core topics in pulmonary, critical care, and sleep medicine. The goal of the session is to discuss critical state-of-the-art topics and evolving concepts. The learner will be exposed to a carefully curated review of the current literature by emerging leaders in the field. After the course, participants will better understand novel concepts in each specific domain that we hope will translate to improved patient care.

9:15 **COPD**

9:37 **Interventional Pulmonary**

10:00 **Medical Education**

10:23 **Lung Cancer**

CLINICAL • TRANSLATIONAL

CLINICAL TOPICS IN PULMONARY MEDICINE

D2 A TALE OF TWO TRANSPLANTS: THE CONVERGENT PATHS OF CHRONIC LUNG ALLOGRAFT DYSFUNCTION AND PULMONARY GRAFT VERSUS HOST DISEASE

Assembly on Clinical Problems

8:15 A.M. - 9:45 A.M.

Target Audience
Providers and researchers for persons who have pulmonary complications after lung or cell transplant

Objectives
At the conclusion of this session, the participant will be able to:

- have an improved understanding of the mechanisms underlying tissue injury and the cells and signaling pathways responsible for fibrogenesis in transplant related pulmonary fibrosis
- define new strategies for more accurate and earlier identification of BOS after lung and cell transplant
- improve the health status of persons with TPF by applying established and emerging therapeutics to reduce morbidity and improve quality of life. Identify cases in which these therapies may have the potential to alter progression

Bronchiolitis obliterans syndrome is a highly morbid complication after lung transplant (LT) and hematopoietic cell transplant (HCT), characterized by progressive airway fibrosis and leading to respiratory failure. While sharing clinical and histological similarities, these conditions differ in their triggers, fundamentally caused by immune activation due to self (host versus graft in LT) and non-self (graft versus host in HCT) discordance between donor and recipient. The proposed symposium aims to create cross-pollination between experts in transplant-related pulmonary fibrosis (TPF) through discussion of pathobiology, strategies for earlier detection and risk stratification, and emerging antifibrotic therapies.

8:15 **Introduction on Transplant Related Pulmonary Fibrosis and Facilitation of Questions After Each Presentation**

8:30 **Clinical Similarities and Differences Between BOS After Lung and Cell Transplant**

8:45 **Predicting Lung Allograft Dysfunction: Integrating Clinical Risk Factors and Novel BAL Strategies**

9:00 **Fibrogenic Transformation of Mesenchymal Cells and Chronic Lung Allograft Dysfunction**

9:15 **Earlier Detection of Transplant Related Pulmonary Fibrosis with Quantitative CT**

9:30 **Emerging Antifibrotic Therapies for Transplant Related Pulmonary Fibrosis**

BEHAVIORAL • CLINICAL

CLINICAL TOPICS IN PULMONARY MEDICINE

D3 THE CUTTING EDGE OF TREATMENT FOR NICOTINE ADDICTION: WHAT ALL CLINICIANS SHOULD KNOW

Tobacco Action Committee

8:15 A.M. - 9:45 A.M.

Target Audience
Clinicians of all types, including trainees, who care for patients who use nicotine products (e.g. vaping, cigarettes), clinicians and researchers who may participate in advocacy efforts to decrease morbidity from tobacco products

Objectives
At the conclusion of this session, the participant will be able to:

- incorporate new guidelines for providing high-quality treatment to adolescents and young adults struggling with nicotine addiction
- define new strategies to address potential challenges for cessation, such as co-use of cannabis and tobacco products, and understand strategies for addressing nicotine and tobacco use in populations with barriers to cessation
- better counsel patients about cytisinicline, a new medication for the treatment of nicotine addiction, focusing on supporting evidence and experience with its use

This symposium will educate clinicians on the rapidly evolving landscape of treatment for nicotine addiction. Experts will address key topics including the anticipated approval of cytisinicline, the first new treatment for nicotine addiction in nearly 20 years. Speakers will summarize two recent ATS documents (guideline for the treatment of nicotine dependence in adolescents and young adults, research policy statement on co-use of inhaled nicotine and cannabis) and discuss strategies for addressing nicotine addiction among patients who struggle to quit. This session will equip clinicians with the most up to date information to help their patients in treating nicotine addiction and also empower them to advocate for tobacco control efforts.

8:15 **Tobacco Treatment for Adolescents and Young Adults: A Summary of the ATS Clinical Practice Guideline**

8:30 **'For the First time in Forever': Cytisinicline, a New Medication for Nicotine Dependence**

8:45 **Co-Use of Cannabis and Nicotine: Implications for Patients and Clinicians**

9:00 **'I Just Can't Quit': Approaching Tobacco Treatment for Challenging Populations**

9:15 **The New Tobacco End Game: Anticipated Policy Needs and Challenges in an Evolving Landscape**

9:30 **Panel Discussion**

CLINICAL

CRITICAL CARE TRACK

D4 OPTIMIZING CRITICAL CARE THROUGH LEARNING HEALTH SYSTEMS: COMPONENTS AND CONSIDERATIONS

Assembly on Critical Care

8:15 A.M. - 9:45 A.M.

Target Audience
Intensive care unit clinicians and researchers

Objectives
At the conclusion of this session, the participant will be able to:

- describe the critical components of a learning health system in the ICU (leveraging data sources to support the conduct of embedded trials, quality improvement and implementation)
- understand the ethical imperatives that compel systems to work towards a learning health paradigm
- understand the advances in health informatics for us in active clinical research and quality improvement initiatives

In this session we will review the potential of ICU learning health systems (LHS) to transform critical care delivery, describe key components of an effective ICU LHS, and provide recommendations to build LHS infrastructure in attendees' own systems. An ICU LHS advances the field by 1) leveraging data generated during routine ICU care to inform knowledge generation, 2) creating a culture of continuous process improvement and 3) embedding effectiveness and implementation research in daily practice. Such systems are critical for seeking equity in our healthcare system, and fulfilling the promise of improved care for all our patients.

8:15 **What Is a Learning Health System and How Can it Impact ICU Care?**

8:28 **Leveraging Health-Care System Data for Knowledge Generation**

8:41 **Fulfilling Ethical Duties and Honoring Patient Privacy in a Learning Health System**

8:54 **Building Quality Improvement Programs in a Learning Health Paradigm**

9:07 **Conducting Clinical Trials Within a Learning Health System Paradigm: The Pragmatic Critical Care Trials Group Experience**

9:20 **Implementation Trials as a Means to Support a LHS**

9:33 **Panel Discussion**

BASIC • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

D5 EMPHYSEMA DECODED: AGING GONE WRONG OR REPAIR GONE MISSING?

Assemblies on Respiratory Cell and Molecular Biology, Allergy, Immunology and Inflammation, Respiratory Cell and Molecular Biology

8:15 A.M. - 9:45 A.M.

Target Audience
Basic and translational scientists and clinicians

Objectives
At the conclusion of this session, the participant will be able to:

- describe the role of cellular senescence in the pathogenesis of emphysema and how it contributes to impaired lung function
- explain the mechanisms of failed alveolar repair and regeneration in emphysema, including the dysfunction of progenitor cell populations
- evaluate emerging therapeutic strategies targeting senescence and enhancing lung regeneration as potential interventions for emphysema

This session delves into the cellular and molecular drivers of emphysema, exploring whether the disease is primarily fueled by premature cellular senescence or by a failure of lung tissue regeneration. We will examine emerging evidence from human studies and experimental models that link impaired repair pathways, stem cell exhaustion, and persistent inflammation to alveolar destruction. By understanding the balance-or imbalance-between aging processes and regenerative capacity, we can uncover new therapeutic targets to halt or reverse emphysema progression.

8:15 **AT2 Cells and Emphysema: Heroes of Repair or Hidden Villains?**

8:30 **Aging Lungs and Broken Barriers: Is the Endothelium to Blame?**

8:45 **Immune Pathways in Emphysema: Balancing Aging and Repair**

9:00 **AT1 Cells: The Unusual Suspects in Emphysema Pathogenesis**

9:15 **From Code to Collapse: Genes Behind Aging and Emphysema Repair**

9:30 **Rebuilding the Lung: Toward a Systems Approach to Emphysema Repair**

BASIC • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

D6 MEET THE BOS: PHENOTYPES AND PATHWAYS IN BRONCHIOLITIS OBLITERANS SYNDROME

Assemblies on Pediatrics, Allergy, Immunology and Inflammation, Clinical Problems, Critical Care, Pediatrics, Pulmonary Infections and Tuberculosis, Respiratory Cell and Molecular Biology, Thoracic Oncology

8:15 A.M. - 9:45 A.M.

Target Audience
Pulmonary physicians, oncologists, general medicine physicians, critical care physicians, cardio-thoracic surgeons, clinical educators, physicians-in-training, basic science researchers in lung injury and repair

Objectives
At the conclusion of this session, the participant will be able to:

- recognize early manifestations of BOS after lung transplantation, hematopoietic cell transplantation, and respiratory viral infections
- understand the differences in epidemiology, clinical presentation, and pathobiology of various forms of BOS
- address critical knowledge gaps in the diagnosis and treatment of BOS subtypes, and highlight emerging molecular pathways and targets for future interventions

Bronchiolitis obliterans syndrome (BOS) is a severe and debilitating obstructive airway disease marked by small airway inflammation and fibrosis. While fibrosis is a common outcome, there are crucial differences in the many forms of BOS that merit a nuanced exploration. This session will examine the epidemiology, pathobiology, histology, clinical and radiological manifestations, and treatments for different forms of BOS, including chronic lung allograft dysfunction after lung transplantation, post-hematopoietic stem cell transplantation (HSCT), and post-infectious BOS. A concluding summary will highlight key similarities and differences, offering practical insights for diagnosis and management.

8:15 **Unlocking Bronchiolitis Obliterans Syndrome (BOS): Overview of Its Complexities and Clinical Impact**

8:20 **BOS After Lung Transplantation- Improving Outcomes of a Deadly Disease**

8:40 **The Importance of Early Diagnosis in Post-Hematopoietic Stem Cell Transplantation (HSCT) BOS**

9:00 **Post-Infectious BOS: When Infection Leaves a Lasting Mark on the Lungs**

9:20 **BOS: Clinical Insights, Current Challenges, and Future Directions**

9:40 **Question and Answer**

BASIC • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

D7 ENDOTHELIAL HETEROGENEITY IN THE LUNG MICROENVIRONMENT: AGE AND DISEASE PERSPECTIVES

Assemblies on Pulmonary Circulation, Respiratory Cell and Molecular Biology

8:15 A.M. - 9:45 A.M.

Target Audience
Basic and translational scientists interested in pulmonary endothelial biology across life span and disease

Objectives
At the conclusion of this session, the participant will be able to:

- describe novel findings about the contribute of the lung endothelium, in its cellular diversity, to lung health and disease
- identify common pathways responsible for endothelial dysfunction and disrupted cell-cell communication in developing and mature lungs
- learn about novel tools and mouse models to study lung endothelial heterogeneity

Exciting advancements are shedding light on endothelial heterogeneity in the lungs, revealing the complex landscape of distinct lung endothelial cell subpopulations. However, significant knowledge gaps remain, particularly regarding cell-cell communication and how these interactions shape the lung microenvironment in both developing and mature lungs. In this symposium, we will discuss novel insights into the dynamic interplay between the lung endothelium, considered in its cellular diversity, and resident lung cell populations, we will highlight similarities and differences across the lifespan, and explore potential implications for human health and disease.

8:15 **Introduction to Endothelial Heterogeneity in the Lung Microenvironment: Age and Disease Perspectives**

8:19 **Lung Cell Cross-Talk in Development and Disease**

8:33 **Endothelial Transitional States and Cell-Cell Dynamics During Neonatal Hyperoxia**

8:47 **Endothelial Heterogeneity: A Key Player in Lung Aging and Fibrosis Progression**

9:01 **Contribution of Endothelial Diversity to Lung Fibrosis and Lung Adenocarcinoma**

9:15 **Lung Endothelial Cell Heterogeneity in Health and Pulmonary Vascular Disease**

9:29 **Endothelial Cell Arterialization and Aberrant Vascular Remodeling in Pulmonary Arterial Hypertension**

9:43 **Closing Summary**

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

D8 THERAPEUTIC ACUTE INTERMITTENT HYPOXIA: TRANSLATION FROM ANIMAL MODELS TO HUMANS WITH INJURY OR DISEASE

Assemblies on Sleep and Respiratory Neurobiology, Pulmonary Rehabilitation

8:15 A.M. - 9:45 A.M.

Target Audience
Clinicians and scientists in pulmonary, sleep, neuro, rehab, and critical care. Ideal for those treating or researching SCI, stroke, ALS, or OSA, and those exploring neuromodulation and motor plasticity to enhance function

Objectives
At the conclusion of this session, the participant will be able to:

- describe new findings on how therapeutic acute intermittent hypoxia induces respiratory and locomotor neuroplasticity in humans
- apply low-dose AIH protocols to enhance breathing and walking function in patients with ALS, spinal cord injury, and stroke
- integrate mechanistic insights and timing strategies (e.g., circadian modulation) to optimize AIH delivery for sleep-disordered breathing and neurorehabilitation

Therapeutic acute intermittent hypoxia (tAIH) is an emerging intervention that applies brief, controlled episodes of low oxygen to stimulate endogenous neuroplasticity. Low-dose tAIH protocols, initially characterized in animal models, are now demonstrating promising results in clinical trials. This session will present evidence that tAIH enhances gait recovery in chronic spinal cord injury and stroke, improves breathing in ALS, and reduces apnea burden in OSA when timed to diurnal rhythm. Attendees will learn the mechanisms, protocols, and patient-specific considerations that underpin tAIH, offering a roadmap for clinical translation and research application in rehabilitation and respiratory care.

8:15 **Molecular Mechanisms and Diurnal Modulation of AIH-Induced Neuroplasticity**

8:30 **Harnessing AIH to Restore Respiratory Motor Function in ALS**

8:45 **Walking Again: AIH-Induced Functional Recovery After Chronic Spinal Cord Injury**

9:00 **Integrating AIH and Gait Training to Improve Outcomes in Stroke Rehabilitation**

9:15 **Circadian Timing of AIH to Reduce Apnea Severity in Sleep-Disordered Breathing**

9:30 **Panel Discussion**

BEHAVIORAL • CLINICAL

SCIENTIFIC SYMPOSIUM

D9 THE SCIENCE OF PALLIATIVE CARE IN THE ICU: HIGH HOPES, MIXED RESULTS

Assemblies on Behavioral Science and Health Services Research, Critical Care, Nursing

8:15 A.M. - 9:45 A.M.

Target Audience
Critical care physicians, palliative care specialists, implementation scientists, ICU nurses, and healthcare administrators interested in improving quality of care and outcomes for critically ill patients and their families

Objectives
At the conclusion of this session, the participant will be able to:

- critically evaluate the strengths and limitations of recent randomized and implementation trials in ICU-based palliative care, including which components are most likely to impact patient and family outcomes
- identify and apply strategies for improving the delivery of ICU-based palliative care that are tailored to specific patient populations, care settings, and resource constraints, including models that address equity and continuity
- integrate insights from implementation science, health equity, and emerging tools like AI into clinical care or program design to better align ICU-based palliative care with the needs of seriously ill patients and their families

This symposium will examine the evolving science of ICU-based palliative care, where interventions often fall short of expectations. Despite strong evidence, improvements in outcomes, especially psychological distress among families, remain limited. Drawing on recent trials and implementation studies, speakers will explore what distinguishes effective strategies, when and how palliative care should be delivered, and why commonly measured outcomes may miss the mark. Emerging models that better reflect the needs of critically ill patients and families will be highlighted. The session will close with a look at future research and implementation priorities to help palliative care fulfill its promise.

8:15 **Welcome and Introduction**

8:20 **Built In, Left Out: What the ICU Team Can (and Can't) Do Alone**

8:35 **Specialty Palliative Care in the ICU: What the Evidence Tells Us (and What It Doesn't)**

8:50 **Rethinking Goals: If It's Not About Reducing Distress, What Is It About?**

9:05 **Equity by Design: Rethinking Serious Illness Communication for Underserved Patients**

9:20 **What's Next: AI, Hybrids, and Human Connection**

9:35 **Closing Remarks and Questions**

CLINICAL

PEDIATRIC CLINICAL CORE CURRICULUM

PCC3 PEDIATRIC CLINICAL CORE CURRICULUM

SCALe: Core Curriculum Committee

9:30 A.M. - 10:30 A.M.

Target Audience
Advanced Practice Providers,Clinicians,Medical Educators

Objectives
At the conclusion of this session, the participant will be able to:

- Define new strategies to manage pediatric patients with pulmonary disease and critical illness
- Better counsel pediatric patients and families on new treatment options for pulmonary disease and critical illness
- Identify knowledge gaps in the care of pediatric patients with pulmonary disease including bronchiectasis.

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects included in recertification requirements.

9:30 **Connecting The Dots: Bronchiectasis in Systemic Conditions**

9:55 **Innovative Frontiers: Diagnosing and Treating Bronchiectasis-Associated Microorganisms**

10:20 **Panel Discussion**

CLINICAL

ADULT CLINICAL CORE CURRICULUM

CC6 ADULT PULMONARY CLINICAL CORE CURRICULUM

Assembly on SCALE

SCALe: Core Curriculum Committee

Target Audience
Advanced Practice Providers,Clinicians,Medical Educators

Objectives
At the conclusion of this session, the participant will be able to:

- integrate guidelines on the identification and management of pulmonary vascular disease into clinical practice
- counsel patients and families on efficacy of available treatment options for pulmonary vascular disease
- identify knowledge gaps in the diagnosis and management of pulmonary vascular disease

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects included in recertification requirements.

11:00 **Everything Now: Comprehensive Management Of Patients with Pulmonary Hypertension**

11:25 **Don't Stop Believin': Pulmonary Arterial Hypertension Therapies**

11:50 **Special: Care Of Specific Populations with Pulmonary Hypertension**

12:15 **Panel Discussion**

Wednesday Mid-day, May 20

BASIC • CLINICAL • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD25 NOVEL TOOLS FOR DIAGNOSIS AND LONGITUDINAL MONITORING OF PULMONARY HYPERTENSION

Division of Lung Disease, National Heart, Lung, and Blood Institute, National Institutes of Health

12:00 P.M. - 1:00 P.M.

Target Audience
Health providers, trainees, and researchers

Objectives
At the conclusion of this session, the participant will be able to:

- learn about the use xenon mri in ph diagnosis and longitudinal monitoring.
- learn about the ai-driven ct radiomics for vascular remodeling and ph
- learn about the ai-enabled stethoscopes and new echocardiographic advances in early ph diagnosis and longitudinal monitoring.

Pulmonary hypertension (PH) has no cure, the average 5-year patient survival rate is 54% with an increased mortality rate by 1.9% per year. One of the main reasons for this high mortality in PH was due to the difficulty in early diagnosis of PH and accurately monitoring of the therapeutic effects. This session will introduce four NHLBI-funded studies on novel imaging and other noninvasive tools for early and accurate diagnosis and longitudinal monitoring of PH. Specifically, we focus on utilizing xenon MRI, echocardiogram, CT, AI-assist digital stethoscope and EKG technologies for early detection and precision diagnosis and monitoring of PH.

12:00 Right Heart Mechanics as a Window into Early Pulmonary Vascular Disease Advancing Detection, Screening, and Longitudinal Monitoring

12:15 Beyond the Right Heart Cath: 129Xe MRI for Noninvasive, Multidimensional Monitoring in PH

12:30 AI-Driven CT Radiomics for Vascular Remodeling and PH Subtyping: From Early Detection to Therapeutic Monitoring

12:45 Listening with Intelligence: AI-Enabled Stethoscopes for Early PH Detection

BASIC • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD26 LUNG MAP PHASE 3- HIGH RESOLUTION MOLECULAR PROFILING OF LUNG DISEASES

Division of Lung Disease, National Heart, Lung, and Blood Institute, National Institutes of Health

12:00 P.M. - 1:00 P.M.

Target Audience
Basic and clinical researchers interested in lung biology, developmental biology, lung disease mechanisms, multi-omics, bioinformatics, and systems biology

Objectives
At the conclusion of this session, the participant will be able to:

- learn the innovative technologies for single-cell multiomics, spatial multiomics, and data analysis of the lung
- learn the newest discoveries from lungmap that could inform lung research
- learn how to access and use the lungmap resources

The overall goal of LungMAP is to build a molecular and cellular atlas of the human lung to serve as a reference to better understand both normal biology and disease pathobiology. LungMAP Phase 3 aims to utilize the power of single-cell omics and other innovative technologies to identify the pathogenic mechanisms of lung disease at cellular resolution, including cell types critical to disease initiation and progression, aberrant molecular pathways in abnormal and diseased cell states, and targets for novel lung disease therapies. Speakers will describe progress on profiling pediatric and adult diseases using

single-cell multiomics, spatial multiomics, and other innovative technology platforms as well as advance data analysis tools

12:00 **Alveolar Niche Evolution in Chronic Lung Disease Across the Lifespan**

12:12 **Global Unbiased Spatial Transcriptomic Methods to Study Cell-Cell Interactions in ILD**

12:24 **Mapping Airway Epithelial Cell-Immune Cell Interactions in Asthma and COPD**

12:36 **Cross-Disease Multimodal Profiling of the Lung**

12:48 **Multiomics Prediction of Molecular Drivers of Cellular Alterations in Childhood Interstitial Lung Diseases**

BEHAVIORAL • CLINICAL

MID-DAY SYMPOSIUM

MD27 KEY RESULTS OF HYBRID EFFECTIVENESS-IMPLEMENTATION TRIALS INVOLVING ACUTE RESPIRATORY DISORDERS

Division of Lung Disease, National Heart, Lung, and Blood Institute, National Institutes of Health

12:00 P.M. - 1:00 P.M.

Target Audience
Researchers interested in conducting implementation science research in inpatient settings and clinicians wanting to increase adoption of evidence-based care in their practice.

Objectives
At the conclusion of this session, the participant will be able to:

- learn about advances of hybrid effectiveness-implementation trials in acute respiratory disorders.
- participate in quality improvement and implementation science research in clinical practice.
- incorporate cutting-edge approaches from organizational science, and data science into implementation research.

Inpatients with acute respiratory disorders often do not receive evidence-based interventions that have been shown to improve survival rates and reduce morbidity. Hybrid effectiveness-implementation trials, which simultaneously examine the effectiveness of an intervention and the process of implementation, are crucial for ensuring that evidence-based practices are effectively adopted. To address this need, the NHLBI developed RFA-HL-21-001 to support hybrid effectiveness-implementation trials that focus on clinical and implementation outcomes in inpatient settings. During this session, investigators funded by this RFA will present key results of their trials involving acute respiratory diseases and discuss the challenges associated with implementing evidence-based interventions in everyday clinical practice.

12:00 **Hybrid Effectiveness-Implementation Trials: What, Why, and How?**

12:08 **The Maximizing Extubation Outcomes Through Educational and Organizational Research (METEOR) Trial**

12:20 **Implementation of Coordinated Spontaneous Awakening & Breathing Trials Using Telehealth-Enabled, Real-Time Audit & Feedback for Clinician AdHerence**

12:32 **TEACH Long Term Outcomes Substudy**

12:40 **Eliminating Monitor Overuse (EMO) Hybrid Effectiveness-Deimplementation Trial.**

12:52 **Q&A**

BASIC • CLINICAL • TRANSLATIONAL

MID-DAY SYMPOSIUM

MD28 UPDATES FROM THE LUNG HEALTH COHORT (LHC) STUDY

Division of Lung Disease, National Heart, Lung, and Blood Institute, National Institutes of Health

12:00 P.M. - 1:00 P.M.

Target Audience
Basic and Clinical researchers interested in understanding the latest developments for Lung Health Cohort status updates.

Objectives
At the conclusion of this session, the participant will be able to:

- describe the purpose and baseline demographics of the lhc
- present associations between lifetime exposure to air pollution and physical activity to lung function and respiratory symptoms, respectively
- illustrate novel ct features that are associated with impairment in respiratory health; and also present associations between blood eosinophil counts in health young adults, lung function, and risk of medically-attended respiratory illnesses

The current framework for investigating respiratory diseases is based on defining lung health as the absence of lung disease. In

order to develop a comprehensive approach to prevent the development of lung disease, there is a need to evaluate the full spectrum of lung health spanning from ideal to impaired lung health. The Lung Health Cohort is a community-based cohort study focused primarily on characterizing lung health in 25-35 year olds without diagnosed severe respiratory disease initiated in 2021. This session will present baseline data for this novel epidemiological study.

12:00 Overview of the Lung Health Cohort

12:05 Wildfire Exposure and Respiratory Health in Young Adults

12:17 Physical Activity and Respiratory Health in Young Adults

12:29 Radiologic Indicators of Impaired Respiratory Health in Young Adults

12:41 Medically Attended Respiratory Illnesses in Young Adults

12:53 Discussion

CLINICAL

MID-DAY SYMPOSIUM

MD29 COPD UNDERSTANDING COPD PROGRESSION AND HETEROGENEITY

Division of Lung Disease, National Heart, Lung, and Blood Institute, National Institutes of Health

12:00 P.M. - 1:00 P.M.

Target Audience
Researchers, medical trainees, those interested in origins and subtypes of COPD

Objectives
At the conclusion of this session, the participant will be able to:

- understand how different omics approaches can aid understanding of copd progression
- understanding how lung structural features impact copd phenotypes
- understand how environmental factors impact copd and copd progression

Chronic obstructive pulmonary disease (COPD), a leading cause of death in the United States, is a heterologous syndrome with affected individuals demonstrating marked differences in lung structure, physiology, and other clinical features. Insight into COPD heterogeneity requires comprehensive and longitudinal data to elucidate the genetic, clinical, and radiographic determinants of disease progression. The COPDGene study, with over fifteen years of data, has created the largest longitudinal cohort of well-characterized current and former smokers for respiratory disease research.This session will describe how COPDGene has contributed to a molecular understanding of COPD progression as well as different approaches to identifying COPD phenotypes.

12:00 Omics of COPD Progression Workshop

12:12 Mucus Plugs and COPD

12:24 Proteomics of COPD Progression

12:36 Lithium and COPD

12:48 Precision Nutrition and COPD

Wednesday Afternoon, May 20

CLINICAL

SCIENTIFIC SYMPOSIUM

D81 INNOVATIVE APPROACHES TO IMPROVE LUNG CANCER SCREENING ACCESS AND ADHERENCE

Assemblies on Thoracic Oncology, Behavioral Science and Health Services Research; Health Equity and Diversity Committee

11:00 A.M. - 12:30 P.M.

Target Audience
Health professionals providing care for patients with current or former tobacco use and at risk for lung cancer

Objectives
At the conclusion of this session, the participant will be able to:

- define novel strategies to improve access to lung cancer screening for high-risk populations
- describe novel approaches to improve patient and clinician awareness of lung cancer screening
- describe novel approaches that improve adherence to annual lung cancer screening and timely evaluation of abnormal findings

This session will highlight innovative approaches to address access barriers to lung cancer screening (LCS) and adherence to follow-up testing. The session includes speakers from pulmonology, cancer epidemiology, and primary care. Topics will include new evidence for novel approaches to engage a high-risk communities in LCS, the latest studies on innovative strategies at the health-system level to improve adherence to timely evidence-based follow-up, and health policy approaches including emerging evidence and advocacy for guideline modification to expand access to LCS for patient groups with high disease burden.

11:00 **Patient-Sourced Solutions to Engage Communities in Lung Cancer Screening**

11:16 **Health Policy Considerations for Expanding Access to Lung Cancer Screening: Perspective from the American Cancer Society**

11:32 **Emerging Strategies to Enhance Access to Lung Cancer Screening Within the Veterans Health Administration**

11:48 **Beyond Navigators: Patient Empowerment As a Means to Improving Lung Cancer Screening Adherence and Timely Follow-Up**

12:04 **Innovative Lung Nodule Management Strategies to Advance Early Lung Cancer Diagnosis**

12:20 **Panel Discussion: Implications, Challenges, and Opportunities for Translating Evidence into Practice**

BEHAVIORAL • CLINICAL

CRITICAL CARE TRACK

D82 THE AGE OF INCLUSION: BUILDING BETTER CRITICAL CARE TRIALS FOR OLDER ADULTS

Assemblies on Critical Care, Behavioral Science and Health Services Research

11:00 A.M. - 12:30 P.M.

Target Audience
Interprofessional clinicians and researchers who care for patients or conduct research in an ICU setting with adult patients

Objectives
At the conclusion of this session, the participant will be able to:

- describe the limitations of generalizing existing clinical trial evidence to the growing population of critically ill older adults
- define new strategies to improve the representation of older adults in critical care clinical trials
- incorporate new approaches to trial analysis to understand differential impact of interventions on older adults

Up to half of ICU admissions are for older adults (ages 65+), yet critical care trials often exclude older ICU patients. Randomized data addressing this growing demographic is scarce and typically confined to subgroup analysis. Critical care trials also lack data on frailty or multi-morbidity, key determinants of outcomes in the older ICU population. We will discuss interpretation of previously completed trials, addressing how data may be applied to older or more frail adults. We also explore how future trials could better incorporate age, frailty, and multimorbidity in design. Experts will discuss how aging and frailty could be incorporated into heterogeneity of treatment effect, and how outcomes for this population must include not only survival but "what matters most" to older adults.

11:00 **When Research Listens: A Caregiver's Voice in the Future of Critical Care Trial Design**

11:11 **Invisible in the ICU: The Silent Exclusion of Older Adults from Critical Care RCTs**

11:28 **Meaning Over Metrics: Designing and Collecting Trial Outcomes based on the Values of Older Adults**

11:45 **Inclusive by Design: Strategies to Improve Clinical Trial Relevance for Aging Populations**

12:02 **Aging and Analytics: Unlocking Age and Frailty-Based Differences in Treatment Response**

12:19 **Panel Discussion**

BASIC • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

D83 EARTH, WIND, AND FIRE: TRANSLATIONAL LESSONS FROM A CHANGING PULMONARY (MICRO)ENVIRONMENT

Assemblies on Environmental, Occupational and Population Health, Allergy, Immunology and Inflammation, Pulmonary Infections and Tuberculosis

11:00 A.M. - 12:30 P.M.

Target Audience
Providers of patients with lung disease; researchers focused on non-tobacco and environmental exposure, those with clinical, research, or administrative responsibilities

Objectives
At the conclusion of this session, the participant will be able to:

- describe new basic and translational research techniques to better understand the pathogenesis and mechanisms behind ambient air pollution and respiratory disease
- improve understanding of the effects of environmental exposures on respiratory microbiota and host inflammatory response
- increase the awareness of how environmental exposures impacts the health of patients with respiratory disease

From birth through adulthood, environmental exposures play a crucial role in the development of both acute and chronic respiratory diseases. As climate change accelerates and the frequency of manmade and natural disasters increases, the health impacts of these exposures continue to grow. Despite this, the underlying mechanisms and pathophysiology driving the onset of new respiratory conditions-or the worsening of existing ones-remain poorly understood. The goal of this symposium is to spotlight key translational insights from exposure studies, emphasizing both basic science and clinical/translational research. Special focus will be given to understanding the health effects and disease mechanisms associated with occupational and environmental exposures such as wildfires, military deployment, and air pollution.

11:00 **Lessons of Epithelial Biology from Human Studies of Deployed Military Veterans**

11:15 **Human Studies of Wildfire Smoke Exposure and Respiratory Microbiome**

11:30 **Human Studies of Air Pollution and Host Immune Response**

11:45 **Heat and Dust: Understanding Air Pollution Exposure, Risk, and Epidemiology of Clinical Outcomes in Populations in Kuwait and Iraq**

12:00 **Building a Framework for the Future: Clinical and Translational Lessons from Military Deployments and the PDCEN Experience**

12:15 **Question and Answer Session**

BASIC • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

D84 EAT. KILL. SURVIVE. THE MACROPHAGE-NTM STANDOFF

Assemblies on Pulmonary Infections and Tuberculosis

11:00 A.M. - 12:30 P.M.

Target Audience
Basic and translational researchers with interests in elucidating the innate immune response to NTM; macrophage biologists; those with NTM interest

Objectives
At the conclusion of this session, the participant will be able to:

- describe mechanisms of resident and recruited macrophage interactions with clinically significant nontuberculous mycobacterium
- define knowledge gaps regarding macrophage responses to NTM to inspire new research initiatives in a collaborative environment
- identify potential targets for enhancing macrophage function to improve NTM clearance via host directed therapies

Nontuberculous mycobacteria (NTM) are opportunistic pathogens that cause highly morbid lung disease, particularly in individuals with bronchiectasis. Current treatments are prolonged, toxic, and often fail to eradicate infection. Macrophages are central to NTM clearance but can also serve as a niche for persistence. While most prior research has focused on Mycobacterium tuberculosis, NTM species such as M. avium and M. abscessus exhibit distinct host-pathogen dynamics. This session will highlight emerging insights into macrophage-NTM interactions in the lung and spur discussion for potential host-directed therapies to augment or replace current antimicrobial strategies.

11:00 Introduction: Macrophage Heterogeneity and NTM Infection - Barriers are Falling

11:05 The Role of GM-CSF in Macrophage Control of Mycobacterium Abscessus in Healthy Lungs and in Bronchiectasis

11:24 Macrophage Responses to Clinically Relevant NTM: Patient-Level Insights

11:43 Trans-formative Immunomodulation to Enhance Macrophage Responses in NTM Infection

12:02 Leveraging Macrophage Biology for Antimicrobial Drug Discovery in NTM Lung Disease

12:20 Panel Discussion: Methods, Approaches, and Insights into Macrophage-NTM Interactions

CLINICAL

SCIENTIFIC SYMPOSIUM

D85 AIMING HIGHER: THE JOURNEY TOWARD ASTHMA REMISSION

Assemblies on Allergy, Immunology and Inflammation, Behavioral Science and Health Services Research, Clinical Problems

11:00 A.M. - 12:30 P.M.

Target Audience
Clinicians (physicians, nurses, fellows, residents, pharmacists), researchers, administrators, regulators and policymakers: anyone involved in the delivery of care and the science of patients with asthma

Objectives
At the conclusion of this session, the participant will be able to:

- learn existing evidence of research related to asthma remission and pros and cons of various asthma remission definitions
- better understand the role of biologics in achieving asthma remission
- improve understanding of practical challenges in achieving asthma remission. Participants will be able to identify research/clinic gaps in asthma remission as treatment goals and begin to develop methods/research questions to address them

The goals of asthma therapy have been to control symptoms and prevent exacerbations. With the recent advances in asthma therapy (i.e. biologics) there has been an ambition to achieve greater disease control and the belief that clinical remission can be a realistic goal in asthma. Achieving that goal requires an acceptable definition of asthma remission and prospective clinical trials to determine the patient and treatment factors associated with arriving at the goal. This session will discuss current definitions of asthma remission and available evidence on remission, as well as obstacles and challenges in defining asthma remission.

11:00 Introduction and Overview of Clinical Course of Asthma

11:07 Asthma Treatment Goal Evolution: From Treating Obstruction to Achieving Remission

11:24 Pros and Cons of Asthma Remission Definitions

11:41 Role of Biologics in Asthma Remission

11:58 **Obstacles and Challenges in defining Asthma Remission: Proposed Goals for Future Studies**

12:15 **What We have Learned about Asthma Remission: Conclusions and Panel Discussion**

BASIC • CLINICAL • TRANSLATIONAL

SCIENTIFIC SYMPOSIUM

D86 LOCATION, LOCATION, LOCATION: INTERCELLULAR COMMUNICATION DRIVING LUNG DISEASE

Assemblies on Respiratory Structure and Function, Allergy, Immunology and Inflammation, Environmental, Occupational and Population Health, Pediatrics, Respiratory Cell and Molecular Biology

11:00 A.M. - 12:30 P.M.

Target Audience
Basic, translational, and clinical scientists who seek to acquire advanced knowledge of how lung physiology and disease progression are regulated through intercellular communication within the lung microenvironment

Objectives
At the conclusion of this session, the participant will be able to:

- describe emerging mechanisms of intercellular communication in the lung microenvironment
- define novel signaling pathways and biomarkers involved in chronic lung disease progression
- define translational and clinical strategies targeting intercellular communication for lung disease intervention

Intercellular communication is fundamental to lung physiology and pivotal in determining the lung microenvironment. Novel mechanisms underlying how cells within the lung transmits and receives information is an emerging area. Both intrinsic and extrinsic factors such as mechanical forces, environmental exposures, and extracellular vesicles, are powerful cues that influence tissue inflammation, repair, and regeneration. In this session, we intend to discuss novel and emerging concepts in cellular communication with emphasis on signals that promote chronic lung disease. We will also discuss new translational and clinical approaches to leverage mechanisms in cellular communication to establish novel biomarkers for chronic lung disease progression.

11:00 **Introduction to the Symposium**

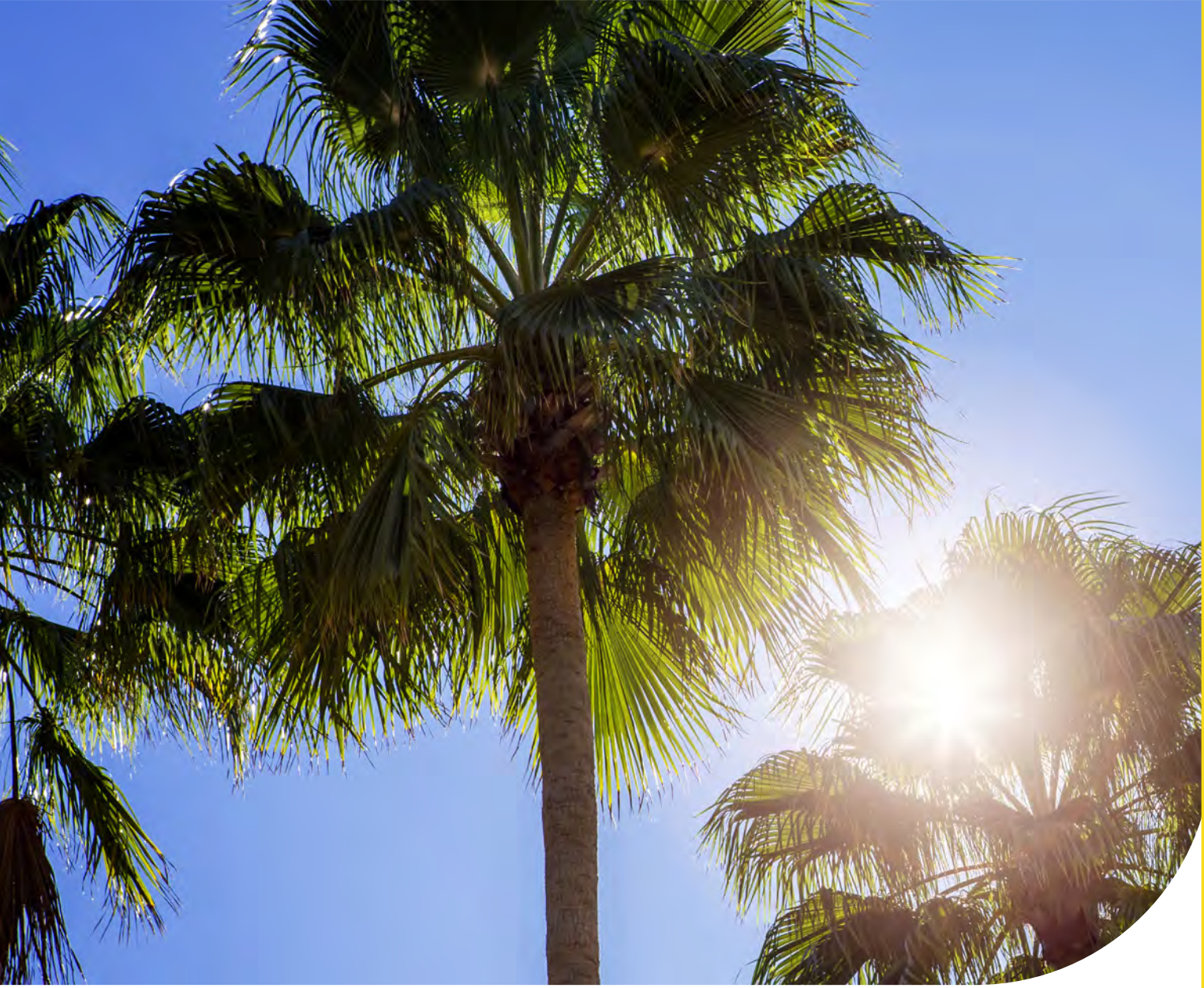
11:05 **Mechanical Cues in Tissue Remodeling and Regeneration**

11:25 **Environmental Cues in Driving Crosstalk Between Immune and Structural Cells**

11:45 **Extracellular Vesicles Driving Epithelial-Fibroblast Crosstalk in the Injured Lung**

12:05 **Uncovering Blood Signatures of Pulmonary Pathobiology**

12:25 **Conclusion of the Symposium**



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