Final Program
May 13-18 | San Francisco, CA
You can preserve antibiotic efficacy

with the right diagnostic tests that guide appropriate and responsible use of antibiotics to ensure they remain life-saving for future generations.

Learn more about our innovative respiratory infectious disease diagnostics and antimicrobial (AMS) solutions.

Visit booth #2127

Attend our Industry Theater:
Mini Theater 1
Sunday, May 15, 2022
1:30 p.m. - 2:00 p.m.
Lunch provided

Or visit https://go.biomerieux.com/industry_theatre_2022 to preregister.

An Industry Program presentation at the ATS 2022 International Conference. This presentation is sponsored by bioMérieux and is open to all ATS 2022 International Conference attendees.
For the 2022 ATS International Conference, this disclosure information for all individuals in control of content was requested and received by ATS in advance of the Conference, reviewed by appropriate ATS reviewers, and session chairs and others in positions of authority were instructed to manage and mitigate identified faculty conflicts according to procedures overseen by the ATS Ethics and Conflict of Interest Committee. Please click the link below to review the ATS 2022 International Conference Planners Disclosures.

Alphas are always our focus

CSL Behring is committed to improving the lives of those affected by Antitrypsin Deficiency by providing innovative and sustainable solutions.

CSL Behring has added a new manufacturing site to supplement current facilities to meet continued demand by the Alpha 1 community.

www.cslbehring.com
Welcome to ATS 2022

Welcome to San Francisco and the 2022 American Thoracic Society International Conference. The conference attracts investigators, educators, clinicians and related health care professionals and is truly the destination for adult and pediatric pulmonary, critical care, and sleep medicine professionals at every level of their careers. And this year will be special ... our first in-person meeting in three years. Welcome back!

The conference is all about learning, networking and connections. Because it engages attendees across many disciplines and continents, the ATS International Conference draws a large, diverse group of participants, a dedicated and collegial community that inspires each of us to make a difference in patients’ lives, now and in the future. By virtue of its size — ATS 2022 features more than 4,600 original research projects and case reports, over 400 sessions, and over 1000 speakers — participants can attend sessions and special events from early morning to the evening.

At ATS 2022 there will be something for everyone.

Don’t miss the following important events:

- **Opening Ceremony** featuring a keynote presentation by Dr. Catherine Grace “Cady” Coleman. She is a former NASA astronaut and retired U.S. Air Force colonel who has logged more than 180 days in space, including two space shuttle missions and a six-month expedition to the International Space Station.

- **ATS Research Program Benefit** on Saturday evening where you can reconnect with old friends and make new ones.

- **Keynote Series** highlight state of the art lectures on selected topics in an unopposed format to showcase timely and diverse topics which relate to pulmonary, critical care and sleep medicine.

- **Respiratory Health Awards**, which includes the Trudeau Medal, Distinguished Achievement Awards, and the Amberson Lecture

- **ATS Plenary Session** featuring J. Randall Curtis, MD, MPH, former ATS president and expert on palliative care.

- **Assembly Membership Meetings**, which are open to all attendees.

These events create a sense of community among the International Conference attendees, which is precisely what our founders had hoped when they established the world’s first respiratory society.

Finally, we wish to acknowledge the hard work and outstanding efforts of the members of the International Conference Committee, Education Committee, Assembly Program Committees, and ATS staff. The success of our conference depends on the dedication, creativity, and support of these individuals.

We welcome you to the International Conference and hope you take advantage of all San Francisco has to offer.
A big team for small lungs.

As the largest pediatric pulmonary program in California, the Pulmonary, Asthma and Sleep Medicine Center at Stanford Children’s Health has experience helping patients with any lung or breathing condition. Ranked the best program on the West Coast by *U.S. News & World Report* and #6 in the nation, we provide innovative, high-quality care and conduct research to discover new treatments.

Learn more at [pulmonary.stanfordchildrens.org](http://pulmonary.stanfordchildrens.org).
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A liquid biopsy for infectious diseases

1 blood sample | 1-day processing | 1000+ pathogens

The Karius Test® can rapidly and non-invasively detect deep-seated and bloodstream infections, including challenging respiratory infections

kariusdx.com
Program at a Glance

Friday, May 13
8 a.m. - 4 p.m.
• Postgraduate Courses
8 a.m. - 5 p.m.
• Fellows Track Symposium (FTS)
• Resident Boot Camp (RBC)
• New Faculty Boot Camp (NFBC)

Saturday, May 14
8 a.m. - 4 p.m.
• Postgraduate Courses
8 a.m. - 5 p.m.
• Fellows Track Symposium (FTS)
• Resident Boot Camp (RBC)
• New Faculty Boot Camp (NFBC)
4:30 - 5:30 p.m.
• Opening Ceremony
5:30 - 6:30 p.m.
• Networking Exchange for Early Career Professionals
6 - 7:30 p.m.
• Annual ATS Research Program Benefit

Sunday, May 15
7 - 8 a.m.
• Meet the Expert Seminars
8:15 - 9 a.m.
• Keynote Series
9:30 - 11 a.m.
• Basic Science Core
• Clinical Topics in Pulmonary Medicine
• Clinical Year in Review
• Critical Care Track
• Mini Symposia
• Poster Discussion Sessions
• RAPiD: Rapid Abstract Poster Discussion Sessions
• Scientific Symposia
9:30 a.m. - 3:45 p.m.
• Thematic Poster Sessions
10:30 a.m. - 3:30 p.m.
• Exhibit Hall
10:45 - 11:45 a.m.
• Meet the Expert Seminars
11:30 a.m. - 1 p.m.
• Adult Clinical Core Curriculum: Critical Care
11:45 - 1:15 p.m.
• Diversity Forum

Monday, May 16
7 - 8 a.m.
• Meet the Expert Seminars
8:15 - 9 a.m.
• Keynote Series
9:30 - 11 a.m.
• Basic Science Core
• Clinical Topics in Pulmonary Medicine
• Clinical Year in Review
• Critical Care Track
• Mini Symposia
• Poster Discussion Sessions
• RAPiD: Rapid Abstract Poster Discussion Sessions
• Scientific Symposia
9:30 a.m. - 3:45 p.m.
• Thematic Poster Sessions
10:30 a.m. - 3:30 p.m.
• Exhibit Hall
10:45 - 11:45 a.m.
• Meet the Expert Seminars
11:30 - 1 p.m.
• Adult Clinical Core Curriculum: Critical Care
11:45 - 1:15 p.m.
• Women's Forum

Tuesday, May 17
7 - 8 a.m.
• Meet the Expert Seminars
8:15 - 9 a.m.
• Keynote Series
9:30 - 11 a.m.
• Basic Science Core
• Clinical Topics in Pulmonary Medicine
• Clinical Year in Review
• Critical Care Track
• Mini Symposia
• Poster Discussion Sessions
• RAPiD: Rapid Abstract Poster Discussion Sessions
• Scientific Symposia
9:30 a.m. - 3:45 p.m.
• Thematic Poster Sessions
10:30 a.m. - 3:30 p.m.
• Exhibit Hall
10:45 - 11:45 a.m.
• Meet the Expert Seminars
11:30 - 1 p.m.
• Adult Clinical Core Curriculum: Pulmonary
11:45 - 1:15 p.m.
• Medical Education Seminars

Wednesday, May 18
7 - 8 a.m.
• Meet the Expert Seminars
8:15 - 9:45 a.m.
• Clinical Topics in Pulmonary Medicine
• Critical Care Track
• Mini Symposia
• Poster Discussion Sessions
• RAPiD: Rapid Abstract Poster Discussion Sessions
• Scientific Symposia
10 - 11 a.m.
• Meet the Expert Seminars
10:45 a.m. - 12:15 p.m.
• Adult Clinical Core Curriculum: Sleep
11:30 a.m. - 12:30 p.m.
• Meet the Expert Seminars
12 - 1 p.m.
• Outside Organization Sessions
12:45 - 2:15 p.m.
• Adult Clinical Core Curriculum: Sleep
• Clinical Topics in Pulmonary Medicine
• Critical Year in Review
• Critical Care Track
• Mini Symposia
• Poster Discussion Sessions
• RAPiD: Rapid Abstract Poster Discussion Sessions
• Scientific Symposia

Download the conference app to access the most current sessions, networking events, exhibitors, and industry programs.
REGISTRATION
Registration will be in the Lobby of the Moscone Center, North Building and will include Express Registration and Assisted Registration Desks, as well as Membership Desks, Information Desks, and ADA Accessible counters. Express Registration is designed for attendees who are ready to pick up their badges. Assisted Registration provides on-site support for attendees who want to make changes to their registration. Registration opens on Thursday, May 12.

ATTENDEE REGISTRATION HOURS
Registration Hours
Thursday, May 12  5 - 7 p.m.
Friday, May 13  6:30 a.m. - 5 p.m.
Saturday, May 14  6:30 a.m. - 6 p.m.
Sunday, May 15  6:30 a.m. - 5:30 p.m.
Monday, May 16  6:30 a.m. - 5:30 p.m.
Tuesday, May 17  6:30 a.m. - 3:30 p.m.
Wednesday, May 18  6:30 a.m. - 1 p.m.

BADGES
Name badges must be worn for admittance to all ATS 2022 events. Please return to registration if you have lost your name badge. There will be a $50 fee for replacement badges. Conference badge holders are color-coded as follows:
- Blue: Attendee
- Purple: International Attendee
- Yellow: Exhibitors
- Brown: Spouses/Partners/Guest
- Green: Postgraduate/Early Career Professional Courses (Friday and Saturday Only)
- Clear: Press

SESSION LOCATIONS
ATS 2022 sessions, special events, assembly meetings, and committee meetings will be held at the Moscone Center and the San Francisco Marriott Marquis.

Industry Sponsored Evening Symposia will be held at the San Francisco Marriott Marquis, InterContinental San Francisco, and Hyatt Regency San Francisco Downtown SOMA.

EXHIBITS
Exhibits are located in the Moscone Center, Halls A-C (South Building, Lower Level). Badges must be worn for admittance to the Exhibit Hall and at all times in the hall.

Children under the age of 12 are not permitted in the Exhibit Hall.

ATS INTERNATIONAL OFFICE
The ATS International Conference Office is in Room 152 (South Building, Upper Mezzanine).

SPEAKER READY ROOM
There are two Speaker Ready Rooms, one located in Room 151 (South Building, Upper Mezzanine) and the other located in Room 2000 (West Building, Level 2).

All speakers need to check in at the Speaker Ready Room at least four hours before their talk. Speakers can bring their presentation to this room to view, edit and upload. This area is restricted to speakers only, and badges must be worn for admittance to the room.

Speaker Ready Room Hours:

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<th>Room 2000 (West Building, Level 2)</th>
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PRESS OFFICE
The press office is located in the Moscone Center, Room 157 (South Building, Upper Mezzanine) and is only open to members of the press.

Press Room Hours:

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TRANSPORTATION
Muni
Muni is San Francisco’s bus and metro system that runs throughout the city, operating buses, trains, cable cars and the F-line heritage streetcar. Muni buses remain above ground and on streets while Muni Metro runs on rails and sometimes go underground. Bus stops come in many forms: small bus shelters, yellow paint on street poles, and white paint on streets. Metro stops can be found on an island in the middle of the street and in underground stations. Using the Metro Map, find the nearest Metro to your location. Find more information on how to use Muni and Muni Metro.
For all Muni routes and times, you can call 511. There are also many smartphone apps, including the 511 SF Bay Transit Trip Planner app, that provides maps, routes and times.

**Cable Cars and Street Cars**

Cable cars and street cars are San Francisco’s historic public transit cars. Cable cars are located downtown and run on three lines: Powell-Hyde, Powell-Mason, and California Street. The F-Line streetcar runs up and down Market Street all the way to Fisherman’s Wharf. Pay the conductor onboard or purchase tickets in advance at multiple locations or via smartphone using the MuniMobile app. Exact change is your only option when you are onboard the vehicles.

**PresidiGo Shuttle**

The PresidiGo Shuttle system provides free and accessible transportation to and around the Presidio from three routes in the city, seven days a week. Many stops are within a short walking distance from Muni or Golden Gate Transit bus lines.

**RIDE SHARING**

There are a few on-demand car services to choose from, most of them started by San Francisco locals. To use them, you must first download the app, register, and set up a credit card payment system. Uber and Lyft both offer options to request a private car service as well as shared car options for a discounted rate, such as Lyft Line and uberPOOL. To use these services, set a pick-up location and destination in the app. Within minutes, you will be matched with a driver. Make sure to communicate with your driver; call, text, or wave down their car and always confirm that you are getting in the correct vehicle.

**TAXI**

As is customary in most U.S. cities, visitors may hail a taxi directly or use a smartphone app.

**CLIPPER CARD**

The Clipper Card is an easy way to use the various modes of public transportation throughout San Francisco. Purchasing this pre-loaded card gives you access to BART, Muni buses, Muni Metro, and cable cars. When you board, hold the card over a scanner and listen for the beep to make sure that you have an adequate balance on your card for your fare. Be warned: fines are steep and Muni personnel check frequently for fare evasion. Cards can be bought at multiple locations and refilled at Muni/BART stations.

**FIRST AID**

**ATS Hotels:** Contact the hotel’s front desk for any emergencies.

**Moscone Center:** First Aid support will be available in the North, South and West Buildings of the Moscone Center.

**CHILD CARE FACILITIES**

Onsite childcare is available. For more information, please go to: [www.accentregister.com/register/ATS22](http://www.accentregister.com/register/ATS22)

**INTERNET ACCESS**

WiFi is available throughout the Moscone Center – North, South and West Buildings.

**LOST AND FOUND**

Please be aware of your personal items at all times. The ATS is not liable for personal items lost during the Conference. There will be a lost and found maintained in the ATS International Conference Office in Moscone Center in Room 152 (South Building, Upper Mezzanine). Unclaimed items will be turned over to the Convention Center at the conclusion of the Conference. Items lost or found at any of the Conference hotels should be reported to the specific hotel.

**BAGGAGE CHECK**

Baggage Check will be available in the North and West Buildings.

**North Lobby (Street Level)**

- Sunday, May 15  8:30 a.m. – 4:30 p.m.
- Monday, May 16  8:30 a.m. – 4:30 p.m.
- Tuesday, May 17  8:30 a.m. – 4:30 p.m.
- Wednesday, May 18  8 a.m. – 3:00 p.m.

**West Hall (West/Street Level)**

- Sunday, May 15  8:30 a.m. – 4:30 p.m.
- Monday, May 16  8:30 a.m. – 4:30 p.m.
- Tuesday, May 17  8:30 a.m. – 4:30 p.m.
- Wednesday, May 18  8 a.m. – 3:00 p.m.

**NETWORKING AND COFFEE BREAK AREA**

Coffee & Connections booths are located inside the Exhibit Hall. Here you can network with colleagues in a comfortable lounge-style setting.

**POSTAL AND SHIPPING NEEDS**

The Moscone Center does not have an onsite business center, nor do they offer shipping services. There are several shipping services within walking distance of the Moscone Center, including the UPS Store and FedEx.

**INTERNATIONAL MONEY EXCHANGE**

Most major banks offer currency exchange services. San Francisco International Airport has currency exchange by Travelex. Their services include currency exchange, travel insurance, travelers’ checks, Western Union money transfer, copy and fax, and prepaid phone cards.

**International Terminal:**

- by Gate 91
- Arrivals
- Ticket Aisle 1
- Boarding Area A
- Boarding Area G
- Terminal 3, Post-Security

**Hours:** According to flights schedule

**Tel:** 650-821-0900
Explore new product, devices, innovative technology and additional learning opportunities.

Learning opportunities abound in the ATS 2022 Exhibit Hall. Gain practical knowledge to advance care and research by attending booth demonstrations, Industry Theater Presentations, Guru Bars, and visiting the over 160 exhibiting companies.

Why visit the ATS 2022 Exhibit Hall?

- Find the latest innovations or learn about the newest advances
- Compare all relevant products and services in one place
- Take part in interactive hands-on demonstrations
- Speak with medical affairs officers and medical science liaisons
- Obtain patient information from the Public Advisory Roundtable exhibitors

EXCITING OFFERINGS in the ATS 2022 EXHIBIT HALL

Fun Zone

Booth 213

Head over to the Fun Zone where you can challenge your friends or colleagues to a game of “Pop a Shot”, Fuseball or Air Hockey. The Fun Zone is the perfect spot to be a kid again!

Play, Learn, Win in the Exhibit Hall

Discovery Quest – Play the virtual Exhibit Hall trivia game. Visit the participating exhibitors then answer the questions in the mobile app game for a chance to win prizes!

Power up with Health Snacks and Coffee

Sunday, Monday, and Tuesday at 11:00 a.m.

Professional Headshot Photo

Booth 2527

Complimentary for everyone. Headshots are emailed the same day.

A professional photo is a good marketing tool for the hospital, medical group, university websites, brochures and other communication channels.

Join us for a

Toast to Innovation Networking Event

Tuesday, May 17, 1:15 – 2:15 p.m.

Celebrate where the industry gathers.

Coffee & Connections

Booths 407, 539, 1039, 2309

Your Solution Center

Moscone Center
Halls A-C, South Building, Lower Level

Exhibit Hall Hours
Sunday, May 15, 10:30 a.m. – 3:30 p.m.
Monday, May 16, 10:30 a.m. – 3:30 p.m.
Tuesday, May 17, 10:30 a.m. – 3:30 p.m.

Unopposed Exhibit Hall Time
1:15 – 2:15 p.m. daily
Industry Programs

**Industry Theaters**

11:30 a.m. – 2 p.m.
Moscone Center, Halls A-C (South Building, Lower Level)
Booths 200, 1537, 2135, and Rooms 5 & 6

Enjoy lunch while enhancing your educational experience during ATS 2022. Listen to industry experts discuss the latest information on products/services or disease awareness related to pulmonary, critical care, and sleep medicine in one of five theaters in the Exhibit Hall. Complimentary box lunch is provided by ATS (while quantities last).

**Guru Bars**

Every 30 minutes from 11:30 a.m. – 1:30 p.m.
Moscone Center, Halls A-C (South Building, Lower Level)
Booths 2501, 2505, 2513, and 2517

Guru Bars provide an intimate learning environment fostering dynamic interaction between attendees and subject matter experts. These learning experiences consist of burst sessions of 15–20 minutes fostering a rich educational experience. Every session includes a 10–15 minute problem statement, mitigating factors, the host’s perspective/solution, and a challenge or question posted to attendees.

**Industry Supported Evening Symposia**

Sunday and Monday evenings in ATS 2022 conference hotels
6:30 – 9:30 p.m.

Industry Supported Evening Symposia complement the content offered by the ATS and provide an opportunity for attendees to further enrich their learning experiences during ATS 2022. All full-conference participants are encouraged to attend these evening programs.

Complete details on these presentations may be found at:

- ATS Conference News
- Industry Program Listing
- Mobile App

The use of cameras and audio recording equipment (including, but not limited to, cellular phones, film: digital and video, and tablets) is strictly prohibited in Industry Theaters and Guru Bars at all times. Credentialed members of the press who have received a special badge from the ATS are permitted on the floor but are restricted by the photography policy.
The American Thoracic Society Would Like to Acknowledge our 2022 Corporate Members:

**Champion**
- AMGEN®
- AstraZeneca
- Boehringer Ingelheim
- GSK
- Janssen
- sanofi
- REGENERON
- VERTEX

**Benefactor**
- Genentech
- GILEAD
- Insmed
- Novartis
- Theravance Biopharma
- United Therapeutics Corporation

**Patron**
- CSL Behring
- MERCK
- THREE LAKES FOUNDATION
- VIATRIS

**Supporter**
- 4D Medical
- aerovate therapeutics
- ALTAVANT SCIENCES
- CareDx
- Fisher & Paykel Healthcare
- Mallinckrodt Pharmaceuticals
- Synairgen
- Verona Pharma

**Friend**
- Bellus Health
- Bristol-Myers Squibb
- DEVPRO BIOPHARMA
- gossamerbio
- INHIBRx
- pulmonX
- sentec
- Vitalgraph
- Vivus
- Zambon

Thank you for your support. www.thoracic.org
### ATS Center

**Moscone Center**  
**Lobby (South Building, Upper Mezzanine)**

The ATS Center provides a place for you to network, recharge, and ask any questions you have about that ATS. Join us for live programming throughout the conference, and learn about how you can stay connected with the Society all year. We’ll have Ask Me Anything opportunities with key ATS staff, lively discussions with prominent ATS members, and more!

Into social media? The ATS Center acts as the social media hub, with selfie stations and information about social media surprises throughout the conference.

### Center for Career Development

**Moscone Center**  
**Room 153 (South Building, Upper Mezzanine)**

The Center for Career Development (CCD) is a networking and career development forum for trainees and early-career ATS attendees. This includes medical and graduate students, residents, fellows, postdocs, and other allied health and research professionals in Pulmonary, Critical Care or Sleep Medicine and related scientific fields. The CCD offers a variety of daily workshops, didactic small group sessions, and several opportunities for informal discussion and networking focused on topics relevant to early career success.

### International Participants Center

**Moscone Center**  
**Room 154 (South Building, Upper Mezzanine)**

The International Participants Center is designed to enhance the conference experience for international participants by providing a space for participants to network and learn how the ATS and other peer societies are working to improve global health.

### Science & Innovation Center

**Moscone Center**  
**Room 155 (South Building, Upper Mezzanine)**

The Science and Innovations Center (SIC) is a forum for all scientists, without regard to research topic or training, and researchers to meet, network, learn, and relax and recharge. The SIC offers innovative and basic science presentations that highlight exciting new topics and techniques. The Center will also host the Rising Star and SIC Abstract awards on Sunday, May 15, 12 - 3 p.m., followed by the annual PhD Reception, which takes place Sunday, May 15, 3 - 5 p.m., and the annual BEAR Cage Competition, which takes place on Monday, May 16, 12 - 2 p.m.

### Clinicians Center

**Moscone Center**  
**Room 156 (South Building, Upper Mezzanine)**

The Clinicians Center is a comfortable and congenial environment designed to enhance the International Conference experience for pulmonary, critical care and sleep practitioners. The ATS Clinicians Advisory Committee cordially invites you to attend live and informal educational and informational panel discussions and sessions presented daily by leading experts in the fields of Pulmonary, Critical Care and Sleep medicine. On Sunday, May 15 12 - 1:30 pm, the Clinicians Center will host Dr. Ganesh Raghu and a panel of expert discussants on "The new, 2022 Official ATS/ERS/JRS/ALAT Clinical Practice Guideline: Idiopathic Pulmonary Fibrosis (an Update) and Progressive Pulmonary Fibrosis in Adults".

### ATS Donor Suite

**Moscone Center**  
**Room 159 (South Building, Upper Mezzanine)**

Our donors who’ve made gifts of $250 or more since June 1, 2021, are invited to use the Donor Suite during ATS 2022. It will include lounge seating, powered tables for device charging and refreshments throughout the day. Haven’t made your gift yet? There will be computers for use onsite to make your gift online.
International Poster Sessions

The goal of these events is to provide an opportunity for clinicians and scientists from various parts of the world to network, to promote research in their respective regions, and to showcase the abstracts particularly of young investigators in those regions. The presentations include research abstracts that have been reviewed and approved by the ATS International Conference Committee.

INTERNATIONAL POSTER COLLOQUIUM
Organized by the International Health Committee and the Methods in Epidemiologic, Clinical and Operations Research (MECOR) Faculty.
Saturday, May 17, 8:00 a.m. - 12:30 p.m.
Moscone Center
Room 154 (South Building, Mezzanine Level)

BUENOS DÍAS, ATS
Organized by Asociación Latinoamericana de Tórax (ALAT) and the Sociedad Española de Neumología y Cirugía Torácica (SEPAR) The presentations will be made in Spanish only.
Saturday, May 14, 12:30 - 4:30 p.m.
Moscone Center
Room 9-10 (South Building, Exhibition Level)

#ATS2022
is your ticket to everything social media for the ATS International Conference!

#MOTTIRL
Join our #tweetup in San Francisco!
Come to the ATS Center at 5 p.m. on Sunday, May 15 to meet your ATS Twitter friends IRL!

Claim your ticket to the red carpet!
Collect a ticket from ATS 2022 hot spots and then visit the ATS Center for a prize! Learn more!
Maybe you’ll see Al & Viola there!
ATS 2022 kicks off with the Opening Ceremony, featuring a keynote address by Catherine Grace “Cady” Coleman, PhD. Dr. Coleman is a former NASA astronaut and retired U.S. Air Force colonel who has logged more than 180 days in space, including two space shuttle missions and a six-month expedition to the International Space Station, where she acted as the Lead Robotics and Lead Science officer. Cady is currently a research affiliate of the MIT Media Lab and ASU’s Global Explorer in Residence.

The Opening Ceremony also features:
- Lynn Schnapp, MD, president of the ATS, provides an update of the Society's major accomplishments for the past year and priorities for the coming one
- Presentation of several ATS Respiratory Health Awards: Public Service Award, World Lung Health Award, and Jo Rae Wright Award for Outstanding Science

The Opening Ceremony is generously sponsored by Boehringer Ingelheim Pharmaceuticals, Inc.
ATS 2022 SAN FRANCISCO

ATS 2022 in San Francisco offers the latest in pulmonary, critical care and sleep medicine for ATS members and other physicians, scientists and health care professionals.

SESSION ADMISSION

Badges are required to attend all conference sessions and events.

Admission to Sessions

Sessions are held at The Moscone Center. Your badge allows you admittance to ninety percent of the sessions and events without additional fees or tickets. It also entitles you to entry to the Exhibit Hall.

Admission by Tickets Only

The following require pre-registration. Additional fees may apply.

- Medical Education Seminars
- Meet the Expert Seminars
- Postgraduate Courses

ATS 2022 MOBILE APP

The full Conference program is available to iPhone, iPad, and Android users through the ATS 2022 Conference app. View and bookmark sessions and speakers, and create your own personal conference itinerary. Search for ATS 2022 in the App Store or Google Play.

ePOSTERS OF ORIGINAL RESEARCH

Speakers presenting original research based on submitted abstracts have been invited to prepare and make available an ePoster of their research. The ePosters provide an opportunity to view those posts you may miss during the conference. The ePosters that have been prepared may be viewed by conference registrants online at https://cattendee.abstractsonline.com/meeting/10476

PUBLICATION OF ABSTRACTS

The research and case report abstracts presented at the Conference are available electronically on the website of the American Journal of Respiratory and Critical Care Medicine hosted by Atypon. The abstracts in the Final Program contain the publication number for each abstract to facilitate online access. Abstracts may be accessed at www.atsjournals.org/series/airccm-conference where ATS members may log in using their username and password used to access regular journal issues. Non-members may access the site on a pay-per-view basis.

FACULTY DISCLOSURES

In accordance with policies of the Accreditation Council for Continuing Medical Education and ATS, everyone in a position to control educational content (planners and presenters) of all International Conference sessions designated as CME has been instructed to complete an online faculty disclosure form. Please contact ethicsoffice@thoracic.org for more information.

DISCLOSURE DECLARATION

It is the policy of the ATS to ensure independence, balance, objectivity, scientific rigor, and integrity in all of its continuing education activities. As an accredited CME provider, the ATS requires that its planners, reviewers and presenters comply with the ACCME Standards Integrity and Independence in Accredited Continuing Education. The ATS also requires specific disclosure of relationships with companies and organizations associated with tobacco or cannabis and prohibits or limits participation of faculty in official ATS activities, including CME, if any tobacco industry relationship or some types of cannabis industry relationships is present. The most recent policies regarding potential conflicts of interest as well as the mechanisms to mitigate or resolve such conflicts can be found here:

COI Policy for Official ATS Activities (thoracic.org)

CRITERIA FOR SUCCESS FOR CME AND MOC DESIGNATED ACTIVITIES

CME Certificates of credit/attendance will be awarded based on the participant attending the activity, completing and submitting an evaluation and attesting to the credits earned. A CME certificate will be available upon successful completion of all three components. For MOC points, participants attend the session(s), complete the corresponding evaluation and pass the post-test for the activity with a passing score.

RECORDING OF PRESENTATIONS

The use of cameras and audio recording equipment (including, but not limited to, cellular photos, film, digital, and video) is prohibited in the Exhibit Hall. Photographs may be taken during sessions or poster presentations, provided that the photographs are strictly for personal, noncommercial use and are not to be published in any form. Attendees are prohibited from using flash photography or otherwise distracting the presenters or members of the audience. With regard to posting presentation images on social media, if a presenter requests images not be posted, conference attendees must respect those wishes.
ATS 2022 INTERNATIONAL CONFERENCE
MAY 13-18, SAN FRANSCISCO

This session portion of the ATS International Conference Final Program is published by the ATS as a service to attendees. This publication contains the programs and speakers for the postgraduate courses, scientific and educational sessions presented at the conference.

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 April 15, 2022. For the most current session information, please visit the online program itinerary. Look for to view more information about ATS events, assemblies and sections.

18  Friday Postgraduate Courses
25  Saturday Postgraduate Courses
37  Sunday Conference Sessions
131 Monday Conference Sessions
233 Tuesday Conference Sessions
328 Wednesday Conference Sessions
This is part 1 of a two-part course which includes PG1B on Saturday, May 18. Those registering for PG1A will be registered for PG1A and PG1B. Pre-registration and additional fees required. Attendance is limited.

Member: $1170  In-Training Member: $890
LMIC Member: $825  LMIC In-Training Member: $625
Non-Member: $1560  In-Training Non-Member: $1010

Assembly on Critical Care
8:00 a.m. - 4:00 p.m.  MOSCONE CENTER
Room 2002 (West Building, Level 2)

Target Audience
Providers of critical care or emergency medicine

Objectives
At the conclusion of this session, the participant will be able to:
• apply ultrasound at bedside to assess critically ill patients;
• apply ultrasound to guide common ICU procedures;
• diagnose alternate etiologies of shock in the critically ill patient.

This is a 2-day postgraduate course that consists of didactic lectures and hands-on stations. The focus is primarily bedside transthoracic echocardiography, with some diagnostic ultrasound. The topics include basic and intermediate critical care echocardiography (including hemodynamic measures), assessment of fluid status, procedural guidance for vascular access and thoracentesis, venography. The hands-on stations will include both healthy models and laptops that can demonstrate abnormal pathology.

Chairing:  M.J. Lanspa, MD, MSCR, ATSF, Salt Lake City, UT
8:00  Welcome and Introduction to Critical Care Ultrasound: Training and Competency
M.J. Lanspa, MD, MSCR, ATSF, Salt Lake City, UT
8:20  Basic Physics, Artifacts, and Knobology
Z. Shaman, MD, Cleveland, OH
8:45  Transthoracic Windows and Views, FATE Exam
K. Anderson, MD, Stanford, CA
9:15  Basic Evaluation of LV Systolic Function, Measurement of Cardiac Output
J.C. Klick, MD, Burlington, VT
9:45  Basic Evaluation of RV Size and Function, Pulmonary Embolus
D. Pradhan, MD, New York, NY
10:15 Break
10:30  Practical Skills Session: Hands-On Station I
Apical Window
P.K. Mohabir, MD, Stanford, CA
D.A. Sweeney, MD, Poway, CA
V.A. Dinh, MD, Loma Linda, CA
L. Rapoport, MD, MS, Santa Clara, CA
Parasternal Window
Z. Shaman, MD, Cleveland, OH
J.C. Klick, MD, Burlington, VT
L. Grecu, MD, Durham, NC
R.E. Burk, MD, Reno, NV
Subcostal Window
G.B. Allen, MD, Burlington, VT
J. Kasal, MD, St. Louis, MO
D. Pradhan, MD, New York, NY
A. Leibowitz, MD, Boston, MA
E. Ablordepepey, MD, St. Louis, MO
12:00 Lunch
12:30  Lunch and Clinical Cases
L. Grecu, MD, Durham, NC
12:45  Chest Ultrasound
P.K. Mohabir, MD, Stanford, CA
1:15  Valvulopathy and Endocarditis
R.E. Burk, MD, Reno, NV
1:45  Basic Assessment of Diastolic Function
A. Leibowitz, MD, Boston, MA
2:15 Break
2:30  Practical Skills Session: Hands-On Station II
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 introduced advanced diagnostic bronchoscopy, including linear and radial endobronchial ultrasound and navigational bronchoscopy. A series of didactic lectures will be followed by intensive, hands-on training, through the use of physical and virtual reality simulators which will help participants strengthen their procedural skills. This course will be of particular interest to a provider seeking to refine their flexible bronchoscopy skills and wish to review the data behind the various bronchoscopic techniques. Audience Response System will be used during lectures.

**Chairing:** C.L. Channick, MD, Los Angeles, CA
N. Maouelainin, DO, MBA, Lansdale, PA
S.S. Oh, DO, Santa Monica, CA

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Introduction</td>
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<tr>
<td></td>
<td>C.L. Channick, MD, Los Angeles, CA</td>
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<tr>
<td>8:10</td>
<td>Optimizing Basic Bronchoscopy Skills: Bronchoalveolar Lavage, Brushings, and Biopsies</td>
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<td>S.S. Oh, DO, Santa Monica, CA</td>
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<tr>
<td>8:35</td>
<td>Performing Flexible Bronchoscopy in COVID-19 and Other High-Risk Patients: How to Maximize Outcomes and Safety</td>
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<td>A.C. Argento, Baltimore, MD</td>
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<td>9:00</td>
<td>The Role of Flexible Bronchoscopy in the Management of Hemoptysis</td>
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<td>C.R. Lamb, MD, Burlington, MA</td>
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<tr>
<td>9:25</td>
<td>Break</td>
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<tr>
<td>9:40</td>
<td>Pediatric Flexible Bronchoscopy for the Adult and Pediatric Bronchoscopists</td>
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<td>C. Spencer, MD, New York, NY</td>
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<tr>
<td>10:05</td>
<td>The Fundamentals of Linear EBUS: Overview of the Basic Technique and the Data</td>
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<td>C.L. Channick, MD, Los Angeles, CA</td>
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<tr>
<td>10:30</td>
<td>Navigational Bronchoscopy: From Fluoroscopy to Robotics</td>
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<td>E.E. Folch, MD, MS, Boston, MA</td>
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<td>10:55</td>
<td>Bronchoscopic Lung Volume Reduction</td>
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<td>A. Majid, MD, Boston, MA</td>
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<tr>
<td>11:20</td>
<td>Lunch</td>
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<tr>
<td>12:09</td>
<td>Practical Skills Session</td>
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<tr>
<td>12:09</td>
<td>Bronchoscopy with Biopsy and Needle Aspiration of Endobronchial Lesion</td>
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<td>M.S. Parikh, MD, Boston, MA</td>
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<tr>
<td>12:09</td>
<td>Management of the Difficult Airway and Tracheostomy Tubes</td>
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<td>I. Susanto, MD, Santa Monica, CA</td>
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</tbody>
</table>

**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 and children with benign and malignant respiratory diseases;
- improve knowledge of basic flexible bronchoscopy and strengthen procedural skills;
- understand the indications for linear and radial endobronchial ultrasound and the skills necessary to perform these procedures.
Bronchoscopic Management of Hemoptysis
C.R. Lamb, MD, Burlington, MA
G.Z. Cheng, MD, PhD, San Diego, CA

Techniques for Foreign Body Removal Using Flexible Bronchoscopy
E. Volker, MD, MSPH, Denver, CO
Y.B. Gesthalter, MD, San Francisco, CA

1:45 Break

2:00 Practical Skills Session

Navigational Bronchoscopy - Radial Endobronchial Ultrasound
P. Lee, MD, Singapore, Singapore
O. Kalchiem-Dekel, New York, NY

Navigational Bronchoscopy - Robotic Bronchoscopy
S. Garwood, MD, Nashville, TN
C. Manley, MD, Philadelphia, PA

Endobronchial Ultrasound Anatomy
A.C. Argento, MD, Baltimore, MD

Endobronchial Ultrasound-Guided Transbronchial Needle Aspiration
C. Oberg, MD, Torrance, CA
J. De Cardenas, MD, Ann Arbor, MI

Endobronchial Valve Placement
A. Majid, MD, Boston, MA
A.J. Schwalk, MD, Lubbock, TX

This session and the International Conference are supported by an independent medical educational grant from Olympus Corporation of the Americas.

This session and the International Conference are supported by in-kind grants from Cook Medical, Intuitive Surgical, Olympus Corporation of the Americas, Teledyne Zephyr. All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).

Target Audience
Pulmonary and critical care physicians, nurses and respiratory therapists who would like to enhance their competence in ECMO patient management

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

• describe appropriate patient selection considerations for venoarterial and venovenous ECMO;
• understand common complications and how to assess and manage;
• identify methods of cannulation for ECMO and provide technical assistance in cannulation by attendees.

This session will consist of multiple rotating small group stations facilitated by interprofessional and experienced ECMO faculty. There will be a mix of interactive didactic sessions, hands-on workshops, and simulation sessions. Content will include ECMO management including patient selection, circuit components, circuit initiation, daily management of ECMO patient circuit emergencies, weaning, and cannulation. In order to maximize time and experience, we will utilize a flipped classroom model, whereby some attendees will receive lectures while others are doing simulations. Online education developed by faculty will also be available prior to the course to augment foundation of ECMO understanding.

Chairing: H.J. Dalton, MD, Falls Church, VA
B. Patel, MD, Phoenix, AZ

8:00 Welcome and Introduction
H.J. Dalton, MD, Falls Church, VA

8:10 VV ECMO Physiology
S. Conrad, MD, Shreveport, LA

8:35 ECMO Indications and Patient Selection Including CARDS
A. Combes, MD, Paris, France

8:55 Rotate & Move

9:00 How to Approach and Treat Hypoxemia (VV)
B. Zakhary, MD, Portland, OR

9:20 Mechanical Ventilation Pre and On VV ECMO
C. Rackley, MD, Durham, NC

9:45 Bleeding/Thrombosis and Anticoagulation
H.J. Dalton, MD, Durham, NC

10:05 Overview of Neurologic Assessment and Outcomes of VV ECMO
H. Kanji, MD, Vancouver, Canada

10:25 Rotate & Move

10:30 Practical Skills Session

Simulation Station 1: Circuit Management
C. Agerstrand, MD, New York, NY
A.M. Zaaqoq, MD, MPH, Washington, DC
C. Alward, CCP, Scottsdale, AZ

PG3 EXTRACORPOREAL LIFE SUPPORT: HOW TO DO IT AND WHEN

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

Member: $570 In-Training Member: $360
LMIC Member: $400 LMIC In-Training Member: $255
Non-Member: $660 In-Training Non-Member: $480

Assemblies on Critical Care; Clinical Problems; Nursing; Pediatrics; Pulmonary Circulation; Respiratory Structure and Function

8:00 a.m. - 4:00 p.m. MOSCON CENTER
Room 2006 (West Building, Level 2)
Simulation Station 2: Circuit Components, Knobology, & Monitoring
T. Preston, CCP, Columbus, OH

Simulation Station 3: Ultrasound Assessment in ECMO
H. Sekiguchi, MD, Rochester, MN
B. Patel, MD, Phoenix, AZ

11:55 Lunch

12:25 VA ECMO Physiology
S.A. Conrad, MD, PhD, MBA, Shreveport, LA

12:45 Rotate & Move

12:50 VA Goals and LV Unloading
R. Lorusso, MD, Maastricht, Netherlands

1:15 Weaning (Failure) and Post Decannulation Care (Including Lung TX Eval Timing)
M. Desai, MD, Falls Church, VA

1:35 Procedures on ECMO
P.E. Mason, MD, San Antonio, TX

1:55 Challenging ECMO Patients
H.J. Dalton, MD, Falls Church, VA

2:05 Challenging ECMO Patients
R. Lorusso, MD, PhD, Maastricht, Netherlands

2:15 Rotate & Move

2:20 Practical Skills Session

Simulation Station 4: Cannulation Pearls and How To Do It Demo
S.A. Conrad, MD, PhD, MBA, Shreveport, LA

Simulation Station 5: Hypoxia on VA ECMO
C. Agerstrand, MD, New York, NY
H. Kanji, Vancouver, Canada
C. Alwardt, CCP, Scottsdale, AZ

Simulation Station 6: Circuit Emergencies
M. Robinson, RN, Columbus, OH
J.H. Badulak, MD, Seattle, WA

3:50 Summary and Closing Remarks

This session and the International Conference are supported by in-kind grants from FUJIFILM/SonoSite, Getinge ECMO, Getinge Ventilators, LivaNova.

All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).

PG4 PEDIATRIC DIAGNOSTIC, ADVANCED DIAGNOSTIC, AND INTERVENTIONAL BRONCHOSCOPY

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

Member: $570  In-Training Member: $360
LMIC Member: $400  LMIC In-Training Member: $255
Non-Member: $660  In-Training Non-Member: $480

Assembly on Pediatrics
8:00 a.m. - 4:00 p.m.  MOSCONE CENTER

Room 2008 (West Building, Level 2)

Target Audience
Clinicians, Pediatric Pulmonologists Performing Bronchoscopy

Objectives
At the conclusion of this session, the participant will be able to:
- describe new findings about diagnostic, advanced diagnostic and interventional bronchoscopy in children;
- better diagnose airway dynamic disorders in children;
- more appropriately refer and provide care to children who could benefit from advanced diagnostic and therapeutic bronchoscopy procedures.

This course will introduce attendees to a broad spectrum of diagnostic, advanced diagnostic and interventional pediatric flexible bronchoscopy techniques from endobronchial and transbronchial biopsies to EBUS and CT-guided navigational procedures. Indications, risks and potential benefits will be discussed, followed by opportunity for 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.

Chairing:  J.C. Piccione, MS, DO, ATSF, Philadelphia, PA
A. Vicencio, MD, New York, NY
E. Hysinger, MD, MSCE, Cincinnati, OH

8:00 The Future of Pediatric Flexible Bronchoscopy: Advice for the Next Generation
R.E. Wood, PhD, MD, Cincinnati, OH

8:25 Sleep State Endoscopy for Evaluation of Upper Airway Obstruction
R.E. Wood, PhD, MD, Cincinnati, OH

8:50 Assessment and Impact of Abnormal Lower Airway Dynamics
E. Hysinger, MD, MSCE, Cincinnati, OH

9:15 Questions and Answers
A. Vicencio, MD, New York, NY

9:40 Lunch
**Endobronchial Brushings in Cystic Fibrosis and Primary Ciliary Dyskinesia**
J. Brewington, MD, Cincinnati, OH

**Endobronchial Forceps and Cryobiopsy**
C. Spencer, MD, New York, NY

**Transbronchial Lung Biopsy in Children**
S.B. Goldfarb, MD, ATSF, Minneapolis, MN

**Endobronchial Ultrasound (EBUS) Techniques in Children**
J.C. Piccione, MS, DO, ATSF, Philadelphia, PA

**Endobronchial Valves for Persistent Air Leak in Children**
J. Puchalski, MD, MEd, New Haven, CT

**Lunch**

**Practical Skills Session**
- **Station 1** - Endobronchial Biopsy
  E.M. Deboer, MD, MSCR, Aurora, CO

- **Station 2** - Foreign Body Retrieval
  J.C. Piccione, MS, DO, ATSF, Philadelphia, PA

- **Station 3** - Cryoprobe
  C. Spencer, MD, New York, NY

- **Station 4** - Radial EBUS & CT Navigational Bronchoscopy
  J.C. Piccione, MS, DO, ATSF, Philadelphia, PA

- **Station 5** - Linear EBUS
  J. Puchalski, MD, New Haven, CT

- **Station 6** - Fiberoptic Intubation
  E. Hysinger, MD, MSCE, Cincinnati, OH

This session and the International Conference are supported by an independent medical educational grant from Olympus Corporation of the Americas. This session and the International Conference are supported by in-kind grants from Avanos, Broncus, ERBE USA, INC., Olympus Corporation of the Americas.

**Objectives**
At the conclusion of this session, the participant will be able to:
- develop skills for the management of chronic respiratory failure syndromes in the ambulatory or home setting;
- develop knowledge on algorithms and features of respiratory assist devices, home mechanical ventilators, and understand how to interpret downloaded report from devices in order to optimize ventilatory support for specific diseases;
- develop knowledge on indications and applications of mechanical airway clearance devices in the ambulatory setting.

Patients with chronic hypercapnic respiratory failure are unable to breathe independently without noninvasive/invasive ventilatory support. In order to properly care for this complex patient population, a solid understanding of home mechanical ventilators, respiratory assist devices, and mechanical airway clearance is critical. The course aims to highlight advances in home mechanical ventilation for specific to disease states including hypercapnic COPD, obesity hypoventilation syndrome, and neuromuscular disorders. There will be a skills-based (hands-on) component providing learners the chance to dive into specific algorithms and functionalities of each device.

**Chairing:**
- M. Cao, DO, Palo Alto, CA
- J.O. Benditt, MD, Seattle, WA
- K.A. Provost, DO, PhD, Buffalo, NY
- J.H. Hansen-Flaschen, MD, ATSF, Philadelphia, PA

**PG5 ADVANCES IN THE HOME MANAGEMENT OF CHRONIC RESPIRATORY FAILURE**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Introduction and Course Overview/Goals</td>
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<tr>
<td>8:05</td>
<td>Understanding NIV: Respiratory Assist Device (RAD) Versus Home Mechanical Ventilator</td>
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<tr>
<td>8:35</td>
<td>Telemonitoring for Home Assisted Ventilation</td>
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<tr>
<td>9:05</td>
<td>Optimizing Mechanical Airway Clearance Strategies</td>
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<tr>
<td>9:35</td>
<td>Break</td>
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<tr>
<td>9:50</td>
<td>Obesity Hypoventilation Syndrome: When Is NIV Superior To CPAP</td>
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<tr>
<td>10:20</td>
<td>Home Noninvasive Ventilation for COPD</td>
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<tr>
<td>10:50</td>
<td>NIV for the Neuromuscular Patient</td>
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<tr>
<td>11:20</td>
<td>Lunch</td>
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</table>

**Target Audience**
All health care providers who care for patients with chronic respiratory failure syndromes on home mechanical ventilation; including physicians, advanced practice providers, nurses, respiratory therapists, and junior faculty including fellows
Target Audience
Investigators pursuing basic, translational, or clinical who are interested in early-stage technology development (e.g., drugs, devices, biomarkers), entrepreneurship and/or forming academic start-ups

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

- better understand early-stage drug discovery and technology development processes and how to identify the commercialization potential of academic-based inventions;
- learn about essentials and challenges various aspects of commercialization: intellectual property (patents), IND-enabling studies, pre-clinical study design, business development, company spin-out, pitching to investors, securing funding, and more;
- learn how to develop a business pitch for investors. Attendees will develop a 5 minute pitch based on their technologies/products of interest and will practice by pitching to the group.

This course will review the best practices for developing new drugs/technologies and commercialization for discoveries initially made in academic settings. Although innovative thinking and cutting-edge has the potential to translate into novel products, many scientists/clinicians in academia are not familiar with the best practices that lead to successful commercialization. Here, attendees will discover real-life stories from experts on what works and doesn’t work when the goal is to translate research findings into successful products/technologies. Topics will include start-up formation, intellectual property, drug development, IND-enabling studies, funding resources, business development, and more.

Chairing: M. Vukmirovic, PhD, Toronto, Canada
L. Hecker, PhD, Atlanta, GA
K. Hajipouran Benam, PhD, Pittsburgh, PA

8:00 Introduction and General Welcome
M. Vukmirovic, PhD, Toronto, Canada

8:10 An Introduction to Drug Development in Lung Diseases - Academic Perspective
R.H. Gomer, PhD, College Station, TX

8:35 What’s Mine Is Mine: Promoting and Protecting Your IP During Publication
N.J. Kenyon, MD, MSCR, Sacramento, CA

9:00 The Importance of Target Engagement Studies in Preclinical Research
S. Turner, PhD, South San Francisco, CA

9:25 Questions and Answers
9:40 Break

9:55 Expert Fireside Chats: The Future of Pulmonary Medicine
N. Kaminski, MD, ATSF, New Haven, CT
M. Koenigshoff, MD, PhD, Pittsburgh, PA
10:25 Panel Discussion: Taking the Next Steps After Discovery
R. Tarran, PhD, Chapel Hill, NC
A.H. Cohen, MD, Menlo Park, CA
T.R. Watkins, MD, MSc, Seattle WA
M. Vukmirovic, PhD, Toronto, Canada

11:05 Introduction to Pre-IND Enabling Studies and Clinical Trials
T.M. Maher, MD, MSc, PhD, Los Angeles, CA

11:30 Lunch

11:45 Power Lunch: Navigating and Growing an Academic Startup
J.J. Rose, MD, MBA, Pittsburgh, PA
R.K. Mallampalli, MD, Columbus, OH

12:30 Experts Chats: Funding Made Easy
R.H. Gomer, PhD, College Station, TX
L. Hecker, PhD, Atlanta, GA

12:55 Lessons From Venture Capitalists - Do’s and Don’ts When Developing a New Drug
D.G. Morris, MD, Basel, Switzerland
K. Hajipouran Benam, PhD, Pittsburgh, PA

1:25 Early Stage Drug Development Presentation- Fibronox
L. Hecker, PhD, Atlanta, GA

1:31 Early Stage Drug Development Presentation- Mediar Therapeutics
D. Lagares, PhD, MSc, Boston, MA

1:37 Early Stage Drug Development Presentation- Pilant Therapeutics
S. Turner, PhD, South San Francisco, CA

1:43 Early Stage Technology Development Presentation- Pneumax
K. Hajipouran Benam, PhD, Pittsburgh, PA

1:50 Break

2:00 Workshop: Work in Groups to Prepare 5 Min Pitch Slide Deck
M. Vukmirovic, PhD, Toronto, Canada

3:00 Presentations from PG Course Participants and Feedback
L. Hecker, PhD, Atlanta, GA

3:55 Closing Remarks - Chairpersons
K. Hajipouran Benam, PhD, Pittsburgh, PA
This is part 2 of a two-part course which includes PG1A on Friday, May 13. Pre-registration and additional fees required. Attendance is limited. See PG1A for course fees.

Assembly on Critical Care
8:00 a.m. - 4:00 p.m. MOSCONE CENTER
Room 2002 (West Building, Level 2)

Target Audience
Providers of critical care or emergency medicine

Objectives
At the conclusion of this session, the participant will be able to:
• apply ultrasound at bedside to assess critically ill patients;
• apply ultrasound to guide common ICU procedures;
• diagnose alternate etiologies of shock in the critically ill patient.

This is a 2-day postgraduate course that consists of didactic lectures and hands-on stations. The focus is primarily bedside transthoracic echocardiography, with some diagnostic ultrasound. The topics include basic and intermediate critical care echocardiography (including hemodynamic measures), assessment of fluid status, procedural guidance for vascular access and thoracentesis, venography. The hands on stations will include both healthy models and laptops that can demonstrate abnormal pathology.

Chairing: M.J. Lanspa, MD, ATSF, Salt Lake City, UT

8:00 Vascular Ultrasound: DVT Evaluation
L. Rapoport, MD, MS, Santa Clara, CA

8:25 Vascular Access
S. Bain, MD, Seattle, WA

8:45 Tamponade
G.B. Allen, MD, Burlington, VT

9:15 Using Ultrasound to Assess Intravascular Volume and Fluid Responsiveness
M.J. Lanspa, MD, MSCR, ATSF, Salt Lake City, UT

9:45 Ultrasound for Diuresis and Dialysis
D.A. Sweeney, MD, Poway, CA

10:15 Break

10:30 Practical Skills Session: Hands-On Station III

Vascular Ultrasound
S. Bain, MD, Seattle, WA
Z. Shaman, MD, Cleveland, OH
L. Grecu, MD, Durham, NC
L. Rapoport, MD, MS, Santa Clara, CA
D. Pradhan, MD, New York, NY

Tamponade Evaluation
V.A. Dinh, MD, Loma Linda, CA
G.B. Allen, MD, Burlington, VT
P.K. Mohabir, MD, Stanford, CA
J.C. Klick, MD, Burlington, VT

Volume Status
R.E. Burk, MD, Reno, NV
J. Kasal, MD, St. Louis, MO
D.A. Sweeney, MD, Poway, CA
A. Leibowitz, MD, Boston, MA
E. Ablordeppey, MD, St. Louis, MO

12:00 Lunch

12:30 Lunch and Clinical Cases II
Y. Duanmu, MD, Stanford, CA

12:45 Abdominal Ultrasound
V.A. Dinh, MD, Loma Linda, CA

1:15 Goal Directed Management of Shock Using Echocardiography
J. Kasal, MD, St. Louis, MO

1:45 Incorporating Echocardiography into Shock and CPR
E. Ablordeppey, MD, St. Louis, MO

2:15 Break

2:30 Practical Skills Session: Hands-On Station IV

Abdominal Ultrasound
E. Ablordeppey, MD, St. Louis, MO
Z. Shaman, MD, Cleveland, OH
V.A. Dinh, MD, Loma Linda, CA
D. Pradhan, MD, New York, NY
R.E. Burk, Reno, NV
BASIC • CLINICAL • TRANSLATIONAL
POSTGRADUATE COURSE

PG7 ASTHMA: LATEST TECHNIQUES AND TOOLS FOR THE INVESTIGATOR

Pre-registration and additional fees required. Attendance is limited.
- Member: $420
- LMIC Member: $295
- Non-Member: $510
- In-Training Member: $240
- LMIC In-Training Member: $170
- In-Training Non-Member: $360

Assemblies on Allergy, Immunology and Inflammation; Respiratory Cell and Molecular Biology
8:00 a.m. - 4:00 p.m.  MOSCON CENTER Room 3016/3018 (West Building, Level 3)

Target Audience
Investigators or potential investigators who are interested in basic, translational, and clinical research in asthma

Objectives
At the conclusion of this session, the participant will be able to:
- gain a broad understanding of methodology in asthma research, from translational immunology to clinical trial design;
- learn how to apply immunophenotyping and omics techniques to the study of asthma;
- understand new concepts in clinical trials in asthma, including adaptive designs, master protocols, and recruitment of underrepresented groups.

This course is focused on providing a comprehensive overview of major techniques and tools in asthma investigation, ranging from clinical trials to translational tools to basic models. The course will allow investigators of different backgrounds to get a broad view of the current state of asthma research and provide cross-training that may allow them to expand their research in new directions. The course is also well suited for junior investigators who are pursuing careers in asthma research.
PG8 • FUNDAMENTALS OF WRITING SUCCESSFUL RESEARCH PROJECT GRANTS: RISING TO THE NEXT LEVEL - FUND-R

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

- Member: $480
- In-Training Member: $300
- LMIC Member: $340
- LMIC In-Training Member: $210
- Non-Member: $570
- In-Training Non-Member: $420

Assemblies on Behavioral and Health Services Research; Clinical Problems; Critical Care; Nursing; Pediatrics; Pulmonary Infections and Tuberculosis; Sleep and Respiratory Neurobiology; Thoracic Oncology

8:00 a.m. - 4:00 p.m. MOSCONE CENTER Room 3003 (West Building, Level 3)

Target Audience
Early to mid stage investigators (fellows, clinical faculty, advanced practice nurses, PhDs) interested in submitting R-level research project grants focused on basic, clinical, translational, health services, or implementation research

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

- compose a competitive research project grant application as an independent investigator with an emphasis on innovative research;
- formulate and articulate integrated research plans that outline an innovative and feasible project that should be funded;
- gain a better understanding of the grant review process, including resubmission, through participation in a mock study section.

Writing your first R01 can be a daunting endeavor but does not need to be. This session will combine didactics with hands-on practice in order for participants to learn fundamental skills to develop a competitive R01 grant proposal. Key topics will include: writing a compelling research plan, developing a team of investigators, and creating a budget. Participants will gain an appreciation of the review process through participation in a mock study section and interact throughout the day with a diverse faculty composed of previous awardees, experienced mentors, and grant reviewers from various funding bodies.

Chairing:
- A. Volerman, MD, Chicago, IL
- S.M. Nyenhuys, MD, Chicago, IL
- T.S. Valley, MD, MSc, Ann Arbor, MI

8:00 Welcome and Introductions
8:15 The Alphabet and Number Soup: An Overview of Different R Mechanisms
- A. Volerman, MD, Chicago, IL

8:35 How to Know When You Are Ready to Apply for an R
- S.M. Nyenhuys, MD, Chicago, IL

8:55 Aiming for Success: Preparing Your Specific Aims Page
- R.S. Wiener, MD, MPH, ATSF, Boston, MA

9:15 Small Group Breakout: Writing Specific Aims
- R. Kohn, MD, MSCE, Philadelphia, PA

9:45 Break

9:55 What’s the Big Deal? Crafting Strong Significance and Innovation Sections
- T.S. Valley, MD, MSc, Ann Arbor, MI

10:15 Laying the Foundation: Outlining Preliminary Data
- C.T. Hough, MD, MSc, Portland, OR

10:35 Looking Under the Hood: Laying Out a Successful Research Approach
- G.A. Silvestri, MD, Charleston, SC

10:55 Creating Your Investigative Team
- L.C. Feemster, MSc, MD, Seattle, WA

11:15 Lunch

12:15 Give Me the Money: Developing a Budget
- K.A. Riekert, PhD, Baltimore, MD

12:35 The “Other” Sections: What Else Do I Need to Know About the Process of Grant Preparation
- L.P. Hariri, BS, MD, PhD, ATSF, Boston, MA

12:55 Small Group Breakout: Review Grant Prior to Mock Study Section
- A.J. Admon, MD, MPH, MSc, Ann Arbor, MI

1:25 Break

1:35 Mock Study Section for R01 Grant Review
- K.A. Riekert, PhD, Baltimore, MD
- A. Morris, MD, MS, Pittsburgh, PA
- C.H. Weiss, MD, MS, Evanston, IL
- M.L. Salsbury, MD, MS, Nashville, TN
- S.E. Evans, MD, ATSF, Houston, TX
- D.H. Au, MD, MS, ATSF, Seattle, WA
- J.P. Reilly, MD, MSCE, Philadelphia, PA

2:05 Moderated Discussion About Grant Review
- J.A. Wambach, MD, MS, St. Louis, MO

2:30 Now What? After the Grant Review
- E. Forno, MD, MPH, ATSF, Pittsburgh, PA

2:50 Break

3:00 Panel of Recent Awardees and Senior Investigators
- E.K. Kross, MD, Seattle, WA
- M.P. Kerlin, MD, MS, Philadelphia, PA
- C.R. Cooke, MD, Ann Arbor, MI
- V.G. Press, MD, MPH, ATSF, Chicago, IL
- D.K. Costa, PhD, RN, Ann Arbor, MI

3:45 Conclusion
CLINICAL
POSTGRADUATE COURSE

PG9  THORACIC IMAGING FOR THE PULMONOLOGIST AND CRITICAL CARE PHYSICIAN

Pre-registration and additional fees required. Attendance is limited.
Member: $420  In-Training Member: $240
LMIC Member: $295  LMIC In-Training Member: $170
Non-Member: $510  In-Training Non-Member: $360

Assemblies on Clinical Problems: Allergy, Immunology and Inflammation; Critical Care; Pulmonary Circulation; Pulmonary Infections and Tuberculosis; Thoracic Oncology

8:00 a.m. - 4:00 p.m.  MOSCONE CENTER
Room 3002 (West Building, Level 3)

Target Audience
Pulmonologists, critical care physicians, thoracic surgeons, advanced practice providers, residents, fellows, respiratory therapists, and students

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

• formulate a differential diagnosis of respiratory diseases based on diagnostic imaging findings;
• state the value of a multidisciplinary approach to diagnosis and management of patients with diffuse lung diseases and recommendations on diagnosis of idiopathic pulmonary fibrosis;
• improve strategies for the evaluation of solitary pulmonary nodules and for approaching challenging cases encountered on lung cancer screening.

This postgraduate course will review major thoracic imaging topics. Presentations are targeted towards practitioners in pulmonary and critical care medicine. Thoracic radiologists will offer case-based reviews focusing on the key aspects of chest imaging. Presentations will be image rich and focus on key imaging findings, differential diagnosis, and common pitfalls. Topics will cover a broad range of chest disease and will be relevant to trainees, generalists, and alike. At the conclusion of the course, learners will have increased knowledge about thoracic imaging and be able to bring that knowledge to their respective practices.

Chairing:
M.D. Martin, MD, Madison, WI
J. Kanne, MD, Madison, WI

8:00  Large Airways Diseases
J. Kanne, MD, Madison, WI

8:30  Small Airways Diseases
T. Henry, MD, San Francisco, CA

9:00  Diseases of the Pleura
C.C. Wu, MD, Houston, TX

9:30  Break

9:45  Solitary Pulmonary Nodule
J. Mammarappallil, MD, PhD, Chapel Hill, NC

10:15  Lung Cancer Screening
M.D. Martin, MD, Madison, WI

10:45  Lunch

11:45  Pulmonary Infections
L. Ketai, MD, Albuquerque, NM

12:15  Nuclear Medicine 101 for the Pulmonologist
J. Kanne, MD, Madison, WI

12:45  Pulmonary Hypertension
E.M. Johnson, MD, Jacksonville, FL

1:15  Break

1:30  Multidisciplinary Approach to Diffuse Lung Diseases
S.J. Halliday, MD, MSci, Madison, WI
S. Hobbs, MD, Lexington, KY
K.D. Jones, MD, San Francisco, CA

CLINICAL
POSTGRADUATE COURSE

PG10  INTERSTITIAL LUNG DISEASE: DELIVERING OPTIMAL, PATIENT CENTERED CARE

Pre-registration and additional fees required. Attendance is limited.
Member: $420  In-Training Member: $240
LMIC Member: $295  LMIC In-Training Member: $170
Non-Member: $510  In-Training Non-Member: $360

Assemblies on Clinical Problems: Behavioral and Health Services Research; Environmental, Occupational and Population Health; Nursing; Pulmonary Circulation; Pulmonary Rehabilitation

8:00 a.m. - 4:00 p.m.  MOSCONE CENTER
Room 3004 (West Building, Level 3)

Target Audience
Pulmonary fellows, general pulmonologists, ILD specialists, and advanced care nurses who provide clinical care for patients with ILD

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 course will provide a practical approach to the diagnosis and management of patients with ILD. 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 which will provide a range of learning methods to reach the largest number of learners.

Chairing: S.K. Danoff, MD, PhD, ATSF, Baltimore, MD
M. Kreider, MD, MSCE, ATSF, Philadelphia, PA

8:00 Introduction
S.K. Danoff, MD, PhD, ATSF, Baltimore, MD

8:10 Clinical Evaluation of the New ILD Patient
S. Sood, MD, MS, Philadelphia, PA

8:35 New Guidelines for Diagnosis of ILD
E. Renzoni, PhD, London, United Kingdom

9:00 Recognizing CT Patterns
S. Hobbs, MD, Lexington, KY

9:25 Natural History of Disease and Monitoring
C. Newton, MD, Dallas, TX

9:50 Break

10:20 ILD Speed MDD
E. Renzoni, PhD, London, United Kingdom
S. Sood, MD, MS, Philadelphia, PA
L.P. Hariri, BS, MD, PhD, ATSF, Boston, MA
S. Hobbs, MD, Lexington, KY
C. Newton, MD, Dallas, TX
M. Kreider, MD, MSCE, ATSF, Philadelphia, PA
E.J. Bernstein, MD, MSc, New York, NY

11:30 Lunch

12:30 Therapies for IPF
Y.N. Mageto, MD, MPH, ATSF, Dallas, TX

12:55 Therapies for CTD-ILD
V. Cottin, PhD, MD, Lyon, France

1:20 Non-Pharmacologic Care in ILD
M. Wijsenbeek, MD, PhD, Rotterdam, Netherlands

1:45 Pulmonary Hypertension and Lung Transplant in ILD Patients
E.D. Farrand, MD, San Francisco, CA

2:10 Break

2:40 Tough Cases
Y.N. Mageto, MD, MPH, ATSF, Dallas, TX
V. Cottin, PhD, MD, Lyon, France
M. Wijsenbeek, MD, PhD, Rotterdam, Netherlands
E.D. Farrand, MD, San Francisco, CA
S.K. Danoff, MD, PhD, ATSF, Baltimore, MD
E.J. Bernstein, MD, MSc, New York, NY
M. Kreider, MD, MSCE, ATSF, Philadelphia, PA

3:50 Wrap Up
M. Kreider, MD, MSCE, ATSF, Philadelphia, PA

This session and the International Conference are supported by independent medical educational grants from Boehringer Ingelheim Pharmaceuticals, Inc., Genentech, Inc. All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).

PG11 LONG TERM OXYGEN THERAPY IN 2022: WHAT WE NEED TO KNOW AND WHAT IS NEXT

Pre-registration and additional fees required. Attendance is limited.
Member: $420 In-Training Member: $240
LMIC Member: $295 LMIC In-Training Member: $170
Non-Member: $510 In-Training Non-Member: $360

Target Audience
Health care professionals who care for patients using supplemental oxygen, including physicians, nurses, respiratory therapists, PAs and NPs and also individuals working in advocacy and policy around oxygen services

Objectives
At the conclusion of this session, the participant will be able to:
• incorporate the new ATS oxygen CPG into current practice, including the importance of ongoing monitoring, managing patients needing high flow oxygen, and meeting the educational needs of patients and caregivers;
• improve clinician knowledge to better counsel mobile patients with resting and exertional hypoxemia on the rationale for oxygen therapy and how to match their expectations and lifestyle needs to the capabilities of available technologies;
• improve the quality of life and health status of patients using long-term oxygen therapy by demonstrating understanding of the different portable oxygen device technologies, oxygen reimbursement requirements, and oxygen advocacy efforts.

This full day session will review critical content related to the provision of supplemental long-term oxygen therapy (LTOT) to adults outside of the acute care setting. The educational needs are broad and complex for health care professionals who care for patients with a variety of pulmonary problems who receive LTOT. Course attendees will increase clinical practice knowledge around the rationale and process for prescribing oxygen, the evidence from the recent ATS Oxygen CPG,
the oxygen equipment prescription based on patients’ needs, equipment technology, oxygen device innovation, and gaps in research. Additionally, subject matter experts will discuss reimbursement barriers and share advocacy and policy efforts in device innovation.

Chairing: S.S. Jacobs, RN, MS, Stanford, CA
C. Garvey, MSN, MPA, FNP, San Francisco, CA
J.A. De Andrade, MD, Nashville, TN

8:00 The Patient Perspective: What Clinicians Need to Know
B. Jackson, MS, Little Rock, AR

8:30 Oxygen 101: Qualification, Orders, Equipment Options
C. Garvey, MSN, MPA, FNP, San Francisco, CA

9:00 The Finer Points of Portable Oxygen Concentrators (POCs)
R.D. Branson, MS, RRT, Cincinnati, OH

9:30 ATS Oxygen CPG: Evidence for Prescribing Oxygen for Patients With Resting Hypoxemia
J. Krishnan, MD, PhD, ATSF, Chicago, IL

10:00 PRO/CON Debate- PRO: Patients With Exertion-Only Hypoxemia Should Be Prescribed Supplemental Ambulatory Oxygen
J. Krishnan, MD, PhD, ATSF, Chicago, IL

10:15 PRO/CON Debate-CON: Patients With Exertion-Only Hypoxemia Should Not Be Prescribed Supplemental Ambulatory Oxygen
A.E. Holland, PT, PhD, Melbourne, Australia

10:30 Break

11:00 The Evolution of Reimbursement Since Competitive Bidding: Where Do We Stand?
A.M. Hummel, Alexandria, VA

11:30 Interfacing With Durable Oxygen Supply Companies: Ordering vs Reality, the Appeal Process and More
S.S. Jacobs, RN, MS, Stanford, CA

12:00 Lunch

1:00 What is the Priority for Oxygen Policy Today? Perspectives From Professional and Advocacy Organizations
G. Ewart, MHS, Washington, DC
Schmidt, JD, Evanston, IL
A.M. Hummel, Alexandria, VA
R. Tal-Singer, PhD, Washington, DC
N. Freedman, MD, Chicago, IL

1:30 Evidence and Practice for Oxygen in Palliative and End-of-Life Care
A.M. Schneidman, MS, CNS, RN, ATSF, Phoenix, AZ

2:00 Break

2:30 Is It Possible to Give Too Much of a Good Thing? Oxygen Therapy Pitfalls and Possible Toxicity in Patients With COPD and ILD
J.D. Andrade, MD, Nashville, TN

3:00 Oxygen Device Innovation: Remote Control, Autotitration and More
R.D. Branson, MS, RRT, Cincinnati, OH

3:30 Gaps in Oxygen Research: Where to Next?
C. Ryerson, MD, Vancouver, Canada

PG12 GENDER EQUITY IN ACADEMIA: A SLIPPERY LADDER AND A LEAKY PIPELINE

Pre-registration and additional fees required. Attendance is limited.
Member: $420 In-Training Member: $240
LMIC Member: $295 LMIC In-Training Member: $170
Non-Member: $510 In-Training Non-Member: $360

Assemblies on Pediatrics; Allergy, Immunology and Inflammation; Behavioral and Health Services Research; Critical Care; Environmental, Occupational and Population Health; Nursing; Pulmonary Circulation; Respiratory Cell and Molecular Biology; Respiratory Structure and Function

8:00 a.m. - 4:00 p.m. MOSCONIE CENTER
Room 3007 (West Building, Level 3)

Target Audience
All ATS attendees would benefit from this session, including trainees, junior faculty and senior faculty, in basic, clinical, behavioral and translational

Objectives
At the conclusion of this session, the participant will be able to:
• incorporate new strategies for mentoring women, particularly URM women to allow for increased retention and promotion of women in academia;
• apply strategies for mitigating harassment of women in the academic workplace;
• define the role of institutions and academic societies in the advancement of women scientists.

This program will delve into issues of gender equity in medicine, including educational/didactic sessions, panel discussions, and concrete strategies that can be applied at home institutions to address gender inequity. This course has been co-sponsored by nearly all ATS assemblies.

Chairing: H.H. De Keyser, MD, MSCR, Aurora, CO
T.A. Laguna, MD, MSci, Chicago, IL

8:00 Opening Remarks
D.M. Boyer, MD, MPHE, Columbus, OH

8:10 Challenges Facing URM Women in Academic Medicine
J.L. Taylor-Cousar, MD, MSc, ATSF, Denver, CO
MENTORING DIVERSE WOMEN
V.G. Press, MD, MPH, ATSF, Chicago, IL

BREAK

MODERATED DISCUSSION
B.E. Himes, PhD, ATSF, Philadelphia, PA
T.A. Laguna, MD, MSci, Chicago, IL
H.H. De Keyser, MD, MSCR, Aurora, CO
S.L. Martiniano, MD, MS, Aurora, CO
C. Eckhardt, MD, New York, NY

LUNCH

GENDER EQUITY: THE ROLE OF MEN
N. Kaminski, MD, ATSF, New Haven, CT

WORK LIFE INTEGRATION/PARENTAL LEAVE
C.E. Ventetuolo, MD, MSCR, Providence, RI

WOMEN IN LEADERSHIP PANEL
S.D. Davis, MD, ATSF, Chapel Hill, NC
R.R. Deterding, MD, Aurora, CO
C.H. Wendt, MD, ATSF, Minneapolis, MN
D.M. Boyer, MD, Columbus, OH

ROLE OF SOCIETIES IN SUPPORTING WOMEN
M.E. Rebulli, PhD, Chapel Hill, NC
I. Jaspers, PhD, Chapel Hill, NC

BREAK

STRATEGIES FOR MITIGATING HARASSMENT: BYSTANDER/UPSTANDER TRAINING
C.H. Wendt, MD, ATSF, Minneapolis, MN

STRATEGIES FOR MITIGATING HARASSMENT: PATIENT PERPETRATED HARASSMENT
E.M. Viglianti, MD, MPH, MSc, Ann Arbor, MI

EQUITY IN GRANT FUNDING
M.A.Q. Curley, PhD, Philadelphia, PA

ACADEMIC NEGOTIATION/ADVOCATING FOR YOURSELF
N.A. Shah, MD, MPH, MSci, New York, NY

BASIC

POSTGRADUATE COURSE

PG14 LUNG IMMUNITY AND RESPIRATORY INFECTION

Pre-registration and additional fees required. Attendance is limited.
Member: $420 In-Training Member: $240
LMIC Member: $295 LMIC In-Training Member: $170
Non-Member: $510 In-Training Non-Member: $360

Assemblies on Pulmonary Infections and Tuberculosis; Allergy, Immunology and Inflammation; Respiratory Cell and Molecular Biology

8:00 a.m. - 4:00 p.m. MOSCON CENTER
Room 3008 (West Building, Level 3)

TARGET AUDIENCE
Research trainees, clinicians seeking biological perspectives, scientists desiring infection/health knowledge, those with clinical or research activities, and those needing instruction outside of specialty

OBJECTIVES
At the conclusion of this session, the participant will be able to:
• describe new findings about specialized elements of immunity within the lung;
• improve research efforts relating to pulmonary immunology and respiratory infections;
• apply knowledge of immunopathophysiology and immunoprotection to preventing and treating patients with or at risk for pneumonia.

The session will provide an overview of immunity in the lung, and how that lung immunity determines the outcome of respiratory infection, including protective and pathogenic immune activities.

CHAIRING:
J.P. Mizgerd, ScD, ATSF, Boston, MA
H. Koziel, MD, Boston, MA

8:00 RESIDENT AND RECRUITED MACROPHAGES IN THE LUNG
W.J. Janssen, MD, Denver, CO

8:30 NEUTROPHILS AND ACUTE LOWER RESPIRATORY INFECTION
K. Traber, MD, PhD, ATSF, Boston, MA

9:00 EOSINOPHILS AND ANTIMICROBIAL DEFENSE
A.E. Samarasinghe, PhD, Memphis, TN

9:30 VISUALIZING IMMUNITY IN THE LUNGS
M.R. Looney, MD, San Francisco, CA

10:15 EPITHELIAL CELL RESPONSES TO LUNG INFECTION
S. Herold, MD, PhD, Giessen, Germany

10:45 MESENCHYMAL CONTRIBUTIONS TO LUNG IMMUNITY
P.G. Thomas, PhD, Memphis, TN

11:15 THE LUNG MICROBIOME AND LUNG IMMUNITY
R.P. Dickson, MD, Ann Arbor, MI

11:45 LUNCH

12:45 TRM CELLS IN THE LUNG
J. Sun, PhD, Charlottesville, VA

1:15 BRM CELLS IN THE LUNG
T. Randall, PhD, Birmingham, AL

1:45 AN ANATOMIC APPROACH TO STUDY LUNG RESIDENT IMMUNITY
D. Farber, PhD, New York, NY

2:15 BREAK

2:30 MUCOSAL VACCINE APPROACHES FOR FIGHTING LUNG INFECTION
J.K. Kolls, MD, New Orleans, LA
3:00 Stimulating Lung Innate Immunity to Prevent Respiratory Infection
S.E. Evans, MD, ATSF, Houston, TX

3:30 Co-Morbidities and Susceptibility to Respiratory Infection
C. Dela Cruz, MD, PhD, ATSF, New Haven, CT

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**PG15 DIFFICULT CLINICAL QUESTIONS IN PULMONARY AND CRITICAL CARE INFECTIONS**

Pre-registration and additional fees required. Attendance is limited.
Member: $420 In-Training Member: $240
LMIC Member: $295 LMIC In-Training Member: $170
Non-Member: $510 In-Training Non-Member: $360

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**Assemblies on Pulmonary Infections and Tuberculosis**

8:00 a.m. - 4:00 p.m. MOSCONE CENTER
Room 3024 (West Building, Level 3)

**Target Audience**
Clinicians who manage patients with lung infections and those who manage intensive care unit patients with infections related to critical illness

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

- apply contemporary diagnostic and treatment approaches to a variety of infections encountered in the local practice setting to improve the care of the pulmonary/critical care patient with infection;
- understand contemporary epidemiology of infections in the immunocompromised host, including the critically ill, and select appropriate diagnostic and therapeutic modalities;
- gain an updated understanding of the contemporary treatment options for the patient with resistant lung pathogens.

This course will provide clinicians with a broad overview of, as well as recent updates on, current challenges in pulmonary and critical care infections, including those caused by bacteria, mycobacteria, viruses, and fungal pathogens. Issues specific to infections in the immunocompromised host will likewise be discussed. Each talk will begin with a challenging case example followed by a multiple-choice question, which the attendees will answer using an audience response system (ARS).

**Chairing:**
O. Epelbaum, MD, ATSF, Valhalla, NY
K. Pennington, MD, Rochester, MN
C.A. Hage, MD, ATSF, Indianapolis, IN

**8:00 Introduction**
O. Epelbaum, MD, ATSF, Valhalla, NY

**8:05 Resistant Pathogens in Severe CAP: Exaggerated or Underestimated?**
Barbara E. Jones, MD, MSc, Salt Lake City, UT

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**8:30 How Should VAP Be Defined and Treated?**
R.G. Wunderink, MD, Chicago, IL

**8:55 Pleural Space Infection: Medical or Surgical Disease?**
N. Rahman, MBCh, MSc, MCRP, Oxford, United Kingdom

**9:20 Panel Discussion**

**9:50 Steroids for Viral Pneumonia: Why COVID but Not Influenza?**
C. Dela Cruz, MD, PhD, ATSF, New Haven, CT

**10:15 What Are the Options for Managing Treatment Failure in Pulmonary MAC?**
R. Thomson, MBBS, PhD, Greenslopes, Australia

**10:40 How Have Recent Clinical Trials Impacted Treatment of Latent and Active Pulmonary TB?**
S.E. Dorman, MD, Charleston, SC

**11:05 Panel Discussion**

**11:20 Lunch**

**12:20 Empirical Therapy for Invasive Candidiasis in the ICU: Who, When, How?**
S. Jacobs, MD, New York, NY

**12:45 Aspergillus in the Critically Ill: Real Danger or Phantom Fear?**
K. Pennington, MD, Rochester, MN

**1:10 Is There a Right and Wrong Way to Use Procalcitonin in the ICU?**
S. Kadri, MD, MS, Bethesda, MD

**1:35 Panel Discussion**

**1:50 Break**

**2:05 BAL for Opportunistic Infection: What Is There Beyond Culture?**
M. Ferrer, MD, PhD, Barcelona, Spain

**2:30 What Has Changed in the Landscape of Pneumocystis Pneumonia?**
K.A. Crothers, MD, Seattle, WA

**2:55 Lung Infections on Biologics: What to Consider Before and During Therapy?**
K.L. Winthrop, MD, MPH, Portland, OR

**3:20 Panel Discussion**

**3:35 Post-Test**
K. Pennington, MD, Rochester, MN

**3:50 Conclusion**
C.A. Hage, MD, ATSF, Indianapolis, IN

*This session and the International Conference are supported by an independent medical educational grant from Insmed Incorporated*

All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).
The Senescence Pipeline: From Basics to Models and Therapeutic Implications

**Target Audience**
Physicians, physician scientists, scientists, fellows and trainees with an interest in the area of lung aging and regeneration, in particular how cellular senescence influences the development of chronic and acute lung diseases

**Objectives**
At the conclusion of this session, the participant will be able to:
- to improve participants knowledge on cellular senescence biology and relevance in chronic and acute lung diseases;
- to identify opportunities for novel investigation into understudied aspects of cellular senescence biology and disease relevance;
- to gain how advances in cellular senescence biology are revealing new therapeutic approaches to deplete or modify senescent cells.

The primary objective of this course is to provide a comprehensive state of the art overview about current approaches and findings that demonstrate the relevance of cellular senescence during lung aging, injury, and repair. The lectures of this PG course will feature the basics of cellular senescence, the different upstream inducers of cellular senescence as well as its downstream mediators. It will further feature its relevance in different chronic and acute lung diseases across the age spectrum and finally how to modify cellular senescence as a therapeutic target in lung diseases.

**Chairing:**
C.R. Kliment, MD, PhD, Pittsburgh, PA  
J.R. Baker, PhD, ATSF, London, United Kingdom  
O. Eickelberg, MD, ATSF, Pittsburgh, PA  
Z. Borok, MBChB, ATSF, La Jolla, CA

**8:00 Why Do We Need to Care About Senescence in Frailty and Chronic Lung Disease**  
M. Koenigshoff, MD, PhD, ATSF, Pittsburgh, PA

**Senescence Basics**

- **8:21 The Different Faces of Cellular Senescence**  
  B. Schilling, PhD, Novato, CA

- **8:42 Triggers of Senescence in the Lung**  
  A.L. Mora, MD, Columbus, OH

- **9:02 Inflammaging and Senescence**  
  J.R. Baker, PhD, ATSF, London, United Kingdom

- **9:22 Questions and Answers**

- **9:32 Break**

**Senescence Tools and Methods**

- **10:03 Mouse and Human Models to Study Cellular Senescence**  
  C.T. Jourdan Le Saux, PhD, San Francisco, CA

- **10:23 Utilizing Single Cell Sequencing to Characterize Cellular Senescence**  
  B.R. Stripp, PhD, Los Angeles, CA

- **10:43 Context Dependent SASP and How to Identify It**  
  J.K. Alder, PhD, Pittsburgh, PA

- **11:03 Questions and Answers**

- **11:13 Lunch**

**Senescence in Lung Disease**

- **12:14 Cellular Senescence in Airway Disease**  
  Y.S. Prakash, MD, PhD, Rochester, MN

- **12:34 Cellular Senescence in COPD Mediates Alveolar Niche Reprogramming**  
  M. Sauler, MD, New Haven, CT

- **12:54 Cellular Senescence of Different Cell Populations Mediates IPF**  
  M. Lehmann, PhD, Neuherberg, Germany

- **1:14 Cellular Senescence Contributes to COVID-19 Pathogenesis**  
  S. Adnot, MD, Créteil, France

- **1:34 Questions and Answers**

- **1:44 Break**

**Senescence: Therapy and Outcomes**

- **2:15 Pre-Clinical Development of Novel Drug Candidates for Age-Associated Lung Diseases**  
  L. Hecker, PhD, Atlanta, GA

- **2:35 Considerations for Next-Stage Clinical Trials for Senolytic Therapies**  
  A.H. Limper, MD, Rochester, MN

- **2:55 Senescence and Frailty Phenotypes: Impact on Patient Outcomes**  
  J.P. Singer, MS, MD, San Francisco, CA

- **3:15 Questions and Answers**

- **3:35 Summary**  
  Z. Borok, MBChB, ATSF, La Jolla, CA  
  O. Eickelberg, MD, ATSF, Pittsburgh, PA
**PG18 BREATHING EASIER: PFT CLINICAL UPDATES AND BEST PRACTICES**

- **Pre-registration and additional fees required. Attendance is limited.**
  - Member: $420
  - LMIC Member: $295
  - Non-Member: $510
  - In-Training Member: $240
  - LMIC In-Training Member: $170
  - In-Training Non-Member: $360

**Assemblies on Respiratory Structure and Function; Clinical Problems**

8:00 a.m. - 4:00 p.m.  
MOSCONEN CENTER  
Room 3020/3022 (West Building, Level 3)

**Target Audience**
Current and future directors of PFT labs, attending physicians, respiratory therapists, trainees, fellows, and other interested health care 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 will focus on clinical lung function testing, combining guidelines from The new technical standards published in the past three years with interactive experience in small group settings focusing on the performance, interpretation, and reporting of PFT and a brief primer on cardiopulmonary exercise testing. We will combine didactic lectures with case-based instruction, small group discussion, and live demonstration of spirometry and diffusing capacity measurement. Challenging cases will be presented before a group of expert clinicians and physiologists. We will use a multidisciplinary team approach to facilitating case discussions including content experts, clinicians, respiratory therapists, and pulmonary function laboratory medical directors from around the world.

**Chairing:**
- R. Clay, MD, Clackamas, OR
- T. Decato, MD, Torrance, CA
- M.C. McCormack, MHS, MD, Baltimore, MD

8:00 Introduction  
R. Clay, MD, Clackamas, OR

8:10 A Breath of Fresh Air: Spirometry State of the Art Measurement and Interpretation  
S. Stanojevic, PhD, Halifax, Canada

8:45 Clearing the Air in Diffusing Capacity Assessment and Interpretation  
T. Decato, MD, Torrance, CA

9:15 1-2-3 Breathe - Real-Time Demonstration of PFT Assessment and Troubleshooting  
G.L. Ruppel, MEd, RRT, RPFT, Saint Louis, MO

9:55 Break

10:05 Small Breaths Now - Pediatric Considerations in PFT  
D.J. Weiner, MD, ATSF, Pittsburgh, PA

10:35 Full Gas: Clinical Exercise Testing  
H.B. Rossiter, PhD, Torrance, CA

11:05 Breathing Together: Small Group PFT Case Discussions  
M.C. McCormack, MHS, MD, Baltimore, MD

12:05 Lunch

12:50 Shaky Breathing - Use of Forced Oscillation Technique in Clinical Practice  
D.A. Kaminsky, MD, Burlington, VT

1:20 Methacholine and Beyond: Insights Into New Guidelines for Bronchial Challenge Testing  
T.S. Hallstrand, MD, MPH, ATSF, Seattle, WA

2:00 Quality Inspirans - Ensuring Lab Excellence in the Post-COVID-19 Era  
C.D. Mottram, RRT, RPFT, Rochester, MN

2:30 Break

2:40 Respiration Classification - Complex Patterns in Pulmonary Function  
A.S. Niven, MD, Rochester, MN

3:10 Full of Hot Air: Expert Panel Case Debate  
A.S. Niven, MD, Rochester, MN

N.R. Macintyre, MD, Durham, NC

D.A. Kaminsky, MD, Burlington, VT

M.C. McCormack, MHS, MD, Baltimore, MD

D.J. Weiner, MD, ATSF, Pittsburgh, PA

R. Clay, MD, Clackamas, OR

This session and the International Conference are supported by an independent medical educational grant from Merck & Co.

All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).

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**PG19 LUNG CANCER 2022: STATE OF THE ART**

- **Pre-registration and additional fees required. Attendance is limited.**
  - Member: $420
  - LMIC Member: $295
  - Non-Member: $510
  - In-Training Member: $240
  - LMIC In-Training Member: $170
  - In-Training Non-Member: $360

**Assembly on Thoracic Oncology**
**Target Audience**
Clinicians who take care of patients with lung cancer including pulmonologists, interventional pulmonologists, thoracic surgeons, medical and radiation oncologists, fellows-in-training, and physician extenders

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

- integrate/incorporate new lung cancer screening recommendations.
- Understand the factors that impact rates of LCS and rates of annual adherence;
- improve and update knowledge of new lung cancer treatments.
- Apply this knowledge to enhancing diagnostic interventions that will support personalized lung cancer treatment;
- learn new findings about the pulmonary toxicities associated with targeted therapies and immunotherapy.

This comprehensive course with up to date didactic lectures coupled with interactive tumor boards, will review the advances in the development of more effective methods for detection, diagnosis and treatment of lung cancer. Tobacco treatment strategies, patient selection and implementation of new lung cancer screening recommendations, review of the biology of lung cancer and differences in incidence, biology, and outcomes between men and women with lung cancer, application of biomarkers in clinical practice, advances in precision medicine and in the role immunotherapy across all stages of NSCLC and in small cell lung cancer, recognition and management of toxicities due to lung cancer therapies, and strategies to minimize disparities in care across the continuum of lung cancer will be reviewed.

**Chairing:**
D.J. Feller-Kopman, MD, Lebanon, NH
N.T. Tanner, MD, MSCR, Charleston, SC

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<th>Time</th>
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<tr>
<td>8:00</td>
<td>Introduction</td>
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<tr>
<td>8:05</td>
<td>Tobacco Dependence Treatment: An Integral Component of Lung Cancer Care</td>
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<td>8:30</td>
<td>Lung Cancer Screening a Decade After the NLST: Progress and Challenges</td>
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<td>Lung Cancer in Women: A Modern Epidemic</td>
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<td>9:20</td>
<td>The Molecular Basis of Lung Carcinogenesis</td>
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<td>Break</td>
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<td>10:00</td>
<td>Biomarkers in the Management of Lung Nodules: Are We There Yet</td>
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<td>10:25</td>
<td>The Changing Landscape of Targeted Therapy in NSCLC</td>
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<td>The Evolving Role of Immunotherapy in Lung Cancer</td>
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<td>11:15</td>
<td>Management of Stage IIIA Lung Cancer - The Role of Surgery in the Era of Immunotherapy</td>
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<td>Lunch</td>
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<td>Multidisciplinary Tumor Board</td>
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<td>12:55</td>
<td>Update on Mesothelioma</td>
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<td>1:20</td>
<td>Cancer Related Fatigue Syndrome in Lung Cancer</td>
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<td>Pulmonary Toxicity Due to Targeted Therapies and Immune Check Point Inhibitors</td>
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<td>2:10</td>
<td>Addressing Disparities Across the Lung Cancer Continuum</td>
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<td>2:35</td>
<td>Break</td>
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<td>2:50</td>
<td>Lung Cancer Year in Review: Top 5 Papers in 2021</td>
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<td>3:15</td>
<td>Multidisciplinary Tumor Board</td>
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ATS 2022 kicks off with the Opening Ceremony, featuring a keynote address by Catherine Grace “Cady” Coleman, PhD. Cady Coleman is a former NASA astronaut and retired U.S. Air Force colonel who has logged more than 180 days in space, including two space shuttle missions and a six-month expedition to the International Space Station, where she acted as the Lead Robotics and Lead Science officer.

Dr. Coleman is a chemist, earning a BS degree from MIT, and an engineer, having received a PhD degree in polymer science and engineering from the University of Massachusetts, Amherst. She is a passionate advocate for inclusion in STEM/STEAM fields.

Cady is currently a research affiliate of the MIT Media Lab and ASU’s Global Explorer in Residence. She is also an advisor to Earthrise Alliance, which uses satellite imagery to provide context for environmental and social justice issues.

An amateur flute player, Dr. Coleman is best known for her “Space Duet” with Ian Anderson of Jethro Tull and her work from space with the acclaimed Irish band, The Chieftains.

Dr. Coleman will share how she managed isolation and maintained connection during her 6 months in space. This experience can serve as a guide to how we can all re-enter our new world once restrictions are lifted due to the Coronavirus.

Also during the Opening Ceremony will be:

- ATS President Lynn Schnapp, MD will provide an update of the Society's major accomplishments for the past year and priorities for the coming one.
- Presentations of the Public Service Award, World Lung Health Award, and Jo Rae Wright Award for Outstanding Science.

The Opening Ceremony is generously sponsored by Boehringer Ingelheim Pharmaceuticals, Inc.

The Network Exchange is a welcome event for all Early Career Professionals (residents, fellows, post docs, IP members, and other medical professionals) and takes place on Saturday following the Opening Ceremony. This one-hour event allows attendees to network and mingle with peers as well as provides information at the start of the conference. This event includes cocktails and appetizers.

What to expect at the one-hour event?

- Come mingle with colleagues, mentors and peers
- Learn about the ATS Road Map and other early career professional materials
- Learn how you can become an ATS member for FREE and much more

This event is sponsored / organized by the Membership, Training, Education and Members in Transition and Training (MITT) committees.

The event is free to paid conference registrants, but registration is required.
MEET THE EXPERTS
CME Credits Available: 1

Pre-registration and additional fees required. Attendance is limited.
Member: $100  LMIC Member: $70.

7:00 a.m. - 8:00 a.m. MOSCONE CENTER
South Building, Lower Mezzanine

ME1  LUNG CANCER AND FIBROSIS: COMMON PATHWAYS AND DIVERGENCES
G. Stella, MD, PhD, Pavia, Italy
Room 52/54/56 (South Building, Lower Mezzanine)

ME2  “RELATIONSHIP ADVICE”: OPTIMIZING THE MENTOR-MENTEE RELATIONSHIP
T.M. Dempsey, MD, MPH, Sacramento, CA
J.B. Richards, MD, MA, ATSF, FACP, Boston, MA
K. Pennington, MD, Toronto, Canada
E. Kelly, MD, Dublin 4, Ireland
Room 58/60 (South Building, Lower Mezzanine)

ME3  APPROACH TO LUNG NODULES IN 2021
S. Islam, MD, Augusta, GA
Room 70/72 (South Building, Lower Mezzanine)

ME4  NAVIGATING THERAPEUTIC OPTIONS FOR PF-ILD
M. Koslow, MD, Denver, CO
A. Oh, MD, Denver, CO
M. Padilla, MD, New York, NY
Room 74/76 (South Building, Lower Mezzanine)

10:45 a.m. - 11:45 a.m. MOSCONE CENTER
South Building, Lower Mezzanine

ME5  CARING FOR OLDER ADULTS WITH SERIOUS RESPIRATORY ILLNESS THROUGH GERIPULM
A.S. Iyer, MD, MSPH, Birmingham, AL
L. Witt, MD, Chicago, IL
Room 50/62 (South Building, Lower Mezzanine)

ME6  RACE AND SPIROMETRY: THE CONSEQUENCES OF RACIAL CORRECTIONS USED IN NORMALIZATION
D.J. Conrad, MD, La Jolla, CA
Room 52/54/56 (South Building, Lower Mezzanine)

ME7  NICOTINE AND TOBACCO DEPENDENCE COUNSELING AND TREATMENT IN PEDIATRIC HEALTH CARE
H.J. Farber, MD, MSPH, ATSF, Houston, TX
Room 58/60 (South Building, Lower Mezzanine)

ME8  MENTAL HEALTH IN PATIENTS WITH CHRONIC RESPIRATORY DISEASE: ASSESSMENT AND TREATMENT
A.M. Yohannes, PhD, ATSF, Azusa, CA
Room 70/72 (South Building, Lower Mezzanine)

ME9  THE “MIDAS” TOUCH: MITOCHONDRIAL DYSFUNCTION AS A DRIVER OF CELLULAR SENESCENCE IN LUNG DISEASE
S.M. Cloonan, PhD, Dublin, Ireland
C.R. Kliment, MD, PhD, Pittsburgh, PA
S. Victorelli, PhD, Rochester, MN
Room 74/76 (South Building, Lower Mezzanine)

BASIC • BEHAVIORAL • TRANSLATIONAL
KEYNOTE SERIES
CME Credits Available: .75

K1  RESTORATION IN THE AFTERMATH
8:15 AM - 9:00 AM MOSCONE CENTER
Room 7-8 (South Building, Exhibition Level)

How do we carry on when we are living in impossible circumstances? This is the challenge of our times, and one that unites health care workers, patients, and their families.

Using an innovative story-telling framework, the presenters will illustrate how patient and provider narratives can provide a critical foundation for healing.

Through honest reflection, reappraisal of our field and a shared visioning of our strengths we will gain insight as to how we move forward collectively, united in a way that will uphold and respect all that we’ve lost as well as the ways in which we have changed.

Introduction: J. M. Beck, MD, ATSF, Denver, CO
Featured Speakers: R.L. Awdish, MD, MS. Detroit, MI
M.M. Hosey, PhD, Baltimore, MD
A1  CLINICAL YEAR IN REVIEW 1
9:30 a.m. - 11:00 a.m.  MOSCONE CENTER
Hall E (North Building, Exhibition Level)

Target Audience
Pulmonary, critical care and sleep providers. The program will discuss general topics of interest to a broad group of providers, inside and outside of these subspecialties. The program is relevant to not only clinicians, but also to researchers and administrators.

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;
• gain new strategies to manage the care of common conditions in pulmonary, critical care, and sleep.

Clinical Year in Review sessions will 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.

Chairing:
J.L. Gomez, MS, MD, ATSF, New Haven, CT
R.J. Shah, MD, MSCE, San Francisco, CA
J.C. Ferreira, MD, PhD, Sao Paulo, Brazil

9:30 Pulmonary Vascular Disease
B.N. Rivera-Lebron, MD, MS, Pittsburgh, PA

9:52 Interstitial Lung Disease
R.J. Shah, MD, MSCE, San Francisco, CA

10:15 Lung Cancer
N. Navani, MD, MSc, PhD, London, United Kingdom

10:37 Pneumonia and Pulmonary Infections
F. Amati, MD, Milan, Italy

This session and the International Conference are supported by independent medical educational grants from Boehringer Ingelheim Pharmaceuticals, Inc., Genentech, Inc., Merck & Co. All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).

A2  THE NEW ENGLAND JOURNAL OF MEDICINE AND JAMA DISCUSSION ON THE EDGE: REPORTS OF RECENTLY PUBLISHED PULMONARY RESEARCH
9:30 a.m. - 11:00 a.m.  MOSCONE CENTER
Room 3000/3002/3004 (West Building, Level 3)

This session will provide a forum for attendees to interact with the authors and editors about papers published in JAMA and the New England Journal of Medicine. Papers presented will be recent publications, selected by the editors, to be of significant importance to the field of pulmonary medicine. Attendees will have the opportunity to hear presentations directly from the author and address questions to both the authors and editors. The discussion is intended to provide a unique insight into these papers, the selection process, and how the research applies directly to the field of pulmonary medicine.

Chairing:
D.B. Taichman, MD, PHD, Philadelphia, PA
G.T. O’Connor, MD, Boston, MA

Speakers and Talks to be Announced

A3  FELLOWS CASE CONFERENCE
Training Committee
9:30 a.m. - 11:00 a.m.  MOSCONE CENTER
Room 7-8 (South Building, Exhibition Level)

Target Audience
Clinicians, nurses, fellows, residents, and researchers looking to broaden their clinical acumen to facilitate clinical and translational research.

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 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.
In this session, six unknown cases will be presented by fellows to a panel of experts in a traditional Clinical Pathology Conference (CPC) format. The panel of experts includes three clinician experts, an expert radiologist, and an expert pathologist. The panel of 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 clinician will then use to further the discussion and ultimately make a diagnosis.

Chairing: K.M. Burkart, MD, MSc, ATSF, New York, NY
           M.M. Lee, MD, ATSF, Los Angeles, CA

9:30 Hickam’s Dictum
    E. Mlodzinski, BS, MD, San Diego, CA

9:39 The Good, the Bad, and the Kidney
    I. Ikwu, MD, Washington, DC

9:48 Rapid Respiratory Riddle
    J. Wilkinson, MD, Los Angeles, CA

9:57 What’s in the Mediastinum???
    J.M.G. Puebla, MD, San Juan, Puerto Rico

10:06 A Case of Red Herrings
    A. Maqsood, MD, Toledo, OH

10:15 A Hard Case to Crack
    O. Mirza, MD, Dallas, TX

10:24 Expert Clinicians
    E.P. Schmidt, MD, ATSF, Aurora, CO
    M.P. Rivera, MD, ATSF, Chapel Hill, NC
    A.E. Dixon, MA, BM BCH, ATSF, Burlington, VT

10:45 Expert Pathologist
    J.L. Myers, MD, Ann Arbor, MI

10:52 Expert Radiologist
    Brett Elicker, MD, San Francisco, CA

Objectives
At the conclusion of this session, the participant will be able to:
  • understand and describe at least one reason to use complexity and systems to improve ICU care;
  • better diagnose challenges in patient care, interprofessional teamwork, or clinician wellbeing;
  • incorporate tools of systems to improve teamwork, patient care, quality improvement, or research.

The ICU is a perfect example of a complex system: a large cast of rotating team members interacting with critically ill patients, families, each other, and sophisticated technology. The wicked problems of ICU systems cannot be solved by reducing this complexity into individual causes and effects. However, the cross-disciplinary approach of systems offers valuable tools to study complexity and transform ICU care from the bedside to nationwide policy. This session will introduce the principles of complexity and systems, demonstrate how a systems lens can improve delivery of critical care, and forecast the future of the ICU system.

Chairing: J.M. Kruser, MD, MS, Madison, WI
           D.K. Costa, PhD, RN, Ann Arbor, MI
           C.E. Cox, MD, MPH, MHA, Durham, NC

9:30 It’s About the Get Messy: Why a Systems Lens Is Necessary to Improve Care for Common ICU Diagnoses
    B.E. Jones, MD, MSc, Salt Lake City, UT

9:40 Real-World Impact of System-Level Change: Lessons Learned from the Frontline of Quality Improvement
    M.C. Spiegel, MD, Charleston, SC

9:50 Goal-Concordant Care is More Than Good Communication: Insights From a Systems Engineering Approach
    J.M. Kruser, MD, MS, Madison, WI

10:00 Social Network Analysis of the ICU Team: It’s Not Just for Facebook and Twitter
    D.K. Costa, PhD, RN, Ann Arbor, MI

10:10 Systemic Racism Perpetuated Through ICU Technology
    M.W. Sjoding, MD, Ann Arbor, MI

10:20 When Systems Work Against the Individual: COVID-19 and Clinician Wellness
    M. Buchbinder, PhD, Chapel Hill, NC

10:30 Improving Critical Care Research through Networks of Cooperation and Organization
    M. A.Q. Curley, RN, PhD, FAAN, Philadelphia, PA

10:40 Panel Discussion/Q&A

A4 WICKED PROBLEMS IN THE ICU: IMPROVING CRITICAL CARE THROUGH THE LENS OF SYSTEMS

Assemblies on Critical Care; Behavioral and Health Services Research; Nursing; Pediatrics
9:30 a.m. - 11:00 a.m. MOSCON CENTER
Room 3020/3022/3024 (West Building, Level 3)

Target Audience
Interprofessional ICU team, including advance practice providers, chaplains, nurses, pharmacists, physicians, rehabilitation professionals, social workers; Health services researchers; ICU medical directors, managers, and other leaders
A5  CROSSTALK OF SENESCENT CELLS WITH THE MICROENVIRONMENT: IT TAKES TWO TO TELL A STORY
9:30 a.m. - 11:00 a.m.  MOSCONEN CENTER
Room 2010/2012 (West Building, Level 2)

Target Audience
Basic and translational scientists

Objectives
At the conclusion of this session, the participant will be able to:
• learn and understand new discoveries in the molecular field of cellular senescence;
• gain understanding of cellular senescence effects on the local microenvironment.

Cellular senescence has been appreciated as a central determinant of the lung's resilience in response to pathologic insult, including its capacity for repair, regeneration, and resolution after injury. This symposium will feature presenters with a range of perspectives on senescent cell-microenvironment crosstalk. These perspectives represent cutting-edge molecular discoveries in the field of cellular senescence, with a focus on its regulation by and effects on the local microenvironment, a topic that should draw a broad audience of basic and translational scientists.

Chairing:  B.D. Singer, MD, ATSF, Chicago, IL
D. Al Alam, PhD, MS, Los Angeles, CA

9:30  The Senescence Response as a Driver of Intrinsic and Extrinsic Signals of Aging
Speaker To Be Announced

10:00  Age-Related Changes in Immune Cell Function
L. Morales-Nebreda, MD, Chicago, IL

10:20  Senescence of Alveolar Type 2 Cells Drives Progressive Lung Disease
B.R. Stripp, PhD, Los Angeles, CA

A6  #THE FUTURE OF TELEMEDICINE AND DIGITAL HEALTH CARE INNOVATIONS IN PEDIATRIC SLEEP AND LUNG DISEASE
Assemblies on Pediatrics; Allergy, Immunology and Inflammation; Clinical Problems; Nursing; Sleep and Respiratory Neurobiology
9:30 a.m. - 11:00 a.m.  MOSCONEN CENTER
Room 2002/2004 (West Building, Level 2)

Target Audience
Clinicians who care for pediatric patients with lung disease and sleep disordered breathing

Objectives
At the conclusion of this session, the participant will be able to:
• understand and describe the current state of literature on telehealth and home monitoring in pediatric sleep and pulmonary medicine;
• apply digital health care innovations to optimize delivery of high quality, equitable care to pediatric sleep and pulmonary patients;
• understand implementation and essential privacy, security, and legal aspects when partnering with eHealth companies for clinical care or research.

The COVID-19 pandemic led to a rapid rise in use of digital health technology. To consolidate those gains we must determine how to best integrate this technology into clinical care. This session will review current evidence for use of telemedicine and home monitoring to optimize care delivery in pediatric CF, sleep, and asthma, exploring the provider and patient experience. Regulatory and implementation considerations related to digital technology will also be reviewed. Finally, the session will review the digital divide created by this new technology, and best practices to utilize digital innovations to improve health equity.

Chairing:  D.K. Radhakrishnan, MS, MD, Ottawa, Canada
T. Simoneau, MD, Boston, MA

9:30  A Patient's Perspective
Kathy Page, Smithton, MO

9:35  Digital Health Care Innovations: Regulatory and Implementation Considerations
R. Amin, MD, Toronto, Canada

9:50  Telehealth and Home Monitoring in Cystic Fibrosis Care
G.S. Sawicki, MD, MPH, Boston, MA

10:05  The Future of Pediatric Sleep Medicine: Telehealth and Remote Monitoring
Z. Ehsan, MD, Kansas City, MO
SUNDAY • MAY 15

10:20 Enhancing Pediatric Asthma Management Through Telemedicine and Home Monitoring
T. Simoneau, MD, Boston, MA

10:35 The Digital Divide: Equity and Disparities in Digital Health Care Innovation
A. Messinger, MD, Aurora, CO

10:50 Questions

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A7 NEXT-GENERATION TESTS FOR TUBERCULOSIS: HOLD MY SMEAR

Assemblies on Pulmonary Infections and Tuberculosis
9:30 a.m. - 11:00 a.m. MOSCON CENTER
Room 3-4 (South Building, Exhibition Level)

Target Audience
Individuals interested in understanding the latest methods and approaches for tuberculosis screening, diagnosis and drug resistance testing, including researchers, clinicians, trainees, diagnostic developers, funders

Objectives
At the conclusion of this session, the participant will be able to:
• gain understanding of the recommended use and limitations of novel tuberculosis tests;
• describe test performance and operational characteristics needed for effective tuberculosis screening, diagnosis and drug resistance testing;
• describe the latest scientific advances in next-generation tuberculosis diagnostics development.

The tuberculosis diagnostics pipeline is rapidly expanding, with novel molecular tests, urine antigen tests and automated CXR interpretation algorithms endorsed or under review by the World Health Organization. The session will describe the current and future tuberculosis diagnostics landscape by discussing the progress and data for the most promising next-generation methods for tuberculosis screening, diagnosis and drug-resistance testing. We will conclude with a multi-disciplinary discussion comprised of experts involved in the development of novel COVID-19 diagnostic panel. Speakers will share their insights from COVID-19 diagnostics on the future development and implementation of novel tests for tuberculosis.

Chairing: C. Yoon, MD, MPH, MSCR, San Francisco, CA
D.M. Lewinsohn, MD, PhD, Portland, OR

9:30 TB Diagnostics: State of the Art
A. Cattamanchi, MD, San Francisco, CA

9:45 Next-Generation TB Screening
C. Yoon, MD, MPH, MSCR, San Francisco, CA

10:00 Next-Generation TB Diagnosis Using Non-Sputum Based Tests
C. Denkinger, MD, Heidelberg, Germany

10:15 Next-Generation Tests to Rapidly Identify Drug Resistance
M.R. O’Donnell, MD, MPH, New York, NY

10:30 Insights From COVID-19 Diagnostics on Development and Implementation of Next-Generation Tests for TB
M. Ruhwald, MD, PhD, Copenhagen, Denmark

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A8 CRITICAL DECISIONS AND STEPS BEFORE THE NEXT BIG TRIAL OF CPAP

Assemblies on Sleep and Respiratory Neurobiology
9:30 a.m. - 11:00 a.m. MOSCON CENTER
Room 3001/3003 (West Building, Level 3)

Target Audience
Clinicians who care for obstructive sleep apnea; clinical researchers; key stakeholders and funders of research

Objectives
At the conclusion of this session, the participant will be able to:
• describe several critical decisions in designing trials to test the effectiveness of CPAP (e.g. ethics of including symptomatic patients, primary vs. secondary prevention);
• apply best practices in trial design to the next generation of trials in OSA;
• gain new strategies in trial design and the necessary pilot studies to assess feasibility.

In a recent draft report, the Agency for Healthcare Research and Quality (AHRQ) found a lack of strong evidence that CPAP improves clinically important outcomes. These findings reinforce the need for definitive trials assessing the impact of CPAP on cardiovascular disease, cognitive impairment, and long-term patient-reported outcomes. Through state-of-the-art reviews and an in-depth panel discussion, we will speak to critical issues in designing these definitive trials. We will focus on the ethics of including symptomatic patients in control/placebo arms, primary versus secondary prevention of adverse events, patient-driven care pathways, and the optimal designs for informative pilot studies.

Chairing: L.M. Donovan, MD, MS, Seattle, WA
S.P. Patil, MD, PhD, ATSF, Cleveland, OH
C. Hoyos, BSc(Hons), MPH, PhD, Glebe, Australia

ATS 2022 • San Francisco, CA
**EVERYTHING ON YOUR PULMONARY HYPERTENSION REGISTRY: FROM CLASSIFICATION TO OUTCOMES**

**Assemblies on Pulmonary Circulation; Behavioral and Health Services Research**

9:30 a.m. - 11:00 a.m.  
**MOSCON**E CENTER  
Room 2014/2016 (West Building, Level 2)

**Target Audience**  
Members interested in pulmonary vascular disease, epidemiology, statistical analysis, and outcome based clinical research

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

- apply new knowledge of study design and data analysis to the interpretation of current and future literature;
- describe emerging clinical tools involved in surveillance monitoring of pulmonary hypertension patients and risk prognostication;
- integrate new findings from pulmonary hypertension registries toward current practice.

Pulmonary hypertension (PH) registries have been instrumental in identifying clinical and demographic changes in PH and have yielded widespread changes in clinical practice over the past ten years. We will review the design of contemporary clinical registries in PH and compare how differences in design dictate the outcomes that will result. We will review the role of PH registries in prognostication (including advances in data analysis), the use of PH registries in evaluating and validating novel outcomes such as actigraphy, and the potential of PH registries to change disease classification.

**Chairing:**  
D. Grinnan, MD, Richmond, VA  
N. Al-Naamani, MD, MS, Philadelphia, PA

9:30 **Introduction**  
D. Grinnan, MD, Richmond, VA

9:40 **Go PHAR or Go Deep: A Comparison of Two Large Contemporary Registry Designs and Goals**  
C.E. Ventetuolo, MD, MSCR, Providence, RI

9:55 **Go PHAR or Go Deep: A Comparison of Two Large Contemporary Registry Designs and Goals**  
W. Seeger, MD, Giessen, Germany

10:10 **The U.S. CTEPH Registry: Outcomes Assessment and Future Directions**  
K.M. Kerr, MD, La Jolla, CA

10:25 **ACTiPH: An Ancillary Study of the Pulmonary Hypertension Association Registry**  
J. Minhas, MD, MS, MBBS, Philadelphia, PA

10:40 **Machine Learning in Pulmonary Hypertension: Maximizing the Use of Data From Registries**  
A. Sweatt, MD, Stanford, CA

This session and the International Conference are supported by an independent medical educational grant from Actelion Pharmaceuticals US, Inc., a Janssen Pharmaceutical Company of Johnson & Johnson. All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).
• define pathways relevant to establishing and maintaining lung trained immunity and lung-resident immunological memory;
• apply knowledge of lung immune remodeling to improve research into pneumonia and other lung diseases.

This session will provide cutting edge information on how the lungs are changed after recovery from respiratory infection. Participants will learn the current perspectives and state of the art for multiple components of innate and adaptive immunity that change within the lung tissue, and how these different immune components then influence future susceptibility to lung infections as well as chronic pulmonary diseases.

Chairing:  
J.L. Cho, MD, Iowa City, IA  
M. Bhattacharya, MD, San Francisco, CA  
C. Dela Cruz, MD, PhD, ATSF, New Haven, CT  
J.P. Mizgerd, ScD, ATSF, Boston, MA

9:30 Recovery Remodels Innate and Adaptive Immunity Inside the Lungs  
J.P. Mizgerd, ScD, ATSF, Boston, MA

9:48 New Macrophage Biology in the Recovered Lung  
G.S. Budinger, MD, ATSF, Chicago, IL

10:06 Lung Tissue Niches for Immune Remodeling  
A. Molofsky, MD, PhD, San Francisco, CA

10:24 Lymphocyte Roles Within Lung Tertiary Lymphoid Structures  
C. King, PhD, Basel, Switzerland

10:42 Aged Lung-Resident Lymphocytes and Chronic Lung Disease  
J. Sun, PhD, Charlottesville, VA

A11 TACKLING HEALTH DISPARITIES: HOW DO WE TALK AND TEACH ABOUT THEM?

Assemblies on Health Equality and Diversity Committee; Education Committee; Training Committee; Membership Committee

9:30 a.m. - 11:00 a.m.  
MOScone CENTER

Room 11-12 (South Building, Exhibition Level)

Target Audience  
Healthcare professionals, administrators, and researchers, including trainees

Objectives  
At the conclusion of this session, the participant will be able to:
• recognize and list three causes of health disparities;  
• understand and address the effects of their own and others’ implicit biases;  
• facilitate discussions about health disparities and racism with learners and colleagues.

If you worry about talking or teaching about health disparities with patients, colleagues, or trainees this session is for you! We will review health disparities, their causes, and provide attendees with tools to tackle them in all their professional roles. We will define key vocabulary, including social determinants of health, structural racism, and implicit bias. The speakers will use examples from pulmonary, critical care, and sleep medicine and provide practical suggestions on how to incorporate and facilitate discussions about health disparities, racism, and bias.

Chairing:  
R. Adamson, MBBS, ATSF, Seattle, WA  
A.A. Diaz, MD, Boston, MA  
M. Sharp, MD, MHS, Baltimore, MD  
M. Johnson, MD, San Francisco, CA

9:30 Introduction  
A.A. Diaz, MD, Boston, MA

9:33 What Are Health Disparities and What Causes Them?  
G.C. Lockhart, MD, Denver, CO

9:48 How Do We Recognize and Overcome Implicit Bias in Ourselves and Others?  
R. Adamson, MBBS, ATSF, Seattle, WA

10:03 How Do We Incorporate Justice and Equity, and Identify and Address Racism During Training In PCCSM?  
J.A. Frank, MD, MA, San Francisco, CA

10:10 How Do We Incorporate Justice and Equity, and Identify and Address Racism During Training In PCCSM?  
M. Johnson, MD, San Francisco, CA

10:17 Talking About Health Disparities When You Are Not an Expert  
W.M. Gibson-Scipio, PhD, FNP-BC, ATSF, Detroit, MI

10:32 Q&A and Practicing New Skills  
M. Sharp, MD, MHS, Baltimore, MD

This session and the International Conference are supported by independent medical educational grants from Boehringer Ingelheim Pharmaceuticals, Inc., Genentech, Inc, Insmed Incorporated.
A12 THE FULL PICTURE: ASTHMA AS A CASE STUDY IN THE COMPLEXITIES OF EXPOSURE
Assemblies on Environmental, Occupational and Population Health; Allergy, Immunology and Inflammation; Behavioral and Health Services Research; Clinical Problems; Pediatrics
9:30 a.m. - 11:00 a.m. MOSCON CENTER
Room 209-211 (South Building, Level 2)

Target Audience
Individuals involved in care of patients with environmentally-mediated lung disease: basic, clinical, and translational researchers focused on environmental/occupational exposures and respiratory health

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

- understand the complexities of exposures over a lifetime and how those exposures have an effect on the development and long-term management of asthma in the era of personalized medicine;
- identify what constitutes the definition of the exposome and how this relates to asthma and respiratory health;
- understand how a person's various environmental exposures are important to effectively managing his or her asthma effectively, and how these lessons may be considered more broadly in respiratory care.

Sensitivity to environmental exposures is a hallmark of asthma. Management of the disease is possible by understanding and avoiding triggers. Leading research focuses on the exposome which comprises a complex combination of exposures that individuals and populations encounter over a lifetime, with the model applicable more broadly to a range of respiratory diseases. We will present research relevant to an individual's environmental exposures, with asthma as a case study. The symposium includes work in clinical studies, animal models, computational modeling, advances in environmental mixture studies, and how complex exposures may be accounted for in an exposome model. We will conclude by presenting the translation of research to action in public health policy.

Chairing:
N. Solanki, MD, Cleveland, OH
M. Federico, MD, Aurora, CO
S.J. London, MD, DrPH, Research Triangle Park, NC

9:30 A Patient's Perspective
L. Quinn Gooden, Clawson, MI

9:35 State of the: Role of Exposome in Asthma Development and Outcomes
C. Carlsten, MD, MPH, Vancouver, Canada

9:52 Environment and Lung Function: Asthma and Exposure Families
V. Siroux, PhD, La Tronche Cedex, France

10:09 Intersecting Pollutant and Metabolic Exposures in Pediatric Asthma and Beyond
E. Brigham, MD, MHS, Vancouver, Canada

10:26 The Role of Psychosocial, Neighborhood, and Contextual Factors as Environmental Stressors on Asthma Exacerbations
N. Thakur, MD, MPH, San Francisco, CA

10:43 Research to Action: Asthma and Public Health Environmental Policy
S.B. Khatri, MD, MS, Cleveland, OH

A13 IMPROVING CARE FOR PATIENTS WITH LUNG DISEASE OR CRITICAL ILLNESS THROUGH TRAINING AND EVALUATION
9:30 a.m. - 11:00 a.m. MOSCON CENTER
Room 3014 (West Building, Level 3)

Chairing:
S.M. Nyenhuis, MD, Chicago, IL
D.P. Blagev, MD, Murray, UT

Oral Presentations:


10:00 Indicators of Neighborhood Health Disparities in Idiopathic Pulmonary Fibrosis/A.M. Dedent, H.R. Collard, N. Thakur, San Francisco, CA, p.A1004

10:10 Hospital-Level Care at Home for Adults with Acute Respiratory Illness: A Descriptive Analysis/C. Hernandez, H.M. Mitchell, N.A. Rosario, D.M. Levine, Boston, MA, p.A1005


BEHAVIORAL • CLINICAL
MINI SYMPOSIUM
A14 INVESTIGATING COPD HEALTH INEQUITIES
9:30 a.m. - 11:00 a.m. MOSCONCE CENTER
Room 201-202 (South Building, Level 2)
Chairing: R. Kalhan, MD, MS, Chicago, IL
M.K. Han, MD, MS, ATSF, Ann Arbor, MI
Featured Speaker:
9:30 Neighborhood and Environmental Contributions to Health Disparities in COPD /N.N. Hansel, Baltimore, MD
Oral Presentations:
10:00 The Role of Neighborhood Factors in Emergency Department Utilization Among People with Chronic Obstructive Pulmonary Disease in the COPD Foundation’s Patient-Powered Research Network/T.M. Parekh, Y.-I. Kim, R. Ramachandran, A. Nassel, C.B. Pasquale, J. Yates, G. Mccreary, M.T. Dransfield, G.R. Oates, Birmingham, AL, p.A1012

10:10 Association Between Social Vulnerability and Chronic Lower Respiratory Disease Mortality Among United States Counties/Y.-C. Lee, K.-Y. Chang, M. Mirsaedi, Buffalo, NY, p.A1013
10:20 Association of State Health Factors with COPD Mortality in the United States/Y.-C. Lee, K.-Y. Chang, S. Sethi, Buffalo, NY, p.A1014
10:50 Sociodemographic and Geographic Determinants of All-Cause Mortality Among Veterans with COPD in National VA Data/C. Robichaux, A. Rau, J. Berman, C. Wendt, A. Bangerter, A.K. Baldomero, Minneapolis, MN, p.A1017

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL
MINI SYMPOSIUM
A15 A BEAUTIFUL MIND: BIG DATA APPROACHES TO PEDIATRIC LUNG DISEASE
9:30 a.m. - 11:00 a.m. MOSCONCE CENTER
Room 2006/2008 (West Building, Level 2)
Chairing: D. Rastogi, MBBS, MS, ATSF, Washington, DC
C. Rosas-Salazar, MD, MPH, ATSF, Nashville, TN
Oral Presentations:


10:50 Oral Presentations:

9:30 The Effects of High-Intensity Interval Training on Inhaled Corticosteroid Dose in Patients with Asthma - a Randomized Controlled Trial/A. Pitzner-Fabricius, C.H. Dall, M. Henriksen, E.S.H. Hansen, L.L. Toennesnes, M. Hostrup, N.V. Backer, Copenhagen, Denmark, p.A1026


Featured Speaker:

10:50 Pediatric Airway Biology to Understand the Early Origins of Respiratory Diseases/G.R. Nino, Washington, DC

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**Clinical • Translational MINI SYMPOSIUM**

**A16 PULMONARY REHABILITATION: TRANSFORMING OUR PRACTICE IN 2022**

9:30 a.m. - 11:00 a.m. MOSCONCE CENTER

**Room 3010/3012 (West Building, Level 3)**

**Chairs:**

F. Blackstock, PhD, Penrith, Australia

F. Franssen, MD, Horn, Netherlands

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**Oral Presentations:**

9:30 The Effects of High-Intensity Interval Training on Inhaled Corticosteroid Dose in Patients with Asthma - a Randomized Controlled Trial/A. Pitzner-Fabricius, C.H. Dall, M. Henriksen, E.S.H. Hansen, L.L. Toennesnes, M. Hostrup, N.V. Backer, Copenhagen, Denmark, p.A1026


**BEHAVIORAL • CLINICAL MINI SYMPOSIUM**

**A17 COPD: SINGLE CELL RNA SEQUENCING, EPIGENETICS, MODELS, AND MACROPHAGES**

9:30 a.m. - 11:00 a.m. MOSCONTE CENTER

- Chairing: E.R. Neptune, MD, Baltimore, MD
  V.K. Sidhaye, MD, Baltimore, MD
  F. Polverino, MD, PhD, Houston, TX

Oral Presentations:


9:40 Identification of a Myeloid Cell Subset that Drives Progressive Lung Disease/J. Venezia, A. Scott, W. Mitzner, Baltimore, MD, p.A1036

9:50 Temporal Assessment of Single-Cell RNA Sequencing in a Mouse COPD Model Identifies Aberrant Macrophage Inflammatory and Metabolic Functions Dependent on Adenine Nucleotide Translocase 1 (ant1)/J. Sui, J.C. Boatz, A. Gregory, C.R. Kliment, Pittsburgh, PA, p.A1037


10:10 Dysregulation of Unfolded Protein Response (UPR) Signaling in Chronic Obstructive Pulmonary Disease (COPD) Leads to Small Airway Fibrotic Disease/S. Moore, J.P. Ferruzza, T.L. Joseph Mathuram, Y. Perry, A. Blumental-Perry, Buffal, NY, p.A1039

10:20 Reduced Alveolar Type 2 Epithelial Expression of NURP1 Is Associated with Severe COPD and Increases Susceptibility to Oxidative Stress and Ferroptosis/J. Nouws, J.E. Mcdonough, T. Adams, R. Werder, J.C. Schupp, M.J. Robertson, C. Coarfa, S. Poli De Frias, A.A. Wilson, P.N. Timshel, N. Kaminski, I.O. Rosas, M.auler, New Haven, CT, p.A1040


**CLINICAL • TRANSLATIONAL MINI SYMPOSIUM**

**A18 IMPROVEMENTS IN PFTs AND NEW APPLICATIONS**

9:30 a.m. - 11:00 a.m. MOSCONTE CENTER

- Chairing: D.A. Kaminsky, MD, Burlington, VT
  V. Mock, MD, New York, NY

Oral Presentations:

9:30 Determinants and Diagnostic Performance of Lung Clearance Index in Patients with Suspected Asthma/A.-C. Maynard-Paquette, F. Tremblay, B.-P. Dubé, Montréal, Canada, p.A1043


10:00 Impulse Oscillometry as Predictor of Methacholine Reactivity in the Evaluation of Dyspnea/D. Wingo, M.J. Morris, Fort Sam Houston, TX, p.A1046


BASIC • CLINICAL • TRANSLATIONAL MINI SYMPOSIUM

A19 TO INFINITY AND BEYOND: NOVEL DISCOVERIES AND TRANSLATIONAL RESEARCH IN LUNG CANCER

9:30 a.m. - 11:00 a.m. MOSCONE CENTER Room 215-216 (South Building, Level 2)

Chairing: S.J. Moghaddam, MD, Houston, TX
V.S. Nair, MSCR, Seattle, WA
C.R. Sears, MD, ATSF, Indianapolis, IN

Oral Presentations:

9:30 Tumor Vaccination with Cytokine-Secreting Dendritic Cells Sensitizes Murine NSCLC to Anti-PD-1 Therapy/R. Salehi-Rad, R. Lim, Y. Du, L. Tran, E. Garon, K. Krysan, B. Liu, S.M. Dubinett, Los Angeles, CA, p.A1052


BEHAVIORAL

RAPID: RAPID ABSTRACT POSTER DISCUSSION SESSION

A21 IMPACT OF THE COVID-19 PANDEMIC ON HEALTH DISPARITIES, PATIENTS, FAMILIES, CLINICIANS, AND SYSTEMS

9:30 a.m. - 11:00 a.m. MOSCONE CENTER Room 3016/3018 (West Building, Level 3)

Viewing 9:30-10:00
Summaries/Discussion 10:00-11:00

Chairing: M.P. Kerlin, MD, MS, Philadelphia, PA
C.H. Weiss, MD, MS, Evanston, IL
V.G. Press, MD, MPH, ATSF, Chicago, IL


Impact of Covid-19 Pandemic on Goals of Care Conversations at Veterans Affairs Hospitals/N.M. Mesfin, R.S. Wiener, J. Wormwood, A. Linsky, Boston, MA, p.A1065


Delay and Avoidance in Care Among Asthma and COPD Patients During the COVID-19 Pandemic/J.C. Fazio, R. Buhr, Los Angeles, CA, p.A1068


Comparison of Feature Selection Methods and Machine Learning Classifiers with CT Radiomics-Based Features for Predicting Chronic Obstructive Pulmonary Disease/K. Makimoto, R.C. Au, A. Moslemi, J.C. Hogg, J. Bourbeau, W.C. Tan, M. Kirby, Toronto, Canada, p.A1079


The Use of Diaphragm Ultrasonography to Predict Outcomes in Patients With Acute COPD Exacerbation/R. Ahmad, A. Chichra, New Haven, CT, p.A1081
### Clinical Poster Discussion Session A23

**CASE REPORTS IN ILD AND LUNG TRANSPLANTATION**

**9:30 a.m. - 11:00 a.m.**

**MOSCONET CENTER**

Room 212-214 (South Building, Level 2)

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<th>No.</th>
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<td>401</td>
<td>Human Papillomavirus Viremia Signaling Metastatic Cervical Cancer as an Unexpected Cause for Multiorgan Failure in a Lung Transplant Patient</td>
<td>R.W. Starcher, Minneapolis, MN</td>
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<td>Lung Transplantation with ABO Incompatibility in a Patient with Cystic Fibrosis in Status 0/F.A. Varon, L. Tellez, S. Crevoiser, J. Palacios, L. Cucunubo, A. Rincón, Bogota</td>
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**Poster Viewing**

9:30-10:00

**Discussion**

10:00-11:00

**Chairing:**

A.O. Adegunsoye, MD, MS, Chicago, IL

B. Bemiss, MD, Maywood, IL

Y.H. Khor, BMedSci, MBBS, FRACP, PhD, Heidelberg, Australia


408 Drug-Induced Lung Disease: Who Is the Culprit?/M.A. Amjad, Z. Hamid, Y. Patel, V. Raheja, P.O. Ochieng, Scranton, PA, p.A1105

409 Diffuse Alveolar Hemorrhage After Exposure to Sevoflurane/P. Duncan, C.D. Kershaw, Dallas, TX, p.A1106

410 Methotrexate-Induced Pneumonitis, a Rare Cause of Refractory Hypercalcemia/M.A. Dirico, L. Hall, T. Zanders, N. Yoder, Bethlehem, PA, p.A1107

411 Systemic Absorption of Doxorubicin Causing Diffuse Alveolar Hemorrhage Following Transarterial Chemoembolization in Hepatopulmonary Syndrome/K. Branick, J. West, B. Boer, Omaha, NE, p.A1108

412 Incidental Iron Pill Aspiration as an Unsuspected Cause of Wheezing/Y. Sarda, S.K. Avasarala, B.P. Young, J. Wasman, W. Mneimneh, T. Panchabhai, Cleveland, OH, p.A1109

413 Sirolimus-Induced Pulmonary Alveolar Proteinosis in a Heart Transplant Recipient/A.N. Fuher, A. Hudler, J. Sippel, Denver, CO, p.A1110


415 A Case of Chronic Avian Hypersensitivity Pneumonitis with Non-Specific Interstitial Pneumonia Pattern and Alveolar Proteinosis Expression/V. Hoytfox, I.A. Martinez Avalos, Spokane, WA, p.A1112


418 The I’s Have it: A Rare Case of Interstitial Lung Disease in a Patient with Inclusion Body Myositis/A. Alexis, A. Koch, Miami, FL, p.A1115

419 The Fibrosing, Sclerosing, Infection: A Case of Autoimmune Activation Leading to Systemic Sclerosis and Interstitial Lung Disease Following COVID-19 Infection/B. Hackett, S.M. Pandya, Kansas City, KS, p.A1116


422 Sweet’s Syndrome as a Presentation of Sarcoidosis/C.-Y. Kang, V. Reyes Pinzon, P. Khamooshi, H. Laswi, N. Haghnari Rad, Chicago, IL, p.A1119

CLINICAL POSTER DISCUSSION SESSION

A24 HEART AND LUNGS: “BETTER TOGETHER”

9:30 a.m. - 11:00 a.m. MOSCONE CENTER

Room 3009/3011 (West Building, Level 3)

Poster Viewing 9:30-10:00
Discussion 10:00-11:00

Chairing: H.E. Faust, MD, MS, Madison, WI
E. Wilcox, MD, MSc, PhD, FRCPC, Toronto, Canada
A.M. Esper, MD, MS, ATSF, Atlanta, GA


903 Hidden Between the Lines: Acute Eosinophilic Pneumonia Masquerading as Heart Failure/A. J.O. Davis, J.P. Kanne, H.E. Faust, Madison, WI, p.A1122
904 The Unclear Significance of Refractory Ventricular Fibrillation in a Patient Undergoing Veno-Arterial Extracorporeal Membrane Oxygenation/A. Go, D. Das, E. Abo-Salem, G. Kamel, Saint Louis, MO, p.A1123

905 Takotsubo's Cardiomyopathy in a Patient with Myasthenic Crisis: A Rare Complication/J. Genova, W. Khan, Toms River, NJ, p.A1124


907 Cardiac Tamponade - A Rare Complication of Sjogren's Syndrome/Y. Medik, C. Schooff, W. Khan, Toms River, NJ, p.A1126

908 Acute Eosinophilic Pneumonia Caused by Cigar Smoking/S. Faryad, M. Ali, J. Meeker, Peoria, IL, p.A1127


911 Pneumonitis Due to “Dabbing” Successfully Managed via Extracorporeal Membrane Oxygenation/L.E. Meece, J.P. Moran, H.M. McConville, S. Velani, Des Moines, IA, p.A1128

912 A Rare Case of Left-Sided Unilateral Pulmonary Edema in Acute Mitral Regurgitation/C.-Y. Kang, P. Khamooshi, V. Reyes Pinzon, N. Haghani Rad, Chicago, IL, p.A1131


914 A Rare Cause of Acute Throat Pain: Acute Aortic Dissection/I.A. Martinez Avalos, V. Hoytfox, Spokane, WA, p.A1133


917 Infected Bronchogenic Cyst Rupture Causing Pericardial Effusion and Cardiac Tamponade: Diagnosis Made by Bedside Point of Care Ultrasound (POCUS)/S. Desai, L.D. Stagner, Detroit, MI, p.A1136

918 A Case of Acute Interstitial Pneumonia (AIP)/S. Jarrett, A. Matta, S. Benzaquen, Philadelphia, PA, p.A1137


920 Pulmonary Cement Emboli: An Underreported Phenomenon or Rare Kyphoplasty Complication/A. Cimino, A. Alchakaki, Farmington Hills, MI, p.A1139

921 A Rare Case of Post-Partum Spontaneous Coronary Artery Dissection Involving Left Main Coronary Artery with Profound Acute Decompensated Heart Failure/H. Asif, T. Park, L. Mccook, C. Wood, W. Ghumman, C. Hawk, Boca Raton, FL, p.A1140

922 Acute Monocytic Leukemia: A Rare but Devastating Cause of ARDS/A.Y. Soleiman, G. Eman, M. Islam, Bronx, NY, p.A1141


925 Atrioesophageal Fistula following Catheter Ablation for Atrial Fibrillation: A Rare Cause of Hematemesis/C. Iyer, L.K.T. Boppana, B.E.-X. Tan, S. Liang, Rochester, NY, p.A1144

604 Outcomes Following Community-Acquired SARS-CoV-2 Infections for Patients with BPD/M. Ingram, A. Miller, K. Krivchenia, E.G. Shepherd, L.D. Nelini, M.J. Kielt, Columbus, OH, p.A1160

605 Dose-Dependent Respiratory Viral Inhibition by a Safe Inhaled Alkaline Treatment/J.L. Saunders, M. Carozza, C.M. Robinson, I. Daniels, L. Smith, E. Hansan, B. Gaston, M.D. Davis, Indianapolis, IN, p.A1161

606 Six Month Outcomes of Children with Acute COVID-19 or Multisystem Inflammatory Syndrome in Children/L. Yonker, M.D. Burns, Y. Bartsch, J. Davis, E. Farkas, M. Loiselle, B. Boribong, A. Galit, Boston, MA, p.A1162


615 Characterization of Respiratory Compromise in Pediatric Patients with Confirmatory Test for Covid19 Hospitalized in a Fourth Level Pediatric Hospital in Bogotá/D. Beltran-Franco, S.M. Restrepo, M. Villamil, S.L. Goyeneche, Bogota, Colombia, p.A1171


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BASIC • CLINICAL • TRANSLATIONAL
POSTER DISCUSSION SESSION

A27 SOMA: SEX, METABOLISM, INFLAMMATION, AND IMMUNITY IN PULMONARY VASCULAR DISEASE

9:30 a.m. - 11:00 a.m. MOSCONE CENTER
Room 2022/2024 (West Building, Level 2)

Poster Viewing 9:30-10:00
Discussion 10:00-11:00

Chairing: A.L., Frump, MS, PhD, Indianapolis, IN
R. Kumar, PhD, San Francisco, CA
F. Perros, PhD, Paris, France


802 Sex Dependent Changes in Pulmonary Hypertension and Penetration Mediated by a High Fat Diet in Transgenic Mice with a Human BMPR2 Mutation (R899X)/H. Labazi, G. Aitchison, K. Mair, N. Denver, M. Nilsen, S. Laforest, A. Gebril, M.R. Maclean, Glasgow, United Kingdom, p.A1173

803 STING Mediates Pulmonary Hypertension Through VEGF but Independent of Type I Interferon Signaling/A. Pham, Y. Lu, L. Mukhsinova, C. Fu, A. Oliveira, L. Jin, A.J. Bryant, Gainesville, FL, p.A1174

Unicellular Transcriptomic and Metabolic Characteristics of ATAC Seq Reveals That Genes Involved in the Transcriptomics Identify Lipid Metabolism and Positioning, Enzymatic Processing and Binding Partners

Single-Cell RNA-seq Reveals Transcriptionally Effect of Sex Hormones on the Severity of Experimental Pulmonary Hypertension

Effect of Sex Hormones on the Severity of Experimental Pulmonary Hypertension in a Naturally Killer Cell-Deficient IL-15 Knockout Rat Model

Single-Cell RNA-seq Reveals Transcriptionally Convergent Pulmonary Endothelial Cells in an Inflammatory Model of Pulmonary Arterial Hypertension with BMPR2 Dysfunction

ATAC Seq Reveals That Genes Involved in the Persistently Activated Phenotype of PH Fibroblasts Exhibit Open Enhancers and Promoters That Are Persistently Activated Phenotype of PH Fibroblasts

Unique Transcriptomic and Metabolic Characteristics of Pulmonary Monocytes and Macrophages in an Inflammatory Rat Model of Pulmonary Arterial Hypertension with Bmpr2 Mutations

Positioning, Enzymatic Processing and Binding Partners of Versican in Vascular Lesions of Pulmonary Arterial Hypertension

Transcriptomics Identify Lipid Metabolism and Inflammation as Early Pathways in an Animal Model of Pulmonary Hypertension Due to Heart Failure with Preserved Ejection Fraction

Mitochondrial Dysfunction as a Primary Cause of Impaired Angiogenesis in Pulmonary Arterial Hypertension

Inhibition of Anaplerosis Mitigated Mitochondrial Dysfunction and Proliferative Signaling in Pulmonary Hypertension

Dysfunctional Mitochondria and Impaired Reticulocyte Maturation in Pulmonary Hypertension

Estrogen Stimulates Angiogenesis and Regulates Metabolism in the Right Ventricle and on Cultured Cardiac Microvascular Endothelial Cells

The Role of Fatty Acid Oxidation in Animal Models of Pulmonary Hypertension

Circulating Amino Acid Profiles in Pulmonary Arterial Hypertension at Rest and with Peak Exercise

Lipid Metabolomics Analysis of Pulmonary Veno-Occlusive Disease

Bone Morphogenetic Protein 9 (BMP)-9 Loss Alters Lung Vascular Integrity and Partially Attenuates Experimental Pulmonary Hypertension

A Semi-Quantitative Immunohistochemistry-Based Comparison of Systemic Sclerosis-Associated (SSc-PAH) vs. Idiopathic Pulmonary Arterial Hypertension (IPAH) Lungs

Reciprocal Bi-Directional Cross-Talk Between GATA6 and YAP Regulates Vascular Smooth Muscle Cell Hyper-Proliferation in PAH

Apelin Signaling Protects Against Pulmonary Artery Banding-Induced Right Ventricular Failure

HIPK2 Supports Pulmonary Vascular Smooth Muscle Cell Proliferation and Pulmonary Hypertension Via YAP and CEP55
Treatment with the Mitochondria-Targeted Antioxidant Mitotempo Ameliorates Pulmonary Vascular Remodeling and Improves Exercise Hemodynamics in a Rat Model of Combined Pre- and Post-Capillary Pulmonary Hypertension/G. Triantafyllou, T. Satoh, R. Liu, Q. Xu, C.F. McTiernan, S. Shiva, A.C. Straub, M.T. Gladwin, Pittsburgh, PA, p.A5528

The Roles of Inflammasome Activation and Gasdermin D in Pulmonary Arterial Hypertension/A. Foley, S. Sulstarova, A. Volchuk, B.E. Steinberg, N.M. Goldenberg, Toronto, Canada, p.A5529

BASIC • TRANSLATIONAL

POSTER DISCUSSION SESSION

A28 THE HOST DELIVERS

9:30 a.m. - 11:00 a.m. MOSCON CENTER

Room 203-204 (South Building, Level 2)

Poster Viewing 9:30-10:00
Discussion 10:00-11:00

Chairing: E.M. Carmona Porquera, MD, PhD, Rochester, MN
L.K. Sharma, PhD, New Haven, CT
S.E. Evans, MD, ATSF, Houston, TX

201 IL-25 Inhibits Airway Anti-Viral Immunity and Promotes Virus Exacerbation of Allergic Airways Disease/N.W. Bartlett, T. Williams, S.-L. Loo, J. Girkin, Newcastle, Australia, p.A1193

202 Inducible Resistance Against Viral Pneumonia Requires a Lung Epithelium-Specific Transcriptional Interaction Between RelA and cJUN/J. Pantaleon-Garcia, L.M. Pacheco Hernandez, V.V. Kulkarni, M. Longmire, Y. Wang, S.E. Evans, Monterrey, TX, p.A1194


204 Pulmonary Surfactant Phospholipids as Novel Anti-Virals Against SARS-CoV-2 Infection/M. Numata-Nakamura, R. Bowen, D.R. Voelpel, Denver, CO, p.A1196


209 Pam2-ODN Induces Protection Against Acute Bacterial Pneumonia by Redox Based Activation of Lung Epithelial STAT3/V.V. Kulkarni, Y. Wang, J. Pantaleón García, S.E. Evans, Houston, TX, p.A1201


215 RIG-I Is a Novel Receptor for CpG Oligodeoxynucleotides/Y. Wang, V. Kulkarni, J. Pantaleon García, M. Lethier, S. Cusack, S.E. Evans, Houston, TX, p.A1207

217 TLR2/6 Agonist Treatment Enhances Antiviral Innate Immune Responses in a Novel Mouse Coronavirus Respiratory Infection Model/J. Girkin, N.E. Bryant, S.-L. Loo, C. Demaison, F. Mercuri, N.W. Bartlett, New Lambton Heights, Australia, p.A1209

218 The Effects of E-cigarette Use, Cigarette Smoke and Dual-Use of Both on Murine Susceptibility to Streptococcal Pneumonia/K. Park, I.N. Advani, J.A. Masso Silva, J. Pham, L.E. Crotty Alexander, La Jolla, CA, p.A1210

219 Genetic Regulation of the Host Immune Response to Cryptococcus Neoformans Infection/M. El Sheikh, I. Angers, S.T. Qureshi, Montreal, Canada, p.A1211

220 Type I IFN Signaling Controls Damage and Clearance During Pulmonary Aspergillus Fumigatus Infection/K.M. Shepardson, J. Roemer, A. Rynda-Apple, Bozeman, MT, p.A1212


223 AMP-Activated Protein Kinase Is Required for Treg Cell Function During Microenvironmental Stress/M.A. Torres Acosta, S. Weinberg, K. Helmin, L. Morales-Nebreda, C.P. Reyes Flores, A.M. Joudi, B.D. Singer, Chicago, IL, p.A1215


225 Combined Toll-Like Receptor Agonist Treatment Leads to Activation of Interferon Regulatory Factor 3 in Lung Epithelial Cells In Vitro/M. Longmire, J.P. Bodnar, J. Pantaleón García, Y. Wang, S.E. Evans, Houston, TX, p.A1217

Differences in Ventilation Defects (VDefs) and Inflammatory Responses to Segmental Allergen Challenge Between Allergic Adults With and Without Asthma/T. Winkler, V.J. Kelly, M. Kone, D. Hamilos, J.L. Cho, J. Griffith, J.G. Venegas, A.D. Luster, B.D. Medoff, R.S. Harris, Boston, MA, p.A1226


Kisspeptin Attenuates Airway Smooth Muscle Cell Migration by Regulating Rho GTPase Signaling Pathway/P. Balraj, N.S. Ambhore, N.A. Borkar, C.M. Pabelick, Y.S. Prakash, S. Venkatachalem, Fargo, ND, p.A1229


Serum Iron Correlates with Serum Immunoglobulin E, Serum Total Globulin, and Exhaled Nitric Oxide in Asthmatic Children/S.-W. Hu, A.J. Ghio, Miami, FL, p.A1238


Comparable Diagnostic Accuracy Between Sputum Cell Analysis and FeNO in Diagnosing Cough Variant Asthma/T. Shirai, K. Tamura, K. Hirai, Shizuoka, Japan, p.A1240


P728 Eosinophil as a Determinant of Airway Hyperresponsiveness in Allergic Asthma with Elevated Blood Eosinophils/M. Imaoka, Matsuyama, Japan, p.A1247


P731 Smoking Exposure Is Associated with Airway Eosinophilic Activation/D.K. Klein, A. Silberbrandt, M. Mukherjee, L. Frossling, M. Hvidtfeldt, A. von Bülow, P. Nair, C. Porsbjerg, Copenhagen, Denmark, p.A1250


P734 Immunoglobulin E Specific Serum Dermatophagoides Pteronyssinus and Dermatophagoides Farinae and Their Correlation with Fractional Exhaled Nitric Oxide in Uncontrolled Asthma Patients/T. Damayanti, N. Bahana, H. Wibowo, A. Rozaliyani, Jakarta Timur, Indonesia, p.A1261
P744 The Effectiveness of Allergoids in Conducting SIT in Patients with Seasonal Allergic Rhinitis/I. Koretskaia, Y. Dytятковська, Dnipro, Ukraine, p.A1262

P745 Collagen 4 Alpha 3 (COL4A3) Degradation May Depend on Matrix-Metallo-Protei- enase 9 (MMP9) in Experimental Asthma Exacerbations/S.S.P. Nemani, L. Lund- ing, M. Wegmann, M.V. Kopp, M.D. Weckmann, Luebeck, Germany, p.A1263

P746 HIF Alpha Subunit Expression Within Pulmonary Endothelial Cells May Regulate Cellular Inflammation in a Mouse Model of Allergic Asthma/J.M. Olay, J. Pham, J.A. Masso Silva, L.E. Crotty Alexander, San Diego, CA, p.A1264

P747 Impact of HIF-1a and HIF-2a Subunits in Inflammatory Cell Recruitment During Asthmatic Response Via Alternaria Alternata Sensitization/J. Pham, J.M. Olay, J.A. Masso Silva, L.E. Crotty Alexander, San Diego, CA, p.A1265


P752 Decreased Response to Interleukin 13 in Distal vs Proximal Airways/M. Conway, A. Molzahn, D. Francisco, H. Kimura, M. Kraft, Tucson, AZ, p.A1270


P755 Endotoxin Abundance in House Dust Mite Drives Asthma Phenotype In Vivo/N. Fuentes, A. Keller, V. Godfrey, C. Tkaczyk, Gaithersburg, MD, p.A1273

P756 Helicobacter Pylori Derived Vacuolating Cytotoxin A (VacA) Modulates the Allergen Specific Interaction of Dendritic Cells with T Cells/I. Raspe, H. Beckert, T.L. Cover, A. Müller, C. Taube, S. Reuter, Essen, Germany, p.A1274

P757 Changes in the Alveolar Macrophage Toponome of Female SP-A Knockout Mice After Rescue with Exogenous SP-A1: Comparison with Males/D.S. Phelps, V.M. Chinchilli, L. Yang, D. Shearer, X. Zhang, J. Floros, Hershey, PA, p.A1266

P758 Decreased Response to Interleukin 13 in Distal vs Proximal Airways/M. Conway, A. Molzahn, D. Francisco, H. Kimura, M. Kraft, Tucson, AZ, p.A1270


P761 Endotoxin Abundance in House Dust Mite Drives Asthma Phenotype In Vivo/N. Fuentes, A. Keller, V. Godfrey, C. Tkaczyk, Gaithersburg, MD, p.A1273

P762 Helicobacter Pylori Derived Vacuolating Cytotoxin A (VacA) Modulates the Allergen Specific Interaction of Dendritic Cells with T Cells/I. Raspe, H. Beckert, T.L. Cover, A. Müller, C. Taube, S. Reuter, Essen, Germany, p.A1274

A33 BIOMARKERS, ALLERGY AND IMMUNE RESPONSES IN COVID-19

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Area J, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session
11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.


P777 Qualitative Serologic Antibody Response Using Lateral Flow Immunobssay (Rapid IgG/IgM Diagnostic Test) in the Different Illness Severity of COVID-19 Pneumonia/M.C. Agase, Quezon City, Philippines, p.A1281


P780 Soluble Cluster of Differentiation 36 (sCD36) as a Biomarker for Outcomes in Coronavirus Disease (COVID-19) Acute Respiratory Distress Syndrome (ARDS)/F. Alghanim, T. Mohan, J.D. Hasday, C. Shanholtz, K. Birukov, Baltimore, MD, p.A1284


P784 The New Method of Severe COVID-19 Treatment with Inhalations of Ultra-Low Doses of Alkylating Drug/E. Sinitsyn, K. Zykov, A. Rvacheva, Moscow, Russian Federation, p.A1288


A National Partnership with the COPD Foundation to Implement the COPD Virtual Medication Reconciliation and Education: COPD V-M(ED) Pilot/S.E. Gray, A. Dawdani, S. Goyal, J. Austin, V.G. Press, Chicago, IL, p.A1298


Determining the Prevalence of Asthma in a Primary Care EMR: Suspected or Confirmed?/M. Moloney, D. Barber, J. Queenan, A. Morra, S. Gupta, T. To, G. Digby, M.D. Lougheed, Kingston, Canada, p.A1307

Severity and Prevalence of Comorbidities Among Adults with Asthma in the United States/M. Barrett, V. Vuong, E. Boers, A. Cameron, L. Kaye, C. Woodford, C.M. Nunez, K.L. Sterling, San Diego, CA, p.A1309


Evaluating the Effectiveness and Safety of Switching from Salmeterol - Fluticasone Inhalation to Formoterol - Budesonide Inhalation as Single Maintenance and Reliever Therapy (SMART) Approach in Partly Controlled or Uncontrolled Asthma Patients/N. Khatri, S. Kapoor, N. Arya, S. Bhagat, S. Patil, H. Barkate, Mumbai, India, p.A1315


Inhaler Storage and Use Among Children with Asthma at Home, School, and Community/U. Balachandran, N. Packnett, K. Jariwal-Parikh, M. Bogart, Research Triangle in Patients with Asthma/Collegeville, PA, p.A1318


Characteristics and Outcomes for Adult Patients with Asthma Admitted to Intensive Care: A Retrospective Analysis/J.D. Salciccioli, M. Komorowski, D.C. Marshall, Boston, MA, p.A1324

Assessing the Relationship Between Health Information Technology Use and Influenza Vaccine Uptake in Asthmatics/T.O. Babalola, N. Shah, R.C. Da Silva, K. Onoriode, S. Tongia, Athens, GA, p.A1326

Concomitant Biologic Agents for the Treatment of Asthma at a Large Academic Medical Center with an Integrated Specialty Pharmacy Program/S.M. Rotolo, E.T. Naureckas, S.R. White, Chicago, IL, p.A1327


BEHAVIORAL • CLINICAL

TOPICS IN TOBACCO AND E-CIGARETTES

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

A35 Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.

Feasibility Trial of an Unconventional Financial Incentive Based Smoking Cessation Study (Randomized Clinical Trial)/S.G. Sathya, C. Zaw, G.E. Holt, Miami, FL, p.A1338

Adapting Tobacco Treatment to Telemedicine During the COVID-19 Pandemic: Benefits, Barriers, and Results/J. Deepak, J. Chan, J. Melamed, Baltimore, MD, p.A1339

Implementing an Inpatient Tobacco Dependence Program in a Community Teaching Hospital/M. Ibrahim, M.-M. Lee, A.M. Ahasic, Norwalk, CT, p.A1340


Veterans Affairs Partner Perspectives on Using a Proactive Teachable Moment-Based Opt-Out Method to Improve Smoking Cessation/S. Golden, A.C. Melzer, N.T. Tanner, J. Deepak, C.G. Slatore, Portland, OR, p.A1342


P419 Coexistent Crohns Disease with ANCA-Negative Granulomatous Polyangitis/N. Khan, B. Zhao, R. Abencillo, Houston, TX, p.A1350

P420 When One Diagnosis Does Not Fit All: A Multidisciplinary Approach to an Interesting Case of Interstitial Lung Disease/J. Sunny, R. Abencillo, B. Zhao, Houston, TX, p.A1351


P422 Rapidly Progressive Cellular NSIP in a Young Female Found to Have Antisynthetase Syndrome/S. Baah, M. Urquhart, Louisville, KY, p.A1353


P424 Intersitial Pneumonia with Autoimmune Features: A Precursor to Anti Synthetase Syndrome?/J. Sunny, I.C. Mira-Avendano, Houston, TX, p.A1355


P428 Shrinking Lung Syndrome: A Rare Cause of Restrictive Lung Disease in Systemic Lupus Erythematosus/S. Suresh, C. Onofrei, Pittsburgh, PA, p.A1359

P429 Lungs, or Not the Lungs? Complex Respiratory Complications from Lupus/H. Li, Y.-C. Lo, M. Baqir, Rochester, MN, p.A1360


P433 A Case of Recurrent Spontaneous Pneumothorax in a Patient with Rheumatoid Arthritis/C. Zhou, P. Mota, Lebanon, NH, p.A1364


P437 Interstitial Pneumonia with Autoimmune Features and Acute Fibrinous Organizing Pneumonia/N. Nelson, M.F. Sloane, R. Condos, New York, NY, p.A1368

P438 A Case of Anti-Ro52 Antibody Myositis-Associated Interstitial Lung Disease/J.A. Huapaya, A. Rowe, N.W. Todd, Bethesda, MD, p.A1369

P439 CTFR Dysfunction in Sjogren Syndrome: A Rare Clinical Association/S. Suresh, C. Onofrei, Pittsburgh, PA, p.A1370

P440 Is Interstitial Pneumonia with Autoimmune Feature a Distinct Entity or a Pathogenic Continuum to Other Autoimmune Disorders and Sarcoidosis: A Puzzle to Solve/T.M.A. Khan, Y. Ansari, S. Ansari, S. Qadir, I. Waheed, N. Kazimuddin, Bowling Green, KY, p.A1371

P441 So, Is It Not Cancer?, A Rare Cause of Pulmonary Nodules/J.A. Torrens Olan, H. Collazo Santiago, R. Fernandez, San Juan, PR, p.A1372


P443 A Case of Acute Shortness of Breath and Acute Refractory Hypoxemia/R.M. Abdallah, Louisville, KY, p.A1374


P445 Vanishing Lung Syndrome: A Rare Cause of Air Fluid Levels/Y. Farah, W. Farra, Southfield, MI, p.A1376


P447 A Rare Case of Adult-Onset Henoch Schonlein Purpura with Pulmonary Involvement/S. Khauli, D. Kruse, Omaha, NE, p.A1378


P449 A Rare Case of GPA During Pregnancy/H. Channa, J. Packer, Shreveport, LA, p.A1380

P450 Granulomatosis with Polyangiitis Presenting with End-Stage Renal Disease at Diagnosis/M.V. Shah, S. Chanda, S. Bhasin, New Brunswick, NJ, p.A1381

P451 Diffuse Alveolar Hemorrhage, an Interplay of Multiple Etiologies/A. Chohan, S. Choudhury, R. Dadhwal, A. Vakil, Corpus Christi, TX, p.A1382


P456 Crazy Paving Leads to a Crazy Differential/J. Meland, J. Zoglman, St. Louis, MO, p.A1387


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**CLINICAL THEMATIC POSTER SESSION**

**A37 CASE REPORTS: DRUG TOXICITY**

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Area F, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session

Discussion: 11:15-12:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.
A Rare Case of Capecitabine Superimposed with Anti-PD-L1
R. Chan, P. Sakhamuri, S. Walker, Lafayette, LA, p.A1411


A Case of Leflunomide-Induced Pulmonary Nodulosis/R. Chavez, J.A. Aldea, J. Iqbal, East Meadow, NY, p.A1409


Tortured by mTOR Inhibitors? A Case of Pneumocystis Pneumonia Originally Diagnosed as mTOR Pneumonitis/D. Yee, N.J. Nassikas, Providence, RI, p.A1413


Daptomycin Induced Eosinophilic Pneumonia/R. Chan, P. Sakhamuri, S. Walker, Lafayette, LA, p.A1411


Tortured by mTOR Inhibitors? A Case of Pneumocystis Pneumonia Originally Diagnosed as mTOR Pneumonitis/D. Yee, N.J. Nassikas, Providence, RI, p.A1413

Immune Checkpoint Inhibitor-Induced Interstitial Lung Disease Mistaken for Atypical Pneumonia/J.V. Miller, P. Patel, B. Saeed, T. Shams, Scranton, PA, p.A1414


Trastuzumab-Induced Pneumonitis/H.I. Bashir, V. Tondapu, A.R. Cucci, L.K. Venkateshiah, Akron, OH, p.A1416


Daptomycin Induced Eosinophilic Pneumonia/A. Bajwa, M. Parmar, Oklahoma City, OK, p.A1418

A Rare Case of Eltrombopag-Induced Pneumonitis/G.T. Yoshikawa, M. Chock, G. Devendra, Honolulu, HI, p.A1419


A38 CASE REPORTS: PUZZLES IN PULMONARY DISEASE

9:30 a.m. - 3:45 p.m. MOSCONE CENTER
Area F, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15
Discussion: 11:15-12:15 authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.


P494 Acute Unrelenting Cough Due to Aspiration of Iron Tablet/C.W. Akabus, K.P. Acosta, O. Ajibola, R. Merrill, Poughkeepsie, NY, p.A1423


P498 Severe Methemoglobinemia Due to Accidental Ingestion of Poppers/G. Hernandez Romero, F.M. Reyes, D. Damania, Bronx, NY, p.A1427


P500 An Unusual Presentation of Pheochromocytoma/C.W. Akabus, K.P. Acosta, H. Suseelan, Oak Lawn, IL, p.A1429


P502 Post Pneumonectomy Hypoxemia Secondary to Worsening Right-to-Left Shunt Through Existing PFO/A. Agameya, R. Webster, A.C. Campagna, L. Gazourian, Burlington, MA, p.A1431


P504 Negative Pressure Pulmonary Edema After Upper Airway Obstruction During Transesophageal Echocardiogram/D. Lim, Y. Kwon, Seattle, WA, p.A1433

P505 Yellow Nail Syndrome Associated with Dental Abscess/H. Mallah, E.S. Sriram, D.C. Gomez Manjarres, Gainesville, FL, p.A1434

P506 Baby Blues: A Rare Case of Transient Pulmonary Arteriovenous Malformation During Pregnancy/B.A. Bagley, J.P. Smith, Indianapolis, IN, p.A1435


P511 Pneumomediastinum and Subcutaneous Emphysema as a Rare Complication of Rhinovirus and EBV Coinfection/H.I. Roman Perez, G. Kalapurakal, S. Deleveaux, X.E. Fonseca Fuentes, Oak Lawn, IL, p.A1440


P515 A Case of Persistent Productive Cough/Y.A. Gao, R. Alalawi, Phoenix, AZ, p.A1444

P516 What IZ This? A Case of Alpha 1 Antitrypsin Deficiency with the Rare Pi IZ Phenotype/A. Vojtek, C. Hayes, S. Bishnoi, D.M. Petrenko, J. Schellenberg, Allentown, PA, p.A1445


A39 ACUTE EXACERBATIONS OF COPD
9:30 a.m. - 3:45 p.m. MOSCONE CENTER
Area H, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.


P646 A Post-Hoc Analysis of the Effect of Smoking Status on COPD Exacerbation Reductions with Budesonide/Glycopyrrrolate/Formoterol Fumarate in Patients with COPD in the ETHOS Study/M. Bafadhel, M.K. Han, D. Singh, M. Jenkins, P. Dorinsky, M. Patel, Oxford, United Kingdom, p.A1451


P650 Relationship Between On-Treatment Rescue Medication Use, Exacerbation Rates, and Health-Related Quality of Life in Chronic Obstructive Pulmonary Disease: Post-Hoc Analysis of the ETHOS Study/D. Singh, F.J. Martinez, J.R. Hurst, P. Darken, P. Dorinsky, M. Patel, Manchester, United Kingdom, p.A1455

P651 The Domain Analysis of COPD Assessment Test (CAT) Assists Prediction of Acute Exacerbation Risk in Older Patients with COPD/S. Teramoto, Hachioji-shi, Japan, p.A1456


P657 Predicting Hospital Readmission Due to Acute Exacerbation of Chronic Obstructive Pulmonary Disease (AECOPD); Audit of Pulmonary Discharge Summary from Developing Country/N. Bhatta, K. Bhandari, N. Bhatta, D.R. Mishra, D.A. Bhattachariya, A.B. Acharya, A. Verma, R. Sahi, S.H. Limbu, S. Katwal, Dharan, Nepal, p.A1462


Impaired Cardiorespiratory Coupling Is Associated with Acute Exacerbation in COPD Patients/Y.-C. Huang, Taipei, NC, p.A5531


Primary Ciliary Dyskinesia Diagnosis by the Measurement Nasal Nitric Oxide Level in Adults with Bronchiectasis in Ukraine/K. Suska, K. Gashynova, Dnipro, Ukraine, p.A1468

Serum Fibrinogen as a Biomarker for Disease Severity and Exacerbation in Patients with Non-Cystic Fibrosis Bronchiectasis/S.J. Lee, J.D. Lee, Jinju, Korea, Republic of, p.A1469


Pulmonary Exacerbations (PEx) and Hospitalizations in Commercially Insured Patients with Non-Cystic Fibrosis Bronchiectasis (NCFBE) Over 1- and 2-Year Follow-Up Periods/P.A. Flume, J. Feliciano, S. Burns, J. Wu, S. Fucile, M. Hassan, A. Chatterjee, Charleston, SC, p.A1471

Azithromycin Use in Patients with Bronchiectasis: Real World Experience from an English DGH/A. Ponnuswamy, T. Gordon, H. Ajay, N. Khatoon, Chester, United Kingdom, p.A1472

Is Admission Procalcitonin in Septic Shock Associated with Poor Outcomes?/K. Bhandari, N. Bernskoetter, D. Datta, Farmington, CT, p.A1474


Is Admission Procalcitonin in Septic Shock Associated with Poor Outcomes?/K. Bhandari, N. Bernskoetter, D. Datta, Farmington, CT, p.A1474


Septic Shock in Mechanically Ventilated Patients with Severe COVID-19 Infection in the Intensive Care Unit/T. Olanipekun, T. Abe, N. Bakinde, G.E. Westney, R.H. Snyder, Atlanta, GA, p.A1479


Variation in Diagnostic Troponin Orders Among Patients Admitted to the Intensive Care Unit with Sepsis/M.A. Garcia, A.J. Walkey, Boston, MA, p.A1485


Circulating Histone H4 Subunit as a Marker of Sepsis Severity Is Affected by Intravenous Heparin/J.E. Brady, F. Alghanim, R. Baalachandran, M.E. Tulapurkar, J.D. Hasday, K.G. Birukov, Baltimore, MD, p.A5534
P550 Impact of Inhaled Nitric Oxide on Clinical Outcomes in Acute Respiratory Distress Syndrome with Right Ventricular Dysfunction/E. Fritzmann, Y. Matusov, M.I. Lewis, Los Angeles, CA, p.A1493


P552 The Use of Video Assisted Withdrawal of Endotracheal Tube to Assist in Percutaneous Tracheostomy in Patients with COVID-19/G. Singh, Columbus, GA, p.A1495


P559 Compared to FiO2s 0.60, Few Preclinical Animal Studies Have Examined the Effects of Therapeutic FiO2s = 0.60 in Models of Lung Infection or Noninfectious Injury: Preliminary Results of a Planned Systematic Review and Meta-Analysis/S. Minkove, C. Xizhong, M. Jeakle, Y. Li, J. Sun, R. Dhamapurkar, D. Cooper, P. Eichacker, P. Torabi-Parizi, Bethesda, MD, p.A1503


P562 North American Survey of High-Flow Nasal Cannula Therapy Use/A. Alnajada, M. Shyamsundar, B. Messer, I. Pavlov, Belfast, United Kingdom, p.A5535


P794  Temporal Change in Syndecan-1 as a Therapeutic Target and a Biomarker for the Severity Classification of COVID-19/F. Ogawa, N. Mototsugu, I. Takeuchi, Yokohama, Japan, p.A1512


P796  Incidence and Outcomes of COVID-Related and Non-COVID-Related Sepsis in Patients Hospitalized with COVID-19/C.N. Shappell, M. Klompas, S. Kanjilal, C. Chan, C. Rhee, Boston, MA, p.A1514


P571 Effect of a Policy Change to Invite Family to ICU Procedures on Trainee Educational Satisfaction/B. Harris, A. Butler, E. Wilson, E.L. Hirshberg, R.O. Hopkins, J. Butler, J.F. Orme, S.M. Brown, S. Beesley, Salt Lake City, UT, p.A1531


P574 Disconnect Between Provider Expectations and Delivered Therapy: Implications for Patients with Artificial Airways/S.M. Hyder, S.R. Russell, Chicago, IL, p.A1534


P578 ICU Physicians Turning to Social Media to Mitigate Burnout - A Quantitative Study/S. Fatima, O. Haider, M. Khan, I. Ratnani, Houston, TX, p.A1538

P579 Inter-Hospital ICU Transfers to a Tertiary Care Center: A Qualitative Analysis/B. Noureddine, J.M. Aliotta, N.S. Ward, Providence, RI, p.A1539

P580 Outcomes Associated with Intensive Care Unit Discharge During Times of High Unit Occupancy/H. Soh, R. Fiter, N.N. Goel, V. Astha, Y. Li, E. Benn, K.S. Mathews, New York, NY, p.A1540


P583 Exploring Factors Affecting Critical Care Response Team (CCRT) Service at a Tertiary Hospital in Riyadh, Saudi Arabia/A. Alhaidari, Riyadh, Saudi Arabia, p.A1543

P584 Splatter Paint Room Event in the ICU - An Effort to Mitigate Burnout/I. Ratnani, S. Fatima, F. Masud, Houston, TX, p.A1544


P589 Improving Knowledge and Confidence in the Resuscitation of the Peripartum Patient Through Simulation/P. Huang, P. Chang, A. Rossetti, C.R. Spitzer, Columbus, OH, p.A5540


P591 Improving Safety During Intra-Hospital Transport of Medical Intensive Care Unit Patients/G. Matias, B. White, D. Williams, K.P. Simpson, Maywood, IL, p.A5542
A45 TOXICOLOGY, PHARMACOLOGY, AND ENDOCRINOLOGY

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Area G, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15
Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.

P593 Death by Darvocet/D.E. Walsh, M.A. Tidswell, Springfield, MA, p.A1549

P594 Please Comply: Fentanyl Induced Chest Wall Rigidity Mediating Decompensation in Acute Respiratory Distress Syndrome/R. Rovinski, V. Kondas, C. Mallow, Miami, FL, p.A1550


P598 Huffing-Induced Multi-Organ Failure: A Case of Acute and Long-Term Manifestations Due to Inhalant Abuse/ G.T.D. Truong, Z.A. Creech, M.G. Del Core, Omaha, NE, p.A1554


P600 Pembrolizumab Induced Encephalitis; Catching Diagnosis Early Is the Key/C.R. Chada, B. Stoll, J. Ponzillo, J. Obodzie, St. Louis, MO, p.A1556


P602 A Case of Isolated Right Ventricular Dysfunction in a Thyrotoxicosis Patient/A. Aladham, B.N. Nguyen, N. Ramesh, Harrisburg, PA, p.A1558


P606 Subclinical Hypothyroidism in Multiple Sclerosis: A Rare Presentation of Myxedema Coma/Z. Kattih, J.A. Moore, S. Meredith, P. Makkar, New York, NY, p.A1562


P609 Shot to the Heart: A Case of Glucocorticoid Associated Pheochromocytoma Crisis/E. Zehr, G. Day, E. Stortz, B. Haugen, S. Sharma, Aurora, CO, p.A1565

P610 Methamphetamine Overdose Induced Disseminated Intravascular Coagulation/M.A. Coghlan, B. Ulrich, L. Hinkle, Indianapolis, IN, p.A1566


P613 The Leaking Man - A Case of Systemic Capillary Leak Syndrome Associated with Rhabdomyolysis Thought to Be Due to Cold Medications/S. Sahni, C. Villavicencio, H. Amin, N. Trenard, A. Poor, New York, NY, p.A1569


P615 We Started the Fire: Hyperpyrexia Caused by Dexametomidine/M. Garcia, J. Scott, S.B. Thapamagar, Riverside, CA, p.A1571


P617 Drug and a Tick- A Rare Case of Drug Induced Hemolytic Anemia in a Patient with Spotted Fever Rickettsiosis/R. Swaney, M. Velagapudi, Omaha, NE, p.A1573


P622 Severe Rhabdomyolysis Complicated with Compartment Syndrome Likely Associated to Recent Kratom Use/J.C. Maria-Rios, M. Darrabie, A. Martin, Orlando, FL, p.A1578


P628 Dodging Death: A Rare Case of Cyanide Toxicity/M. Baray, E.N. Haber, N.K. Cobb, Washington, DC, p.A1584


P631 A Severe Presentation of a Salicylate Overdose/A. Schwegman, Minneapolis, MN, p.A1587


P633 A Rare Case of Superior Mesenteric Artery Syndrome Secondary to Weight Loss in Uncontrolled Graves Disease/M. Arif, D. Afzal, A. Zimmerman, D. Stern, Phoenix, AZ, p.A1589

P634 Bupropion Induced Dystonia/S. Faryad, H. Hussain, S. Chittivelu, Peoria, IL, p.A1590

P635 Myxedema Coma in a Patient with Post Viral Inflammatory Syndrome/S. Amanor-Boadu, O. Falade, Bridgeport, CT, p.A1591

P911 A Rare Case of Streptococcus Anginosus Endocarditis Masquerading as Lupus Nephritis/S. Pant, S. Wagle, A. Naaraayan, K. Lakshmi, S. Jesmajian, New Rochelle, NY, p.A1592


P916 Immune Reconstitution Syndrome in a Renal Transplant Recipient in Patient with Disseminated Cryptococcus/B. Bazerbachi, A. Kapoor, R. Bajwa, Cleveland, OH, p.A1597


P919 Actinomycosis, a Rare Cause of Tracheitis/G.S. Mock, C. Theroux, D. Banerjee, J.L. Hart, Providence, RI, p.A1600

P920 A Case of Metastatic Brain Tumor Mimic Prompting a Diagnosis of AIDS/M.H. Yusuf, M. Aldiabat, Bronx, NY, p.A1601


P923 A Case of Resistant Plasmodium Falciparum Infection Confounded by Rocky Mountain Spotted Fever?/A. Arjuna, M.T. Olson, S. Suady Barake, Phoenix, AZ, p.A1604


P926 High Mortality in Disseminated Nocardiosis After Liver Transplant: A Rare Case Report/Y. Vorakunthada, W. Lilinwat, Phoenix, AZ, p.A1607


P930 Atypical Presentation of Infective Endocarditis with Altered Mental Status Secondary to Cerebral Abscess/K. Leonard, S. Arjun, J. Kang, East Meadow, NY, p.A1611

P931 Crystalline Nephropathy Due to Trimethoprim-Sulfamethoxazole in the Setting of HIV-1 and Pneumocystis Pneumonia/E. Worral, X. Shi, J.K. Mwangi, T. Lee, Saint Louis, MO, p.A1612

P932 Lemierre Syndrome in a 22-Year-Old Male from Streptococcus Anginosus Pharyngitis: A Case Report/C. Fuher, Phoenix, AZ, p.A1613

P933 Weil Syndrome with Multiorgan Failure/M. Petrovic Elbaz, Z. Khan, M. Bachan, Bronx, NY, p.A1614

P934 A Parkinsonism Mimicker: Subacute Cerebral Vasculitis Secondary to Cryptococcus Neoforans/J. Kirinch, R. Purpura, M. Dettmer, Cleveland, OH, p.A1615


P936 Ventriculostomy-Related Acinetobacter Meningitis/J. Mak, A. Mittal, Riverside, CA, p.A1617


P940 A Case of Tetanus Associated with Intravenous Drug Use/J. Collins, J. Tepper, G. Smithson, Indianapolis, IN, p.A1621


P942 A Rare Case of Necrotizing Pneumonia Complicated with Pneumothorax/M. Al Khathee, M. Aldiabat, Y. Al Jabiri, Bronx, NY, p.A1623


P946 A Case of Refractory Septic Shock Due to an Atypical Presentation of a Necrotizing Soft Tissue Infection/A. Lavina, A. Bello, A. Carion, J.P. Mehta, Weston, FL, p.A1627

P947 A Blast from the Past: A Rare Case of Pneumococcal Meningitis/T. Cartwright, M. Numair, S. Jarrett, A. Matta, B. Sharma, Philadelphia, PA, p.A1628


P949 Post-Transplant Fungal Arteritis Presenting as Sentinel Bleeds/B. Desai, O.A. Mesarwi, La Jolla, CA, p.A1630


P953 Enterococcal Bacterial Peritonitis as a Cause of Pneumonia/D. Young, B. Milekic, C. Meyers, Elmhurst, NY, p.A1634


P955 Rare Complication of Infected Endocarditis Leading to Rupture Since of Valsava/G.-J. Nahal, R. Chawla, V. Khanna, J. Gorney, Rochester Hills, MI, p.A1637


P958 A Rare Case of Klebsiella Empyema Necessitans/D. Bradshaw, S.K.V. Guda, J. Burkhart, I. Ogurek, Las Vegas, NV, p.A1640

P959 Sugar Venom: Diabetic Ketoacidosis as an Initial Presentation of Necrotizing Fasciitis/A. Sulman, M. Hanalla, D. Minter, Pontiac, MI, p.A1641


P961 Presentation of Disseminated Coccidioidomycosis and Histoplasmosis with New Diagnosis of Systemic Lupus Erythematosus/V. Kusupati, Tucson, AZ, p.A1643


A47 COVID-19 AND ITS COMPLICATIONS
9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Area J, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.


P817 A Strange Ex-Spleen-Ation/M. Merrill, A.K. Levy, Portland, OR, p.A1650

P819 A Rare Case of Cryptococcus Neoformans Fungemia in a Patient with COVID-19/J. Torres, A. Srinivasan, B. Wilson, R.B. Kesavan, J. Gnananandh, S. Sarva, Kingwood, TX, p.A1652


P825 Not All That Fevers Is Sepsis: A Case of Hemophagocytic Lymphohistiocytosis Due to SARS-CoV-2/C.A. Bertschy, A. Subramanian, J.F. Sanchez, Temple, TX, p.A1658


P827 A Rare Case of Propofol-Related Infusion Syndrome in a Critically Ill Coronavirus Disease 2019 (COVID-19) Patient/C. Fanous, M. Mashina, A. Iardino, M. Kioka, Las Vegas, NV, p.A1660


P831 POTS and COVID - What's the Connection?/A. Aladham, N. Ramesh, Harrisburg, PA, p.A1664


P844 Multisystem Inflammatory Disease in Adults: A COVID-19 Complication/A. Subedi, R. Sharma, Sioux Falls, SD, p.A1677


P855  Severe Herpes Simplex Reactivation in COVID19 Treated with Baricitinib/R.E. Sell, N. Leverone, F. Chu, San Diego, CA, p.A1688


A48  SARS-CoV-2: Surveillance, Prevention, and Impact

9:30 a.m. - 3:45 p.m. MOSCON CENTER

Area J, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session

Discussion: 11:15-12:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.


P866  Surface Contamination of Reusable Respirators and Face Shields During COVID-19 Hospital Care/A. Shah, E. Zhuang, J. German, S. Tai, O. Kolesnik, S.E. Hines, Baltimore, MD, p.A1695


P869 Impact of Social Distancing During the SARS-CoV-2 Pandemic on the Association Between Viral Respiratory Illness and COPD Exacerbations/A. Subramanian, T. Acton, S. O’Connor, M. Mamawala, J. Ettlinger, S. Ghamande, C. Boethel, A. Arroliga, Temple, TX, p.A1698

P870 Associations of Decreased Asthma Control with Sleep Disturbance Among Adults with Asthma During the COVID-19 Pandemic/K. Eldeirawi, S.M. Nyenhuis, L. Huntington-Moskos, J. Saenz, B.J. Polivka, Chicago, IL, p.A1699

P871 Impact of COVID on College Satisfaction/J. Suarez, South Setauket, NY, p.A1700


P873 COVID-19 Effects on NYC Populations of Different Socioeconomic Strata/M.M. Perveen, Jamaica, NY, p.A1702

P874 Dynamics of Mortality Due to Respiratory Diseases During the COVID-19 Pandemic in the Amur Region (Russia)/V.P. Kolosov, L.G. Manakov, E.V. Polyanskaya, Blagoveshchensk, Russian Federation, p.A1703


P328 Pediatric Smoke Inhalation Injury Successfully Treated with Flexible Bronchoscopy in Conjunction to Volumetric Diffuse Respiration Technique/A. Wannes Daou, G.T. Burg, Cincinnati, OH, p.A1715

P329 An Unusual and Late Post-Transplant Pulmonary Complication in a Pediatric Patient/K. Garagozlo, S. Worgall, New York, NY, p.A1716

P330 Fulminant Sepsis Secondary to Bacillus Cereus in a Pediatric Patient with Acute Lymphoblastic Leukemia/J. Tepper, J. Collins, A. Lloyd, Indianapolis, IN, p.A1717


P336 Interstitial Lung Disease Caused by STING-Associated Vasculopathy with Onset in Infancy/L. Lee, D.N. Cornfield, Palo Alto, CA, p.A1723

P337 Lipoid Pneumonia Following Chronic Aspiration of Cannabis Oil Used for the Treatment of Seizures/G. Mhapankar, E. Sell, J. de Nanassy, D. Radhakrishnan, Ottawa, Canada, p.A1724


P341 Lane Hamilton Syndrome and Type 1 Diabetes: A Case Suggesting a Common Autoimmune Pathway/K. Tuveson, M. Chan, G.D. Church, San Francisco, CA, p.A1728


P343 Pulmonary Nodules in an Adolescent with Eosinophilic Granulomatosis with Polyangiitis/L. Feld, K. Tsukahara, L.R. Young, Philadelphia, PA, p.A1730

P344 Staphylococcus Aureus Endocarditis Complicated by Cryptogenic Organizing Pneumonia/E.S. Mull, B.T. Kopp, Columbus, OH, p.A1735
P350 Isolated Pulmonary Sarcoidosis in a 4 Year Old Child/M. Alsanjalawi, D.R. Ezmigna, Gainesville, FL, p.A1736


P357 Gene Expression Profiling and Signaling Pathway Analysis Contrasting Alloreactive and Tolerant T Cells in a Recipient Following Bilateral Orthotopic Lung Transplant (BOLT) and Bone Marrow Transplant (BMT) from the Same Cadaveric UNOS Donor/P. Szabolcs, E. Garchar, D. Rajasundaram, X. Chen, Pittsburgh, PA, p.A1743


P359 A Unique Case of Pneumocystis Pneumonia in Infancy/B. Gustafson, S. Pinto, Columbus, OH, p.A1745

P360 Progressive Dyspnea, Chronic Cough and Eosinophilia in Adolescent Girl/C. Dress, C. Siracusa, Cincinnati, OH, p.A1746


P364 Neonatal TBX4 Variant Mutation Presenting as Neonatal Respiratory Failure/M.D. Mcdowell, N.M. Villafranco, C. Chartan, R. Coleman, N.P. Varghese, Houston, TX, p.A1749


P369 Severe Tracheomalacia with Vascular Compression as a Cause of Recurrent Admissions in a Previously Repaired Double Aortic Arch: A Pediatric Case Report/M.A. Gunnett, G.J. Beltran Ale, Birmingham, AL, p.A1754

P370 Severe Tracheopathy and Secondary Tracheoesophageal Fistula in a Patient with Mucopolysaccharidosis Type II and Prior Stem Cell Transplant/C. Mertens, R. Simpson, E. Mertens, W.T. Harris, G.J. Beltran Ale, Birmingham, AL, p.A1755

P371 Indirect Calorimetry Testing to Guide Nutritional Management in Patients with Severe Bronchopulmonary Dysplasia/A. Miller, J. Curtiss, E. Shepherd, L. Nelin, M. Kiel, Columbus, OH, p.A1756


P373 Necrotizing Pneumonia Complicating Congenital Surfactant Deficiency/S. Anbalagan, D. Alapati, Wilmington, DE, p.A1758

P374 A Curious Case of Pulmonary Sequestration with Aspiration Features/S. Khanal, A. Shawkat, Syracuse, NY, p.A1759

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL
THEMATIC POSTER SESSION

A51 BPD AND CONGENITAL LUNG DISEASE - CASE REPORTS

9:30 a.m. - 3:45 p.m.  MOSCON E CENTER
Area E, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session  11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion  
12:15-1:15 authors will be present for discussion with assigned facilitators.


P377 Unexpected Histopathology After Resection of Suspected Congenital Lobar Emphysema/T. Isaacs, K. Reiling, K. Wallace, C.L. Cannon, N.M. Villafranco, Houston, TX, p.A1762


### A52 PEDIATRIC LUNG INFECTIONS

**MOSCONOE CENTER**

Area E, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.

**P381 A Safe Inhaled Alkaline Medication That Inhibits RSV Infection and Replication/J.L. Saunders, L. Smith, I. Daniels, E. Hanson, B. Gaston, M.D. Davis, Indianapolis, IN, p.A1765**

**P382 Respiratory Syncytial Virus Disrupts the Airway Epithelial Barrier via Attenuating Cortactin Expression and Destabilizing the F-Actin Network/N. Gao, A. Raduka, F. Rezaee, Cleveland, OH, p.A1766**

**P383 Predictors of Severity and Analysis of Diagnostic and Treatment Methods Used for Viral Bronchiolitis in an University Hospital/M.P. Gomez, S.M. Restrepo, J. Caceres, Bogota, Colombia, p.A1767**

**P384 Seasonal Patterns and Temporal Trends of Croup in South Korea During 8 Years/Y. Sun, Incheon, Korea, Republic of, p.A1768**

**P385 Treatment Patterns, Hospitalization Rate and Associating Factors of Bronchiolitis in Pediatric Emergency/L. Jankauskaite, A. Dagys, Kaunas, Lithuania, p.A1769**

### A53 TAKE MY BREATH AWAY: FUNCTIONAL ASSESSMENT OF ASTHMA

**MOSCONOE CENTER**

Area E, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.


Assessing Bronchodilator Response Using the Forced Oscillation Technique in Children with Acute Asthma/A. Alraimi, M. Alshlowi, C. Beardsmore, E. Gaillard, Leicester, United Kingdom, p.A1780


Navigator-Led Social Determinants of Health Screening in Community-Based Asthma Programs: A Qualitative Study/M. Udoko, S. Brewer, S.J. Szefler, Aurora, CO, p.A1784


Association of the Exercise Capacity of Asthmatic Children with Control of Asthma/S. Gupta, S.K. Kabra, R. Lodha, Bilaspur, India, p.A1795

Burden Among Caregivers for Children with Asthma and Correlation with Knowledge of the Disease and Control of Asthma in a Pediatric Hospital in Bogotá Colombia/M. Sanchez Peñaranda, M. Villamil, S.M. Restrepo, Bogota, Colombia, p.A1796


Correlation Between Qanadli Index with Serum and Echocardiographic Parameters of Right Ventricular Dysfunction in a Cohort of Patients with Pulmonary Embolism at the Hospital Universitario San Ignacio in Bogota-Colombia Between 2019 and 2020/C. Villaquiran-Torres, C. Castilla-Baluquer, L. Arias-Alvarez, S. Cifuentes-Sandoval, J.P. Alzate-Granados, Bogotá, Colombia, p.A1803

Admission Troponin and Rise in Troponin and Outcome in Intermediate Risk (Submassive) Pulmonary Embolism/ M. Zur, S. Congrete, D. Datta, Farmington, CT, p.A1804

Pulmonary Emboli with Negative Lower Extremity Duplex Scan: Source Exploration Needed or Not?/A. Refai, M. Goel, A. Aggarwal, A. Khan, S. Bidhan, V. Khanam, S. Kumar, Rochester, MI, p.A1805

Utility of Admission Serum Lactate as an Indicator of Potential Hemodynamic Decompensation in Intermediate Risk (Submassive) Pulmonary Embolism/M. Zur, S. Congrete, D. Datta, Farmington, CT, p.A1806


Analysis of Systemic Tissue Plasminogen Activator (tPA) Administration During In-Hospital Cardiac Arrest Secondary to Pulmonary Embolism/N.B. Pebley, H.M. Mathers, S. Soliman, M.F. Odish, T.M. Fernandes, G. Wardi, R.E. Sell, La Jolla, CA, p.A1810


Going Against the Stream - Case of Pulmonary Arteriovenous Malformations and Pulmonary Hypertension Without Hemorrhagic Heredity Telangiectasia/A.D. Hyslop, M. Aldred, R.F. Machado, Indianapolis, IN, p.A1812

A Case of Fistulous Tract Between Left Anterior Descending Artery and Pulmonary Artery/M. Riasat, A. Bhalla, J. Fox, V. Meghrjani, Manhattan, NY, p.A1813

Shunted to Psych: A Diagnostic Near-Miss/T. Gardner, P. Hountras, Aurora, CO, p.A1814

The Delayed Diagnosis and Screening for Hereditary Hemorrhagic Telangiectasia/D. Ramanujam, S. Azharuddin, M. Young, Pittsburgh, PA, p.A1815


Extracorporeal Membrane Oxygenation as a Bridge to Treatment in Newly Diagnosed Chronic Thromboembolic Pulmonary Hypertension/N. Ruopp, H.W. Farber, Boston, MA, p.A1817

A56  MISSION: CASE REPORTS IN THROMBOEMBOLIC DISEASE

9:30 a.m. - 3:45 p.m.  MOSCONIE CENTER

Area B, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session  11:15-1:15

Discussion: 11:15-12:15 authors will be present for discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.


P112  Transient Ischemic Attack Due to Paradoxical Embolism in Ebstein Anomaly/M.V. Shah, S. Chandna, New Brunswick, NJ, p.A1820

P113  No Flow Defect Pulmonary Embolism Diagnosed by Endobronchial Ultrasound (EBUS)/C. Kahn, C. Izzo, V. Seeram, Jacksonville, FL, p.A1821


P118  The Tight Rope Between Bleeding and Clotting in Behcet’s Disease/M. Joo, J. Reisler, M. Baig, S.P.E. Nishi, Galveston, TX, p.A1826


P120  Half Dose and Rescue Thrombolysis in Acute Pulmonary Embolism from Covid-19/M.Y.E. Pereyra-Borlongan, Quezon City, Philippines, p.A1828

P121  To Warfarin or Not to Warfarin, That Is the Question!/A. Soni, A. Muthyala, S. Sasidharan, R. Shrestha, J. Scott, R.A. Rosiello, Worcester, MA, p.A1829

P122  Bruit Leading to Pulmonary Vein Thrombosis Detection/C. Molloy, L.E. Meece, C. Donatelli, Des Moines, IA, p.A1830

P123  A Case of Pulmonary Vein Thrombosis Extending to Left Atrium Leading to Multiple Embolic Strokes in a Patient with Lung Cancer/P. Khamooshi, N. Haghani Rad, C.-Y. Kang, V. Reyes Pinzon, R. Atluri, Chicago, IL, p.A1831

P124  A Case of Recurrent Right Ventricular Thrombus/J. Kim, R. Huang, J. Yeo, T. Nagamine, K. Miyazaki, Honolulu, HI, p.A1832

P125  Thrombocytopenia Associated with Sub-massive Acute Pulmonary Embolism After Left Leg Massage: Consumption or Donation?!I.I. Ikwu, L. Rougui, V. Poddar, A. Thomas, Washington, DC, p.A1833

P126  Clot-in-Transit Crossroads/N. Sahu, C. Dostal, A. Zamir, Bethlehem, PA, p.A1834


P128  Pulmonary Embolism in a Patient with Ocular Myasthenia/N. Biswas, Kolkata, India, p.A1836

P129  Bilateral Thoracic Outlet Syndrome with Venous Collateralization and Associated Pulmonary Embolism and Chronic Thromboembolic Pulmonary Hypertension/S. Anderson, R. Katragadda, C. McLaughlin, Las Vegas, NV, p.A1837


P131  Not Every Filling Defect Is a Thrombus/G.I. Centeno-Saenz, C.S. Alvarez Maldonado, Mexico City, Mexico, p.A1839

P132  Improvement of Pulmonary Hypertension Due to Pulmonary Tumor Thrombotic Microangiopathy with Carboplatin and Gemcitabine/H. Tran, K.H. Melamed, N. Kamangar, Sylmar, CA, p.A1840


P134  Pulmonary Artery Dissection: A Rare Presentation of Chronic Thromboembolic Pulmonary Hypertension/A. Yeo, E. Crosse, E.S. Klings, Boston, MA, p.A1842
P135 When the Clot Comes Back: An Unusual Case of Pediatric Chronic Thromboembolic Pulmonary Hypertension (CTEPH)/H. Belt, M.M. Cirulis, M.W. Dodson, Salt Lake City, UT, p.A1843

P136 Chronic Thromboembolic Pulmonary Hypertension: A Case of Severely Dilated Pulmonary Arteries/A.S. Adebola, C. Small, T. Pelleg, Corvallis, OR, p.A1844


P138 Successful Outcome of Clot-in-Transit with Early Initiation of VA-ECMO/A. Wasim, A. Jose, N. Ay, Boston, MA, p.A1846


BASIC • CLINICAL

THEMATIC POSTER SESSION

A58 BACTERIAL INFECTIONS

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Area K, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.


P967 A Rare Case of Pulmonary Sequestration with Atypical Symptoms in an Adult/M. Waqas, S. Tariq, M.Z. Munir, M.T. Latif, Waterbury, CT, p.A1855

P968 Mediastinitis After Ivor Lewis Resection of Esophageal Cancer/N.L. Miller, J.N. Greene, K.E. Finley, J.J. John, Tampa, FL, p.A1856


P975 A Rare Case of Empyema Necessitans/N. Kika, I. Boumaza, I. Wong, Brooklyn, NY, p.A1863

P976 When Pneumonia Isn’t Just Pneumonia - Necrotizing Pneumococcal Pneumonia with Empyema, Bronchopleural Fistula, and Hydropneumothorax in a Young, Immunocompetent Patient/J.J. Chacko, M. Ameri, L. Villareal, Galveston, TX, p.A1864

P977 Strangers in the Lung: A Rare Case of Pseudomonas Fluorescens Complex Pneumonia/Q.C. Bongers, K.M. Kunisaki, Minneapolis, MN, p.A1865


P988 Tissue Plasminogen Activator (TPA) and DNase Treatment for Pleural Infections Among Different Specialties with Different Chest Tubes Sizes/H. Yousaf, C. McLouth, R. Berger, Lexington, KY, p.A1876

P989 Vacuum-Assisted Open Window Thoracostomy and Rethoracotomy in Management of Lung Abscess and Gangrene/S. Yermashkevich, V. Petukhov, M. Kuntsevicz, Vitebsk, Belarus, p.A1877

P990 Analysis for Composition Ration and Drug-Sensitivity Distribution of Phlegmy Patogenic Bacteria from Acute Exacerbation of COPD Inpatients/Y. Hu, Y. Guo, T. Ma, Changchun, China, p.A1878

P991 Use of Fibrolytics for Infectious Pleural Effusions - Alteplase Vs Alteplase and Dornase, a Real-World Experience in a Major Tertiary Referral Center/S. Perinkulam Sathyanarayanan, K. Hamid, M. Hamza, K. Taggart, H. Ateeli, F.G. Jamous, Sioux Falls, SD, p.A1879

P992 A Rare Bacterial Superinfection in Immunocompetent COVID-19 Patient, a Case Report/M. Hayrabedian, R. Sreedhar, Springfield, IL, p.A1880

A59 TUBERCULOSIS

9:30 a.m. - 3:45 p.m. MOSCON CENTER

Area K, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.


Epidemiology of Hemoptyis and Its Relation to Treatment Outcomes in a Developing Country/B.S. Virk, S. Chakrabarti, N.K. Gupta, P. Ish, N. Gupta, R. Kumar, R.N. Misra, P. Garg, Delhi, India, p.A1918


Multicenter Prospective Study on Gouty Arthritis and Predictors of Outcomes Among Filipino Patients on Anti-Tuberculosis Treatment/A.K.R. Chua, A.Q. Urbano-Guelos, Batac City, Philippines, p.A1921

Retrospective Analysis of Diagnosis and Outcomes of Patients with Culture-Negative Tuberculosis in a North London Hospital/Blank, S. Lozwicwicz, London, United Kingdom, p.A1922


Epidemiology of Hemoptyis and Its Relation to Treatment Outcomes in a Developing Country/B.S. Virk, S. Chakrabarti, N.K. Gupta, P. Ish, N. Gupta, R. Kumar, R.N. Misra, P. Garg, Delhi, India, p.A1918


Multicenter Prospective Study on Gouty Arthritis and Predictors of Outcomes Among Filipino Patients on Anti-Tuberculosis Treatment/A.K.R. Chua, A.Q. Urbano-Guelos, Batac City, Philippines, p.A1921

Retrospective Analysis of Diagnosis and Outcomes of Patients with Culture-Negative Tuberculosis in a North London Hospital/Blank, S. Lozwicwicz, London, United Kingdom, p.A1922
P236 Anoctamin-1 Is a Profibrotic Chloride Channel That Is Induced by TGF-Beta and Contributes to Lung Myofibroblast Differentiation/N.O. Dulin, A.A. Mongin, S. Orbeta, E.B. Reed, G.M. Mutlu, Chicago, IL, p.A1931


P251 Effects of Anti-Fibrotic Standard-of-Care and Senolytic Drugs on Senescent Human Lung Fibroblasts/S. Garcia, M. Hohmann, M.S. Espindola, C.M. Hogaboam, Los Angeles, CA, p.A1946


P253 Differential DNA Methylation in IPF Fibroblasts Is Associated with Increased Expression of DNMT3a, TET2, and UHRF1/A. Scruggs, G. Ligresti, S.K. Huang, Ann Arbor, MI, p.A1948


P255 Regulation of SMA7 and SOCS1 Through Metabolic and Epigenetics Crosstalk by Mesenchymal Stem Cell-Derived Humoral Factor STC1 Induces Anti-Fibrotic and Anti-Inflammatory Effects in Bleomycin-Induced Lung Fibrosis Model/S. Ohkouchi, T. Irokawa, H. Ogawa, H. Kurosawa, Sendai, Japan, p.A1950

P256 ZNF365 Downregulation Induces Senescence in Lung Fibroblasts and Epithelial Cells/J.M. Pérez Huacuja Urista, M. Maldonado, F. Toscano-Marquez, R. Ramírez, C. Becerril, Y. Romero, M. Selman, A. Pardo, Mexico City, Mexico, p.A1951

P257 Canonical WNT Pathway Activation in Bleomycin-Induced Lung Fibrosis/S. Pontis, Parma, Italy, p.A1952

BASIC • TRANSLATIONAL
THEMATIC POSTER SESSION

A61  BPD, LUNG DEVELOPMENT, AND NEONATAL LUNG DISEASE
9:30 a.m. - 3:45 p.m.  MOSCONÉ CENTER
Area D, Hall F (North Building, Exhibition Level)
Viewing: Posters will be on display for entire session  11:15-1:15
Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.

P285  Increased Cytotoxic T Cells in the Large Airways in Adults Born Prematurely with a History of Bronchopulmonary Dysplasia

P286  STAT3 Mutations Lead to Defective Mucociliary Clearance in the Autosomal Dominant Hyper IgE Syndrome (AD-HIES) Airways

P287  Increased microRNA-34a Contributes to Hyperoxia-Induced Senescence in Lung Epithelial Cells

P288  Longitudinal and Dynamic miRNA Expression in Saliva Samples of Extremely Preterm Infants

P289  Hippo Signaling Pathway Variant Is Associated with BPD in ELBW Infants

P290  Csf2ra Gene Correction and Pulmonary Macrophage Transplantation Therapy of Hereditary Pulmonary Alveolar Proteinosis in Mice Does Not Cause an Immune Response to the Transgene Product

P291  Prenatal Exposure to Polycyclic Aromatic Hydrocarbons (PAHs) Augments Neonatal Hyperoxic Lung Injury: Role of Cytochrome P450 (CYP)1A1, 1A2, and 1B1/B
L. Swanson, K. Lingappan, R. Stading, Houston, TX, p.A1982

P292  Methods to Evaluate Macrophage Activation State and Endotoxin Levels for Use in Pulmonary Macrophage Transplantation Therapy

P293  Transcriptional and Morphological Analysis of Human Developing Pleura Reveals Age-Specific, Species-Specific and Visceral Versus Parietal Differences

BASIC • TRANSLATIONAL
THEMATIC POSTER SESSION

A62  CYSTIC FIBROSIS AND NON-CF BRONCHIECTASIS: MECHANISTIC INSIGHTS
9:30 a.m. - 3:45 p.m.  MOSCONÉ CENTER
Area D, Hall F (North Building, Exhibition Level)
Viewing: Posters will be on display for entire session  11:15-1:15
Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.

P295  Sexually Dimorphic Innate Immune Programs of Airway Monocytes in Cystic Fibrosis

P296  Loss of Small Pulmonary Blood Vessels in Cystic Fibrosis

P297  Multi-Omics Comparisons Between CFBE41O- Cells Stably Expressing Wild-Type CFTR and F508del-Mutant CFTR

P298  The Novel Mucolytic Agent MUC-031 Reduces Airway Mucus Plugging and Inflammation in Mice with Muco-Obstructive Lung Disease

P299  Sex-Based Differences in Sputum Inflammation Markers of Acute Cystic Fibrosis Exacerbation


P303 Comparison of Neutrophil Elastase to the Lower Airway Microbiota in Children with Cystic Fibrosis/J.B. O'Connor, B.D. Wagner, J.K. Harris, T.A. Laguna, Chicago, IL, p.A1992

P304 Th2 Dysfunction in Cystic Fibrosis/D.P. Cook, C. Thomas, A. Wu, A. Norlander, D.A. Stoltz, R.S. Peebles, Nashville, TN, p.A1993


A63  MECHANISMS AND SUPPORT FOR THE DYSFUNCTIONAL LUNG

9:30 a.m. - 3:45 p.m.  MOSCONNE CENTER

Area A, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session  11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.


A64  PULMONARY CLINICAL CASES I

9:30 a.m. - 3:45 p.m.  MOSCONNE CENTER

Area A, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session  11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.
P17 Delayed Bilateral Pneumothorax Due to Multiple Pneumatoceles, a Rare Complication of COVID-19 / B. Khiatah, R. Akl, B. Utz, A. Frugoli, Ventura, CA, p.A2021


P25 A Rare Case of Sarcoidosis / Y. Khaskia, S. Blumhof, Allentown, PA, p.A2029


P27 Birt-Hogg-Dube Syndrome with Familial Spontaneous Pneumothorax and Bibasilar Cystic Lung Disease / B. Liu, M.J. Burton, St. Joseph, MI, p.A2031


P29 Air Travel Leading to Air Traveling: A Stable Case of Extensive Free Air Secondary to Slow Gastrointestinal Leak Post Gastrojejunostomy / K. Moody, S. Lim, C. Sennett, V. Laskova, New York, NY, p.A2033

P30 Metastatic Cervical Adenocarcinoma Presenting as Diffuse Cystic Lung Disease with Spontaneous Pneumothorax and Bronchopleural Fistula / B.T. Chaucer, B. Javier, R. Kumar, M.J. Junqueira, Pueblo, CO, p.A2034

P31 Double Jeopardy: Rare Presentation of Interstitial Lung Disease in a Patient with a History of Acute Respiratory Distress Syndrome / A. Shaikh, K. Meinhof, Elmhurst, NY, p.A2035


P35 A Rare Case of Pulmonary Fibrosis Developing in a Patient with Pulmonary Alveolar Proteinosis / M. Macdougall, R. Patel, N. Patel, J. Longoria, Orange, CA, p.A2039

P36 A Rare Case of Pleuroparenchymal Fibroelastosis in a Patient with Asbestos Exposure / N. Patel, T. Mccann, D.W. Wiltse, Cincinnati, OH, p.A2040

A65 PULMONARY CLINICAL CASES II

9:30 a.m. - 3:45 p.m. MOSCONETRE CENTER

Area A, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.


P40 A Diagnostic Dilemma of Hypercapneic Respiratory Failure / A. Korzhuk, H.M.S. Qurashi, A. Avula, Harrisburg, PA, p.A2043
An Overlooked Cause of Dyspnea on Exertion: A Case of Exercise-Induced Laryngeal Obstruction in a Patient with Scleroderma

Postpneumonectomy Syndrome

The Lazy Diaphragm with a Sugarcoated Phrenic Nerve

An Unusual Case of Bronchoesophageal Fistula

Air Space Jam: Vanishing Lung Syndrome Seen in a Competitive Basketball Player

Heliox in Critical Asthma Syndrome

The Face Says It All: A Rare Case of Central Venous Obstruction Mimicking Angioedema in a Patient with Percath Dysfunction

Laryngeal Mass Misdiagnosed as Recurrent Exacerbations of Chronic Obstructive Pulmonary Disease (COPD): A Reminder of the Importance of Pulmonary Auscultation in the Diagnostic Process

Within-Breath Analysis of Respiratory Mechanics in a Marfan Syndrome Adolescent with Exertional Dyspnea

Unilateral Diaphragmatic Paralysis Following COVID-19 Infection

Assessing Treatment Response to Endobronchial Bronchial Valve Therapy Using CT Based Densitometry: A Case Study

Severe Episodic Respiratory Distress Due to Diaphragm Spasm and Complete Resolution with Cyclobenzaprine

A Classic Presentation of Catamenial Pneumothorax

Implications of a Misdiagnosis

Concomitant Use of Mepolizumab and Ixekizumab in a Patient with Severe Eosinophilic Asthma and Psoriasis: A Case Study

BASIC • CLINICAL • TRANSLATIONAL

PHYSIOLOGIC STUDIES OF LUNG FUNCTION

9:30 a.m. - 3:45 p.m.

Area A, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session

Discussion: 11:15-12:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.

Variations in Functional Residual Capacity in Men and Women with Obesity

Body Composition and Functional Residual Capacity (FRC) Before and After One Year in Early Pubescent Children With and Without Obesity

Rapid Lung Function Decline and Lung Cancer Incidence in Asian Population

Can Impulse Oscillometry Detect a Bronchoprotective Effect of Deep Inspiration in Healthy Subjects?

Acute Effect of Pyridostigmine in Exertional Intolerance in Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS): A Randomized Placebo-Controlled Clinical Trial

Impact of Stated Race and Ethnicity on Evaluation of Pulmonary Function Testing

Does Socioeconomic Status Explain the Observed Differences in Lung Function Between Black and White Populations? A Systematic Review

Assessment of Bronchiectasis by Impulse Oscillometry in Primary Ciliary Dyskinesia

Assessment of Bronchiectasis by Impulse Oscillometry in Primary Ciliary Dyskinesia

Improved DLco Instrument Repeatability and Long-Term Stability in the COPDGene Study

Is It Time to Use Bronchodilator Response in the Evaluation of the Non-Specific Pattern on Pulmonary Function Testing?
A67  FLIPPING THE SCRIPT ON SLEEP APNEA PATHOGENESIS

9:30 a.m. - 3:45 p.m.  MOSCONE CENTER

Area A, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session  11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.


P71  Consequences of the Use Waterpipe (Hookah) Smoking on Pulmonary Function in Young Adult Males/N. Uzma, A. Hasan, F. Abdullah, Hyderabad, India, p.A2073

P72  Segmental Linear Regression Should Be Used to Develop Reference Equations for Pulmonary Diffusing Capacity/G.S. Zavorsky, J. Cao, Sacramento, CA, p.A2074


P75  The Effect of a Family History of OSA on OSA Severity and Pathophysiology/G. Parra, L. Mcginnis, J.E. Orr, B. Nokes, P.N. DeYoung, R.L. Owens, A. Malhotra, C.N. Schmickl, La Jolla, CA, p.A2076


P81  Evolution, Comparative Zoology, and the Origins of Pharyngeal Dysfunction in Sleep Disordered Breathing/D. Dewald, K.P. Strohl, Cleveland, OH, p.A2082


P83  Analysis of Clinical Characteristics According to Upper Airway Obstruction Observed on Drug-Induced Sleep Endoscopy/C. Sung, K. Hee-Young, H.C. Yang, Gwangju, Korea, Republic of, p.A2084

P84  Cerebrovascular CO₂ Responsiveness in Opioid Associated Sleep Disordered Breathing/S. Chowdhuri, J. Bansal, D. Greig, S. Khan, A. Lazar, R. Rastogi, B. Morgan, M.S. Badr, P. Mishra, L. Jhao, Detroit, MI, p.A2085

P85  Study of Upper Airway Anatomy Using MRI in Bariatric Surgery Patients with Sleep Disturbances/S. Sinha, B. Mohan Lal, S. Vyas, S. Agarwal, B. Nokes, A. Malhotra, New Delhi, India, p.A2087
A68 INFLAMMATION, CARDIOVASCULAR DISEASE, COVID-19: WHAT DO THEY HAVE IN COMMON?

9:30 a.m. - 3:45 p.m. MOSCONET CENTER

Viewing: Posters will be on display for entire session
Discussion: 11:15-12:15 authors will be present for discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.


A69 TOY STORY 4: ADVENTURES IN INTERVENTIONAL PULMONARY PROCEDURES

9:30 a.m. - 3:45 p.m. MOSCONET CENTER

Viewing: Posters will be on display for entire session
Discussion: 11:15-12:15 authors will be present for discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.


P677 Successful Sampling of a Subcentimeter Subpleural Peripheral Lung Nodule Using Robotic Bronchoscopy/P. Lamothe, N. Smirnova, A. Sardi, Atlanta, GA, p.A2098

P678 Biopsy Site Selection - A Diagnostic Dilemma/E. Myers, N.H. Siddiqui, R.Z. Abraham, Kankakee, IL, p.A2099

P679 A Tale of Two Biopsies - When Clinical Intuition and an Extra Biopsy Turn Fortuitous/E. Myers, T.M. Betlej, R.Z. Abraham, Kankakee, IL, p.A2100

P680 Synchronous Bilateral Lung Cancer with Simultaneous Robotic Bronchoscopy and Biopsy/E. Meece, J.P. Moran, M.B. Shaw, S. Velani, Des Moines, IA, p.A2101

P681 Persistent Consolidation in the ICU and the Role of Robotic Bronchoscopy/L.A. Seifer, A. Singh, F. Safdie, M. Csete, Miami Beach, FL, p.A2102

**P683** Endobronchial Ultrasound-Guided Transbronchial Needle Aspiration Healthcare Outcomes Compared to Age/A. Sharma, F. Anwar, T. Kemnic, R.M. Prasad, E. Wang, A.M. Abramovitz, Lansing, MI, p.A2104

**P684** Characterization of EBUS Findings/Z. Muzaffarr, F. Ujueta, F. Safdie, Miami Beach, FL, p.A2105


**P686** The Use of Robotic Assisted Bronchoscopy in the Diagnostic Evaluation of Peripheral Pulmonary Lesions; A Paradigm Shift/H. Hammad Al Taq, S. Hussain, M. Parmar, F. Chaudry, J.M. Reinersman, Oklahoma City, OK, p.A5554


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**Behavorial • Clinical**

**Thematic Poster Session**

**A70** Clogged Pipes: Obstruction and Hemorrhage

9:30 a.m. - 3:45 p.m. MOSCONC CENTER

Area H, Hall F (North Building, Exhibition Level)

**Viewing:** Posters will be on display for entire session 11:15-1:15

**Discussion:**

11:15-12:15 authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.


**P691** Pulmonary Papillary Adenoma Presenting as Non-Massive Hemoptysis: A Case Report and Review of Published Journals/N.G. Gomez, V.S. Delos Reyes, K.N.R. Aleta, Quezon City, Philippines, p.A2107

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**P692** A 71 Year Old Woman with Tracheal Lesions: A Case of Tracheal Plasmacytomas Treated with Endobronchial Cryotherapy/N. Hegde, L. Thomas, M. Postigo, Kansas City, KS, p.A2108

**P693** Stridor and Lung Mass: A Rare Case of Isolated Nodal Involvement of NSCLC/P. Sharma, P. Sivaramakrishnan, G. Sindhwani, Rishikesh, India, p.A2109


**P696** A Rare Case of Massive Hemoptysis and Mycobacterium Chimaera Masking Pulmonary Adenocarcinoma/A. Pham, T. Czech, Honolulu, HI, p.A2112

**P697** Conservative Management of Tracheal Fistula Due to Radiation Necrosis/P. Conrad, M. Tharp, C.M. Kniese, Indianapolis, IN, p.A2113


**P699** A Rare Case of Isolated Thoracic AL-Amyloidoma Causing Complete Atelectasis of the Right Lung/S. Rath, N. Bhan, M. Adrish, Houston, TX, p.A2115


**P701** An Unfamiliar Tumor of the Trachea/S. Sasidharan, Y.X. Teo, A. Muthyala, B. Brown, Worcester, MA, p.A2117

**P702** Endobronchial Chondroma: A Rare Case of Benign Tumor with Inadequately High SUV by the PET Interpretation/M. Assaad, L. Dahabra, A. Abou Yassine, A. Kassem, A. itany, D. Elsaygeh, Staten Island, NY, p.A2118

CC1 CRITICAL CARE CLINICAL CORE CURRICULUM

Education Committee
11:30 a.m. - 1:00 p.m. MOSCONE CENTER
Hall E (North Building, Exhibition Level)

Target Audience
Practicing internists, subspecialists, registered nurses and advanced practice providers in pulmonary, critical care, and sleep medicine who work in a clinical setting and are currently engaged in maintenance of certification.

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

- describe diagnosis and management of ICU Delirium;
- identify long term sequelae of critical illness including cognitive impairments and critical illness myopathy;
- define the diagnosis of Post Intensive Care Unit Syndrome and describe management strategies including the use of Post ICU Clinics.

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects that are not only included in recertification requirements, but also are timely and relevant to clinical practice in 2022. The ATS Clinical Core Curriculum Symposia focus on key topics in the areas of Pulmonary, Critical Care, and Sleep Medicine. The topics are aligned with corresponding MOC Medical Knowledge modules. This symposium is intended to help clinicians stay up to date with important information relevant to their medical practices, and to provide an opportunity for clinicians to evaluate their individual knowledge and skills while earning MOC Medical Knowledge points.

Chairing: S. Ahmed, MBBS, FCCP, Albuquerque, NM

Moderators: D. Kelm, MD, ATSF, Rochester, MN
J. Diaz-Mendoza, MD, Detroit, MI

11:30 Dealing with Delirium: Diagnosis and Management of ICU Delirium
M.F. Mart, MD, Nashville, TN

12:00 Critical Illness Myopathy
S.E. Jolley, MD, Aurora, CO

12:30 Cognitive Effects of Critical Illness
J. Gardner-Gray, MD, Detroit, MI
NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

L1 CLIMATE CHANGE - AIR POLLUTION INTERACTIONS AND PULMONARY HEALTH: WHAT'S THE CURRENT STATE OF SCIENCE?

12:00 p.m. - 1:00 p.m. MOSCONE CENTER
Room 2001/2003 (West Building, Level 2)

Target Audience
Clinicians, clinician scientists, basic research scientists, fellows and residents

Objectives
At the conclusion of this session, the participant will be able to:
• gain understanding on the role of environmental factors as comorbidity factors in evolving cardiopulmonary morbidity;
• gain knowledge on the air quality due to changing climate on associated consequences in developing prevention and intervention strategies for preexisting pulmonary morbidity.

Global climate change has already begun to have both direct and indirect impacts on human health in the U.S. and around the world. The connection between the sources of local air pollution and the emissions that drive climate change is very clear. The broader climate change research agenda includes mitigation and adaptation strategies to reduce greenhouse gas emissions and introduce renewable energy technologies. The NIH research program aims to assess both positive and negative impacts of these on the air quality and pulmonary health. This session will assess the current state of science on pulmonary health and future research needs.

Chairing:
J.R. Balmes, MD, ATSF, San Francisco, CA
S.S. Nadadur, PhD, Research Triangle Park, NC

12:00 The Effect of Air Pollution and the Changing Climate on the Immune Response to Respiratory Viral Infection
D. Croft, MD, MPH, Rochester, NY

12:15 Impact of Wildland Fire Smoke Exposure on Respiratory Function
J.M. Oakes, PhD, Boston, MA

12:30 What We Know About Climate Change Health Impacts From California and Rwanda
J.R. Balmes, MD, ATSF, San Francisco, CA

12:45 NIEHS Research Initiatives on Climate Change and Health
S.S. Nadadur, PhD, Research Triangle Park, NC

12:57 Discussion
S.S. Nadadur, PhD, Research Triangle Park, NC

NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES/NIH

L2 SEPSIS RESEARCH AT THE NIH/NIGMS

12:00 p.m. - 1:00 p.m. MOSCONE CENTER
Room 2006/2008 (West Building, Level 2)

Target Audience
Investigators working on sepsis research who are interested in learning more about the current funding opportunities at a few NIH ICs

Objectives
At the conclusion of this session, the participant will be able to:
• understand the different types of sepsis research supported by various NIH institutes;
• understand the funding mechanisms used by NIH to support sepsis research;
• learn about NIH-supported resources to enable/facilitate sepsis research.

Program directors from four NIH institutes, i.e., NHLBI, NIGMS, NIAID, and NICHD, will describe the types of sepsis research supported by each institute. The different types of grant mechanisms and funding opportunities announcements that are used to support sepsis research at each above NIH IC will be explained in detail.

Chairing:
X. Zhao, PhD, MS, Bethesda, MD
L. Reineck, MD, MS, Bethesda, MD

12:00 Sepsis Research at NHLBI
L. Reineck, MD, MS, Bethesda, MD

12:15 Sepsis Research at NIGMS
X. Zhao, PhD, MS, Bethesda, MD

12:30 Sepsis Research at NIAID
P.M. Becker, MD, Bethesda, MD

12:45 Panel Discussion

U. S. FOOD AND DRUG ADMINISTRATION

L3 GENERIC DRUG DEVELOPMENT FOR RESPIRATORY PRODUCTS: U.S. FOOD AND DRUG ADMINISTRATION UPDATEUS

12:00 p.m. - 1:00 p.m. MOSCONE CENTER
Room 2010/2012 (West Building, Level 2)

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 guidance 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.

Session will describe respiratory product development of generic drugs within the U.S., 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.

Chairing: K. Witzmann, MD, Silver Spring, MD

12:00 Introduction and Update for Generic Orally Inhaled and Nasal Drug Products
K. Witzmann, MD, Silver Spring, MD

12:20 Emerging Concepts and New Technologies for Bioequivalence of Orally Inhaled and Nasal Drug Products
D. Santos Conti, PhD, Silver Spring, MD

12:54 Questions

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

L4 INTEGRATING NASA SATELLITE DATA IN CROSS-CUTTING APPLICATIONS IN RESPIRATORY HEALTH

12:00 p.m. - 1:00 p.m. MOScone CENTER

Room 2014/2016 (West Building, Level 2)

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:

• describe key public health applications of the NASA Health and Air Quality Program relating that are of interest to pulmonary clinicians and researchers;
• inform clinicians and researchers about current NASA projects related to pulmonary and cardiovascular disease. Analyze at least three examples where NASA Earth observation data can be applied to air pollution as a global health risk;
• offer key updates and resources related to local, state, national and international levels on air pollution.

Novel applications of NASA remote sensing data offer real-time environmental information of public health importance about the dynamic processes of the Earth's systems. These data can complement traditional epidemiological surveillance and provide in-depth understanding of health risks associated with air pollution. This session will present an overview of how NASA satellite data contribute to cross-cutting environmental health research that fosters key partnerships with community stakeholders. This session will highlight current NASA projects that integrate satellite data to examine health risks associated with exposure to urban ambient pollution and dust storms, with the potential to inform clinical practice and policy decision-making.

Chairing: H. Chapman, MD, PhD, MPH, Washington, DC
L. Judd, PhD, Hampton, VA

12:00 Integrating Satellite Data to Examine Respiratory Health Risks: NASA Health and Air Quality Applications
J. Haynes, MS, Washington, DC

12:15 Satellite Data for Air Quality and Health
T. Holloway, PhD, Madison, WI

12:30 From Space to the Street: Using Satellite Data to Address Inequities in Health Risks from Transportation-Related Air Pollution
G. Kerr, PhD, Washington, DC

12:45 Experimental Air Quality Monitoring System for Saharan Dust to Improve Public Health in Puerto Rico
P. Méndez-Lazaro, PhD, San Juan, Puerto Rico

THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH)

L5 WORK-RELATED COVID-19: WHAT WE HAVE LEARNED

12:00 p.m. - 1:00 p.m. MOScone CENTER

Room 3014 (West Building, Level 3)
Target Audience
Providers of lung health; those interested in prevention of work-related COVID-19.

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

- describe characteristics of certain workplaces and workers placing them at increased risk from COVID-19, disparities associated with increased risk, and general approaches to prevention;
- learn new findings about associations between various occupations, risk of COVID-19, and proportion of workers vaccinated;
- gain understanding of considerations in estimating consumption of respirators and estimated numbers of respirators consumed in the COVID-19 pandemic by workers outside of the healthcare industry.

The session will provide an update on important aspects of work-related COVID-19. It will touch on factors conferring risk of exposure, vulnerability and susceptibility on workers and general approaches to workplace prevention. It will address occupational health disparities and provide an update on population data showing trends in risk, disease, and vaccination in workers. It will also address the important issue of respirator consumption needed to protect non-healthcare workers during infectious disease outbreaks such as from COVID-19.

Chairing: D.N. Weissman, MD, ATSF, Morgantown, WV

12:00 Introduction to Session
D.N. Weissman, MD, ATSF, Morgantown, WV

12:03 COVID-19 as an Occupational Disease
C. Carlsten, MD, MPH, Vancouver, Canada

12:22 Occupational Trends in COVID-19 Risk and Vaccination
P.K. Henneberger, ScD, MPH, Morgantown, WV

12:41 Estimating N95 Respirator Consumption By Non-Health Care Essential Workers
E. Fechter-Leggett, DVM, MPVM, Morgantown, WV
dyskinesia. Junior professionals interested in rare lung disease research (IPF and primary ciliary dyskinesia)

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

• learn new technologies to investigate the pathogenic mechanisms and prediction of pulmonary fibrosis and genetic disorders of mucociliary clearance;

• understanding the pathogenesis, genetic, and environmental risk factor of Pulmonary fibrosis and genetic disorders of mucociliary clearance;

• understand clinical phenotyping of pulmonary fibrosis and disorders of mucociliary clearance to understand, diagnose, predict and improve outcomes.

This session will focus on rare lung disease research with presentations from two cohort studies, the Genetic Disorders of Mucociliary Clearance Consortium (GDMCC) and Preclinical Pulmonary Fibrosis (PrePF) study. Both study teams will provide a description of disease phenotypes, genetic risk factors, disease burden and influence of environmental and exacerbation risk factors. The GDMCC will present their study design for three longitudinal studies as well data from interim analysis. PrePF will present updates on analyses of the RNA transcriptome of IPF patients and relatives. The session will conclude with a general discussion on future directions and needs for rare lung disease research.

Chairing:
M.E. Lachowicz-Scroggins, PhD, Bethesda, MD
L.J. Vuga, MD, MPH, PhD, Bethesda, MD

12:00 Preclinical Pulmonary Fibrosis: An Opportune Rare Disease Cohort
D.A. Schwartz, MD, MPH, Aurora, CO

12:15 Overview Genetic Disorders of Mucociliary Clearance Consortium (GDMCC)
S.D. Davis, MD, ATSF, Chapel Hill, NC

12:30 Pilot Studies, Clinical Trials and Training in Rare Diseases Research
T.W. Ferkol, MD, ATSF, Saint Louis, MO

12:45 Final Session Discussion: Q&A
D.A. Schwartz, MD, MPH, Aurora, CO

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

• learn about harmonization among prospective observational cohorts;

• understand and learn about the C4R and RECOVERY cohorts to study COVID-19 and post-acute outcomes of COVID-19;

• learn how to get involved in the C4R study.

C4R is a cohort of 14 ongoing longitudinal observational cohorts funded by NHLBI, NINDS, and NIA to better understand COVID-19. The C4R cohort includes over 45,000 US-based participants on whom years and, in some cases, decades of clinical, behavioral, and genomic data have been collected. The goal of C4R is to use pre-pandemic measures to identify risk factors of COVID-19 disease, severity, and outcomes. Participants in this session will learn about the C4R study and how it will help the pulmonary community understand COVID-19 outcomes including long COVID.

Chairing:  L. Postow, PhD, Bethesda, MD
E. Oelsner, MD, New York, NY

12:00 An Overview of the C4R Study, Harmonization, and How To Get Involved
E. Oelsner, MD, New York, NY

12:15 An Overview of the C4r Serosurvey
J. Kim, MD, MS, Charlottesville, VA

12:30 CT Harmonization In the C4r Cohort of Cohorts
E.A. Hoffman, PhD, ATSF, Iowa City, IA

12:45 C4R and the RECOVER Cohort
R.G. Barr, MD, DrPH, New York, NY

Target Audience
Researchers, trainees, those with interest in COVID-19 risk, severity, and outcomes

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

• learn about the new clinical findings in PVDOMICS patients across the WHO groups of pulmonary hypertension;

• understand and learn about new metabolomic signatures and consequences of pulmonary hypertension based on omics findings in PVDOMICS patients;

• learn about the new right ventricle findings in PVDOMICS patients with pulmonary hypertension.

Target Audience
Health providers, trainees, and researchers

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

• learn about the new clinical findings in PVDOMICS patients across the WHO groups of pulmonary hypertension;

• understand and learn about new metabolomic signatures and consequences of pulmonary hypertension based on omics findings in PVDOMICS patients;

• learn about the new right ventricle findings in PVDOMICS patients with pulmonary hypertension.
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 & 6 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 in order to reconstruct the traditional classification and define new meaningful subclassifications. About 1200 participants have been enrolled, and the clinical and omics results from these subjects will be presented at this noon session.

Chairing: L. Xiao, MD, PhD, Bethesda, MD
N.S. Hill, MD, Boston, MA

12:00 The Metabolic Consequences of Pulmonary Vascular Dysfunction
J. Leopold, MD, Boston, MA

12:12 Metabolomic Signatures of Pulmonary Hypertension Associated With Congenital Systemic to Pulmonary Shunts
M. Griffiths, MD, New York, NY

12:24 Insights Into Clinical and Metabolic Signatures of Long-Term Hemodynamic WSPH Group 1 Super-Responders
E.B. Rosenzweig, MD, New York, NY

12:36 Sex-Based Differences in RV Function Across the Spectrum of Pulmonary Vascular Disease
N.J. Shelburne, MD, Nashville, TN

12:48 Phenotyping Right Ventricular Diastolic Stiffness in Patients with Pulmonary Hypertension
R.R. Vanderpool, PhD, Columbus, OH

ME12 INTERPRETATION OF VENTILATOR WAVEFORMS
H.L. Manning, MD, Lebanon, NH
Room 58/60 (South Building, Lower Mezzanine)

ME13 SMALL AIRWAYS DISEASE: WHEN IT’S NOT ASTHMA
M. Koslow, MD, Denver, CO
S.J. Callahan, MD, Salt Lake City, UT
E. Kazerooni, MD, Ann Arbor, MI
E.S. Yi, MD, Rochester, MN
Room 70/72 (South Building, Lower Mezzanine)

ME14 HOSPITAL SLEEP MEDICINE: UNDERSTANDING PRACTICE MODEL AND IMPACT
S. Sharma, ATSF, MD, Morgantown, WV
R. Stansbury, MD, MORGANTOWN, WV
Room 74/76 (South Building, Lower Mezzanine)

PEDIATRIC CLINICAL CORE CURRICULUM
CME Credits Available: 1.5
MOC Points Available: 1.5

ME10 ANTIFIBROTICS IN ILD: WHO, WHAT, WHEN, WHY AND HOW
M. Cohen, MD, PhD, San Francisco, CA
Room 50/62 (South Building, Lower Mezzanine)

ME11 IMMUNODEFICIENCY AND PARENCHYMAL LUNG DISEASES
D.C. Gomez Manjarres, MD, Gainesville, FL
D.C. Patel, DO, MBA, Gainesville, FL
J. Squire, MD, Jacksonville, FL
Room 52/54/56 (South Building, Lower Mezzanine)

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Pre-registration and additional fees required. Attendance is limited.
Member: $100
LMIC Member: $70.

12:15 p.m. - 1:15 p.m.
ME10 ANTIFIBROTICS IN ILD: WHO, WHAT, WHEN, WHY AND HOW
M. Cohen, MD, PhD, San Francisco, CA
Room 50/62 (South Building, Lower Mezzanine)

ME11 IMMUNODEFICIENCY AND PARENCHYMAL LUNG DISEASES
D.C. Gomez Manjarres, MD, Gainesville, FL
D.C. Patel, DO, MBA, Gainesville, FL
J. Squire, MD, Jacksonville, FL
Room 52/54/56 (South Building, Lower Mezzanine)
12:00 Making the Diagnosis: Diagnostic Strategies in Neuromuscular Disease
O. Kupfer, MD, Aurora, CO

12:30 Pulmonary Function Testing for Monitoring and Management
S. Puranik, MBBS, DCH, MD, ATSF, Indianapolis, IN

MEDICAL EDUCATION SEMINAR
CME Credits Available: 1.5

ME101 MEDICAL EDUCATION SEMINAR
SERIES: Beyond the Individual: Team Cognition in Critical Care

Pre-registration and additional fees required. Attendance is limited.
Member: $100  
LMIC Member: $70

Assembly on Behavioral and Health Services Research
12:15 p.m. - 1:15 p.m.  MOSCONE CENTER
Room 101-102 (South Building, Street Level)

Target Audience
All educators and trainees in critical care

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

• Define and differentiate between microcognition, macrocognition and team cognition.

• Understand how these concepts impact the decision-making process in critical care teamwork.

• Apply these concepts to provide feedback to trainees after a team interaction.

This session will delve into the differences between microcognition, macrocognition and team cognition and will explain the impact of each on teamwork efficacy and patient care in the ICU. Participants will gain a better understanding of these concepts, which are the building blocks to formulate accurate diagnoses, make efficient decisions in a group setting, and ultimately improve patient outcomes. An interactive tabletop simulation of teamwork with feedback practice for the educator will be used to solidify how to incorporate these concepts in the daily practice of trainees and educators.

Faculty:  
A. Alismail, MS, MA, RRT, FCCP, Loma Linda, CA
L. Blackwell, MD, New York, NY
J. Chiarchiaro, MD, MSCR, Portland, OR

12:00 p.m. - 2:00 p.m.
SECTION ON GENETICS AND GENOMICS
MEMBERSHIP MEETING
MARRIOTT MARQUIS
Yerba Buena Ballroom, Salon 14-15 (Lower B2 Level)

The Section meetings are open to all ATS members and other interested individuals.

Items to be discussed include the Section's current projects and future directions.
TARGET AUDIENCE
Nurses, physicians, physical and respiratory therapists, physician assistants, physiotherapists, behavioral and clinical scientists, and others involved in providing or directing palliative care.

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

• describe new advances in palliative care across the lifespan;
• define communication strategies in the ICU;
• define symptom management and caregiver palliative interventions.

This session will cover up-to-date related to palliative care. The session will include an across the lifespan approach, and consider needs across the illness trajectory, with representation for neonatal/pediatric and adult patients.

Chairing: L.A. Matura, PhD, RN, Philadelphia, PA
S.J. Crowder, PhD, RN, ATSF, Indianapolis, IN

2:15 Welcome and Introduction
L.A. Matura, PhD, RN, Philadelphia, PA

2:20 Neonatal Palliative Care
C.A. Fortney, PhD, Columbus, OH

2:40 Symptom Management Strategies in Palliative Care
J.B. Seaman, PhD, RN, CHPN, Pittsburgh, PA

3:00 Advances in Symptom Management in Acute and Critical Illness
J.L. Guttormson, MS, PhD, RN, Milwaukee, WI

3:20 Caregiver Palliative Interventions
N.S. Mcandrew, PhD, RN, ACNS-BC, CCRN, Milwaukee, WI

3:40 Summary
S.J. Crowder, PhD, RN, ATSF, Indianapolis, IN

A82 INTERSTITIAL LUNG ABNORMALITIES: CATCHING THE BULL BEFORE IT DESTROYS THE SHOP

Target Audience
Clinicians who care for patients at risk for developing interstitial lung abnormalities (ILA) and interstitial lung disease (ILD); Clinical and translational researchers interested in methods of early detection and diagnosis of ILD and ILA.

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

• Improve understanding of ILA classification and features of radiologic progression. Learn about new methods to evaluate ILA, such as serum biomarkers and optical imaging with microscopic resolution.
• Learn new findings about interstitial lung abnormalities (ILAs), their prevalence and rates of progression in high-risk patient populations,
including individuals with family history of ILD and/or personal history of connective tissue disease.

- Learn new information about clinical management and follow-up for patients with ILA.

In this session, we will discuss interstitial lung abnormalities (ILA), their potential role as an identifiable precursor to symptomatic progressive fibrosis, and their classification and features of radiologic progression. Speakers will discuss the prevalence of ILA and rates of progression in patient populations at risk for developing progressive fibrosis, namely patients with connective tissue disease or family history of ILD. Novel microscopic optical imaging as a potential method to assess ILA microscopically and detect early, high risk features for progressive fibrosis will be covered. The session will also cover a direct clinical perspective and relevance to the symposium by discussing clinical considerations for ILA management, follow-up, and potential future therapeutic options.

**Chairing:**
L.P. Hariri, BS, MD, PhD, ATSF, Boston, MA
T.S. Blackwell, MD, Nashville, TN
R.K. Putman, MD, MPH, Boston, MA

**2:15** Interstitial Lung Abnormalities on CT: Definition, Classification, and Progression
D.A. Lynch, MB BCh, Denver, CO

**2:30** Undiagnosed Interstitial Lung Disease in Relatives of Patients with Pulmonary Fibrosis
G.M. Hunninghake, MPH, MD, Boston, MA

**2:45** Development and Progression of Radiologic Interstitial Lung Abnormalities in Individuals at Risk for Familial ILD
M.L. Salisbury, MD, MS, Nashville, TN

**3:00** Radiologic and Serum Biomarkers to Assess Subclinical Interstitial Lung Disease in Community-Dwelling Adults
A. Podolanczuk, MD, New York, NY

**3:15** Endobronchial Optical Imaging for Microscopic Assessment of Early Interstitial Lung Disease and Interstitial Lung Abnormalities
L.P. Hariri, BS, MD, PhD, ATSF, Boston, MA

**3:30** Clinical Perspectives on Interstitial Lung Abnormalities: Considerations for Patient Management
L. Richeldi, PhD, Rome, Italy

This session and the International Conference are supported by independent medical educational grants from Boehringer Ingelheim Pharmaceuticals, Inc., Genentech, Inc.

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

**Council of Chapter Representatives**

**2:15 p.m. - 3:45 p.m.**

**MOSCONENCE CENTER**

Room 3-4 (South Building, Exhibition Level)

**Target Audience**
Clinicians in PCCM

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

- gain knowledge about treatment/management approach to different pathologies;
- understand clinical reasoning used to reach a differential diagnosis based on a multidisciplinary team model.

Young physicians present interesting cases to a multidisciplinary panel to demonstrate a team approach to diagnosing and managing challenging cases. It will enhance medical knowledge, and diagnostic and management skills.

**Chairing:**
M.J. Mammen, MD, MS, ATSF, Buffalo, NY
J. Trevor, MD, Birmingham, AL

**2:15** As Lady Macbeth Would Say, 'Out, Damn’d Spot'
T.S. Yang, MD, Woodland Hills, CA

**2:27** Their Lives a Mimicry
M. Desta, MD, New York, NY

**2:39** When Lungs Get Struck by Halley’s Comet
H. Rajevac, MD, Burlington, MA

**2:51** There Must Be Something in The Water
J.R. Angel, MD, Pittsburgh, PA

**3:03** Radiologic Findings
A.G. Wilcox, Los Angeles, CA

**3:13** Pathologic Findings
J.L. Myers, MD, Ann Arbor, MI

**3:34** Master Clinicians
J.H. Hansen-Flaschen, MD, ATSF, Philadelphia, PA
S.I. Rounds, MD, Providence, RI
P.C. Stillwell, MD, Aurora, CO
A84 JAMA AND THE NEW ENGLAND JOURNAL OF MEDICINE. DISCUSSION ON THE EDGE: REPORTS OF RECENTLY PUBLISHED CRITICAL CARE RESEARCH

2:15 p.m. - 3:45 p.m. MOSCONE CENTER
Room 3000/3002/3004 (West Building, Level 3)

This session will provide a forum for attendees to interact with the authors and editors about papers published in JAMA and the New England Journal of Medicine. Papers presented will be recent publications, selected by the editors, to be of significant importance to the field of pulmonary medicine. Attendees will have the opportunity to hear presentations directly from the author and address questions to both the authors and editors. The discussion is intended to provide a unique insight into these papers, the selection process, and how the research applies directly to the field of pulmonary medicine.

Chairing: C.W. Seymour, MD, MSC, Pittsburgh, PA
D.B. Taichman, MD, PHD, Philadelphia, PA

Speakers and Talks to be Announced

A85 DEVELOPMENT AND WOUND HEALING: WHERE SENESCENCE IS THE SILVER LINING

2:15 p.m. - 3:45 p.m. MOSCONE CENTER
Room 1010/1012 (West Building, Level 2)

Target Audience
Scientists and Physician Scientists interested in understanding the role of senescence in development, wound healing and homeostasis in the lung, to then be able to draw contrasts when disruption of these processes contributes to mechanisms that drive disease.

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

- understand senescence as a physiological process important in development and homeostasis in the lung;
- appreciate the importance of senescence in wound repair and how dysregulation of these processes may lead to lung disease;
- explain the value of model systems for investigating the role of senescence in health and repair processes in the lung.

Senescence is a cell fate decision characterized by irreversible arrest of proliferation accompanied by a senescence-associated secretory phenotype. While the role of senescence in disease affecting processes is emerging, it is important to also recognize the non-pathological roles of senescence. In this session experts will summarize the state of the art in the role of senescence in development, and how this knowledge has been advanced through the use of model systems, and the importance of senescence in wound healing and repair processes in different cellular compartments within the lung.

Chairing: J.K. Burgess, PhD, BSc, ATSF, Groningen, Netherlands
A.L. Mora, MD, Columbus, OH
C.R. Kliment, MD, PhD, Pittsburgh, PA

2:15 The Role of Senescence in Development and Tissue Homeostasis: What Have We Learnt from Model Organisms?
M. Yun, PhD, Dresden, Germany

2:45 Senescence in Lung Epithelial Differentiation in Health and Disease
R.L. Zemans, MD, Ann Arbor, MI

3:05 Senescence in the Vascular Niche
S. Adnot, MD, Créteil, France

3:25 Impaired Resolution of Fibrosis with Age: Is There a Role for Senescence?
P.J. Wolters, MD, San Francisco, CA
• gain understanding and describe the spectrum of harmful pulmonary effects associated with vaping in adolescents;
• describe the importance of continued evidence-based education and advocacy efforts necessary to curb the youth vaping epidemic in the U.S. and abroad.

Pediatric pulmonologists are faced with screening their patients for e-cigarette use amidst the ongoing epidemic of adolescent vaping, a reflection of successful e-cigarette marketing strategies. This session will feature expert e-cigarette researcher advocates who will discuss the road to vaping addiction in the U.S. and abroad, the spectrum of pulmonary complications of vaping, and the novel success of anti-vaping education and treatment in multidisciplinary clinics and schools. Session attendees will find themselves better prepared to screen, diagnose and educate their vulnerable adolescent patients and will feel empowered to employ pediatric advocacy strategies to help their communities.

Chairing:  
D.R. Rao, MD, Dallas, TX  
F. Afolabi, MD, Dallas, TX  
A.M.H. Casey, MD, Boston, MA

2:15 Introduction  
D.R. Rao, MD, Dallas, TX

2:16 I Used to Vape: What Medical Professionals Should Know  
Speaker To Be Announced

2:21 The Evolution of E-Cigarette Marketing and the Sustained Prevalence of Adolescent Vaping  
M. Eakin, PhD, Baltimore, MD

2:36 Practical Approaches to Pulmonary Complications of E-Cigarette Use  
A.M.H. Casey, MD, Boston, MA

2:51 The Use of Marijuana Containing E-Cigarette Products: Lessons Learned From the EVALI Outbreak  
D.R. Rao, MD, Dallas, TX

3:06 Adolescent Perceptions of E-Cigarettes in Latin America  
G.E. Zabert, MD, Neuquén, Argentina

3:21 Lessons Learned From “CATCH My Breath”: A School-Based E-Cigarette Education Curriculum  
S.H. Kelder, PhD, MPH, Austin, TX

3:36 Conclusion/ Q&A  
F. Afolabi, MD, Dallas, TX

CLINICAL • TRANSLATIONAL  
SCIENTIFIC SYMPOSIUM  
CME Credits Available: 1.5

A87 EMERGING PROGRAM MODELS FOR PULMONARY REHABILITATION

Assembly on Pulmonary Rehabilitation
2:15 p.m. - 3:45 p.m.  
MOSCONET CENTER

Room 2002/2004 (West Building, Level 2)

Target Audience  
Respiratory physicians, respiratory therapists, physiotherapists, occupational therapists, nurses, physician assistants, dieticians, medical students, patients, scientists, healthcare policy makers, psychologists, social workers, ehealth specialists

Objectives  
At the conclusion of this session, the participant will be able to:
• gain understanding of the strengths and limitations of different program models for pulmonary rehabilitation in terms of patient selection, patient-reported outcomes, and program availability/adherence;
• implement the essential components of pulmonary rehabilitation in the program model that is suitable for the local care setting and the needs of the individual patient;
• describe differences between home-based pulmonary rehabilitation, center-based rehabilitation, and telerehabilitation for patients with chronic respiratory diseases.

Pulmonary rehabilitation (PR) is a very effective treatment for patients with chronic respiratory diseases. However, PR remains underused in many parts of the world, due to poor access, uptake and completion of programs. In recent years, several new program models have emerged that aim to overcome these hurdles in the use of PR. These models include home-based PR and telerehabilitation as alternatives for traditional center-based comprehensive PR. Despite their alternative approach, all PR models share a set of essential components, including patient assessment at baseline and outcome, program content, method of delivery, and quality assurance. While the emerging models bring new opportunities for PR, future programs will include even more patient involvement to ensure broad and long-term success.

Chairing:  
F. Franssen, MD, PhD, Horn, Netherlands  
L. Houchen-Wolloff, PhD, CERS, Leicester, United Kingdom

2:15 Essential Components of Pulmonary Rehabilitation  
C.L. Rochester, MD, New Haven, CT

2:35 Center-Based Comprehensive Pulmonary Rehabilitation  
M.A. Spruit, PT, PhD, Horn, Netherlands

2:55 Home-Based and Telerehabilitation  
A.E. Holland, PT, PhD, Melbourne, Australia
ASPEOPLEAGE, DOES COPD SUSCEPTIBILITY ORIGINATE FROM DIFFERENTCELLTYPES

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

2:15 p.m. - 3:45 p.m. MOSCONE CENTER

Room 2001/2003 (West Building, Level 2)

Target Audience
Physicians and scientists who are interested in understanding the underlying mechanisms that drive the development of aging-related diseases

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

• understand and describe the processes that take place during early stages of COPD development;

• gain knowledge of and describe various cell types that are involved in the development of COPD;

• describe possible endotypes of COPD.

Chronic obstructive pulmonary disease (COPD) is a syndrome that comprises several lung pathologies, but sub-phenotyping the various disease subtypes has not been successful. Functional studies of these polymorphisms suggest that susceptible airway, endothelial, hematopoietic, or smooth muscle cells initially may generate COPD endotypes that are characterized by distinct pathobiological mechanisms. These endotypes may ultimately manifest themselves as emphysematous destruction of the lung as people age. Polymorphisms in cells other than those listed may remain to be identified and could represent yet other endotypes of COPD.

Chairing: F. Polverino, MD, PhD, Houston, TX
I. Petrache, MD, ATSF, Denver, CO
Y. Tesfaigzi, PhD, Boston, MA

ASTHMA BEYOND T2 INFLAMMATION: ADDITIONAL AND ALTERNATIVE PATHWAYS FOR SEVERE ASTHMA

Assemblies on Allergy, Immunology and Inflammation; Respiratory Cell and Molecular Biology

2:15 p.m. - 3:45 p.m. MOSCONE CENTER

Room 2014/2016 (West Building, Level 2)

Target Audience
Researchers in severe asthma and clinicians who treat asthmatic patients

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

• understand the potential and limitations of immune profiling in identifying asthma inflammatory endotypes;

• gain understanding of potential contributions of non-T2 inflammation in severe asthma;

• understand the effect of pediatric lung inflammation on later adult disease.

While recent advances in T2 inflammation in asthma have yielded novel biologics that have significantly improved disease management, use of these agents is limited to patients with evidence of significant T2 inflammation, and some of these patients do not respond to therapy. Additional insight is needed into other contributing or alternative pathologies that underly severe asthma. Significant progress has been
made in the last several years in understanding some alternative pathways for inflammation in asthma and how these may contribute to severity. Further understanding of these pathways may lead to novel therapeutic strategies and targets for asthma management.

Chairing:
B.D. Levy, MD, ATSF, Boston, MA
A. Ray, PhD, Pittsburgh, PA

2:15 High-Dimensional Immune Phenotyping in Severe Asthma
M. Camiolo, MD, PhD, Pittsburgh, PA

2:30 Obesity and Asthma
N.L. Lugogo, MD, Ann Arbor, MI

2:45 Non-Th2 Mechanisms of Severe Asthma
P. Hanksbro, PhD, Sydney, Australia

3:00 CXCR3 and CCR5 as Mediators of T1 High Severe Asthma
M. Gauthier, MD, Pittsburgh, PA

3:15 Early Life Origins of Asthma and COPD
S. Saglani, BSc(Hons), MD, MBChB, MRCP(UK), London, United Kingdom

3:30 Panel Discussion

This session and the International Conference are supported by an independent medical educational grant from Genentech, Inc.

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A90 RECENT ATS CLINICAL PRACTICE GUIDELINES

Assemblies on Allergy, Immunology and Inflammation; Clinical Problems; Critical Care; Environmental, Occupational and Population Health; Pediatrics; Pulmonary Infections and Tuberculosis; Documents Development and Implementation Committee

2:15 p.m. - 3:45 p.m. MOSCON Center

Room 205-206 (South Building, Level 2)

Target Audience
Clinicians; interprofessionals; medical educators; nurses

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

- understand how evidence is used to inform diagnostic and treatment recommendations;
- apply clinical recommendations from recently published guidelines in clinical practice, improving patient outcomes;
- obtain new strategies to approach: COPD, asthma, non-tuberculous mycobacterial disease, community acquired pneumonia, sarcoidosis, and post prematurity lung disease.

This session is the 7th annual scientific symposium highlighting ATS clinical practice guidelines. This year’s symposium will highlight guidelines on: COPD Pharmacotherapy, Diagnosis of Sarcoidosis, Use of FeNO in Asthma, Post- Prematurity Lung Disease, Non-tuberculous Mycobacteria, and the use of PCR for pneumonia. Speakers describe how the guidelines provide the foundation for improving care.

Chairing:
C. Strange, MD, ATSF, Charleston, SC
M.L. Metersky, MD, Farmington, CT
K.A. Riekert, PhD, Baltimore, MD

2:15 Clinical Practice Guideline Methodology
K. Wilson, MD, New York, NY

2:20 Pharmacotherapy of COPD
L. Nici, MD, Providence, RI

2:35 FeNO Use in Asthma
R.A. Dweik, MD, ATSF, Cleveland, OH

2:45 Diagnosis of Sarcoidosis
L.A. Maier, MSPH, MD, ATSF, Denver, CO

3:00 Community Acquired Pneumonia: PCR Testing
S.E. Evans, MD, ATSF, Houston, TX

3:10 Post Prematurity Lung Disease
A.I. Cristea, MD, MS, ATSF, Indianapolis, IN

3:25 Non-Tuberculous Mycobacterium Treatment Guidelines
C.L. Daley, MD, Denver, CO

3:40 Guideline Implementation
J. Ruminjo, MD, New York, NY

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A91 MYTHS OR TRUTHS: CONTROVERSIES IN RESPIRATORY MEDICINE

Assemblies on Sleep and Respiratory Neurobiology; Critical Care; Pulmonary Circulation; Respiratory Structure and Function

2:15 p.m. - 3:45 p.m. MOSCON Center

Room 3001/3003 (West Building, Level 3)
Target Audience
Clinicians and researchers working in the fields of critical care, obstructive lung disease, pulmonary hypertension and sleep medicine

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

• inform the clinicians and researchers about specific areas of debate in management of common and burdensome respiratory conditions: 1) Pulmonary embolism; 2) OSA; 3) COPD and 4) ARDS;
• apply state of the to help the audience decide on appropriate management of intermediate risk pulmonary embolism; use of CPAP in OSA patients; diagnosis of COPD and prognostication and treatment of ARDS for their patients;
• identify key gaps for conditions mentioned in objectives 1 and 2 that should inform future research.

The pulmonary, critical care and sleep communities have made great strides towards providing evidence-based care. However, recent data challenge current approaches to, and create uncertainty about, the management of common and highly burdensome conditions. These controversies include 1) therapy for intermediate risk pulmonary thromboembolism, 2) effective sleep apnea treatment with continuous positive airway pressure, 3) physiology driven diagnosis of chronic obstructive pulmonary disease and 4) utility of phenotypes in management of acute respiratory distress syndrome. This session will address the state of the and evidence for aspects of managing these conditions to help inform clinical decision making and future research.

Chairing:
A. Zinchuk, MD, MHS, BS, New Haven, CT
A.M. Esper, MD, MS, ATSF, Atlanta, GA
Z.-G. Zhai, MD, PhD, Beijing, China
J.C. Woods, PhD, Cincinnati, OH

2:15 Introduction to Mythbusters in Respiratory Medicine
A. Zinchuk, MD, MHS, BS, New Haven, CT

2:20 Truth: Patients With Intermediate Risk Pulmonary Embolism Should Undergo Catheter Directed Therapy
P. Rali, MD, Philadelphia, PA

2:28 Myth: Patients With Intermediate Risk Pulmonary Embolism Should Undergo Catheter Directed Therapy
B.N. Rivera-Lebron, MD, MS, Pittsburgh, PA

2:36 Myth Busted or Confirmed?
Z.-G. Zhai, MD, PhD, Beijing, China

2:40 Truth: CPAP Is an Effective Treatment for OSA
R.L. Owens, MD, ATSF, San Diego, CA

2:48 Myth: CPAP Is an Effective Treatment for OSA
N.A. Shah, MD, MPH, MSci, New York, NY

2:56 Myth Busted or Confirmed?
A. Zinchuk, MD, MHS, BS, New Haven, CT

3:00 Truth: Flow Limitation Is Essential to Diagnosis and Treatment of COPD
D.D. Sin, MD, Vancouver, Canada

3:08 Myth: Flow Limitation Is Essential to Diagnosis and Treatment Of COPD
D.D. Marciniuk, MD, Saskatoon, Canada

3:16 Myth Busted or Confirmed?
J.C. Woods, PhD, Cincinnati, OH

3:20 Truth: ARDS Phenotypes: Pathophysiology Is a Promising Approach to Tailor Therapy
N. Qadir, MD, Los Angeles, CA

3:28 Myth: ARDS Phenotypes: Pathophysiology Is a Promising Approach to Tailor Therapy
E. Fan, MD, PhD, Toronto, Canada

3:36 Myth Busted or Confirmed?
A.M. Esper, MD, MS, ATSF, Atlanta, GA

3:40 Closing Remarks
A.M. Esper, MD, MS, ATSF, Atlanta, GA
of therapies and antibiotic stewardship, gender-specific health issues, and care of older adults with CF, including advanced lung disease and lung transplant.

**Chairing:**
L. Caverly, BA, MD, Ann Arbor, MI
J.L. Taylor-Cousar, MD, MSc, ATSF, Denver, CO
C.S. Thornton, MD, PhD, Calgary, Canada

**BEHAVIORAL MINI SYMPOSIUM**

**A93 QUALITY OF CARE, HEALTH DISPARITIES, AND HEALTHCARE UTILIZATION AMONG PATIENTS WITH ASTHMA OR COPD**

**Oral Presentations**

**2:15 Assessing Quality of Care for Patients Hospitalized for Acute Asthma in US Hospitals**

**2:25 Geographic Disparities in Health Services Among COPD Patients in National VA Data**

**2:35 Association Between Self-Reported Falling and Risk of Hospitalizations for Patients with Chronic Obstructive Pulmonary Disease**

**2:45 Association Between Race, Geography, and 1-Year Mortality After Hospitalization for Chronic Obstructive Pulmonary Disease**
S. Jain, A. Priya, P. Lindenauer, New Haven, CT, p.A2123

**2:55 Lifestyle Intervention Targeting Weight Loss to Reduce Dyspnea in Chronic Lung Disease**
M.V. Benzo, M. Roy, R. Benzo, Rochester, MN, p.A2124

**3:05 Are Patients Treated According to GINA? Treatment and Exacerbation Patterns in UK Primary Care from SABINA Heatmaps**
K. Maslova, J.K. Quint, M. Fagerås, A. Baheti, S. Siddiqui, R.J.P. van der Valk, Cambridge, United Kingdom, p.A2125

**3:15 Identifying Unmet Needs in Moderate Asthma Using Hidden Depths Methodology**

**3:25 Healthcare Resource Consumption and Care Pathway of Patients Who Died from Asthma in France**

**3:35 Availability, Affordability and Access to Essential Medications for Asthma and Chronic Obstructive Respiratory Disease in Three Low and Middle-Income Country Settings**

**CLINICAL MINI SYMPOSIUM**

**A94 INNOVATIONS IN COPD MANAGEMENT**

**Oral Presentations**

**2:15 Lung Volume Reduction: Proven Benefit, But Unanswered Questions**
F.C. Sciurba, Pittsburgh, PA

**Featured Speaker:**

**ATS 2022 • San Francisco, CA**
**Oral Presentations**


3:25 Improving Exertional Dyspnea and Desaturation with Use of a Novel PEP Device in Patients with COPD/ A.M. Cattran, R. Panos, R. Baker, M.A. Zafar, Cincinnati, OH, p.A2135

3:35 The Use of Oscillating Positive Expiratory Pressure (OPEP) Therapy in Patients with COPD or Chronic Bronchitis with Excess Mucus Secretion: A Randomized Controlled Trial/ M.J. Van Es, S.S. Schokker, S. Been-Buck, W.J. Wiersema, T. Klemmeier, H.A.M. Kerstjens, W. Jacobs, Groningen, Netherlands, p.A2136

**A95 THE IDEA GENERATOR: NOVEL RISK FACTORS AND FRESH APPROACHES TO DISEASE CHARACTERIZATION**

2:15 p.m. - 3:45 p.m.

**MINI SYMPOSIUM**

**Chairing:** N.E. Alexis, PhD, Chapel Hill, NC
G.C. Goobie, MD, Pittsburgh, PA
A.A. Litonjua, MPH, ATSF, Rochester, NY

**BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL**

**116 SUNDAY • MAY 15**
### A96 GIANTS STADIUM: TREATMENTS AND TRIALS IN PULMONARY HYPERTENSION

**2:15 p.m. - 3:45 p.m. MOSCONE CENTER**

**Room 3020/3022/3024 (West Building, Level 3)**

**Chairing:**
- M.J.C. Humbert, MD, PhD, Bicêtre, France
- N. Al-Naamani, MD, MS, Philadelphia, PA
- J.M. Elinoff, MD, ATSF, Bethesda, MD

**Oral Presentations**

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<td>2:15</td>
<td>BET Family Inhibition for Pulmonary Arterial Hypertension: A Pilot Study</td>
<td>S. Provencher, F. Potus, P. Blais Lecours, S. Bernard, J.C. Weatherald, E. Kulikowski, O. Boucherat, S. Bonnet, Quebec City, Canada</td>
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<td>Distensibility with Inhaled Nitric Oxide as a Predictor of Treatment Response in WSPH Group 3 Pulmonary Hypertension</td>
<td>E. Harder, D.M. Systrom, A.B. Waxman, Boston, MA</td>
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### A97 RESEARCH OUTSIDE OF THE NTM BOX

**2:15 p.m. - 3:45 p.m. MOSCONE CENTER**

**Room 215-216 (South Building, Level 2)**

**Chairing:**
- K.N. Olivier, MD, MPH, ATSF, Bethesda, MD
- C.L. Daley, MD, Denver, CO

**Oral Presentations**

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<td>Soluble Programmed Death Protein-1 and Disease Progression in Patients with Nodular Bronchiectatic (NB) Nontuberculous Mycobacterial Lung Disease</td>
<td>S.-W. Pan, M.-L. Ho, J.-Y. Feng, C.-C. Shu, Taipei, Taiwan</td>
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BASIC • TRANSLATIONAL

MINI SYMPOSIUM

A98 EPITHELIAL-MESENCHYMAL BIOLOGY IN LUNG DEVELOPMENT AND REGENERATION

2:15 p.m. - 3:45 p.m. MOSCONE CENTER Room 2018/2020 (West Building, Level 2)

Chairsing: V.P. Krymskaya, PhD, MBA, Philadelphia, PA
T. Peng, MD, San Francisco, CA
J. Sucre, MD, Nashville, TN
Z. Borok, MBChB, ATSF, La Jolla, CA

Oral Presentations


2:35 Establishing Relevant Emphysema Model Using Induced Pluripotent Stem Cell (iPSC)-Derived Alveosphere Co-Culture with Human Fibroblasts/R. Dagher, A. Moldobaeva, X. Qu, P. Byrne, P. Shahi Thakuri, K. Grime, M. Ghaidi, Gaithersburg, MD, p.A2166


CLINICAL • TRANSLATION

MINI SYMPOSIUM

A99 LOOK AT THAT! NEW FINDINGS FROM LUNG IMAGING

2:15 p.m. - 3:45 p.m. MOSCONE CENTER Room 3006/3008 (West Building, Level 3)

Chairsing: S.B. Fain, PhD, Iowa City, IA
P.J. Niedbalski, PhD, Kansas City, KS

Oral Presentations


3:15 Free-Breathing 1H MRI Specific Ventilation and Biomarkers of Type-2 Inflammation in Severe Asthma/D. P. I. Capaldi, N. Konyer, M. Kjarsgaard, P. Nair, S. Svenningsen, San Francisco, CA, p.A2179


Neutrophil Efferocytosis Induces an Immunometabolic Switch via UCP-2 in Alveolar Macrophages to Support Resolution of Inflammation


STAT1 Modulates Neutrophilic Inflammation During Acute Pulmonary Infection with Klebsiella Pneumoniae


Platelet-Derived Thrombospondin-1 Regulates Neutrophil Degranulation and NETosis During Pseudomonas Aeruginosa-Induced Pulmonary Injury


Vaccine Mediated Lung Tissue Resident Memory T Cells Require IL-1 and CCR2 Signaling to Protect Against K. Pneumoniae Challenge


Tetracycline Inhibits Pulmonary Inflammasome Activation via Caspase-1 in COVID-19 Patients with ARDS


Mer Tyrosine Kinase (Mertk) Impairs the Clearance of Streptococcus Pneumoniae


The Effect of a Single Exposure to Simulated Burn Pit Products in Mice with Healthy and Inflamed Airways and Their Response to Influenza A


Requirements for Resident Memory B Cell Establishment After Bacterial Respiratory Infection


Development of TLR2/6 Agonist (INNA-051) to Protect the Elderly Against Respiratory Virus Infection


Potential Functional Roles for CD26/Dipeptidyl Peptidase-4 in Mediating Responses of Human Lung Microvascular Endothelial Cells


Lipoxin A4 Mediates Mesenchymal Stromal Cell Therapeutic Effects in Sepsis


Aging, AMPK and Parkin-Dependent Mitochondrial Dynamics in Host Defense in Sepsis


Targeting Metabolic Pathways in Acute Lung Injury


Nitric Oxide Metabolites Differ Among Subphenotypes of Acute Respiratory Distress Syndrome


Resolution of Pneumonia/ARDS by DHX58 in Mice and Humans


Heparin-Binding Protein Is Increased in the Lung After Intrabronchial Endotoxin Exposure


TRPV4 Regulates the Immuno-Metabolic Response to Leptin and Infection in a Stiffness-Dependent Manner


SARS-CoV-2 and HRV-16 Replication in Organotypic Bronchial Airway Epithelial Cell Cultures Is Associated with IFIH1 (MDA5) Polymorphism rs1990760


RNA m6A Methylation Regulates Virus Host-Interaction in Rhinoviral Infection

J. Yang, Y. Zhang, Galveston, TX, p.A2206
CLINICAL POSTER DISCUSSION SESSION

A102 ASSESSMENT OF RESPIRATORY PHYSIOLOGY

2:15 p.m. - 3:45 p.m.  MOSCONE CENTER
Room 203-204 (South Building, Level 2)

Discussion  2:15-2:45
Poster Viewing  2:45-3:45

Chairing:  R. Casaburi, PhD, MD, ATSF, Torrance, CA
S.P. Bhatt, MD, MSPH, Birmingham, AL
M.C. McCormack, MHS, MD, Baltimore, MD

201 Differentiating Spirometric Features Between Patients with Amyotrophic Lateral Sclerosis and Primary Lateral Sclerosis/F. Pyarali, R. Lewis, F. Diaz, A. Elsayegh, Los Angeles, CA, p.A2207

202 Application of Impulse Oscillometry (IOS) to Spirometry Interpretation: A Case-Series Study Report/K.Y. Chen, Yi-Lung County, Taiwan, p.A2208


214 Use of a Ramped Protocol Treadmill Test to Evaluate for Exertional Hypoxemia in Idiopathic Pulmonary Fibrosis (IPF)/K. Clark, M. Kerr, D. Kass, Pittsburgh, PA, p.A2220


217 Symptoms Are Associated with an Obstructive Lung Disease Diagnosis in Subjects with the Non-Specific Pulmonary Function Test Pattern/J. Tasch, S. Abujaber, L. Hattar, A. Jose, L.L. Price, P. Lacamera, H. Avella, Boston, MA, p.A2223
218 Underreporting of Expiratory Reserve Volume on PFTs - Is There a Pattern of Significance?/J. Lenka, Tucson, AZ, p.A5557

219 Home-Based Spirometry Quality in Patients with ILD Using Digital Health Platforms: Data from the RALPMH Study/M. Althobiani, Y. Ranjan, J. Jacob, M. Orini, R. Dobson, J.C. Porter, J.R. Hurst, A.A. Folarin, London, United Kingdom, p.A5558

CLINICAL
POSTER DISCUSSION SESSION
A103 CHALLENGING PULMONARY CASES
2:15 p.m. - 3:45 p.m. MOSCONE CENTER
Room 9-10 (South Building, Exhibition Level)
Discussion 2:15-2:45
Poster Viewing 2:45-3:45
Chairing: M. Kreider, MD, MSCE, ATSF, Philadelphia, PA
K. Melamed, MD, Los Angeles, CA
S. Maximous, MD, MS, Pittsburgh, PA


102 Tracheoesophageal Fistula (TEF) as a Complication of Herpes Simplex Virus (HSV) Esophagitis in Immunocompetent Host/P. Pikman, A.C. Campagna, D. Fitelson, S.K.V. Guda, C. Paquette, R.J. Webster, Burlington, MA, p.A2225


104 More Blood Than Needed: A Rare Case of Pulmonary Extramedullary Hematopoiesis/K. Jakharia, B.W. Kinder, Chapel Hill, p.A2227


BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL
POSTER DISCUSSION SESSION
A104 ALL THAT ISN’T THE HEART AND LUNGS
2:15 p.m. - 3:45 p.m. MOSCONE CENTER
Room 3009/3011 (West Building, Level 3)
Discussion 2:15-2:45
Poster Viewing 2:45-3:45
Chairing: G.W. Garrison, MD, Burlington, VT
J.R. Beitler, MD, MPH, New York, NY
L. Munshi, MD, Toronto, Canada
902 Hemodynamic Instability Associated with Spontaneous Carcinoid Crisis. J. Collins, J. Tepper, G. Smithson, Indianapolis, IN, p.A2245
903 Not All Who Sundown Have Dementia: A Case of Creutzfeld-Jacob Disease. J. Michalik, K. Amlani, R. Crusio, Bridgeport, CT, p.A2246
905 Treatment of Vancomycin Induced DRESS Syndrome with Mepolizumab. J. Hershey, F. Holguin, N. Agarwal, Aurora, CO, p.A2248
906 More Than Just a Probiotic: A Rare Case of a Hepatic Abscess Complicated by Lactobacillus Bacteremia. K. Gaur, L. Ran, M.M. Lee, Los Angeles, CA, p.A2249
907 Kelch-Like Protein 11 Paraneoplastic Syndrome Presenting with Ataxia Leading to Diagnosis of Testicular Cancer. M. Orlov, A.N. Rizzo, Aurora, CO, p.A2250
908 Consider This Cause of Critical Illness: Kaposi Sarcoma Inflammatory Cytokine Syndrome. L. Sullivan, San Diego, CA, p.A2251
910 Severe Type B Lactic Acidosis Following Large Volume Dextrose Infusion: A Case of the Warburg Effect. R. Jokomo-Nyakabau, M. Velagapudi, N. Mendoza, P. Millner, Omaha, NE, p.A2255
911 Anti-NMDA Receptor Encephalitis: Is the True Incidence Higher Than Known? S. Malhotra, A. Hornick, S. Lilly, Columbus, OH, p.A2264
912 Absent Left Internal Carotid Artery with Cerebral Aneurysms in a Patient with Hemorrhagic Stroke. A.A. Mitma, A. Venkata, F. van Rhee, Little Rock, AR, p.A2266
914 Blackwater Fever in a Returning Airman. B. Gray, Bethesda, MD, p.A2268

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL
POSTER DISCUSSION SESSION

A105 YOU CAN PREDICT ALL YOU WANT, BUT EVERYONE KNOWS...

2:15 p.m. - 3:45 p.m. MOSCONE CENTER
Room 3016/3018 (West Building, Level 3)

Discussion 2:15-2:45
Poster Viewing 2:45-3:45

Chairing: C.T. Hough, MD, MSc, Portland, OR
C.E. Cox, MD, MPH, MHA, Durham, NC
M.W. Sjoding, MD, Ann Arbor, MI
1001 What Happens Next? Long-Term Post-ICU Outcomes from 119 VA Medical Intensive Care Units: Clarifying the Unknown/S.E. Stern, M. Nevers, J. Ying, R. Brenner, M.A. Christensen, B.E. Jones, Salt Lake City, UT, p.A2269


1008 Relationship Between Delirium and Cognitive Function in Survivors of Critical Illness with Long-Term Caregiver Burden/S. Macdowell, J. Zhao, C. Wang, N.E. Brummel, Columbus, OH, p.A2277


1011 Does the Severity of Functional Limitation Impact Long-Term Functional Recovery in Patients Weaning from Prolonged Mechanical Ventilation/D. Platou, Hinsdale, IL, p.A2280


1018 Return of Spontaneous Circulation Versus Survival to Hospital Discharge for in-Intensive Care Unit Cardiac Arrests/L.M. Cagino, A. Moskowitz, B.K. Nallamothu, J.I. Mcsparron, T.J. Iwashyna, Ann Arbor, MI, p.A2287

1019 The Impact of Obesity on Outcomes of Patients Admitted to Intensive Care After Cardiac Arrest/S. Bihari, M. Chavda, R. Woodman, P. Secombe, D. Pilcher, Bedford Park, Australia, p.A2288

1021 Distressing Symptoms Before and After Critical Illness Among Community-Living Older Adults/S. Jain, T.E. Murphy, E. Gahbauer, L. Leo-Summers, L.E. Ferrante, T.M. Gill, New Haven, CT, p.A2289


A106 A DEEP DIVE INTO THE MICROBIOME
2:15 p.m. - 3:45 p.m. MOSCONET CENTER Room 303-304 (South Building, Level 3)

Discussion 2:15-2:45

Poster Viewing 2:45-3:45

Chairing: H.L. Twigg, MD, Indianapolis, IN
L.N. Segal, MD, New York, NY
G. Kitsios, MD, PhD, Pittsburgh, PA


502 Chronic Lower Airway Dysbiosis with Human Oral Commensals Leads to Both Increased IL-17A and Immune Exhaustion Tone in the Lower Airways/M. Chang, Y. Kyeremateng, D. Collazo, I. Kocak, S. Singh, Y. Li, J.-C. Tsay, L.N. Segal, B.G. Wu, New York, NY, p.A2295


509 Characterizing the Lung Microbiome in a Well-Defined Chronic Bronchitis Cohort Undergoing Bronchial Rhenoplasty/D.G. Dunlap, K. Li, A. Fitch, B. Methe, A. Morris, F.C. Sciuumba, Pittsburgh, PA, p.A2302


### A107 MECHANISMS OF FIBROSIS/FIBROBLAST BIOLOGY

**2:15 p.m. - 3:45 p.m. MOSCONE CENTER**

Room 212-214 (South Building, Level 2)

**Discussion 2:15-2:45**

**Poster Viewing 2:45-3:45**

**Chairing:**
- R.S. Knipe, MD, Boston, MA
- M.N. Ballinger, PhD, Columbus, OH
- M. Peters-Golden, MD, Ann Arbor, MI
- D.W.H. Riches, PhD, Denver, CO

#### 401 Fibronectin-EDA Accumulates via Reduced Ubiquitination and Lysosomal Degradation in Scleroderma Lung Fibroblasts Downstream of Toll Like Receptor 9 Activation/

#### 402 Peptidylarginine Deiminase-2 Is Highly Expressed in Rheumatoid Arthritis-Associated Interstitial Lung Disease Derived Lung Fibroblasts and Contributes to Their Profibrotic Phenotype/
K. Tsoyer, R. Bowen, X. Liang, F. Poli, R.E. Cardenas Castillo, S.W. Ryter, F. Romero, L.J. Celada, M.J. Robertson, M.A. Perrella, I.-C. Ho, I.O. Rosas, Houston, TX, p.A2305

#### 403 Preclinical Evaluation of Dimethyl Fumarate in an Aging Model of Pulmonary Fibrosis In vivo/
K. Kato, L. Hecker, Atlanta, GA, p.A2306

#### 404 Caveolin Scaffolding Domain LTI-03 Modulates Both Inflammatory and Fibrotic Responses in Aged Mice After Bleomycin Challenge/
B. Mackenzie, E. Maier, B. Creyns, A.L. Coelho, B. Windsor, C.M. Hogaboam, Austin, TX, p.A2307

#### 405 Non-enzymatic Glycation of Extracellular Matrix Proteins Augments Fibroblast Activation in the Pathogenesis of Pulmonary Fibrosis/

#### 406 Metabolic Reprogramming of Senescent Lung Epithelial Cells: U-13C6 Glucose Fluxomics Study/

#### 407 CD38 Mediates Lung Fibrosis by Promoting Alveolar Epithelial Cell Aging/

#### 408 Lipidomics of Idiopathic Pulmonary Fibrosis Lung Tissue Identifies a Novel Role for Phosphatidylinositol Regulation in Alveolar Structural Cells/

#### 409 Increases in Glutathione Dependent Protein Oxidation Impair Airway Basal Cell Differentiation/

#### 410 Characterization of Lung Endothelial Cell Heterogeneity in Idiopathic Pulmonary Fibrosis (IPF)/
J. Lee, T.X. Pham, N. Caporarello, S.K. Huang, G. Ligresti, Boston, MA, p.A2313

#### 411 Role of Accumulated Myeloid Derived Suppressor Cells in Pulmonary Fibrosis Mediated by B7H3/
T. Liu, A.E. Rinke, F. Gonzalez De Los Santos, C. Fang, S.H. Phan, Ann Arbor, MI, p.A2314

#### 412 The Importance of Lung Microenvironment on Gremlin1 Regulation and Pulmonary Fibrosis Pathogenesis/

#### 413 FOS Transcription Factor Associations with Lung Tissue RXFP1 Gene Expression and Pulmonary Function in Idiopathic Pulmonary Fibrosis/
X. Li, T. Chen, G.C. Goobie, D. Kass, Y. Zhang, Pittsburgh, PA, p.A2316

#### 414 Interleukin-11 Perpetuates a Vicious Cycle of Lung Macrophage and Mesenchymal Cell Activation in IPF/

#### 415 Leveraging Cell-Specific Disease Signatures to Predict New Drug Therapies for Idiopathic Pulmonary Fibrosis/

#### 416 Microenvironment Regulates CD44v6 Expression and Disease Progression in Idiopathic Pulmonary Fibrosis/

#### 417 Assessing the Ability of Homeobox Protein Nkx2.5, a Mechanosensitive Repressor of Fibrosis, to Prevent Progression of Pulmonary Fibrosis in a 3D Decellularized Lung Model/
S100A4 Regulates Fibrotic Response Through Modulation of Matrix Expression/S. Li, M. Li, P. Fang, Y.-H. Chang, Q. Ding, P. Che, Birmingham, AL, p.A2321


Profibrotic Role for a Dysregulated D-Dopachrome Tautomerase-Cullin 3 Signaling Axis in Alveolar Type II Epithelial Cells/S.-H. Kim, T. Yang, X.Y. Peng, L. Leng, R. Bucala, P. Lee, E. Herzog, M. Sauler, New Haven, CT, p.A2323

Heme Oxygenase 1 Contributes to TGF-ß1-Induced Lung Myofibroblast Differentiation/Q. Ye, S. Taleb, H. Wang, K. Tran, J. Zhao, Y. Zhao, Columbus, OH, p.A2324


CYB5R3 Deficiency Impacts Dysfunctional Phenotype on Type II Alveolar Epithelial Cells in Mice/T. Khalili, M. Bueno, J. Calyeca, T. Tabib, A.C. Straub, R.A. Lufyatis, M. Rojas, A.L. Mora, Columbus, OH, p.A2327

808 Spironolactone Improves Coronary Artery Function and Reserve in Mice Exposed to Chronic Intermittent Hypoxia Mimicking Sleep Apnea/M. Badran, S.B. Bender, D. Gozal, Columbia, MO, p.A2336

809 Undesirable Levels of Circulating Lipids in Patients with Coronary Artery Disease and Obstructive Sleep Apnea Despite Lipid Lowering Drugs: A Secondary Analysis of the RICCADSA Cohort/Y. Celik, E. Thunström, Y. Peker, Istanbul, Turkey, p.A2337


305 Disentangling Racial Disparities in Lung Cancer Stage of Diagnosis/J. Richmond, M. Hollister Murray, C.M. Milder, J.D. Blume, M.C. Aldrich, Nashville, TN, p.A2343


307 Can Brief Telehealth Encounters Increase Lung Cancer Screening of Eligible Veterans Residing in Rural Wisconsin?/S. Hamidi, T. Beck, I. Rubinstein, Chicago, IL, p.A2345


310 Improved Adherence to USPSTF Guidelines for Lung Cancer Screening After Initiation of a Comprehensive and Centralized Lung Cancer Screening Program: An Institutional Experience/M.A. Alkhunaizi, S. Chan, J. Gago-Pinero, M. Velasco, J. Ramey, S.R. Bujarski, Houston, TX, p.A2348


313 Variation in Reporting of Incidental Findings on Lung Cancer Screening and Association with Subsequent Assessment/E. Atoma, A.E. Fabbbrini, B. Clothier, M.E. Campbell, A.C. Melzer, Minneapolis, MN, p.A2351

**Amberson Lecture**

The Amberson Lecture recognizes major lifetime contributions to clinical or basic research that have advanced our fundamental understanding of the basic, translational, or clinical approaches to respiratory disease, critical illness, or sleep disorders. This award also recognizes exemplary professionalism, collegiality and citizenship through mentorship and leadership in the ATS community. The Lecture is given in honor of James Burns Amberson, an international authority on chest disease and tuberculosis.

**Lecturer:** Naftali Kaminski, MD, ATSF, New Haven, CT

**Lecturer Title:** Charting a Road Map to Curing Human Pulmonary Fibrosis

**Trudeau Medal**

The Trudeau Medalist is an individual with lifelong major contributions to the prevention, diagnosis and treatment of lung disease, critical illness, or sleep disorders through leadership in research, education, or clinical care. The Trudeau Medal is the highest honor bestowed by the ATS and is given in honor of Edward Livingston Trudeau, a founder and the first president of the American Lung Association.

**Awardee:** Courtney Broaddus, MD, San Francisco, CA

**Distinguished Achievement Award**

The Distinguished Achievement Award is given to individuals who have made outstanding major contributions that advance the missions of the American Thoracic Society. The Award recognizes the substantial contributions to prevention, diagnosis and treatment of lung disease, critical illness, or sleep disorders through advocacy, training, and mentorship. This award recognizes one major accomplishment or cumulative impact on the field.

**Awardees:** Meilan K. Han, MD, MS, ATSF, Ann Arbor, MI
Francine Comi, BS, New York, NY
5:00 p.m. - 7:00 p.m.

ASSEMBLY MEMBERSHIP MEETINGS

The fourteen Assemblies are the primary groups of the American Thoracic Society. Each Assembly holds an annual Membership Meeting at the International Conference. The meetings will be held on Sunday, May 15th from 5-7 PM and Monday, May 16th from 5-7 PM. All Assembly members and other interested individuals are invited to attend.

To learn more about an Assembly, please click the button and you will be re-directed to that Assembly’s page.

BEHAVIORAL SCIENCE AND HEALTH SERVICES RESEARCH (BSHSR)
MOSCONE CENTER
Room: 3010/3012 (West Building, Level 3l)
PULMONARY REHABILITATION (PR)
MOSCONE CENTER
Room: 3014 (West Building, Level 3l)

ENVIRONMENTAL, OCCUPATIONAL AND POPULATION HEALTH (EOPH)
MOSCONE CENTER
Room: 3006/3008 (West Building, Level 3l)
RESPIRATORY CELL & MOLECULAR BIOLOGY (RCMB)
MOSCONE CENTER
Room: 3001/3003 (West Building, Level 3l)

PULMONARY INFECTIONS & TUBERCULOSIS (PI-TB)
MOSCONE CENTER
Room: 3000/3002/3004 (West Building, Level 3l)
RESPIRATORY STRUCTURE & FUNCTION (RSF)
MOSCONE CENTER
Room: 3020/3022/3024 (West Building, Level 3l)

THORACIC ONCOLOGY (TO)
MOSCONE CENTER
Room: 3005/3007 (West Building, Level 3l)
ME15  PATIENT-CENTERED CARE FOR ILD: ESTABLISHING CORE COMPONENTS AND OVERCOMING CHALLENGES IN PRACTICE  
K.I. Aronson, MD, MSci, New York, NY  
A. Podolanczuk, MD, New York, NY  
Room 52/54/56 (South Building, Lower Mezzanine)

ME16  BIOLOGICS FOR SEVERE ASTHMA IN CHILDREN: HOW TO CHOOSE YOUR TARGETED THERAPY  
S.J. Szeferl, MD, Aurora, CO  
C. Rosas-Salazar, MD, MPH, ATSF, Nashville, TN  
Room 58/60 (South Building, Lower Mezzanine)

ME17  MULTIDISCIPLINARY APPROACHES TO MANAGING NON-ORGAN RELATED MANIFESTATION OF SARCOIDOSIS  
D.C. Patel, DO, MBA, Gainesville, FL  
V. Kahlmann, PhD, Rotterdam, Netherlands  
Room 70/72 (South Building, Lower Mezzanine)

ME18  NEW DIAGNOSTICS AND THERAPEUTIC INTERVENTIONS IN LATENT, INCIPIENT, AND SUBCLINICAL TB INFECTIONS  
P. Escalante, MD, MSc, Rochester, MN  
Room 74/76 (South Building, Lower Mezzanine)

K2  CUTTING THROUGH THE SMOKE: CONFRONTING THE CLIMATE CRISIS THROUGH PATIENT CARE AND POLICY  
8:15 AM - 9:00 AM  
Room 7-8 (South Building, Exhibition Level)  
This keynote talk will discuss how medical professionals can accelerate action to confront the climate crisis. Dr. Mary Rice pulmonologist, air pollution researcher and former chair of the ATS environmental health policy committe will discuss the health effects of fossil fuel air pollution and climate change, and opportunities to address the crisis through patient care, research and advocacy.  
Secretary John Kerry, United States Special Presidential Envoy for Climate, will participate by video to discuss government and private sector responses that are urgently needed to confront this multilateral health crisis.
**B1  CLINICAL YEAR IN REVIEW 2**

9:30 a.m. - 11:00 a.m.  MOSCONE CENTER  
Hall E (North Building, Exhibition Level)

**Target Audience**  
Pulmonary, critical care and sleep providers. The program will discuss general topics of interest to a broad group of providers, inside and outside of these subspecialties. The program is relevant to not only clinicians, but also to researchers and administrators.

**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.

Clinical Year in Review sessions will 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.

**Chairing:**  
J.L. Gomez, MS, MD, ATSF, New Haven, CT  
R.J. Shah, MD, MSCE, San Francisco, CA  
J.C. Ferreira, MD, PhD, Sao Paulo, Brazil

9:30  COPD  
B.D. Hobbs, MD, MSci, Boston, MA

9:52  Asthma  
F. Schleich, MD, PhD, Liège, Belgium

10:15  Sleep Medicine  
A. Zinchuk, MD, MHS, BS, New Haven, CT

10:37  Health Disparities in Pulmonary, Critical Care and Sleep Medicine  
I.L. Riley, MD, MPH, Durham, NC

This session and the International Conference are supported by an independent medical educational grant from Genentech, Inc.

All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).

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**B2  THE RICHARD LIGHT SYMPOSIUM ON PLEURAL DISEASES STATE OF THE ART 2022**

Assemblies on Clinical Problems; Thoracic Oncology  
9:30 a.m. - 11:00 a.m.  MOSCONE CENTER  
Room 205-206 (South Building, Level 2)

**Target Audience**  
Clinicians, nurses, allied health staff and researchers in respiratory diseases: chest physicians, interventional pulmonologists, thoracic/general surgeons, oncologists, general/emergency physicians, junior staff and scientists

**Objectives**  
At the conclusion of this session, the participant will be able to:
- gain knowledge about advances in the diagnosis and treatment of pleural effusions;
- understand latest clinical trial evidence and guideline recommendations on best management of malignant effusions;
- gain knowledge on the latest research finding on management of pneumothorax including conservative approach and ambulatory care.

This session pays tribute to Dr. Richard Light and describes many recent exciting and practice-changing advances in the pleural disease since the publication of Light’s Criteria. Recent research advances have allowed less invasive approaches in diagnosis of pleural effusions, and transformed the care of malignant effusion, empyema and pneumothorax. Results of many high-profile trials have transformed care eg on pneumothorax (PSP trial NEJM2020; RAMPP study Lancet2020); malignant effusions (IPC-PLUS [NEJM2018]; AMPLE-1 [JAMA2017] and AMPLE-2 [LancetRM2018] and pleural infection. The session will inform pulmonologists on practical application of these exciting advances in everyday practice.

**Chairing:**  
C. Broaddus, MD, San Francisco, CA  
D.J. Feller-Kopman, MD, Lebanon, NH

9:30  From Light’s Criteria to State of the Art Molecular Diagnostics of Pleural Effusions  
C. Broaddus, MD, San Francisco, CA

9:48  From Light’s Formula on Pneumothorax Size to Conservative Management: State of the Art Pneumothorax Care  
N. Maskell, DM, Bristol, United Kingdom
10:06  From Light’s “Sun Never Set on Parapneumonic Effusion” to State of the Art Care of Pleural Infection
N. Rahman, BM BCH, MSc, MRCP(UK), Oxford, United Kingdom

10:24  From Light’s Preclinical Models to State of the Art Malignant Pleural Effusion Care
Y.C.G. Lee, MBChB, PhD, Perth, Australia

10:42  State of the Art Pleural Interventions for Pulmonologists in 2022
D.J. Feller-Kopman, MD, Lebanon, NH

B3  WHAT’S NEW IN ANCA-ASSOCIATED VASCULITIS?
Assemblies on Clinical Problems; Allergy, Immunology and Inflammation; Critical Care
9:30 a.m. - 11:00 a.m.  MOSCONIC CENTER
Room 7-8 (South Building, Exhibition Level)

Target Audience
Providers of lung health and critical care, clinical and translational researchers, and those interested in multidisciplinary care

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

• critically evaluate the role of treatments for patients with ANCA-associated vasculitis, including plasma exchange;
• improve patient outcomes and quality of life with new and proven strategies to decrease systemic glucocorticoids in ANCA-associated vasculitis;
• describe new findings on the role of emerging treatment pathways in ANCA-associated vasculitis.

Multiple new pivotal studies in ANCA-associated vasculitis have been published since the last full ATS conference, with practice and paradigm changing results. These have contributed to the development of new guidelines from the American College of Rheumatology that will be published by the time of the conference. This session will focus on important clinical updates, as well as how translation from bench to bedside has impacted the landscape of vasculitis management. Additionally, we will highlight important patient-centered outcomes in vasculitis, including how these should impact current management and outcome measures.

Chairing:  L. Fussner, MD, Columbus, OH
U. Specks, MD, Rochester, MN

9:30  From Pathogenesis to Novel Therapeutic Approaches in ANCA-Associated Vasculitis
U. Specks, MD, Rochester, MN

9:50  Patient Centered Outcomes and Outcome Measures in ANCA-Associated Vasculitis
T. Kermani, MD, Santa Monica, CA

10:05  What’s New in Management of Alveolar Hemorrhage?
L. Fussner, MD, Columbus, OH

10:20  Strategies to Minimize Glucocorticoid Exposure in ANCA-Associated Vasculitis
P. Merkel, MD, MPH, Philadelphia, PA

10:35  What’s New in Management of Eosinophilic Granulomatosis with Polyangiitis (EGPA)?
B. Hellmich, MD, Ostfildern, Germany

10:50  Panel Discussion
L. Fussner, MD, Columbus, OH

B4  CURRENT STATE AND BEYOND: MANAGEMENT OF ACUTE RESPIRATORY FAILURE
Assembly on Critical Care
9:30 a.m. - 11:00 a.m.  MOSCONIC CENTER
Room 3020/3022/3024 (West Building, Level 3)

Target Audience
Healthcare professionals providing critical care (including intensivists, advanced practice providers, hospitalists, trainees, and nurses), and researchers interested in acute respiratory failure

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

• integrate the latest evidence for mechanical ventilation management for patients with ARDS;
• appropriately use different modalities for non-invasive respiratory support prior to intubation for patients with acute respiratory failure;
• improve awareness of the unique needs of survivors of acute respiratory failure.

In the wake of the COVID-19 pandemic, the critical care community has been reinvigorated to evaluate our current practices and to consider the future of respiratory failure management. Other than low tidal volume ventilation, the optimal approach for supporting acute respiratory failure patients remains uncertain. This symposium will explore high priority topics and emerging concepts for the treatment of acute respiratory failure.
### BASIC • TRANSLATIONAL

#### SCIENTIFIC SYMPOSIUM

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Chair(s)</th>
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<tbody>
<tr>
<td>9:30</td>
<td>Defining ARDS: Moving on From Berlin</td>
<td>B.T. Thompson, MD, Boston, MA</td>
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<tr>
<td>9:39</td>
<td>Noninvasive Support for the Hypoxemic Patient</td>
<td>L. Munshi, MD, Toronto, Canada</td>
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<tr>
<td>9:48</td>
<td>New Targets for Lung Protective Ventilation: Driving Pressure and Mechanical Power</td>
<td>L.D.J. Bos, PhD, MD, Amsterdam, Netherlands</td>
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<td>9:57</td>
<td>PEEP for Lung Protective Ventilation: Beyond Higher vs Lower</td>
<td>S. Sahetya, MD, MHS, Baltimore, MD</td>
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<tr>
<td>10:06</td>
<td>Spontaneous Breathing: Should Patients Breathe on Their Own?</td>
<td>J.R. Beitler, MD, MPH, New York, NY</td>
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<td>10:15</td>
<td>The Promise of ECLS: Should Patients Breathe?</td>
<td>E. Fan, MD, PhD, Toronto, Canada</td>
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<td>10:24</td>
<td>Beyond Ventilation: Oxygen Therapy in Acute Respiratory Failure</td>
<td>M.W. Semler, MD, MSc, Nashville, TN</td>
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<td>10:33</td>
<td>Survivorship: Moving Past Mortality</td>
<td>C.T. Hough, MD, MSc, Portland, OR</td>
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<tr>
<td>10:42</td>
<td>Panel Discussion</td>
<td>S. Sahetya, MD, MHS, Baltimore, MD</td>
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### B5

**ATS MTHBUSTERS: AGING BIOLOGY AND CELLULAR SENESCENCE IN CHRONIC LUNG DISEASE - CHICKEN OR THE EGG**

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

**Room 2010/2012 (West Building, Level 2)**

<table>
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<tr>
<th>Time</th>
<th>Session Title</th>
<th>Chair(s)</th>
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<tbody>
<tr>
<td>9:30</td>
<td>Introduction to Cellular Senescence in Chronic Lung Disease</td>
<td>P. Lee, MD, Durham, NC</td>
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<tr>
<td>9:40</td>
<td>COPD Is Caused by Cellular Senescence</td>
<td>Speaker To Be Announced</td>
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<tr>
<td>9:52</td>
<td>IPF Is Caused by Cellular Senescence</td>
<td>V.J. Thannickal, MD, New Orleans, LA</td>
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<tr>
<td>10:04</td>
<td>Oxidative Stress and Mitochondrial Dysfunction</td>
<td>Contributes to Cellular Senescence in IPF and COPD</td>
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<tr>
<td>10:16</td>
<td>DNA Damage and Telomere Shortening</td>
<td>Contributes to Cellular Senescence in IPF and COPD</td>
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<tr>
<td>10:28</td>
<td>Current Therapeutic Approaches to Targeting Cellular Senescence in IPF and COPD</td>
<td>M. Koenigshoff, MD, PhD, ATSF, Pittsburgh, PA</td>
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<tr>
<td>10:40</td>
<td>Mythbuster 1: COPD and Cellular Senescence</td>
<td>M. Sauler, MD, New Haven, CT</td>
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<tr>
<td>10:50</td>
<td>Mythbuster 2: IPF and Cellular Senescence</td>
<td>N. Kaminski, MD, ATSF, New Haven, CT</td>
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### B6

**EMERGING INSIGHTS INTO HETEROGENEITY OF LUNG MACROPHAGES, NEUTROPHILS, AND DENDRITIC CELLS**

**Assemblies on Allergy, Immunology and Inflammation; Pulmonary Infections and Tuberculosis; Respiratory Cell and Molecular Biology**

**Room 2001/2003 (West Building, Level 2)**

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<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
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<tr>
<td>9:30</td>
<td>Determine whether cellular senescence and aging biology are indeed important in the pathogenesis of COPD and IPF.</td>
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In this interactive and provocative session, audience members will learn about new insights into the biology of lung aging as it relates to COPD and IPF. There will be a specific focus on cellular senescence, one of the hallmark mechanisms of aging biology and the basic core theme for ATS 2022. The session will be conducted using the “mythbusters” format; following talks by leading researchers, the mythbusters will discuss the validity of the hypothesis and the session will end with a vote by the audience.
Target Audience
Basic, translational, and clinical researchers interested in learning the latest knowledge about how subsets of developmentally, anatomically, and functionally distinct macrophages and neutrophils subserve specialized roles in lung disease.

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

- understand that developmentally, anatomically, and functionally distinct macrophage subpopulations recently identified in the lung are subsets that play unique and unexpected roles in lung disease;
- understand updated FACS-based and intersectional genetics-based strategies for studying these phagocyte populations selectively;
- appreciate the emerging sophistication of neutrophil biology that has been revealed in non-pulmonary fields, including evolving concepts of NETosis and neutrophil subsets.

Our understanding of macrophages, neutrophils, and other phagocytes and their roles in lung health and disease has been fundamentally revised in recent years by scRNA-Seq, intravital imaging, and other technologies. Macrophage subsets inhabiting distinct microanatomic niches of the lung exhibit distinct developmental histories and functions and may be selectively targeted using intersectional genetics and other approaches. Likewise, we now understand that neutrophils patrol the lung endothelium during health and use a distinct mode of cell death (‘NETosis’) to kill microbes and amplify inflammatory signals. The speakers, all world-class experts in phagocyte biology, will provide perspective on this quickly evolving field.

Chairing: M.B. Fessler, MD, Research Triangle Park, NC
W.J. Janssen, MD, Denver, CO

9:30 Macrophage Biology: From Development to Functions
F. Ginhoux, PhD, Singapore, Singapore

9:50 Multiple Types and Functions of Macrophages in the Lung
P. Kubes, PhD, Calgary, Canada

10:10 Innate Immunity and Lung Cancer
C.V. Jakubzick, PhD, Lebanon, NH

10:30 To NET or Not to NET: Neutrophils in Autoimmunity, Host Defense, and Vascular Disease
M. Kaplan, MD, Bethesda, MD

10:50 Panel Discussion and Recommendations
M.B. Fessler, MD, Research Triangle Park, NC

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Target Audience
Pediatric and adult pulmonologist, fellows, residents and medical students, basic researchers in lung injury

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

- understand the many factors involved in early lung injury post hematopoietic stem cell transplantation;
- define future direction in research and treatment of early lung disease post hematopoietic stem cell transplantation;
- understand the knowledge gaps in early lung injury post hematopoietic stem cell transplantation.

Pediatric hematopoietic stem cell transplantation (HSCT) is performed for malignant and non-malignant conditions. Pulmonary complications constitute the leading cause of death during the initial year after transplantation. Allogeneic HSCTs are associated with more severe pulmonary complications such as pneumonitis (infectious and non-infectious) and pulmonary hemorrhage during the first year after transplant. Predictors of these life-threatening conditions are unknown. A recent NIH workshop explored the etiology of lung injury occurring within a year after HCT in children, to identify critical gaps in existing knowledge, and to explore avenues for research to address these knowledge gaps to advance care and optimize outcomes.

Chairing: S.B. Goldfarb, MD, ATSF, Minneapolis, MN
A. Natarajan, MD, PhD, Bethesda, MD

9:30 Update Pulmonary Complications of Pediatric Hematopoietic Cell Transplantation (HCT) Current Landscape and Future Research Directions
S.B. Goldfarb, MD, ATSF, Minneapolis, MN

9:34 Overview of Indications for Stem Cell Transplants and Early and Late Pulmonary Complications
W.A. Gower, MD, MS, Chapel Hill, NC

9:44 Early Lung Injury Post HSCT
S. Davies, MBBS, PhD, MRCP, Cincinatti, OH

10:03 Advances in Understanding Pulmonary Infections after Hematopoietic Cell Transplantation
M. Zinter, MD, San Francisco, CA
10:22 Pathways to Fibrosis: Viral Infections and Animal Models  
B.B. Moore, PhD, ATSF, Ann Arbor, MI  

10:41 Imaging and Early Detection of Lung Injury Post HSCT  
J.C. Woods, PhD, Cincinnati, OH  

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10:22 ADDRESSING CHALLENGES TO TOBACCO TREATMENT IN THE SETTING OF SCREENING AND TREATMENT FOR LUNG CANCER  
Assemblies on Thoracic Oncology; Tobacco Action Committee  
9:30 a.m. - 11:00 a.m.  
Room 3-4 (South Building, Exhibition Level)  

Target Audience  
Pulmonologists and allied health professionals; those with clinical and administrative responsibilities for smoking cessation programming and/or lung cancer screening; those needing assistance providing evidence-based smoking cessation.  

Objectives  
At the conclusion of this session, the participant will be able to:  
- apply evidence-based best practices for tobacco treatment for patients who smoke, including medical therapies and counseling;  
- integrate smoking cessation into lung cancer screening and treatment using evidence from large-scale implementation studies;  
- define new strategies to overcome healthcare disparities in tobacco cessation access and resources.  

This session will address evidence and implementation strategies that inform best-practices for the provision of smoking cessation in lung cancer screening and lung cancer settings. This session is broadly applicable to cessation in other settings as well. There will be a review of the evidence for cessation therapeutics (including pharmacologic treatment and counseling methods) and implementation strategies gleaned from large scale multicenter trials and cohorts to provide facilitators and overcome barriers to cessation. Finally, we will examine disparities in smoking cessation and strategies to overcome disparities in resource access and utilization.  

Chairing:  
M. Triplette, MD, MPH, Seattle, WA  
L. Carter-Harris, PhD, APRN, ANP-BC, RN, New York, NY  

9:30 Evidence for Effective Cessation Counseling and Treatment in the Setting of Cancer Screening and Diagnosis  
F.T. Leone, MD, MS, ATSF, Philadelphia, PA
suggest an interaction between pollutants and respiratory viruses including SARS-CoV-2 in lung cells. This session will present recent developments in our understanding of role of air pollution and climatological factors in SARS-CoV-2. Leading scientists will discuss the scale of the problem, epidemiological evidence, vulnerability, mechanisms, and a policy development for intervention and mitigation.

Chairing: J.R. Harkema, DVM, PhD, ATSF, East Lansing, MI
E. Brigham, MD, MHS, Vancouver, Canada
H. Bayram, MD, PhD, ATSF, Istanbul, Turkey

9:30 Air Pollution and Respiratory Viral Infections: Is There a Connection?
M.B. Rice, MD, MPH, Boston, MA

9:45 Air Pollutants and Respiratory Viruses and SARS-CoV-2: How Do They Interact?
I. Jaspers, PhD, Chapel Hill, NC

10:00 Impact of Air Pollution on SARS-CoV-2 Infection and Mortality
H. Bayram, MD, PhD, ATSF, Istanbul, Turkey

10:15 Climate Change/Climatological Factors: Any Role in SARS-CoV-2 Spread Globally?
M. Akpinar-Elci, MD, MPH, ATSF, Reno, NV

10:30 Data From Satellites: Can It Help With the Assessment of Air Quality and COVID-19 Epidemiology?
A. Naeger, PhD, Huntsville, AL

10:45 Lessons for Developing Environmental Health Policies in a Post-Pandemic, Climate-Changed World
J.R. Harkema, DVM, PhD, ATSF, East Lansing, MI

Tremendous progress has been made in the development of new imaging approaches to the pulmonary vasculature and the right ventricle for both pre-clinical and clinical practice. High-resolution and molecular imaging studies are powerful tools to identify the spatial distribution of cells and molecular markers making them an important complement to all types of OMICS. This session will explore how new imaging technologies can enhance the understanding of the pathophysiology of pulmonary hypertension. Speakers will present new ways to image pulmonary vascular remodeling and right ventricular adaptation and failure in humans and animal models.

Chairing: M. Rabinovitch, MD, Stanford, CA
R.T. Schermuly, PhD, Giessen, Germany
W.M. Oldham, MD, PhD, Boston, MA

9:30 Introduction
R.T. Schermuly, PhD, Giessen, Germany

9:35 Advanced Imaging Combined with Molecular Biology to Explore Pulmonary Vascular Remodeling in Animal Models
M. Kumar, PhD, Stanford, CA

9:47 Imaging Biomarkers of Adaptive and Maladaptive RV Remodeling in Experimental Pulmonary Hypertension
B. Kojonazarov, MD, PhD, Giessen, Germany

9:59 Improved Understanding of Pulmonary Vascular Disease With Synchrotron-Based Phase Contrast Micro-CT
K. Tran-Lundmark, MD, PhD, Lund, Sweden

10:11 Variations of Aberrant Angiogenesis in Pulmonary Disease
D.D. Jonigk, MD, Hannover, Germany

10:23 Novel PET-CT Modalities for Imaging Inflammation and Angiogenesis in PAH
P.B. Yu, MD, PhD, Boston, MA

10:35 Imaging Clinical Adaptive and Maladaptive RV Remodeling
R.R. Vanderpool, PhD, Columbus, OH

10:47 General Discussion

This session and the International Conference are supported by an independent medical educational grant from Actelion Pharmaceuticals US, Inc., a Janssen Pharmaceutical Company of Johnson & Johnson.

All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).
TRANSLATIONAL SCIENTIFIC SYMPOSIUM
CME Credits Available: 1.5

B11 BACTERIOPHAGE THERAPY OF COMPLEX PULMONARY INFECTIONS
Assemblies on Pulmonary Infections and Tuberculosis; Pediatrics
9:30 a.m. - 11:00 a.m. MOSCONE CENTER Room 201-202 (South Building, Level 2)

Target Audience
Clinicians and Physician-Scientists interested in the recent developments using bacteriophage as therapy in complex pulmonary infections

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

• describe the lifecycle of bacteriophage and how it might be used to help control infection;
• understand and describe the major challenges for successful phage therapy including patient and phage selection;
• describe the available assessments that can be used to measure the success of phage therapy.

Bacteriophage therapy is now used on a compassionate need basis for patients with highly resistant microbial communities that no longer responding to standard therapy. Furthermore, clinical trials are being planned in North America and Europe that are designed to answer the challenges of patient selection, phage cocktail design, dosing schedule, and measures of efficacy. This symposium is designed to provide the basic information to healthcare providers of how phage therapy works. Discussions will cover considerations for clinical trial designs surrounding challenges in determining efficacy and safety; early patient experience; and how phage therapy might fit into future therapeutic strategies.

Chairing: D.J. Conrad, MD, La Jolla, CA
L. Caverly, BA, MD, Ann Arbor, MI

9:30 Phage Therapy: Clinical Perspectives and Basic Phage Biology
L. Caverly, BA, MD, Ann Arbor, MI

9:40 Challenges of Bacteriophage Therapy from the Perspective of a Phage Biologist
A. Segall, PhD, San Diego, CA

10:00 Leveraging Evolutionary Trade-Offs and Phage Selection Pressure to Reduce Bacterial Pathogenicity
P. Turner, PhD, New Haven, CT

10:20 The Challenges of Bacteriophage Therapy of Mycobacterial Disease
G. Hatfull, PhD, Pittsburgh, PA

10:40 Measuring Success of Bacteriophage Therapy
D. Pride, MD, PhD, San Diego, CA

CLINICAL TRIALS SESSION
SCIENTIFIC SYMPOSIUM
CME Credits Available: 1.5

B12 BREAKING NEWS: CLINICAL TRIAL RESULTS IN PULMONARY MEDICINE
9:30 AM - 11:00 AM MOSCONE CENTER Room 209-211 (South Building, Level 2)

Target Audience
Providers of lung health; those who are providers of critical care; those who are in training to be providers of lung health, sleep and critical care; providers and administrators of public health practices and policies; those with clinical, research, or administrative responsibilities

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

• learn new findings from recent clinical trials that can be integrated in treatment options for patients with pulmonary disease;
• learn new findings about emerging biologic therapies for moderate and severe asthma in adult and pediatric subjects;
• learn new findings about opportunities for outpatient use of monoclonal antibody therapy to treat SARS Co-V2 infection and reduce risk for critical illness.

Chairing: J. Bon, MD, MS, ATSF, Pittsburgh, PA
N.A.. Shah, MD, MPH, MSci, New York, NY
E. Wilcox, MD, MSc, PhD, FRCP, Toronto, Canada

9:30 Welcome and Introduction
J. Bon, MD, MS, ATSF, Pittsburgh, PA

9:33 SPRINTER: A Randomized, Double-Blind, Placebo-Controlled, Phase 3 Trial to Determine the Efficacy and Safety of Inhaled Interferon Beta-1a (SNG001) for the Treatment of Patients Hospitalized Due to COVID-19
T. Wilkinson, Cantab, MBBS, PhD, FRCP Southampton, United Kingdom

9:46 Discussion/Q&A
N.A.. Shah, MD, MPH, MSci, New York, NY

9:54 Efficacy and Safety of Colistimethate Sodium Delivered Via the I-Neb in Patients with Bronchiectasis and Pseudomonas Aeruginosa
C. Haworth, MD, Cambridge, United Kingdom
10:07  Discussion/Q&A  
E. Wilcox, MD, MSc, PhD, FRCP, Toronto, Canada

10:15  Phosphodiesterase Inhibition as a Novel Strategy to Stop Fibrosis in the Lung  
L. Richeldi, PhD, Rome, Italy

10:28  Discussion/Q&A  
J. Bon, MD, MS, ATSF, Pittsburgh, PA

10:36  Efficacy and Safety of Albuterol-Budesonide versus Albuterol Administered As Needed in Patients with Moderate-to-Severe Asthma: Results of the Mandala Study  
A. Papi, MD, Ferrara, Italy

10:49  Discussion/Q&A  
N.A.. Shah, MD, MPH, MSci, New York, NY

10:57  Closing Remarks  
E. Wilcox, MD, MSc, PhD, FRCP, Toronto, Canada

B13  INSIGHTS INTO MECHANISMS AND FUTURE DIRECTIONS OF HIV ASSOCIATED LUNG DISEASE

Behavioral Science, Clinical Science, Translational
9:30 a.m. - 11:00 a.m.  
MOSCON CENTER
Room 215-216 (South Building, Level 2)

Target Audience
Clinicians and clinical and laboratory investigators; health care professionals involved in patient care; physicians, trainees, physician assistants, nurse practitioners and nurses; those needing instruction in HIV and HIV-related lung disease

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

• learn about changes in the care of HIV over 40 years and the global burden of HIV;
• understand the spectrum of lung diseases in people living with HIV, and how these differ in adults and youth;
• learn about mechanisms contributing to chronic lung disease in people living with HIV.

This session provides an overview of the evolution of HIV care and pulmonary complications of HIV globally, 40 years after the first report of cases now recognized as AIDS. From the beginning of the AIDS epidemic, the lungs have been a major target of end-organ injury, and a chief cause of morbidity and mortality. This session will highlight changes in HIV care and outcomes over the epidemic and the global burden of HIV. Participants will learn about the spectrum of pulmonary complications impacting aging adults as well as youth with HIV, how these have evolved over time with effective antiretroviral therapy (ART), and the high burden of cigarette smoking and challenges in smoking cessation amongst people living with HIV (PWH). Participants will also learn about mechanisms contributing to chronic lung disease in HIV, potential therapeutic interventions, and future directions for research.

Chairing:  
L.M. Schnapp, MD, ATSF, Madison, WI  
K.A. Crothers, MD, Seattle, WA  
K. Kunisaki, MD, MS, Minneapolis, MN

9:30  HIV Over 40 Years: Lessons Learned  
A.S. Fauci, MD, Bethesda, MD
Recorded Presentation

9:45  Global Burden of HIV  
L. Huang, MD, ATSF, FCCP, San Francisco, CA

10:00  Evolution of Pulmonary Manifestations with HIV  
E.F. Attia, MD, MPH, Seattle, WA

10:20  Threats to Survival: The Epidemic of Smoking in HIV  
K.P. Reddy, MD, MS, Boston, MA

10:35  Insights into Mechanisms and Future Directions into HIV Associated Lung Disease  
J. Leung, MD, Vancouver, Canada

B14  OLD DOGS NEW TRICKS: LATE-BREAKING ABSTRACTS IN OBSTRUCTIVE LUNG DISEASE

9:30 a.m. - 11:00 a.m.  
MOSCON CENTER
Room 3001/3003 (West Building, Level 3)

Target Audience
Clinicians and clinical and laboratory investigators; health care professionals involved in patient care; physicians, trainees, physician assistants, nurse practitioners and nurses; those needing instruction in HIV and HIV-related lung disease

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

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Chairing:  
A.J. Halayko, PhD, ATSF, MSc, BSc(Hons), Winnipeg, Canada  
J.A. Krishnan, MD, PhD, ATSF, Chicago, IL  
F.J. Rosser, MD, MPH, Pittsburgh, PA

9:30  A Human Asthma Exacerbation Model Identifies Pathogenic Cellular and Molecular Programs in the Lower Airway Mucosa Specific to Allergic Asthma  


BEHAVIORAL • TRANSLATIONAL

MINI SYMPOSIUM

B16 TOPICS IN CRITICAL CARE: SEPSIS, PALLIATIVE CARE, AND DECISION-MAKING

9:30 a.m. - 11:00 a.m. MOSCON CENTER

Room 3010/3012 (West Building, Level 3)

Chairing: E.K. Kross, MD, Seattle, WA
I.D. Peltan, MD, MSc, Murray, UT
A.E. Turnbull, DVM, MPH, PhD, Baltimore, MD

Oral Presentations:

9:30 Medical Decision Making for Hospitalized Incarcerated Patients Lacking Decisional Capacity/J.D. Duke, S. Batbold, K.A. Riggan, E.S. DeMartino, Rochester, MN, p.A2366

9:40 The Duality of “Goals of Care” Language Among Frontline Clinicians in the ICU: A Qualitative Study/M. Reif, K.E. Secunda, E.M. Viglianti, R. Mylvaganam, M. Peliska, K. Krolikowski, J.M. Kruser, Madison, WI, p.A2367


BEHAVIORAL • CLINICAL

MINI SYMPOSIUM

B17 BETTER BEDSIDE CARE: “A HOW TO”

9:30 a.m. - 11:00 a.m. MOSCON CENTER

Room 3005/3007 (West Building, Level 3)

Chairing: A. Gallo De Moraes, MD, Rochester, MN
T.J. Iwashyna, MD, PhD, Ann Arbor, MI

Featured Speaker:

9:30 Everyday ICU Care and Its Impact on Health Disparities/ T.S. Valley, Ann Arbor, MI

Oral Presentations:


10:00 Persistent Overweight or Obesity, Lung Function, and Asthma Exacerbations in Puerto Rican Youth/M.S. Wong, Y.-Y. Han, F.J. Rosser, E. Acosta-Pérez, G. Canino, E. Forno, J.C. Celedon, Pittsburgh, PA, p.A2392


Featured Speaker:
10:50 Reimagining a World Without Health Inequity/S. Lovinsky-Desir, New York, NY

Oral Presentations:

101 Proof of Mechanism for Anti-Interleukin-33 Antibody Tozorakimab in a Phase 1 Study in Healthy Adults and Patients with Chronic Obstructive Pulmonary Disease/I. Scott, H. Killick, P. Newcombe, N. White, A. Williams, F. Reid, H. Pandya, S. Cohen, C. Kell, M. Gavala, Cambridge, United Kingdom, p.A2397

102 Safety, Pharmacokinetics and Immunogenicity of the Anti-Interleukin-33 Antibody, Tozorakimab: Results of a Phase 1 Study in Healthy Adults and Patients with Chronic Obstructive Pulmonary Disease/F. Reid, D. Singh, M. Albayaty, R. Moate, E. Jimenez, M.W. Sadiq, D. Howe, I.C. Scott, H. Killick, S. Krishnan, A. Godwood, A. Shukla, L. Hewitt, A. Lei, C. Kell, H. Pandya, Cambridge, United Kingdom, p.A2398

Clinical and Demographic Features Associated with All-Cause Mortality within One Year of Hospitalization for Acute Exacerbation of Chronic Obstructive Pulmonary Disease/G.B. Carey, J.L. Gomez, New Haven, CT, p.A2399


Seroprevalence of Bordetella Pertussis in Patients with Chronic Obstructive Pulmonary Disease (COPD) in the UK/H. Richardson, D. Alferes de Lima, D. Cassidy, C. Hennayake, S. Haynes, H.R. Keir, A. Dicker, J.D. Chalmers, Dundee, United Kingdom, p.A2404

Featured Speaker:
10:50 Reimagining a World Without Health Inequity/S. Lovinsky-Desir, New York, NY

### BASIC • CLINICAL • TRANSLATIONAL POSTER DISCUSSION SESSION

**B21 BASIC, CLINICAL, AND TRANSLATIONAL COPD STUDIES: THE ONGOING HUNT FOR UNDERLYING MECHANISMS AND THERAPEUTIC TARGETS**

**9:30 a.m. - 11:00 a.m. MOSCONE CENTER**

**Room 9-10 (South Building, Exhibition Level)**

**Poster Viewing**
9:30-10:00

**Discussion**
10:00-11:00

**Chairing:** C.P. Hersh, MD, MPH, ATSF, Boston, MA V. Tejwani, MD, Cleveland, OH


115 Characterization of a Novel Murine COPD Model to Study Mechanistic Disease Drivers and to Identify New Drug Targets/I. Kim, T. Kenny, M. Kehl, B. Mindt, A. Lidwells, V. Gopalkrishnan, C. Morehouse, A. Chiang, J. Silver, L. Cazares, A. Digiandomenico, Gaithersburg, MD, p.A2412

116 Hydrogen Sulfide Prevents Cigarette Smoke-Induced Development of Hallmark Features of COPD in Mice and Interleukin-8 Production in Human Primary Bronchial Epithelial Cells/V. Kumar, J. Horvat, M. Whiteman, P. Hansbro, Newcastle, Australia, p.A2413


118 C3d Triggers Neutrophil Degranulation And Decreases Endothelial Cell Migration, with Implications for Patients with Alpha-1 Antitrypsin Deficiency/D. Gogoi, L.T. Fee, M.E. O’Brien, M. Murphy, A. Hopkins, T.P. Carroll, N.G. McELvaney, E.P. Reeves, Dublin, Ireland, p.A2415

119 Elastase Complex Formation Immunosorbent Assay (ECFISA) for the Sensitive Measurement of Alpha-1 Antitrypsin Elastase Inhibitory Activity/A. Weber, A. Engelmaniaer, Vienna, Austria, p.A2416

120 MiR-17-5p Is Involved in the Resolution of Inflammation in the Lungs and Is Temporally Regulated After an Inflammatory Insult/Y.P.A. Myo, S.V. Camus, B.B. Szomju, M.A.T. Freeberg, T.H. Thatcher, P.J. Sime, Richmond, VA, p.A2417

121 Triglyceride-Glucose Index (TyG) and Incident Obstructive Lung Disease: An Analysis of the All of Us Research Program/T.D. Wu, D.T. Villareal, T.J. Monaco, D. Helmer, N.A. Hanania, Houston, TX, p.A2418

Polarization Sensitive Endobronchial Optical Coherence Tomography for In Vivo Microscopic Assessment of Pulmonary Fibrosis/S. Nandy, S.R. Berigei, B.W. Roop, A. Sharma, A. Muniappan, M.J. Suter, M. Villiger, L.P. Hariri, Boston, MA, p.A2424


Search for Host Factors That Predict the Therapeutic Effect of Nintedanib for Idiopathic Pulmonary Fibrosis (IPF), Based on Peripheral Blood Cell Counts and Fractionations/N. Arai, Naka-gun, Japan, p.A2431

Impact of Antifibrotic Treatment on Post-Operative Complications in Patients with Interstitial Lung Diseases Underwent Lung Transplantation: A Systematic Review and Meta-Analysis/P.T. Taweesedt, P. Lertjitbanjong, T. Petnak, Corpus Christi, TX, p.A2432


Sildenafil Added to Pirfenidone in Patients with Advanced Idiopathic Pulmonary Fibrosis (IPF) and Risk of Pulmonary Hypertension (PH): Results of a Responder Analysis/S. Harari, S.D. Nathan, J. Behr, W.A. Wuys, K.-U. Kirchgaessler, M. Bengus, F. Gilberg, A.U. Wells, Milan, Italy, p.A2434

A Single-Center, Randomized, Placebo-Controlled Study to Evaluate the Safety, Tolerability and Preliminary Efficacy of MN-001 (Tipelukast) in Idiopathic Pulmonary Fibrosis /R. Bascom, K. Hitz, A.E.F. Dimmock, M. Makhay, K. Matsuda, Hershey, PA, p.A2435


PLN-74809, A Dual-Selective Inhibitor of αvß6 and αvß1, Is Well Tolerated in Over 280 Healthy Participants/G.P. Cosgrove, E. Park, J. Bellini, E. Adegbite, F. Cilli, M. Jurek, E. Lefebvre, South San Francisco, CA, p.A2437


Deupirfenidone (LYT-100) Reduces Incidence of Gastrointestinal (GI)-Related Adverse Events (AEs) Compared to Pirfenidone at Comparable Exposure Levels: A Phase 1, Double-Blind, Randomized Crossover Study in Older Healthy Subjects/M. Chen, E. Elenko, C.C. Korth, M.D. Harnett, P. Ford, R. Criscola, H. Paden, J. Krop, Boston, MA, p.A5572

Differences in Patient Outcomes Across the PFF Care Center Network/J.S. Lee, R. Boente, E. White, C. Baxter, J.E. Shore, H.R. Collard, Aurora, CO, p.A5573
B23 THE ICU GRAB BAG: A SESSION OF MUST HAVES

9:30 a.m. - 11:00 a.m. MOSCONIC CENTER
Room 3009/3011 (West Building, Level 3)

Poster Viewing  
9:30-10:00

Discussion  
10:00-11:00

Chairing: M.S. Parikh, MD, Boston, MA
D.K. Costa, PhD, RN, Ann Arbor, MI
H.B. Gershengorn, MD, FCCM, ATSF, Miami, FL


904 Differences Between Research Coordinator and Principal Investigator Perspectives on Surrogate Understanding of Critical Care Research/K. Torres, K. Burns, D. Matlock, M.K. Wynia, C. Tietbohl, C. Glaros, S. Katsandres, M. Moss, Aurora, CO, p.A2442


906 Using a Design Thinking Framework to Create User-Centered ICU-Ward Handoffs from Intensive Care Resident Teams to Academic Hospitalist Teams/D.J. Klarr, L. Santhosh, P. Lyons, J.C. Rojas, Chicago, IL, p.A2444

907 Relationship Among Biomarkers of Inflammation, Astrocyte Activation and Neuronal Injury and Delirium Duration and Mortality/P. Conrad, C. Welch, A. Leiser, S.H. Khan, A. Perkins, S. Gao, B.A. Khan, Indianapolis, IN, p.A2445

908 A Novel Non-Invasive Technology for Hemoglobin Measurement Irrespective of the Skin Color/S. Gokhale, V. Daggubati, Arlington, TX, p.A2446


911 Natural Language Processing to Computationally Generate Feedback on the Quality of Trainees' Oral Case Presentations in the Intensive Care Unit/A.J. King, D.L. Mowery, G.F. Cooper, J.M. Kahn, Pittsburgh, PA, p.A2449


914 What Lurks on Your Ultrasound Probes: Microbial Species Cultured from Point of Care Ultrasound Probes in the Intensive Care Unit/Z. Pinchover, Z. Cawasji, A. Alibhai, A. Wanger, L. Ostrosky, B. Patel, E. Penner, V. Chavez, M. Warner, R. Abrencillo, Houston, TX, p.A2452


918 Targeted Intervention Model to Optimize Perioperative Blood Management in Cardiothoracic Surgery Patients/S. Fatima, H. Javed, F. Masud, I. Ratnani, Houston, TX, p.A2456


923 The Effect of Passive Straight Leg Raise Performed During Cardiopulmonary Resuscitation (CPR) on Cerebral Perfusion as Measured by Near Infrared Spectroscopy (NIRS)/S. Bihari, S. Lorensini, D. Mcneill, N. Spencer, S. Prakash, Bedford Park, Australia, p.A2461

924 Critically Ill Unrepresented Patients Phenotypic Characteristics: A Cohort Study/B.C. Walsh, A. Nolan, New York, NY, p.A2462

925 Massive External Validation of a Machine Learning Algorithm to Predict Pulmonary Embolism in Hospitalized Patients/J. Calvert, J. Shen, S. Casie Chetty, S. Shokouhi, Q. Mao, Houston, TX, p.A2463


1007 Defer Thy Diuresis/S. Randhawa, P. Shah, F. Kan, Honolulu, HI, p.A2470

1008 Unusual Presentation of Neuroendocrine Tumor of Stomach Masquerading as COVID-19 Associated Severe Gastrointestinal Bleeding/J. Pacheco, J.P. Sugunaraj, Danville, PA, p.A2471

1009 A Case of Eosinophilic Pneumonia After Recovering from COVID19/J. Pangburn, P.V. Forys, Indianapolis, IN, p.A2472


1011 Concomitant Mucormycosis and Candida Albicans Pleural Effusion: A Rare Finding in Severe COVID19 Pneumonia/W.N. Johnson, J.K. Christopher, M. Kioka, Las Vegas, NV, p.A2474


1014 Under Pressure: Spontaneous Pneumomediastinum with Resultant Cardiac Tamponade Influencing the Decision to Initiate Extra-Corporeal Membrane Oxygenation/E. Wittrock, S. Raia, Denver, CO, p.A2477

CYB5R Deficiency Causing Methemoglobinemia: Looking Beyond COVID-19 in the Hypoxic Navajo Patient/A.A. Tandon, N. Sher, N. Habib, T. Ardiles, Phoenix, AZ, p.A2479


Survival After Receiving Urgent Chemotherapy for COVID-19 Acute Respiratory Distress Syndrome Induced Hemophagocytic Lymphohistiocytosis/D. Aiken, A. Ross, M. Noland, Portland, OR, p.A2482

A Rare Non-Pulmonary Autoimmune Intrathoracic Complication of SARS-CoV2 Infection/M. Hernandez, X. Morataya, N. Winicki, S. Alvarez, N. Thareja, M. Onaitis, J. Boys, P.A. Thistlethwaite, La Jolla, CA, p.A2483


Post-Intensive Care Syndrome After Severe COVID-19 Infection in an Active Duty Soldier/C. Conlon, A.B. Holley, Bethesda, MD, p.A2485


307 Anthracosis Particulate Matter Causes Metabolic Changes in Macrophage and Airway Cells Culture/D.P. Frias, G. Vieira, J. Smelan, J.P. Lacerda, M. Macchione, Sao Paulo, Brazil, p.A2494

308 Occupational Asbestos and Its Relation to Lung Cancer Recurrence and Progression in the Boston Lung Cancer Survival Cohort (BLCSC)/S. Lo, D.C. Christiani, Boston, MA, p.A2495


610 A Randomized Controlled Trial Evaluating the Comparative Effectiveness of Virtual-Teach-To-Goal vs. Brief Intervention in Children with Asthma/D. Robolino, N. Kappel, V.G. Press, A. Volerman, Chicago, IL, p.A2512


Clinical Characteristics and Polymorphism of the IL-33 Gene Exome in Children with Varying Degrees of Asthma Control/E. Furman, Y. Alieva, V. Sokolovsky, V. Sheludko, Perm, Russian Federation, p.A5578


Recent Thymic Emigrants (RTEs) Reduce Influenza Induced Pulmonary Pneumonia and Acute Respiratory Distress Syndrome/D.A. Pociask, New Orleans, LA, p.A2518

Regulation of Mesenchymal Cell Fate by Monocyte-Derived Extracellular Vesicles/A. Sarkar, S. Das, I. Devengenie, H. Bone, J. Prasad, J.C. Horowitz, Columbus, OH, p.A2519

Designed Peptide Blocker of Voltage-Gated Proton Channel (Hv1) Protects Against Lipopolysaccharide (LPS)-Induced Acute Lung Injury/R. Zhao, B. Lopez, A. Schwingshackl, S. Goldstein, Irvine, CA, p.A2520

A Novel Ogremorphin Group of First-in-Class GPR68 Inhibitors Upregulate Endothelial Barrier Function and Rescue Bacterial Pathogens or Acidosis-Induced Inflammation in Lung Endothelium/P. Karki, Y. Ke, C.H. Williams, C.C. Hong, K.G. Birukov, A. Birukova, Baltimore, MD, p.A2521

Reprogramming of Bone Marrow Mesenchymal Stem Cells During Viral Lung Infection Is Mediated by Type I Interferon Signaling and Interleukin-11 Axis/M.M. Barroso, A.I. Vazquez, L. Jankauskaite, S. Günther, T. Braun, S. Herold, Giessen, Germany, p.A2522

Circulating Monocytes Contribute to the Lung Interstitial Macrophage Population During Homeostasis and Inflammation/E. King, T. Trinh, J. McClendon, A. McCubbrey, P.M. Henson, W.J. Janssen, Aurora, CO, p.A2523


816 Targeting IL-6 to Prevent Vascular and Bronchial Remodeling in an Experimental Model of BPD/C.M. Bartz, D.V.B. Hirani, J. Selle, C. Vohlen, R. Wilke, C. Nies, V. Wagdle, J. Doetsch, M.A. Alejandre Alcazar, Cologne, Germany, p.A2529


818 Cytochrome P450 (CYP)1B1 Modulates Hyperoxia Responses in Lung by Modulating Protein and Lipid Metabolism/C. Coarfa, S.L. Grimm, R.E. Stading, M.J. Robertson, T. Gandhi, C. Fu, W. Jiang, B. Moorthy, Houston, TX, p.A2531

819 UHRF1 Is Necessary to Maintain Induced Treg Transcriptional Programs/A.M. Joudi, K. Helmin, L. Morales-Nebreda, M.A. Torres Acosta, C.P. Reyes Flores, S.E. Weinberg, B.D. Singer, Chicago, IL, p.A2532

820 A Novel Inhibitor (ARBM-201) Targeting Pendrin, an Anion-Exchanging Membrane Protein, for Acute Respiratory Distress Syndrome (ARDS)/T. Kim, E. Park, S. Choi, C. Jung, D.S. Park, M.S. Park, G. Han, W. Namkung, M.H. Shin, D. Song, J.Y. Choi, W. Im, Seoul, Korea, Republic of, p.A2533


B28 SEE FOR YOURSELF: EVALUATING LUNG FUNCTION WITH CT AND MRI

9:30 a.m. - 11:00 a.m. MOSCONE CENTER

Room 2009/2011 (West Building, Level 2)

Poster Viewing 9:30-10:00
Discussion 10:00-11:00

Chairing: E.A. Hoffman, PhD, ATSF, Iowa City, IA
D. Mummy, PhD, MBA, Durham, NC


704 Fractal Dimensions of Airway Surfaces from Computed Tomography in Chronic Obstructive Pulmonary Disease/J. Bartlett, W.-C. Tan, J.C. Hogg, J. Bourbeau, M. Kirby, Toronto, Canada, p.A2540

Lung Density Distributions in Children with Cystic Fibrosis and Age-Matched Controls/G. Mylavarapu, R.J. Fleck, R.S. Amin, Cincinnati, OH, p.A2542

Hyperpolarized $^{129}$Xe Magnetic Resonance Imaging for the Assessment of Bronchiolitis Obliterans Syndrome (BOS) and Other Late-Onset Non-Infectious Pulmonary Complications (LONIPCs) Following Hematopoietic Stem Cell Transplantation/A. Thakar, P. Nair, I. Walker, M.L. Duong, S. Svenningsen, J. Turner, Hamilton, Canada, p.A2543


Hyperpolarized $^{129}$Xe MRI in Healthy Control Subjects Reveals Age-Related Changes in Measurements of Ventilation and Red Blood Cell Transfer but Not Intestinal Tissue Barrier/D. Mummy, A. Swaminathan, K. Yamall, E. Bier, J. Lu, S. Leewiatwong, J. Korkzewing, B. Driehuys, Durham, NC, p.A2548


CT Normalized Join Count and Progression of Emphysema: Results from the Cancold Study/S. Virdee, W.-C. Tan, J.C. Hogg, J. Bourbeau, C. Hague, J. Leipsic, M. Kirby, Toronto, Canada, p.A5583
EMERGING APPROACHES: TRANSLATING SLEEP APNEA ENDOTYPES INTO CLINICAL PRACTICE

9:30 a.m. - 11:00 a.m. MOSCONE CENTER
Room 303-304 (South Building, Level 3)

Poster Viewing 9:30-10:00
Discussion 10:00-11:00

Chairing: S.S. Redline, MD, MPH, Boston, MA


503 Methodology for Nocturnal Cardiac Arrhythmia Detection in Patients with Heart Failure and Sleep-Disordered Breathing: An Ancillary Study of the ADVENT-HF Trial/C.M. Horvath, C. Fisser, D. Bradley, J.S. Floras, S. Sossalla, F. Zeman, F. Rankin, M. Arzt, Toronto, Canada, p.A2560

504 Proteomic Signature of Cardiovascular Risk in Patients with Acute Coronary Syndrome and Obstructive Sleep Apnea: A Post-Hoc Analysis from the ISAACC Study/A. Zapater, I.D. Benitez, G. Torres, A. Sanchez-de-la-Torre, A. Aldoma, O. Miguez, L. Pascual, A. Cortijo, D. Martinez, F. Barbe, M. Sanchez De La Torre, Madrid, Spain, p.A2561


506 Long Term Patterns of Sleep Disordered Breathing in Patients with Heart Failure Using CPAP and Relationship with Acute Cardiovascular Events/J.E. Orr, V. Thuvadi, G. Parra, A. Saha, C.N. Schmickl, S. Manoharan, K. King, R.L. Owens, A. Malhotra, La Jolla, CA, p.A2563


B30 THE QUEST FOR THE HOLY GRAIL: MODELING AND BIOMARKERS FOR NODULES AND LUNG CANCER

9:30 a.m. - 11:00 a.m. MOSCONE CENTER
Room 203-204 (South Building, Level 2)

Poster Viewing 9:30-10:00
Discussion 10:00-11:00

Chairing:
A. Fox, MD, Charleston, SC
E. Ostrin, MD, PhD, Houston, TX


213 When Should C Reactive Protein (CRP) Elevation Be Accepted as an Infection Marker That Will Delay the Chemotherapy Cure in Patients with Lung Cancer?/T. Ozlu, E.S.M. Ayaydin, Trabzon, Turkey, p.A2585


**B31 IMMUNE CELLS AND INFLAMMATORY PATHWAYS DRIVING LUNG INJURY AND INFECTION - VIEWS FROM THE BENCH**

**9:30 a.m. - 3:45 p.m.**

**MOSCON CENTER**

**Area E, Hall F (North Building, Exhibition Level)**

**Viewing:** Posters will be on display for entire session

**Discussion:** 11:15-1:15

**11:15-1:15 authors will be present for individual discussion**

**12:15-1:15 authors will be present for discussion with assigned facilitators.**

**P317 Role of Endothelial CXCR2 in Neutrophil Recruitment into Central Nervous System in LPS Induced Septic Encephalopathy**

Y. Han, Y. Dong, H. Wang, F. Wu, Bengbu, China, p.A5589

**P328 Immunoprofile of Patients with Recurrent Lower Respiratory Tract Infections**


**P329 Itaconate Is Required for Anti-Inflammation During Rhinovirus Infection**


P331 Single-Cell RNA-seq Revealed T Cell Metabolism as a Target to Tissue-Resident Memory T Cell Contraction/H. Yang, J.K. Kolls, New Orleans, LA, p.A2603


P334 BPIFB1 Requirement for Endotoxin Responsiveness in Primate Airway Epithelium/C.M. Royer, L.A. Miller, Davis, CA, p.A2606


P336 USP40 Plays an Anti-Inflammatory Role by Deubiquitinating Interleukin-1 Receptor-Associated Kinase 1 in Lung Endothelial Cells/J. Miao, X. Xi, Y. Zhao, J. Zhao, Columbus, OH, p.A2608

P337 Characterisation of the Structural Requirements for the Immunomodulatory Surfactant Protein D (SP-D) to Bind to Malteose Based Ligands/J. Madsen, Y. Ghrabigi, T. Castillo Hernandez, T. Greenhough, A. Shrive, H. Clark, London, United Kingdom, p.A2609


P340 Characterizing the Role of ABCF1 in TNF-a Induced Proinflammatory Responses in Human Airway Epithelial Cells/Q.C.T. Cao, M. Ishak, J.A. Hirota, Hamilton, Canada, p.A2612

P341 Comparison of the Toponomes of Alveolar Macrophages from Wild Type and Surfactant Protein A Knockout Mice and Their Response to Infection/D.S. Phelps, V.M. Chinchilli, X. Zhang, D. Shearer, J. Floros, Hershey, PA, p.A2613


P343 Inhibiting NF-κB Attenuates H2O2-Induced MMP-9 and MMP-12 Expression/M. Pacurari, K. Komolaife, Jackson, MS, p.A2615

P344 Differential Responses to Inhibition of Glutamine Metabolism Between Alveolar and Bone Marrow-Derived Macrophages/C.L. Vigeland, R.T. Moore, H.S. Beggs, H. Dang, C.M. Doerschuk, Chapel Hill, NC, p.A2616

P345 Activation of Nrf2 Modulates Protective Immunity Against Mycobacterium Tuberculosis Infection in THP1-Derived Macrophages/J. Zhou, F. Fang, L. Zhang, T. Li, J. Qi, H. Wang, F. Wu, C. Song, T. Wang, Z. Qian, Bengbu, China, p.A2617


P349 The Dual-Endothelin1/VEGFsp Receptor (DEspR) - Potential Role in Chronic Respiratory Diseases/S. Carstensen, J.M. Hohlfeld, N. Ruiz-Opazo, V.L.M.L.M. Herrera, M. Müller, Hannover, Germany, p.A2621


P352 Humanized Pneumococcal Mouse Model Highlights Pathological and Immunological Differences/N. Scott, C. Orluhuela, Birmingham, AL, p.A5590
**B32**  
**CASE REPORTS: ANAPHYLAXIS, ILD, AND COCAINE, OH MY!**  
9:30 a.m. - 3:45 p.m. MOSCONE CENTER  
**Area I, Hall F (North Building, Exhibition Level)**  
**Viewing:** Posters will be on display for entire session  
**Discussion:** 11:15-12:15 authors will be present for individual discussion  
12:15-1:15 authors will be present for discussion with assigned facilitators.

- **P713** A Rare Case of Chronic Obstructive Pulmonary Disease Associated with HUVS/V. Kesarwani, R. Parikh, Farmington, CT, p.A2624
- **P714** Successful Use of Casirivimab/Imdevimab in B-Cell DepletionAssociated Prolonged (B-DEAP) COVID-19/J. Choa, J.A. Lasky, C.M. Bojanowski, New Orleans, LA, p.A2625
- **P717** Is This Anaphylaxis? ARDS and Shock from Gadolinium Based Contrast/W. Chua, M. Yaqoob, Los Angeles, CA, p.A2628
- **P718** Anaphylaxis Following Rocuronium Administration/S. Starkel, S. Wilson, R. Plambeck, R. Mertens, M. Malesker, Akron, OH, p.A2629
- **P721** A Rare Presentation of Autoallergy Manifesting as Angioedema/I. Brimah, P.S. Patrawalla, New York, NY, p.A2632
- **P722** Diffuse Alveolar Hemorrhage Due to Hydralazine-Induced Lupus/P. Bosshara, E. Calvo Ayala, Royal Oak, MI, p.A2633
- **P723** A Case of Necrotizing Sarcoid Granulomatosis/A. Jain, B. Bass, D. Katzman, Valhalla, NY, p.A2634
- **P724** A Shocking Solution to Shock/J. Kim, W. Leon, A.A. Zeki, Sacramento, CA, p.A2635

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**B33**  
**CASE REPORTS: IMMUNE CELLS GONE HAYWIRE**  
9:30 a.m. - 3:45 p.m. MOSCONE CENTER  
**Area I, Hall F (North Building, Exhibition Level)**  
**Viewing:** Posters will be on display for entire session  
**Discussion:** 11:15-12:15 authors will be present for individual discussion  
12:15-1:15 authors will be present for discussion with assigned facilitators.

- **P726** A Case of Rapidly Progressive Interstitial Lung Disease Due to Antisynthetase Syndrome/M. Hill, A. Egan, Rochester, MN, p.A2637
- **P728** Antisynthetase Syndrome Presenting as Isolated Interstitial Lung Disease in a 90-Year-Old Female/F. Abbas, R. Patel, C.A. Thurm, Jamaica, NY, p.A2639
- **P729** Localized Endobronchial Amyloidosis Presenting as a Rare Cause of Hemoptysis/M. Kramer, N. Rosal, S. Tzarnas, T. Nace, R.R. Patel, Abington, PA, p.A2640
- **P730** Eosinophilic Lung Disease Masquerading as Community Acquired Pneumonia/A.R. Halawa, J. Jacob, L.F. Meza, M. Arif, M. Merrill, J.P. Feldman, Phoenix, AZ, p.A2641
- **P731** A Case of Shrinking Lung Syndrome in a 51 Year-Old Female/D.M. Roelofs, M. Aboubakr, Kansas City, MO, p.A2642
- **P732** A Rare Case of Shrinking Lung Syndrome Masquerading as Recurrent Pleuro-Pericarditis/V. Kesarwani, S. Thomas, D. Ozimek, Farmington, CT, p.A2643
- **P733** Into Thin Air: A Rare Cause of Dyspnea in a Lupus Patient/H. Rashid, S. Warfield, K. Vendura, C. Robertson, G. Fletcher, T.H. Jayaram, Houston, TX, p.A2644
- **P734** From Bad to Worse: Severe Eosinophilic Asthma Complicated by Segmental Airway Collapse/R. Eggleston, K.G. Lim, Rochester, MN, p.A2645
- **P735** Allergic Bronchopulmonary Aspergillosis Complicating Asthma Presenting as Chronic Recurrent Pneumonia and Hemoptysis/S. Simeone, E. Nadler, Farmington, CT, p.A2646
P737 Adult-Onset Asthma, FDG-Avid Lung Nodule, and Periorbital Xanthogranulomas Due to IgG4-Related Disease/B.F. Samhouri, J.H. Ryu, Rochester, MN, p.A2647

P738 Frightening and Not So Frightening: Is It Just Immunoglobulin G4-Related Disease (IgG4-RD)? A Case Series/C.N. Railwah, N. Martinez, Weston, FL, p.A2648


P740 EGPA with Unique Manifestations/M. Williams, T. Brown, B. Wilson, Bethesda, MD, p.A2650

P741 A Case of Acute Eosinophilic Pneumonia Following Tdap Vaccine/S. Perinkulam Sathyanarayanan, T. Naim, K. Shewbart, M.O. Baig, S. Helberg, Sioux Falls, SD, p.A2651

P742 Eosinophilic Pneumonia Due to Eosinophilic Granulomatosis with Polyangiitis/G. Ha, S. Randhawa, S.J. Evans, Honolulu, HI, p.A2652

P743 Navigating Through a Maze of Biological Agents to Treat Severe Eosinophilic Asthma and Inflammatory Bowel Disease/A. Go, J. Meland, G. Kamel, C. Boumitri, R.P. Nayak, Saint Louis, MO, p.A2653

P744 Pulmonary Manifestations of Inflammatory Bowel Disease/M. Irandost, R. Alalawi, Phoenix, AZ, p.A2654


P746 Unmasking of Interstitial Lung Disease Associated with Anti-PL 12 Antibody Positive Antisynthetase Syndrome by Inflammatory Challenge from COVID-19 Vaccine/K. Hamid, S. Perinkulam Sathyanarayanan, J.C. Yu, Sioux Falls, SD, p.A2656

P747 A Rare Case of Isolated Diffuse Alveolar Hemorrhage in Anti-Glomerular Basement Membrane Disease Without Renal Involvement/N. Sheikhan, A. Gheriani, S. Bhatia, Las Vegas, NV, p.A2657


P750 A Rare Case of Autoimmune Alveolar Proteinosis During Treatment of Temporal Arteritis/Y. Nei, N. Hagino, M. Ishida, T. Saraya, H. Isii, Ichihara, Japan, p.A2660


P752 A Case of Recurrent Flare of PR3-ANCA-Negative Granulomatosis with Polyangiitis Complicated by ARDS and Fungal Pneumonia/R. Chadha, S. Dorobisz, A. Rosinski, Bridgeport, CT, p.A2662

P753 A Rare Case of Lymphocytic Interstitial Pneumonia in Limited Scleroderma/A. Dursun, B. Giri, Roanoke, VA, p.A2663

P754 Chronic Granulomatous Disease in a Young Adult Complicated by Hemophagocytic Lymphohistiocytosis and Hypoglycemic Bradycardic Arrest - A Case Report/A. Tarnasky, D. Mitchell, J. Radder, A. Reinherz, Pittsburgh, PA, p.A2664

P755 A Rare Case of Concurrent Post-Transplant Lymphoproliferative Disease and Pseudomonas Pneumonia/M. Arif, R. Mendez, A.R. Halawa, J. Jacob, L.F. Meza, J. Ho, A.I. Saeed, Phoenix, AZ, p.A2665

P756 Common Variable Immunodeficiency Presenting as Persistent Pneumonia with Pulmonary Mass/P. Shin, Round Rock, TX, p.A2666

BEHAVIORAL • CLINICAL

THEMATIC POSTER SESSION

B34 GLOBAL IMPACT OF THE COVID-19 PANDEMIC

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Area J, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.


P774 Pandemic Changes to a Community Respiratory Service/M.C. Apps, L. Ateli, K.-A. Keeling, H. Hill, T. Gisby, S. Lorenzani, Billericay, United Kingdom, p.A2670

P775 Ventilators: An Investigation into Changes in Reported Rates of Adverse Events During the COVID-19 Pandemic/E. Zhou, S.K. Bhatia, Cincinnati, OH, p.A2671

P776 Stakeholder Engagement with the Pima County Stock Inhaler for Schools Program: Implementation and Sustainability During the COVID-19 Pandemic/A.A. Lowe, N. Mottern, K. Ivich, C. Flores, L.B. Gerald, Tucson, AZ, p.A2672


P780 SOBStat-F (S-F), a Unique, Metered Dose Inhaler (MDI)-Based, Exhalation-Filtered Cardiopulmonary Resuscitation O2 Mask (CPROM) That Very Rapidly Initiates O2 and Bronchodilator Aerosol Therapy (Tx) While Protecting First Responders (FR) from COVID-19/M.T. Newhouse, P.H. Goldman, Hamilton, Canada, p.A2676

P781 Impact of COVID-19 Pandemic on the Health Services Provided by a Tertiary Cardiothoracic Hospital in Egypt/A. Abdelaziz, S. Rabea Shehata, E. Abdelghany, Minia, Egypt, p.A2677

P782 Mandate-Associated Demand for COVID-19 Vaccine Skin Testing/D. Li, A.M. Szema, South Setauket, NY, p.A2678


P784 Correlations of Depression, Anxiety and Global Distress with Pulmonary Hypertension Patients' Perceived Symptoms and Impact During COVID-19 Pandemic/E. Tannouz, B. Theodory, B. Yaghmour, Irvine, CA, p.A2680


P805 Use of Telehealth Visits for Patients During the Covid-19 Pandemic in an Allergy/Immunology Network/S. Tovar, A. Osheim, E. Schultz, Austin, TX, p.A5592


CLINICAL • TRANSLATIONAL
THEMATIC POSTER SESSION

B36  SPECTRUM OF FIBROTIC INTERSTITIAL LUNG DISEASES
9:30 a.m. - 3:45 p.m.  MOSCONEN CENTER

Area F, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session  11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion  12:15-1:15 authors will be present for discussion with assigned facilitators.

P417 Discriminance in Actual Versus Perceived Access to Palliative Care Services for Pulmonary Fibrosis Foundation Care Centers/R.A. Gersten, B. Seth, K.O. Lindell, S.K. Danoff, Baltimore, MD, p.A2712


P419 Approach to Adult Patient with Diffuse Parenchymal Lung Disease in the Developing Country/L. Nguyen-Ho, K. Bril, V. Le-Thuong, Ho Chi Minh, Viet Nam, p.A2714


P422 Baseline Characteristics and Clinical Outcomes in Patients with Idiopathic Pulmonary Fibrosis (IPF) by Autoantibody Status: An Exploratory Analysis from the ASCEND Study/T. Kulkarni, C. Newton, S. Gupta, J. Ko, K. Samara, E.J. Bernstein, Birmingham, AL, p.A2717


P427 The Clinical Efficacy of a Mixture of Ivy Leaf Extract and Coptidis Rhizome in Patients with Idiopathic Pulmonary Fibrosis/J.H. Lee, Busan, Korea, Republic of, p.A2723


P432 A Retrospective Study on the Protective Effect of Influenza Vaccination from Developing Idiopathic Pulmonary Fibrosis/S. Jacob, X. Jiang, Z. Pinchover, B. Patel, R. Abencillo, Houston, TX, p.A2728


P435 Minimal Clinical Important Difference (MCID) for Visual Assessment of Pulmonary Fibrosis on Chest High Resolution Computed Tomography Scan (HRCT)/T. Magri, A. Comes, L. Richeidi, G. Sgalla, Rome, Italy, p.A2731


P439 Clinical Predictors of Nontuberculous Mycobacteria in Interstitial Lung Disease/H. Deshwal, J. Klapholz, A. Lehr, D.J. Addrizzo-Harris, R. Condos, New York, NY, p.A2735


P441 Review Analysis of Clinical Characteristics in 185 Interstitial Lung Disease Patients Accompanied with Lung Cancer (ILD-LC)/Y. Hu, T. Ma, Q. Zhang, Changchun, China, p.A2737

P442 Prognostic Role of Anti-Cyclic Citrullinated Peptide Antibody in Idiopathic Pulmonary Fibrosis from Korea IPF Cohort (KICO) Study/B.S. Kwon, J.S. Park, Seongnam-si, Korea, Republic of, p.A2738


P448 Psoriatic Pulmonary Syndrome as a Risk Factor for Respiratory Failure/K. Tanimura, S.M. Nouraie, T. Nyunoya, Pittsburgh, PA, p.A2744


P450 Distinguishing Features in Systemic Sclerosis Patients with Non-Specific Interstitial Pneumonia and Idiopathic Pulmonary Fibrosis/R.G. Carbone, E. Barisone, R. Filiberti, G. Cittadini, F. Puppo, Genova, Italy, p.A2746

P451 Examining Clinical Characteristics of Patients with Systemic Sclerosis Associated Interstitial Lung Disease (SSc-ILD) and Myositis Antibodies: A Retrospective Case Series/K. Pandya, M. Raddawi, K.M. D'Silva, S.B. Seo, J. Manganas, C.J. Ryerson, D. Assayag, Montreal, Canada, p.A2747


P455 Outcomes of Acute Exacerbation in Idiopathic Pulmonary Fibrosis and Connective Tissue Disease-Related Interstitial Lung Disease Treated with Systemic Corticosteroids Alone vs Systemic Corticosteroids with Immunosuppressive Therapy: A Systematic Review and/ S. Duangkham, P. Mekraksakit, C.A. Childs, K.M. Nugent, K. Ussavarungsi, Lubbock, TX, p.A5593

P456 High Incidence of Polypharmacy, Multimorbidity, and Impaired Quality of Life in Older Patients Diagnosed with Connective Tissue Related Interstitial Lung Disease (CTD-ILD)/A. Suen, L. Witt, A. Kotwal, R. Sudore, E.D. Farrand, San Francisco, CA, p.A5594

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CLINICAL

THEMATIC POSTER SESSION

B37 CASE REPORTS: RARE LUNG DISEASES

9:30 a.m. - 3:45 p.m. MOSCONE CENTER
Area B, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15:1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.


P90 A Rare Case of Pulmonary Lymphangioleiomyomatosis Diagnosed After Incidental Chest Imaging Findings/S. Khatib, K. Abdalla, M. Aboubakr, S. Kulkarni, S. Dubin, Kansas City, MO, p.A2754


P92 Successful Use of Mepolizumab for Steroid-Dependent Chronic Eosinophilic Pneumonia/P. Cyca, B.L. Walker, P. Mitchell, J. Weatherald, Calgary, Canada, p.A2756


P95 A Case of the Mysterious Fleeting Pneumonia/J. Ramirez-Marquez, W. Rodriguez, R.E. Vazquez Nieves, San Juan, PR, p.A2759

P96 Cryptogenic Organizing Pneumonia Due to Mycoplasma/S. Chandra, M.V. Shah, S. Bhasin, New Brunswick, NJ, p.A2760

P97 Not So Beautiful: A Case of a Beautician with Organizing Pneumonia/K. Waybill, I. Qawi, Boston, MA, p.A2761

P98 Atypical Presentation of Cryptogenic Organizing Pneumonia with Associated Pneumatoceles/E. Cortinas, A. Garbarino, Cincinnati, OH, p.A2762


P100 A Rare Case of Airway Involvement of Bullous Pemphigoid/N. Kika, N. Patel, A.G. Saleh, Brooklyn, NY, p.A2764

P101 On Pulmonary Amyloidosis as the Presenting Feature of Multiple Myeloma/J. Gadrey, A. Abdul Hameed, S. Askar, K. Thavarajah, A. Abu Sayf, Detroit, MI, p.A2765

P102 New Pulmonary Nodules in a Patient with Granulomatous and Lymphocytic Interstitial Lung Disease (GLILD)/D.C. Gonzalez, A.M. Kawassaki, Sao Paulo, Brazil, p.A2766


P104 A Rare Case of Pulmonary Nodules: Diffuse Pulmonary Meningotheliomatosis/L. Saa, S. Assaf, Albuquerque, NM, p.A2768

P105 Intravascular Large B-cell Lymphomawith Diffuse Ground Glass Lesion on ChestComputed Tomography Diagnosed Using Transbronchial Lung Cryobiopsy/D. Zhu, L. Zhao, Shanghai, China, p.A2769

P106 A 59 Year Old Female with Fever and Lung Nodules/R.P. Manglani, Valhalla, NY, p.A2770


P110 Common Pulmonary Findings, Uncommon Cause: A Rare Case of Erdheim-Chester Disease with Pulmonary Manifestations/K.M. Capaccione, B. Braumuller, M. Salvatore, New York, NY, p.A2774

P111 Tracheobronchopathia Osteochondro-What? A Rare Disorder of the Airway/L.T. Thornton, W.A. Marinelli, Minneapolis, MN, p.A2775

P112 Neutrophilic Alveolitis in Sweet’s Syndrome/A.A. Bukiej, S. Kambhatla, Chicago, IL, p.A2776

P113 Pulmonary Langerhans Cell Histiocytosis Presenting as Diffuse Parenchymal Lung Disease/C.G. Gmehlin, J.S. Kurman, B.S. Benn, Wauwatosa, WI, p.A2777


P460 How Discharge Planning and Follow Up Affect Chronic Obstructive Pulmonary Disease (COPD) 30-Day Readmission/T. Swartz, M. Honda, P. Arora, B. Bemiss, Maywood, IL, p.A2781


P462 Differences of Exacerbation and Medical Utilization by Medical Possession Rate (MPR) in Patients with Chronic Obstructive Pulmonary Disease (COPD) from a Real-World Study/Y. Kim, K. Kim, H. Lee, J.-Y. Moon, Seoul, Korea, Republic of, p.A2783


P464 Using Oxygen Wristbands to Improve Prescribing in an NHS District General Hospital/D. Hazelton, G. Fitzgerald, S. Patel, Warrington, United Kingdom, p.A2785


P466 COPD Patients Can Achieve High Levels of Engagement and Satisfaction with a Digital Care Program When Supported by a Specialized Care Coordinator/B. Boyd, S. Coughlin, H. Parrott, K. Hanges, Boston, MA, p.A2787

P467 Are Fatigue and Pain Overlooked in Subjects with Stable Chronic Obstructive Pulmonary Disease?/K. Nishimura, R. Sanda, M. Mori, A. Shibayama, M. Kusunose, Obu, Japan, p.A2788

P468 Prescribing Patterns for Long-Acting Inhaled Bronchodilators Among Patients with Chronic Obstructive Pulmonary Disease in a Rural Hospital Network/N. Siddiqui, W. Brunner, M. Scribani, N. Krupa, E.P. Riesenfeld, Plymouth, MA, p.A2789

P469 Comprehensive Approach to Reduce Readmission of Chronic Obstructive Pulmonary Disease (CARR)/V. Halani, A. Prischepova, B. Barakoti, M.L. Auton, D. De, D. Tazbaz, St. Louis, MO, p.A5595

P470 Does Compliance with Home Non-Invasive Ventilation Therapy Affect PaCO2 Reduction and Readmission to Hospital in Chronic Obstructive Pulmonary Disease (COPD) Patients/?E. Livingston, J. Kennedy, C. Livingston, L. Stewart, Glasgow, United Kingdom, p.A5596


P479 Hospitalization Rates After Treatment of Pre-Identified COPD Exacerbations in Patients Utilizing Remote Patient Monitoring/N. Moraveji, M. Polsky, San Francisco, MD, p.A2796


P482 Prognostic Efficacy of Non-invasive Ventilation in Patients with Overlap Syndrome: Chronic Obstructive Pulmonary Disease and Obstructive Sleep Apnea/J. Xie, Z. Fan, Beijing, China, p.A2799


P490 Relationship of Increase in FEV1 to Reduction in RV Post Bronchoscopic Lung Volume Reduction/N. Marchetti, N. Patiakh, G.J. Criner, Philadelphia, PA, p.A5603


P497 Bronchoalveolar Lavage Fluid Cytology of Deployed Military Personnel with Chronic Respiratory Symptoms from the STAMPEDE III Study/J. Boster, B. Barber, J. Anderson, R. Walter, M. Morris, Fort Sam Houston, TX, p.A2803

P498 Careful Long-Term Opioid Prescription May Safely Relieve Chronic Breathlessness/X. Chen, T. Moran, M. Thompson, N.E. Smallwood, Melbourne, Australia, p.A2804


P501 Oxygenation Adequacy and Outcomes in Hypoxic Patients/S.S. Patil, Dhule, India, p.A2807


P505 The Sensations Provoking Cough: The ToPiC Questionnaire/L. Kousar, N. Aden, J. King, J. Wingfield Digby, K. Holt, J. Yorke, J. Smith, Manchester, United Kingdom, p.A2811

P507 A Phase 3b Trial to Evaluate the Efficacy and Safety of Gefapixant in Adults with Recent-Onset Chronic Cough/L. Mcgarvey, M.R. Sher, A. Sadaf Afzal, C. La Rosa, D. Muccino, A. Martin Nguyen, J. Schelfhout, W.-C. Wu, P. Xu, Belfast, United Kingdom, p.A2813

P508 Association of Streptococcal Upper Respiratory Tract Infection with Acute Urticaria; A Prospective Case Control Study/A.B. Pant, B. Subedi, L. Lama, B.M. Meher Kayastha, Bhaktapur, Nepal, p.A2814


P511 Responders Analyses in Objective 24H Cough Frequency in Soothe, A Phase 2b Trial of a Selective P2x3 Antagonist in Refractory Chronic Cough/A.H. Morice, J. Smith, S.S. Birring, L. Mcgarvey, J.H. Hull, M. Blaiss, S. Lanouette, L. Harvey, R. Yang, M. Garin, C.M. Bonuccelli, Cottingham, United Kingdom, p.A5610

P527 Hemophagocytic Lymphohistiocytosis-Associated Stress Cardiomyopathy/J. Yabut, M. De Jesus, M. Kumar, Farmington, CT, p.A2826


P529 McConnell’s Sign in the Setting of Pulmonary Contusion/C.J. Van Hook, R. Shapiro, B. Warner, Longmont, CO, p.A2828


P531 Splenic Laceration After Cardiopulmonary Resuscitation: A Rare Complication/T. Cook, Y. Fahmawi, K. Hamid, P. Almalouf, Mobile, AL, p.A2830
P532 Acute Right Heart Failure with Cardiac Tamponade in a Patient with Mediastinal Mass/M. Yabumoto, D. Chan, B. Yaghmour, Orange, CA, p.A2831

P533 A Case of Positional Obstructive Shock Due to Cardiac Compression from a Lung Mass/J. Jordan, A. Can, J. Kingsley, K. Lee, S. Lipshutz, Philadelphia, PA, p.A2832

P534 Complex Cardiopulmonary Management of Advanced Carcinoid Heart Disease with Intra-Cardiac Shunt/R.B. Steinhauser, A. Terlouw, H.W. Farber, N.F. Ruopp, Boston, MA, p.A2833

P535 Cannon Ball Lesions: Not Always Malignancy/F. Kan, K. Benavente, S.J. Evans, Honolulu, HI, p.A2834

P536 Uncommon Complications of CPR-Epicardial NOT Pericardial Tamponade/S. Lakshman, E. Stevenson, Providence, RI, p.A2835

P537 A Case of Occult Granulation Tissue Beneath an Endotracheal Tube Causing Recurrent Airway Obstruction on the Intensive Care Unit/J. Kent Bramer, B. Madden, B. Evans, Honolulu, HI, p.A2836

P538 Double Defibrillation for Sudden Cardiac Death/M.C. Canizares-Otero, R. Cabrera, M.A. Silverstein, D.P. High, M. Danckers, S. Kathuria, Aventura, FL, p.A2837

P539 A Case of a Diffuse B Cell Lymphoma Inducing Cardiac Tamponade in a Young Female/R. Yendamuri, D. Gonzalez, N. Barve, H.I. Bashir, Akron, OH, p.A2838


P541 Cardiac Arrest After Valsalva from an Occlusive Primary Cardiac Synovial Sarcoma in the Right Atrium/D.H. Oza, S.C. Liu, M.D. Bernens, Norfolk, VA, p.A2840


P543 Renal Cell Carcinoma Complicated by Metastatic Thrombus to the Right Ventricle/S. Mannem, D. Vaz, Greenville, SC, p.A2842


P545 Heartbreaking Presentation of Polycystic Ovarian Disease/N.K. Randhawa, S. Randhawa, Olympia Fields, IL, p.A2844

P546 A Case of Allergic Bronchopulmonary Aspergillosis with Infiltrating Eosinophilic Cardiomyopathy/N. Randhawa, K. Creed, S. Siddiqui, V. Test, Olympia Fields, IL, p.A2845

P560 A Rare Case of Botulinum Induced Acute Respiratory Failure/J. Beier, B. Chaucer, S. Harabaglia, M. Abadier, K. Aylor-Lee, M.J. Junqueira, Pueblo, CO, p.A2859

P561 Unusual Presentation of Aortic Dissection with Right Calf Pain/V. Khanam, M. Dickow, P. Giri, S. Kumar, Rochester, MI, p.A2860

P562 Not All ST Elevations Are Alike/T. Knudson-Fitzpatrick, K. Doo, Oakland, CA, p.A2861


P564 Discouraged Hopes for a Lung Re-Transplantation/J. Kim, J. Yeo, K. Miyazaki, J. Yip, K. Vierkoetter, Honolulu, HI, p.A2863


P566 A Rare Cause of Pulmonary Edema And Acute Respiratory Failure in A Young Critically Ill Patient/S. Shrivastava, A. Bui, G. Seda, San Diego, CA, p.A2865


P569 High Risk Pulmonary Embolism Complicated by Systemic Thrombosis Requiring Systemic Thrombolysis and Multiple Endovascular Procedures/S. Simeone, E. Nadler, Farmington, CT, p.A2868


P573 Point of Care Ultrasound in a Rapidly Deteriorating Post-Operative Patient/V. Hoytfox, J. Kilcup, Spokane, WA, p.A2872

P574 Can Sex Kill?: Sexual Intercourse and Aortic Dissection/E.-H. Hassanin, S. Iskander, Tyler, TX, p.A2873


P576 Tamponade Physiology Unmasked by Intubation/J. Nuschke, Hershey, PA, p.A2875

P577 The Stress of a Broken Heart: Cardiac Arrest After Ambulatory Inguinal Hernia Repair/J. Michalik, M. Michael, D. Cucu, Bridgeport, CT, p.A2876


P583 Implementation of a Multimodal Medical Student MICU Curriculum/W.E. Thinnes, C. Chiang, A.P. Trivedi, Chicago, IL, p.A2881


P586 The Educational Effect of a Supplemental Online Education as Compared to a Standard Lecture-Based Curriculum Alone on Resident Performance in the MICU/G. Schroeder, E. Arnold, M.C. McGregor, St. Louis, MO, p.A2884

P587 The Association of Critical Care Training Pathways with Barriers to Employment in a Desired Setting/G.J. Eisinger, P. Sylvester, D. Duggineni, D. Way, J.W. McCallister, M.C. Exline, Columbus, OH, p.A2885


P597 Long Term Outcomes of Patients with Hematologic Malignancies and Critical Illness: A National Prospective Cohort Study/L. Munshi, B. Rochwerger, M.E. Detsky, F. Shoukat, S. Mehta, Toronto, Canada, p.A5613


B44 GENERAL CRITICAL CARE

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Area G, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.

P601 Case-Control Investigation of Critically Ill Patients with Newly Diagnosed Diabetes: Clinical Characteristics, Glucose Metrics and Outcomes/Y. Wang, J. Bahgat, J.S. Krinsley, Stamford, CT, p.A2893


P603 Intensive Care Unit Delirium: Knowledge and Assessment Practices Among Physician Trainees and Intensive Care Unit Nurses in Howard University Hospital/F.W. Wireko, A.O. Laiyemo, A. Mehari, Washington, DC, p.A2895

P604 A Novel Communication Approach to Provide Written Updates to Surrogates of Patients at Long Term Acute Care Hospitals (LTACHs)/N. Schwartz, D.N. Teed, C.M. Glover, S. Basapur, C. Blodgett, C. Giesing, G. Lawm, G. Podzimek, R. Reeter, L. Schorheide, S. Swiderski, J.A. Greenberg, Chicago, IL, p.A2896


P607 Comparison of Propofol Related Injection Pain After Lignocaine versus Ondansetron Pretreatment/B. Subedi, A.B. Pant, Kavre, Nepal, p.A2899


P610 Epidemiology and Outcomes of Malnutrition in Critically Ill Patients with Multiple Sclerosis/J.H. Cranshaw, P.L. Wilkins, Bournemouth, United Kingdom, p.A2904


P612 Characteristics of Acute Respiratory Failure in Patients with Type 1 Hepatorenal Syndrome (HRS-1) Treated with Terlipressin and Albumin in an Adult General ICU in the UK/E. Benge, B. Asllanaj, G. Dhillon, U. Hewapathirana, F. Rahman, C. Valdez, P. Shah, Las Vegas, NV, p.A2905

P613 Performance of Lactate to Albumin Ratio as a Predictor of In-Hospital Mortality as Compared to Lactate Alone in Critically Ill Patients with Septic Shock: A Retrospective Cohort Study in a Large US Hospital System/E. Benge, B. Asllanaj, G. Dhillon, U. Hewapathirana, F. Rahman, C. Valdez, P. Shah, Las Vegas, NV, p.A2905

P614 Comorbidity and Mortality of Pasteurella Disease in a Safety Net Hospital/F. Khalid, R. Tonelli, I. Kourouni, Cleveland, OH, p.A2906

P615 Empiric Antibiotics in Diabetic Ketoacidosis Patients Who Present with Bandemia Do Not Improve Clinical Outcomes/S. Perinkulam Sathyanarayanan, V. Gorgiev, H. Chaudhry, T. Oliver, H.M. Abdullah, Sioux Falls, SD, p.A2907


P617 Lactate Levels Require Context/L. Ramadan, J. Kaidbey, J. Bakker, Baltimore, MD, p.A2909


P621 Serial Body Composition Analysis for Risk Stratification in Patients with Severe Pneumonia/W.-F. Fang, K.-Y. Hung, Y.-H. Tsai, Y.-C. Chang, M.-Y. Tsai, K.-T. Huang, C.-C. Tseng, H. Yeh, Y.-T. Chang, Y.-H. Wang, M.-C. Lin, Kaohsiung, Taiwan, p.A2913


P628 Sulbactam-Durlobactam Treatment Is Associated with Lower Mortality from Index Acinetobacter Infections in the Attack Phase 3 Registrational Trial/D. Altarac, A.B. Shapiro, K. Rana, D. Lewis, Waltham, MA, p.A5620
B45  PREDICTING COVID SEVERITY AND OUTCOMES

9:30 a.m. - 3:45 p.m.  MOSCONE CENTER

Area J, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session

Discussion: 11:15-1:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.


P821  A Study of COVID-19 Pneumonia Diagnosis, Severity, Prognosis and Recovery Assessment with Bedside Thoracic Ultrasound During the First Wave of COVID (SARS-CoV-2) Pandemic in a District General Hospital, Northern Ireland, UK/S. Morgan, M. Harkin, N. McNaughton, M. McDowell, I.N. Masih, Belfast, United Kingdom, p.A2930


P825 Inhaled Nitric Oxide (iNO) for Critically Ill Covid-19 Patients/M. Bellemare, Y. Heniche, A. Noel, M. Albert, K. Serri, F. Bernard, D. Williamson, F.-M. Carrier, Y.A. Cavayas, Montreal, Canada, p.A2934


P634 Air Rises: A Unique Case of Pneumocephalus Secondary to Intrapleural Fibrolytic Therapy/S. Patel, T.J. Ellis, R.H. Dougherty, San Francisco, CA, p.A2940


P637 Contralateral Hemothorax Caused by Extracranial Vertebral Artery Aneurysm Rupture in a Patient with Neurofibromatosis Type 1/M.I. Abdalla, N.T. Hodgeman, B.E. Stephens, J.A. Melo, San Antonio, TX, p.A2943

P638 Where’s My Line?/L. Sesemann, X. Fonseca Fuentes, J. Quinn, Oak Lawn, IL, p.A2944


P640 A Rare Case of Leriche Syndrome in a Patient with Colon Cancer: Case Report and Literature Review/A. Refai, M. Goel, D. Taheri Abkouh, H. Tahanulqiwa, M. Fityan, Rochester, MI, p.A2946


P644 Pulmonary Torsion Following Lobectomy for Bronchopulmonary Sequestration: A Rare Complication That Should Not Be Missed/A. Bommakanti, A. Haidar, B. Akkanti, R. Hussain, I. Salas de Armas, M. Patel, I. Gregoric, Houston, TX, p.A2950
**B47 COVID MANAGEMENT AND OUTCOMES**

9:30 a.m. - 3:45 p.m. MOSCONET CENTER

Area J, Hall F (North Building, Exhibition Level)

**Viewing:** Posters will be on display for entire session

11:15-1:15

**Discussion:** 11:15-12:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.


**P831 In-Hospital Delirium Is Associated with Increased Mortality Risk in Patients with Admitted with COVID-19 and a History of Alcohol Misuse/S.E. Jolley, M. Wilson, K. Hills-Evans, K. Erlandson, E.L. Burnham, Aurora, CO, p.A2952

**P832 Scanning the Medical Phenome to Identify New Medical Diagnoses After Recovery from COVID-19 in a US Cohort/V.E. Kerchberger, L.B. Ware, J.A. Bastarache, J.F. Peterson, W.-Q. Wei, Nashville, TN, p.A2953


**P835 Higher Frequency of Comorbidities in Fully Vaccinated Patients Admitted to ICU Due to Severe COVID-19/A. Motos, A. Lopez-Gavin, J. Riera, A. Ceccato, L. Fernandez-Barat, A. Torres, Barcelona, Spain, p.A2956


**P837 The Impact of Malnutrition on Mortality and Clinical Outcomes in Patients Hospitalized with COVID-19/J. Ponce, M. Timmerman, M. Jackson, A. Anzalone, K.L. Bailey, H. Sayles, C. Hanson, Omaha, NE, p.A2958


**P845 Incidence and Clinical Outcomes of Patients with SARS-CoV-2 Complicated by Pneumothorax and Pneumomediastinum/A. Azeem, M. Carrig, D.N. Butt, B.J. Krajicek, C. Destache, M. Velagapudi, Omaha, NE, p.A2966


**P848 Early Administration of Remdesivir and Dexamethasone Is Associated with Good Outcomes for Patients with Covid-19/A.S. Sadigov, Baku, Azerbaijan, p.A2969


P856 Inflammatory and Endothelial Plasma Biomarkers in Patients with Acute Respiratory Distress Syndrome Due to Covid-19 Treated with Systemic Steroids/G.A. Alba, J. Alladina, F. Giacona, E. Abe, K. Braat, B.D. Medoff, B. Maron, B.T. Thompson, Boston, MA, p.A5624


P856 Inflammatory and Endothelial Plasma Biomarkers in Patients with Acute Respiratory Distress Syndrome Due to Covid-19 Treated with Systemic Steroids/G.A. Alba, J. Alladina, F. Giacona, E. Abe, K. Braat, B.D. Medoff, B. Maron, B.T. Thompson, Boston, MA, p.A5624

P135 Improvement in ECAC After Tracheoplasty in a “War on Terror” Veteran Following Afghanistan Deployment/S.D. Kreft, R.A. Meguid, C.S. Rose, Aurora, CO, p.A2984


P137 Acute Intestinal Pneumonia and Acute Respiratory Distress Syndrome (ARDS) from a Forgotten Plant/T. McCann, C. Hayner, N. Patel, Cincinnati, OH, p.A2986


P142 Caffeine Overdose: More Than Just the Jitters/A. Chajkowski, W. Khan, Toms River, NJ, p.A2991


P17 The Effect of Intermittent Hypoxia on Human Embryonic Stem Cells Derived Cardiomyocytes. In-Vitro Cellular Model for Obstructive Sleep Apnea/A. Goldbart, D. Regev, H. Haddad, J. Gopas, Beer Sheva, Israel, p.A2996


B35 The Activating NKG2D Receptor Mediates Neonatal Lung Injury Induced by Chronic Exposure to Bacterial Endotoxin: Implications for Bronchopulmonary Dysplasia/T.X. Cui, Y.-J. Zhang, C. Anderson, A. Popova, Ann Arbor, MI, p.A3016


B38 Role of Genetic Modifiers on Pulmonary Consequences of Cancer Therapy in Children/S.C. Leftin Dobkin, Philadelphia, PA, p.A3019


P166 Pulmonary Vasodilator Therapy Improves NTpro-BNP and Pulmonary Hemodynamics in Patients with Pulmonary Hypertension Due to Intestinal Lung Disease/K. Selvan, K. Teerapuncharoen, M. Funk, R. Bag, Chicago, IL, p.A3027


P168 Chronic Obstructive Pulmonary Disease Is Associated with Increased Mortality in Systemic Scleroderma/Obstructive Pulmonary Hypertension/O. Jakubczyk, J.K. Lui, R. Sangani, M.A. Trojanowski, E.S. Klings, Boston, MA, p.A3029


P170 Recreational Marijuana Use and Secondary Pulmonary Hypertension in Hospitalized Young Adults: A Nationwide Inpatient Analysis/J. Vakhshoorzadeh, J.K. Lui, R. Sangani, M.A. Trojanowski, E.S. Klings, Boston, MA, p.A3031


P172 Heterogeneity of Group 3 Pulmonary Hypertension Physiology in Veterans treated with Off-Label Therapy with Implications for Treatment Outcomes/S.W. Johnson, E.S. Klings, B. Maron, R.S. Wiener, Boston, MA, p.A3033


P186 Phenotypic Heterogeneity in WSPH Group 1 PAH Is Explained by Differences in Peripheral Oxygen Extraction/M. Insel, C. Uhland, S. Stroud, F.P. Rischard, Tucson, AZ, p.A3044


P190 Outcome of Chronic Thromboembolic Pulmonary Hypertension Patients: Experience from a Tertiary Referral Center in the United Arab Emirates/K.M. Saleh, N. Khan, K. Dougherty, A. Ghorab, S. Abdalla, H. Sabbour, Abudhabi, United Arab Emirates, p.A5635


P192 Real-World Drug Retention and Initiation of Combination Drug Therapy for Patients with Pulmonary Arterial Hypertension in Canada: A Retrospective Prescription Claims Database Study/E. Ibrahim, A. Al-Akabawi, M. Dawodu, J. Ling, J. Murray, B. Millson, Toronto, Canada, p.A5637
P194  Terminal Digit Preference in Endpoints of Pulmonary Arterial Hypertension (PAH) and Chronic Thromboembolic Pulmonary Hypertension (CTEPH)/J. Minhas, G. Baird, D. Appleby, R. McClelland, J. Min, J.A. Mazurek, C.E. Ventetuolo, N. Al-Naamani, S.M. Kawut, Philadelphia, PA, p.A3047


P202  Comparison of Pharmacokinetics of 3 Doses of Treprostinil Inhalation Powder (Tyvaso DPI) and 3 Doses of Tyvaso in Healthy Normal Volunteers/K. El-Kersh, R. Restrepo Jaramillo, J. Joly, N. Pearce, C. Deng, M. Miceli, Omaha, NE, p.A3055


P204  Multicompartment Modeling for Pulmonary Pharmacokinetics of Liposomal Treprostinil (L606) in Adults/P. Kan, K.-J. Chen, Taipei, Taiwan, p.A3057


CLINICAL

THEMATIC POSTER SESSION

B54  PACIFIC HEIGHTS: BIOMARKERS AND QUALITY OF LIFE IN PULMONARY HYPERTENSION

11:15-12:15

Discussion: 11:15-12:15 authors will be present for discussion with assigned facilitators.

P208  Heart Rate Variability as a Novel Biomarker of Treatment Response in Pulmonary Arterial Hypertension/A. Jose, F.X. McCormack, J.M. Elwing, Cincinnati, OH, p.A3059


P214 Gender Differences in Cytokines in a Pulmonary Arterial Hypertensive Model/ J.L. Hewes, A. Bhadra, C. Zhou, J.Y. Lee, N.N. Bauer, Mobile, AL, p.A3065

P215 Elevated Myristic Acid as a Risk Factor for Idiopathic Pulmonary Arterial Hypertension/ Y.-Y. Sun, Q.-H. Zhao, J. Liu, P. Yuan, Shanghai, China, p.A3066


P217 Analysis of the Health-Related Quality of Life and WHO Functional Class Data of Pulmonary Hypertension Patients During the COVID-19 Pandemic: Using the EmPHasis-10 Questionnaire/ S. Ashok, N. Bascon, B. Madden, London, United Kingdom, p.A3068

P218 Examining the Role of Social Determinants of Health on Quality of Life in Urban Pulmonary Hypertension Patients/ C. Humpal, R.H. Anguiano, D.R. Fraidenburg, Chicago, IL, p.A3069


P373 Never Too Late to Begin Airway Clearance: Radiographic Outcomes in Patients with Primary Ciliary Dyskinesia/F. Alvarado, J. Melendez Montañez, W. De Jesus-Rojas, San Juan, PR, p.A3089


P375 Atypical Bacterial Pneumonia with Co-Infection Due to Non-Tuberculous Mycobacteria in an Immunocompetent Patient/J.I. Juarez Ramirez, C. Montes Castellanos, Tlalnepantla de Baz, Mexico, p.A3091


B56 WHAT’S UP IN THE PNEUMONIA WORLD?
9:30 a.m. - 3:45 p.m. MOSCONE CENTER
Area E, Hall F (North Building, Exhibition Level)
Viewing: Posters will be on display for entire session 11:15-1:15
Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.

P380 Impact of the 2019 Community Acquired Pneumonia Guideline on Use of Antibiotics Among Critically Ill Patients with Community Acquired Pneumonia/T. Ohnuma, S. Chihara, K. Raghunathan, V. Krishnamoorthy, Durham, NC, p.A3094


P383 Use of a Rigorous Definition of Bacterial Pneumonia to Describe the Incidence and Clinical Characteristics of Enterococcal Detection in Mechanically Ventilated Patients with Suspected Pneumonia/E.E. Rabin, M. Kang, C. Gao, C. Qi, B.D. Singer, R.G. Wunderink, C. Pickens, J.M. Walter, Chicago, IL, p.A3097


P386 NHO Network Group Multi-Center Study on Features of Health-Care Associated Pneumonia (HCAP) in Japan/S. Teramoto, Hachiijo-shi, Japan, p.A3100

P387 Angiopulmonography with Nitroglycerine Test for Differential Diagnostics Between Severe Pneumonia and Lung Gangrene/S. Yermashkevich, V. Petukhov, V. Derkach, M. Kuntsevicz, Vitebsk, Belarus, p.A3101

P388 Impact of Diabetes Mellitus on the Development and Postoperative Outcomes in Patients with Severe Pulmonary Infection/S. Yermashkevich, V. Petukhov, M. Kuntsevicz, Vitebsk, Belarus, p.A3102

P389 Factors Affecting Outcome of Adult Patient with Methicillin Resistant Staphylococcus Aureus (MRSA) and Non Methicillin Resistant Staphylococcus Aureus (Non MRSA) Pneumonia: A Retrospective, Cross Sectional Cohort Study/M.V. Yap, F.J.R. Obillo, K.P. Manongas, Quezon City, Philippines, p.A3103


P393 Community Acquired Methicillin-Resistant Staphylococcus Aureus Pneumonia in a Previously Healthy 12-Year-Old Male/N.F. Tubeo, Cebu, Philippines, p.A3107


P396 A Study to Assess the Impact of Airway Virus on Asthma Control in Non Exacerbating Patients/L. Walsh, A. O'Sullivan, J. MacSharry, D.M. Murphy, Cork, Ireland, p.A3110


BASIC • CLINICAL • TRANSLATIONAL

THEMATIC POSTER SESSION

CUTTING EDGE COVID RESEARCH

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Area J, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.


P879 The Impact of Pandemic on Influenza and Respiratory Syncytial Virus Profile/P. Mondal, A. Sinharoy, S. Gope, Hershey, PA, p.A3145


P886 High Interleukin-6 Levels on Admission Predicts In-Hospital Mortality in Overweight and Obese COVID-19 Patients/D.C. Fleitas Sosa, N. Van Der Rijst, T.-A.A. Ho, X. Lu, H. Zhao, S. Peterson, V. Kim, K.V. Shenoy, Philadelphia, PA, p.A3152


P518 Perceived Activity and Weakness Score (PAWS): A Subjective Screening Tool for Patient’s Ability to Use Dry Powder Inhalers?/D. Faradji, M. Valdes, J. Ferris, G. Kumar, R. Dhand, Memphis, TN, p.A3180


P521 Functional Limitations, Anxiety and Depression Post-COVID in Colombian Adults/L. Vargas Ramirez, L. Rodriguez Corredor, Bucaramanga, Colombia, p.A3183


P523 Association Between Days of Start Rehabilitation and Development of ICU-Acquired Weakness in Critical Ill Patients with COVID-19/H. Francelin, D.P. Santos, A.C. Lunardi, C.N. Peso, D.S. Schujmann, C. Fu, Sao Paulo, Brazil, p.A3186


P912 ABO, a Small Molecule Inhibitor of Integrin β4, Attenuates Endothelial Cell Permeability and Murine Acute Lung Injury Induced by MRSA/W. Chen, Y. Epshtein, J.R. Jacobson, Chicago, IL, p.A3189


P916 Non-Invasive Systemic Biomarker Assessment of Patients with E-cigarette or Vaping Use-Associated Lung Injury (EVALI)/G. Kaur, S. Podguski, T. Muthumalage, M.D. Mcgraw, I. Rahman, Rochester, NY, p.A3193

P917 Uptake of Cell-Free Hemoglobin into Macrophages Is Dependent on Extracellular Calcium/C.M. Shaver, S.R. Landstreet, L.B. Ware, J.A. Bastarache, Nashville, TN, p.A3194


P922 Caveolin-1/Akt Pathway Regulates Glycolysis and Matrix Production in Fibrotic Lung Fibroblasts/A. Kumar, L. Fan, D. Korir, S. Shetty, Tyler, TX, p.A3199

P923 Disruption of Muc5b Sialylation and Siglec-F Signaling Prevents Bleomycin-Induced Lung Fibrosis/N. Liu, S. Rangarajan, W.J. Janssen, C.M. Evans, Aurora, CO, p.A3200


P926 I-DOT 2.0 as a Tool to Accelerate Developing Novel Point of Care Test (POCT) for Empyema/R. Emerine, K. Sarva, G. Florova, S. Idell, A. Komissarov, Tyler, TX, p.A3203

P927 Histone-Induced Endothelial Barrier Dysfunction and Inflammation Are Mediated via Toll-Like Receptor 4 in Human Lung Endothelial Cells/P. Karki, C. Zhang, Y. Li, K. Promnares, K.G. Birukov, A. Birukova, Baltimore, MD, p.A3206


P929 Non-Invasive Systemic Biomarker Assessment of Patients with E-cigarette or Vaping Use-Associated Lung Injury (EVALI)/G. Kaur, S. Podguski, T. Muthumalage, M.D. Mcgraw, I. Rahman, Rochester, NY, p.A3193


P931 Activation of Large Conductance K+ Channels Protects Pulmonary Endothelial Cells Against TNF-α-Induced Inflammation Through MAPK Pathways/T. Zyrinova, B. Lopez, C. Gu, K. Zou, A. Schwingshackl, Los Angeles, CA, p.A3208

P932 Endotoxin-Induced m6A Methylation in Human Endothelial Cells/A. Feng, J. Wu, T. Robinson, S. Black, T. Wang, Port St. Lucie, FL, p.A3209

P934 **The Ubiquitin E3 Ligase Subunit F-Box Only Protein 24 is Regulated by Endotoxin and Suppresses Inflammation**/ B. Johnson, J.D. Londino, J.S. Bednash, D. Farkas, J.A. Adair, A. Elhance, F.J. Johns, L.N. Chafin, R.K. Mallampalli, Columbus, OH, p.A3211


P936 **In Vitro and In Vivo Characterization of the Novel Cathepsin C Inhibitor BI 1291583**/ S. Kreideweiss, G. Schaenzle, G. Schnapp, V. Vintonyak, M. Grundl, Biberach, Germany, p.A3213

P937 **Chronic Ethanol Feeding to Hepatic Alcohol Dehydrogenase Deficient Deer Mice Causes Fibro-Inflammatory Disease of the Lung**/ L. Kaphalia, M.P. Srinivasan, B.S. Kaphalia, W.J. Calhoun, Galveston, TX, p.A3214


P946 **RNA Sequencing Identifies a Potential Effect of Semaphorin 5a on Murine Alveolar Macrophages in Endotoxin-Induced Acute Lung Injury**/ S.M. Kanth, S. Gairhe, A. Suffredini, P. Torabi-Parizi, Bethesda, MD, p.A5647

P947 **Oxidized Phospholipid Neutralizing Antibody Ameliorates Hyperoxia-Induced Lung Injury**/ W. Tang, X. Sun, J. Witztum, C. Glass, San Diego, CA, p.A5648


P950 **Serum miR-1 Level as a Biomarker of Severity in Bacterial Pneumonia**/ L. Kaphalia, M.P. Srinivasan, B.S. Kaphalia, W.J. Calhoun, Galveston, TX, p.A3223


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**B60 ASTHMA AND ALLERGIC RESPONSES: CELLS, TISSUES, AND ANIMAL MODELS**

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

**Area K, Hall F (North Building, Exhibition Level)**

**Viewing:** Posters will be on display for entire session

**Discussion:** 11:15-12:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.


P954 Asthmatic Bronchial Smooth Muscle Decreases Epithelial Response to Rhinovirus Infection through a CCL20-EIF2AK2 Dependent Pathway
P955 Succinate Accumulation Induces HIF-1α Expression in Airway Epithelial Cells
P956 Differential Expression of Linear and Circular Noncoding RNAs in Mild/Moderate Versus Severe House Dust Mite (HDM) Mouse Models of Asthma
P957 Regulation of β2-Adrenergic Receptor Expression by S-Nitrosylation
P958 Anti-IL-17 Treatment Modulates Pulmonary Responses in Model of Asthma-COPD Overlap
P959 Untargeted Lipidomics of Lung Tissue-Derived Extracellular Vesicles in Mouse Model of Allergic Asthma
P960 Transcriptional Profiling of Airway Epithelial Cells Overexpressing MicroRNA-223-3p
P961 Mechanisms of Cysteine-Mediated Polymerization and Secretion of Muc5ac
P962 Different Effects of Inhaled Corticosteroids on Infiltrating Mast Cells in Type 2 High and Type 2 Low Asthma
P963 Variation in the Biological State of the Airway Epithelia Across Childhood Asthmatics Directs Transcriptional Responses to Air Pollution Fine Particulate Matter
P964 A Role for MMP-19 in Mediating the Effects of Vertical Sleeve Gastrectomy in Chronically Allergen-Challenged Obese Mice
P965 Restoration of Nitric Oxide Bioavailability Decreases Parkin Expression in Airway Epithelial Cells
P966 Does Treatment with a Plant Proteinase Inhibitor, Enterolobium contortisiliquum Contribute to the Control of Inflammation, Remodeling and Oxidative Stress in Mice with Asthma-COPD Overlap (ACO)?

IL-18 Modulates Excitation Contraction Coupling in Human Airway Smooth Muscle Cells

Dose Response and Mechanistic Studies of a Novel Rapid Acting Bronchodilator (S1226) in a Rat Model of Acute Chronic Allergic Asthma

Crosstalk Between T Helper Cells and Airway Smooth Muscle Cells in Obesity-Related Asthma

Role of Nuclear Factor-κB in the Regulation of IκB-kinase-ε and Interferon Regulatory Factor-1 Gene Expression in Human Pulmonary Epithelial Cells

DNA Sequencing Analysis of Cystic Fibrosis Transmembrane Regulator Gene Identifies Cystic Fibrosis-Associated Variants in the Severe Asthma Research Program

Early-life RSV Infection Alters Nasal Airway Epithelial Cell Development


P979 Mucociliary Phenotypes in MUC5B and MUC5AC-Deficient Human Airway Epithelial Models/D. Song, E. Iverson, M. Scull, G. Duncan, College Park, MD, p.A3251


P982 Mucin Expression in Human Precision-Cut Lung Slices/O.N. Hoang, J.B. Hales, H. Karmouty-Quintana, M.J. Tuvim, B.F. Dickey, R.C. Kurten, Houston, TX, p.A5653

P983 Syntaxin-3 Mediates Baseline and Stimulated Airway Mucin Secretion/B. Wharton, J.R. Flores Gonzalez, O.N. Hoang, M.J. Tuvim, B.F. Dickey, Houston, TX, p.A5654


P991 Effects of Nanoparticle Exposure on Autophagy Kinetics in Lung Adenocarcinoma (A549) Cells/A. Sipos, K.-J. Kim, E.D. Crandall, Los Angeles, CA, p.A3257

P992 The Effect of the HIV Protein Tat and the RNA Binding Protein HuR on Human Airway Epithelial Cell Proliferation/R.F. Foronjy, A.J. Dabo, M.A. Salathe, N. Baumlin, M. Kim, Brooklyn, NY, p.A3258


Deletion of Synaptotagmin 2 Blocks Stimulated Mucin Secretion in a Mouse Cystic Fibrosis Model/V. Oren, Houston, TX, p.A5658

Integrin Beta 4 Overexpression in Human Airway Epithelial Cells Prevents Diacetyl-Induced Anoikis/S.-Y. Kim, M.D. Mcgraw, Rochester, NY, p.A5659

Opposed Activation/Deactivation of Myosin Light-Chain 2 (MLC2) with Altered CO2 in Cultured Pulmonary Epithelial Versus Endothelial Cell Lines/M.J. Emery, E. Swenson, E. Wijelath, Seattle, WA, p.A5819


Effect of Dual IQOS and Cigarette Smoke Exposure on Airway Epithelial Cell Stress Pathways and Inflammation: Implications for Lung Health and Respiratory Disease Pathogenesis/P. Saha, I. Mukherjee, S. Jain, A.A. Zeki, V.G.M. Naidu, P. Sharma, Kamrup Rural, India, p.A3266

Electronic Cigarettes Smoking Induces Ferroptosis in a Pre-Clinical Model of COPD/X. Ji, Atlanta, GA, p.A3267


Immunomodulatory LASI IncRNA Regulates Cigarette Smoke Exacerbated SARS-CoV-2 Infectivity in COPD Airway Epithelial Cells/D. Devadoss, A. Acharya, M. Manevski, M. Cioffi, K. Pandey, M. Nair, P. Chapagain, S. Byrareddy, H.S. Chand, Miami, FL, p.A3272


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**BASIC • TRANSLATIONAL**

**THEMATIC POSTER SESSION**

**B62 E-CIGARETTES AND VAPING: ANIMAL AND CELL CULTURE MODELS**

9:30 a.m. - 3:45 p.m. MOSCON CENTER Area K, Hall F (North Building, Exhibition Level)

**Viewing:** Posters will be on display for entire session 11:15-1:15

**Discussion:** 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.

Not Just Smoke: The Cytotoxicity and Adverse Consequences of E-Liquid Flavors on Human Induced Pluripotent Stem Cell-Derived Lung Epithelium and Cardiomyocytes/M. Ho, M. Ho, C. Librach, Toronto, Canada, p.A3263
B63 FROM AIRWAYS TO ALVEOLI: MECHANISTIC AND CLINICAL STUDIES

9:30 a.m. - 3:45 p.m. MOSCONE CENTER
Area K, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15
Discussion: 11:15-12:15 authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.

P1013 Geographic Distribution of Implicated Primary Ciliary Dyskinesia Genes in Puerto Rico/J. Muñiz, J. Meléndez Montañez, F. Alvarado Huertas, W. De Jesus-Rojas, Cayey, PR, p.A3273


P1016 Inhaled Terbutaline Increases High Density Lipoprotein Cholesterol/A. Van As, P. Hooper, Morristown, NJ, p.A3276

P1017 Anti-Interleukin-5 Therapy in Patients with Asthma and Chronic Obstructive Pulmonary Disease Overlap: A Single-Center Review/M.D. Saint-Pierre, S. Mavromatis, Ottawa, Canada, p.A3277


P1021 IL-25 Alters Human Airway Smooth Muscle Responsiveness to Isoproterenol/D. Xiong, L.H. Kachmar, G. Ipma, A.-M. Lauzon, Montreal, Canada, p.A3281


P1037 The Role of EGFR in Airway Dysfunction in Mice Following Chlorine Exposure /K. Makita, Y. Ishii, R. Sun, J.G. Martin, Montreal, Canada, p.A3297


P1039 Differential Effects of IL-17A Neutralization on Severe Allergic Airway Inflammation /L. Moore, B.W. Lewis, S. Amici, M.L. Ford, J. Walum, M.H. Grayson, M. Guerrau-De-Arellano, R.D. Britt, Columbus, OH, p.A3299

P1040 Intravenous Delivery of Liposomes Can Target Drugs to Alveolar Epithelial Cells /E.-O. Essien, B. A. Brandner, Portland, OR, p.A3300

P1041 In Silico and In Vitro Analyses of Cortactin-MLCK Interaction /M. Bandela, Y. Epshtein, P. Belvitch, S.M. Dudek, Chicago, IL, p.A3301

P1042 MZB1 Protein Abundance Is Regulated by Cigarette Smoke Dependent Ubiquitination in Lung Epithelial Cells /H. Lai, T. Nyunoya, P. Suresh, O. Eickelberg, Pittsburgh, PA, p.A3302

P1043 Microbial Dysbiosis and Epithelial Dysfunction in Vitamin A-Deficient Lungs /K. Quiles, W.E. Johnson, F. Chen, Boston, MA, p.A3303

P1044 The Matricellular Protein Periostin Is Produced by Pericytes and Contributes to Airway Wall Remodelling in Allergic Airway Disease /J.R. Johnson, R.E. Bignold, Birmingham, United Kingdom, p.A3304

P1045 Functional Effects of Cholesterol on Surfactant-Related Phospholipid Monolayers /S.B. Hall, B.A. Brandner, Portland, OR, p.A3305


P1049 In-Vitro Validation of a Novel Handeld Oscillometry Device /D. Bizzotto, P.P. Pompilio, A. Gobbi, R.L. Dellaica, Milano, Italy, p.A5661


P1051 Respiratory-Related Evoked Potentials in COPD /I. Epiu, Sydney, Australia, p.A5663


P1058 Effects of Linear Deformations on the 3D Alveolar Shape/A.M. Reimelt, D.M. Vasilescu, R. Beare, L. Knudsen, R. Grothausmann, Hannover, Germany, p.A3314

P1059 Emphysema Progression Quantification with Joint Volume, Noise and Bias (VNB) Deconvolution of Density Histograms/G. Vegas-Sanchez-Ferrero, R. San Jose Estepa, Boston, MA, p.A3315


P52 Impact of Positive Airway Pressure Therapy on Clinical Outcomes in Older Veterans with Chronic Obstructive Pulmonary Disease and Comorbid Obstructive Sleep Apnea/S. Chowdhuri, A. Uzzaman, S. Khan, D. Greig, J. Bansal, A. Lazar, R. Rastogi, L. Zhao, P. Mishra, C. Kushida, B. Axelrod, Detroit, MI, p.A3328


P54 Effects of APAP and CPAP Therapy on Nocturnal Blood Pressure Fluctuations in Patients with OSA Combined with Hypertension/H. Zhongming, Q. Zhang, X. Jiang, J. Shi, M. Li, M. Han, D. Chen, S. Ma, P. Da, F. Han, T. Penzel, Karamay, China, p.A5665


P59 Metabolic Effects of Sustained Hypoxia Are Not Mediated by Hepatocyte HIF-1/J.J. Reeves, E. Lawrence, E.A. Moya, A. Sanchez Azofra, M. Zhang, L. Barnes, O.A. Mesarwi, La Jolla, CA, p.A3332

P60 Retrospective Analysis of CPAP Adherence in Patients with Obstructive Sleep Apnea (OSA) During COVID-19 Pandemic Using Telemonitoring/C. Davidson, M. De Chavez, T. Nisar, A. Jayadev, Slough, United Kingdom, p.A3334

P61 Does the Therapy Duration of Continuous Positive Airway Pressure Effect the Benefit of Cognition Improvement in Obstructive Sleep Apnea?/Y. Zhang, Changsha, China, p.A3335


P64 Risk of Obstructive Sleep Apnea in Neurological Diseases in Older Adults: A Canadian Longitudinal Study of Aging/M. Kaminska, T. Gomes, D. Rizzo, M.A. Baltzan, N. Gosselin, R. Postuma, A. Benedetti, R.J. Kimoff, Montreal, Canada, p.A3338


P70 Neck Circumference - Height Ratio Cut-Off as a Predictor of Obstructive Sleep Apnea Severity Among Adult Patients Diagnosed with Obstructive Sleep Apnea at the Lung Center of the Philippines/R.M. Denopol, M.C.I. Jocson, Quezon City, Philippines, p.A5668


P240 A Case of ALK Positive Adenocarcinoma of Unknown Primary with Good Response to Alectinib/V.L. Kankanala, S.K. Mukkamalla, Albuquerque, NM, p.A3353

P241 A Case of Metastatic Lung Squamous Cell Carcinoma with EGFR Mutation and Excellent Response to Osimertinib/H.K. Gharib, A. Singh, T. Bazzi, Z. Kafri, Detroit, MI, p.A3354


**P246** Reflux as Presenting Symptom of Small Cell Lung Carcinoma/M. Matthews, P. Jain, K. Carroll, Dayton, OH, p.A3357

**P247** Post Transplant Lymphoproliferative Disorder Masquerading as a Lung Mass After Lung Transplantation/M. Hajmurad, D. Matthews, N. Barron, Greenville, SC, p.A3358

**P248** Small Cell Carcinoma of Prostate: Rare Form of Extra Pulmonary High-Grade Neuroendocrine Carcinoma/A. Iftikhar, A. Hayder, H. Chykyda, M. Groth, Port Jefferson, NY, p.A3359


**P250** Thoracic Schwannoma Arising from an Intercostal Nerve in the Setting of COVID-19: A Rare Presentation/P. Modi, B. Tuppekar, S. Patel, G. Nair, A. Uppe, Navi Mumbai, India, p.A3361

**P251** An Unusual Presentation of Pulmonary Neuroendocrine Hyperplasia in a Patient with Mycobacterium/J. Patel, I. Makki, G. Cumbo-Nacheli, G. Lam, Grand Rapids, MI, p.A3362

**P252** Air in the Neck/E.J. Pacheco, K. Calero, Tampa, FL, p.A3363

**P254** Non Resolving Pneumonia: An Uncommon Presentation of Lung Adenocarcinoma/E.M. Castro, F.G. Ayuyao, Quezon City, Philippines, p.A3364

**P255** Primary Lung Adenocarcinoma Misdiagnosed as Pneumonia: Case Report/S. Khatib, S. Kulkarni, K. Abdalla, M. Aboubakr, S. Dubin, Kansas City, MO, p.A3366


**P258** Hypertrophic Osteoarthropathy Treatment with Octreotide for Patient with Unresectable Pulmonary Adenocarcinoma/E. Yi, C. Lopez, N. Seetharamu, New Hyde Park, NY, p.A3369


**P260** Adrenal Hemorrhage Secondary to Lung Cancer Metastasis/S. Bademian, B. Morshed, A. Mills, I. Arora, Norfolk, VA, p.A3371

**P261** An Unexpected Encounter: Primary Ewing’s Sarcoma of the Lung/N. Sharma, M. Bhagat, T.M. Dudney, K. Gardner, Knoxville, TN, p.A3372


**P263** “Cheerio” as the First Manifestation of Metastatic Pancreatic Adenocarcinoma/Y. Sarda, B. Young, S.K. Avasarala, W. Mneimneh, T. Panchabhai, Cleveland, OH, p.A3374


**P265** Cancer Masquerading as a Distant Abscess/R. Sharma, S. Arjun, N. Brnilovich, J. Iqbal, J. Akella, East Meadow, NY, p.A3376

**P266** The Morphologic Mimicry of Pulmonary Hepatoid Adenocarcinoma/C. Sinphand, A. Benchakroun, Atlantis, FL, p.A3377

**P267** Primary Cardiac Angiosarcoma: A Rare Cause of Dyspnea/S. Farooq, A.W. Ertel, Washington, DC, p.A3378

**P268** A Rare Presentation of Metastatic Melanoma Mimicking an Interstitial Lung Disease Exacerbation/T.M.A. Khan, Y. Ansari, S. Ansari, S. Qadir, M. Ahmed, N. Kazimuddin, I. Waheed, Bowling Green, KY, p.A3379

**P269** Bacterial Colonization in Lung Cancer Patients/W.T. Kirana, G.A. Desianti, Jakarta Timur, Indonesia, p.A3380

**P270** Three Simultaneous Primary Cancers: A Medical Curiosity/S. Tasnim, M.A. Amjad, J.V. Miller, A. Patel, P.O. Ochieng, Scranton, PA, p.A3381

**B69** RARE CASES IN THORACIC ONCOLOGY

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Area D, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.

**P272** Atypical Pulmonary Manifestations of Neurofibromatosis Type 1/D. Caesario, J.E. Casino, S. Jesmajian, New Rochelle, NY, p.A3382
A Case of Angiosarcoma in Neurofibromatosis Type 1 Causing Mechanical Right Ventricular Compression/C. Von Gizycki, R. Jedlinski, S.Z. Ahmad, H.J. Kim, Morristown, NJ, p.A3383

A Rare Case of Rosai-Dorfman Disease Involving Pulmonary Artery/P. Huh, T. Vasu, Gaithersburg, MD, p.A3384

A Rare Case of Giant Cell Pleomorphic Carcinoma of the Lung Presenting as a Voluminous Cavitary Lesion/M.A. Bouanzoul, A. Ketfi, Rouiba, Algeria, p.A3385

Slow Growing Lung Mass in a Patient with Multiple Endocrine Neoplasia Type 1: Consider Carcinoid Tumor/R. Talebi, N.R. Evans III, G.C. Kane, Philadelphia, PA, p.A3386

An Unusual Case of Metastatic Adenocarcinoma of Lung Origin with No Identifiable Lung Mass/E.L. Amaechi, Y. Mubarak, S. Murthy, Bronx, NY, p.A3387

A Rare Case of Ectopic Adrenocorticotropic Hormone Syndrome Causing Severe Hypokalemia and Metabolic Alkalosis in Small Cell Lung Cancer/S. Mahapatra, A. Lavina, A. Bello, J.P. Mehta, Weston, FL, p.A3388


Cancer Care Delay and Disruption Due to Delta Wave Coronavirus Pandemic: A Case of Large-Cell Neuroendocrine Carcinoma/M.A. Bouanzoul, A. Ketfi, Rouiba, Algeria, p.A3390


Penis in the Lung: A Rare Presentation of Extramammary Paget’s Disease/J. Yeo, C. Kanitsoraphan, T. Nagamine, S.J. Evans, Honolulu, HI, p.A3395

A Rare Case of Primary Pulmonary Angiosarcoma/R. Kumar, S. Harabaglia, C. Shapiro, Pueblo, CO, p.A3396
PULMONARY CLINICAL CORE CURRICULUM

Education Committee

11:30 a.m. - 1:00 p.m. MOSCONE CENTER
Hall E (North Building, Exhibition Level)

Target Audience
Practicing internists, subspecialists, registered nurses and advanced practice providers in pulmonary, critical care, and sleep medicine who work in a clinical setting and are currently engaged in maintenance of certification.

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

• identify a diagnostic approach to interstitial lung diseases including granulomatous diseases and IPF;
• characterize pulmonary manifestations of autoimmune disorders;
• describe therapeutic options for progressive fibrotic lung disease.

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects that are not only included in recertification requirements, but also are timely and relevant to clinical practice in 2022. The ATS Clinical Core Curriculum Symposia focus on key topics in the areas of Pulmonary, Critical Care, and Sleep Medicine. The topics are aligned with corresponding MOC Medical Knowledge modules. This symposium is intended to help clinicians stay up to date with important information relevant to their medical practices, and to provide an opportunity for clinicians to evaluate their individual knowledge and skills while earning MOC Medical Knowledge points.

Chairing:
G.W. Garrison, MD, Burlington, VT
J.L. Cho, MD, Iowa City, IA

11:30 a.m. - 1:15 p.m.
ATS WOMEN’S FORUM
San Francisco Marriott Marquis
Yerba Buena Ballroom Salon 1 (Lower B2 Level)

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’s speaker is Patricia Finn, MD. Dr. Patricia W. Finn is an Earl M. Bane professor, associate dean for strategic initiative, head of the Department of Medicine, and an associate program director for the Medical Scientist Training Program at the University of Illinois at Chicago. She is a physician scientist focusing on the microbiome and immune mediated pulmonary diseases, including sarcoidosis, transplantation, lung injury, and asthma.

We will also recognize and hear remarks from the 2022 recipient of the Elizabeth A. Rich Award. The Elizabeth Rich Award is presented to an outstanding woman in ATS who has made significant contributions in the fields of pulmonary, critical care and sleep medicine.

The forum is organized and presented by the ATS Membership Committee, and its chair Clement Ren MD, MBA, ATSF and vice chair Meshell Johnson, MD.

The Women’s Forum is generously sponsored by United Therapeutics.

Registration Fee: $30 (includes lunch)
Seating is limited. Pre-registration is required. Please register through online general registration by clicking the Register Now button above.

All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).
PEDIATRIC CLINICAL CORE CURRICULUM

Education Committee
12:00 p.m. - 1:00 p.m. MOSCONE CENTER
Room 2002/2004 (West Building, Level 2)

Target Audience
Pediatric pulmonary and critical care physicians who work in a clinical setting and are currently engaged in maintenance of certification

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

• identify diagnostic and management strategies, including pulmonary function testing and appropriate ventilation strategies, for pediatric neuromuscular diseases;
• describe new and evolving treatments for pediatric neuromuscular diseases;
• characterize the use of palliative care consultation to guide physicians, patients, and families through challenging care decisions that occur in pediatric neuromuscular disease cases.

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. The Pediatric Core Curriculum symposia promote lifelong learning and the enhancement of the clinical judgment and skills essential for practicing pediatrician.

Chairing: J.E. Gross, MD, PhD, Denver, CO
C. Okorie, MD, MPH, Palo Alto, CA
M. Mccown, DO, Takoma Park, MD

12:00 New and Evolving Therapeutics in Neuromuscular Disease Management
M.K. Elmallah, MD, MS, Durham, NC

12:30 Ventilation Strategies for Acute and Long-Term Management of Neuromuscular Disease
M.Y. Prero, MD, Cleveland, OH

DIVISION FOR ENVIRONMENTAL HEALTH SCIENCE AND PRACTICE; CDC

L11 ASTHMA, LEGIONNAIRES’ DISEASE, AND OTHER RESPIRATORY DISEASES IN THE CONTEXT OF ENVIRONMENTAL JUSTICE, HEALTH EQUITY AND CLIMATE HEALTH

12:00 p.m. - 1:00 p.m. MOSCONE CENTER
Room 3014 (West Building, Level 3)

Target Audience
Healthcare professionals serving environmental justice communities, as well as those serving children with asthma, those interested in impact of Covid-19 and climate health on increased cases of respiratory diseases

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

• better identify patients at risk of respiratory health outcomes, climate related exposures based on demographic and community characteristic and apply precision medicine diagnostics and risk identification;
• define new strategies to manage the care of children with asthma and integrate/incorporate new guidelines into current practice;
• define new strategies to identify, diagnose and treat those with Legionnaire’s disease and integrate/incorporate new guidelines into current practice.

Four talks will highlight the application of current environmental public health data to pulmonary medicine. From a clinical learner’s perspective, this collection of talks will empower the attendee to use environmental public health data in their clinical decisions with the goal of improving patient care within their practice. From an academic or public health perspective, this collection of talks will empower the attendee to use environmental public health data to better understand the observed clinical patterns of environmental lung health outcomes within their local jurisdictions so that they can then work to empower locally-relevant interventions.

Chairing: E.R. Svendsen, PhD, Atlanta, GA

12:00 Climate Health Driven Changes in Pulmonary Health Outcomes
A. Vaidyanathan, PhD, Atlanta, GA

12:15 Environmental Public Health Tracking: A Resource for Data-Driven Public Health Action
A. Werner, PhD, Atlanta, GA

12:30 Still Waters Run Deep: New Frontiers in Legionnaires’ Disease Epidemiology, Diagnosis and Prevention
S. Salandy, PhD, MPH, Atlanta, GA
12:37 Still Waters Run Deep: New Frontiers in Legionnaires’ Disease Epidemiology, Diagnosis and Prevention
A. Barskey, MPH, Atlanta, GA

12:45 Cross State Analyses of Emerging Benefits, Challenges, and Technical Assistance Needs for Asthma Quality Improvement Initiatives
A. Perkins, PhD, Atlanta, GA

DEPARTMENT OF VETERANS AFFAIRS OFFICE OF RESEARCH AND DEVELOPMENT

L12 LUNG PRECISION ONCOLOGY PROGRAM IN VA: RISK PREDICTION MODELS AND BIOMARKERS FOR SCREENING
12:00 p.m. - 1:00 p.m. MOSCONE CENTER
Room 2006/2008 (West Building, Level 2)

Target Audience
Those interested in lung cancer and lung cancer screening; those interested in learning about ongoing lung cancer screening trials planned for VA’s LPOP network, their generalizability, and their potential impact on health policy.

Objectives
At the conclusion of this session, the participant will be able to:
• gain a better idea of current and future research opportunities and collaborative approaches being taken to use VA data to work for Veterans;
• gain understanding of career opportunities in the VA for those with an interest in lung cancer care and research;
• learn how to select patients for entry into lung cancer screening programs.

In 2020, the VA embarked on the Lung Precision Oncology Program to enhance care and research related to lung cancer, focusing on early detection through screening and improved treatments using precision oncology. The session will begin with a general update on clinical and investigative activities under way within the program. Also, an ongoing multi-site trial will be described testing the feasibility of implementing risk-based selection for screening. The third speaker will focus on efforts to identify promising circulating biomarkers with the goal of using them to refine the screening selection process and improve decision-making in the management of indeterminate nodules.

Chairing:
J.K. Brown, MD, San Francisco, CA
K. Myrie, PhD, Washington, DC
C.G. Slatore, MD, Portland, OR

12:00 Tackling Lung Cancer in LPOP
R. Ramoni, DMD, ScD, Washington, DC

12:20 Implementing Risk-Based Patient Selection for Screening in LPOP
N.T. Tanner, MD, MSCR, Charleston, SC

12:40 Testing the Most Promising Blood-Based Biomarkers in Lung Cancer Screening Programs Across LPOP
S.M. Dubinett, MD, Los Angeles, CA

AMERICAN LUNG ASSOCIATION, NATIONAL INSTITUTES OF HEALTH, ATS FOUNDATION, PALLIATIVE CARE ORGANIZATIONS, AMERICAN CANCER SOCIETY SOCIETY; PRIVATE/PUBLIC FOUNDATIONS

L13 OPPORTUNITIES FOR RESEARCH FUNDING
12:00 p.m. - 1:00 p.m. MOSCONE CENTER
Room 2010/2012 (West Building, Level 2)

Target Audience
This session will benefit attendees with clinical, academic, research, and/or funding responsibilities. Information provided by presenting organizations could also enhance career development strategies for students and early career professionals.

Objectives
At the conclusion of this session, the participant will be able to:
• Describe the research priorities of each funding agency represented on the panel.
• Identify specific criteria required and mechanisms of funding from each agency on the panel.
• Identify a funding agency that is most closely aligned with the attendee’s interest and program of research.

This session will introduce programs and research funding opportunities offered from various government and non-government agencies and foundations. Speakers will present current research priorities and mechanisms of funding available within respective agencies. Funded researchers will discuss effective strategies for successful funding. Time will be provided for audience members to ask questions of the panel of speakers.

Chairing:
L.A. Matura, PhD, RN, Philadelphia, PA
S.J. Crowder, PhD, RN, ATSF, Indianapolis, IN

12:00 Introductions
S.J. Crowder, PhD, Indianapolis, IN

12:10 Research Funding through the American Lung Association
D.P. Brown, MS, Wilmington, DE

12:17 Obtaining Research Funding through Federal Agencies
L.L. Chlan, PhD, RN, ATSF, Rochester, MN

12:24 Fostering Successful Grant Applications
J.L. Larson, PhD, RN, Ann Arbor, MI
L14 SARS-COV-2 AND ATOPY: RESULTS FROM NIAID-SPONSORED STUDIES

Target Audience
Providers of lung health, clinical and epidemiological researchers

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

- describe novel study designs relevant for conducting rigorous clinical research during a global pandemic;
- describe new findings and risk factors related to SARS-CoV-2 infection, household transmission, and severity of illness;
- better understand the relationship between pre-existing allergic diagnoses or Type 2 inflammation of risks of SARS-CoV-2 infection and disease severity, and risks associated with SARS-CoV-2 mRNA vaccines.

This session will describe results from three NIAID-sponsored studies developed to address public health issues during the COVID-19 pandemic, with topics of relevance to patients with asthma and allergic diseases.

Chairing: P.M. Becker, MD, Bethesda, MD

12:00 Risk Factors for SARS-CoV-2 Infection and Household Transmission in Allergic and Non-Allergic Individuals: The HEROS Study
T.V. Hartert, MD, MPH, ATSF, Nashville, TN

12:20 mRNA Vaccines in Highly Allergic Individuals
J. Baker, MD, Ann Arbor, MI

12:40 Type 2 Endotype and Severity of Illness in the IMPACC COVID-19 Cohort
M.C. Altman, MD, MPhil, Seattle, WA

12:00 Introduction
L.J. Smith, MD, Chicago, IL
R.A. Wise, MD, Baltimore, MD

12:05 Trial of Roflumilast in the Management of Poorly Controlled Asthma in People With Obesity
A.E. Dixon, MA, BM BCH, ATSF, Burlington, VT

12:17 Losartan Effects on Emphysema Progression
R.A. Wise, MD, Baltimore, MD

12:29 "It's a Cause I Can Believe In:" Determinants of Research Participation in the Lung Health Cohort Study
K. Menson, DO, Burlington, VT

12:41 LEEP COVID-19 Study Results and Findings
W.Z. Zhang, MD, New York, NY

12:53 ALA-ACRC Question and Answer Session
R.A. Wise, MD, Baltimore, MD
L16  NHLBI PREVENTION AND EARLY TREATMENT OF ACUTE LUNG INJURY (PETAL) NETWORK
12:00 p.m. - 1:00 p.m.  MOSCONE CENTER
Room 3005/3007 (West Building, Level 3)

Target Audience
Practicing critical care and emergency medicine clinicians and clinical researchers

Objectives
At the conclusion of this session, the participant will be able to:
• understand the goals and structure of the PETAL network;
• gain understanding the questions being addressed in PETAL network studies;
• gain new findings and results of PETAL network studies.

This session will provide an update on the NHLBI Prevention and Early Treatment of Acute Lung Injury (PETAL) clinical trials network. The session will describe the structure and goals of the PETAL network, an overview of progress in ongoing studies, and results of studies to date.

Chairing:  L. Reineck, MD, MS, Bethesda, MD
R.G. Brower, MD, Baltimore, MD

12:00  PETAL Overview
R.G. Brower, MD, Baltimore, MD

12:07  Update on the ACTIV 4a Platform
J. Wilson, MD, MS, Stanford, CA

12:14  Update on the ACTIV 4 Host Tissue Platform
K. Gibbs, MD, Winston-Salem, NC

12:21  Update on the ACTIV 3 Platform
A.A. Ginde, MD, MPH, Aurora, CO

12:28  Update on the ACTIV 3b Platform
S.M. Brown, MD, MS, Murray, UT

12:35  Update on the CORAL Studies
C.T. Hough, MD, MSc, Portland, OR

12:42  Update on the CLOVERS Trial
I.S. Douglas, MD, FRCP, Denver, CO

12:49  Update on the ASTER Trial
M.A. Matthay, MD, San Francisco, CA

12:56  Q&A
L. Reineck, MD, MS, Bethesda, MD

L17  UPDATES FROM THE COPDGENE STUDY
12:00 p.m. - 1:00 p.m.  MOSCONE CENTER
Room 3006/3008 (West Building, Level 3)

Target Audience
Researchers, medical trainees, those with an interest in COPD pathogenesis

Objectives
At the conclusion of this session, the participant will be able to:
• learn about imaging in the COPDGene study;
• gain understanding of subtypes identified by the COPDGene study;
• learn about longitudinal follow-up in the COPDGene study.

Chronic obstructive pulmonary disease (COPD), the fourth leading cause of death in the United States, is a heterologous syndrome. The COPDGene study has created the largest cohort of well-characterized current and former smokers for respiratory disease research. The primary goals of COPDGene are: 1) to identify new genetic loci that influence the development of COPD and COPD-related phenotypes and 2) to reclassify COPD into subtypes that can ultimately be used to develop effective therapies. In this session, presenters will discuss new results from the COPDGene study, including new ways to diagnose the disease, deep learning approaches to imaging data, genetics, epigenetics, transcriptomics, proteomics, and an integrative Omics approach.

Chairing:  L. Postow, PhD, Bethesda, MD
J.D. Crapo, MD, Denver, CO

12:00  Assessing COPD Progression
A. Khatiwada, PhD, Denver, CO

12:12  Disease Trajectories in COPD
J. Ross, PhD, Boston, MA

12:24  Advances in COPD Imaging
S.P. Bhatt, MD, MSPH, Birmingham, AL

12:36  COVID-19 in COPDGene
J. Bon, MD, MS, ATSF, Pittsburgh, PA

12:48  Proteomics in COPD
R.P. Bowler, MD, PhD, Denver, CO
L18  ASTHMA EMPOWERMENT COLLABORATIONS TO REDUCE CHILDHOOD ASTHMA DISPARITIES: BASELINE DATA FOR THREE COMMUNITIES
12:00 p.m. - 1:00 p.m. MOSCONE CENTER
Room 3010/3012 (West Building, Level 3)

Target Audience
Researchers or clinicians interested in pediatric asthma management in the community setting

Objectives
At the conclusion of this session, the participant will be able to:
• better understand the barriers to providing children with evidence based asthma care;
• recognize when children with asthma need additional care;
• gain understanding about how integrated models of care can be provided to underserved children with asthma.

In 2017, NHLBI funded investigators to conduct multi-level clinical trials to provide comprehensive asthma care in specific communities where the interventions were selected based on a community needs assessment. Within each community, investigators identified the children at high risk for poor asthma outcomes, providing a benchmark measurement for those most likely to experience disparities in their asthma outcomes. Having completed trial enrollment, researchers will share how they identified their population of interest and the baseline characteristics of each cohort. In so doing, a cross sectional examination of asthma care in each of the communities will be provided.

Chairing:  M.M. Freemer, MD, MPH, Bethesda, MD

12:00  Asthma Among Dine Children Living on the Navajo Nation
B.G. Bender, PhD, Denver, CO

12:15  Asthma Among West Philadelphia Asthma Care Collaborative Participants
T. Bryant-Stephens, MD, Philadelphia, PA

12:30  Asthma Among Participants in the Rhode Island Asthma Integrated Response Program (RI-AIR)
D. Koinis-Mitchell, PhD, Providence, RI

12:45  Panel Discussion

ME102  ADVOCACY ACROSS THE SPECTRUM: HARNESING OUR INFLUENCE AND EXPERTISE TO PROMOTE INDIVIDUAL HEALTH AND COMMUNITY WELL-BEING

Pre-registration and additional fees required. Attendance is limited.
Member: $100  LMIC Member: $70

Assembly on Behavioral and Health Services Research
12:15 p.m. - 1:15 p.m. MOSCONE CENTER
Room 101-102 (South Building, Street Level)

Target Audience
Clinicians (physicians, nurses, fellows, residents), researchers, administrators, and policymakers

Objectives
At the conclusion of this session, the participant will be able to:
• define what advocacy means;
• illustrate examples of advocacy at different levels: representation; community development; activism and social policy reform;
• apply and integrate one of the advocacy forms into one’s own practice or program.

Attendees will learn Carlisle’s theoretical model on health promotion, advocacy, and health disparities to frame the session. A panel of expert advocates will then give real-world examples of their advocacy work in each of the four quadrants: (1) Representation, (2) Community Development, (3) Community Activism, and (4) Social Policy Reform. This will be followed by an interactive workshop of small-group facilitated discussions around practical methods of engagement which will then be shared with the larger group. Participants will leave with access to resources and tools to bring back to their home institutions, training programs, and communities.

Faculty:  M.M. Lee, MD, ATSF, Los Angeles, CA
K. Doo, MD, MEd, Oakland, CA
S. Gause, MD, Portland, OR
MEET THE EXPERTS
CME Credits Available: 1

Pre-registration and additional fees required. Attendance is limited.
Member: $100  LMIC Member: $70.

12:15 p.m. - 1:15 p.m.  MOSCONE CENTER

ME24  HYPERINFLAMMATORY AND IMMUNOSUPPRESSIVE SUBPHENOTYPES IN CRITICAL ILLNESS: TWO SIDES OF THE SAME COIN?
E.D. Morrell, MD, MA, Seattle, WA
C. Mikacenic, MD, Seattle, WA
Room 50/62 (South Building, Lower Mezzanine)

ME25  NEUROLOGIC DISASTERS IN THE ICU
T.P. Bleck, MD, ATSF, Chicago, IL
Room 52/54/56 (South Building, Lower Mezzanine)

ME26  FINE PARTICLES IN OUR AIR: THEIR TOXICITY AND ROLE IN VIRUS TRANSMISSION
G.D. Thurston, DSc, New York, NY
Room 58/60 (South Building, Lower Mezzanine)

ME27  OPIOID USE DISORDER, SLEEP DEFICIENCY, VENTILATORY CONTROL AND TREATMENT IMPLICATIONS
H.K. Yaggi, MD, New Haven, CT
Room 70/72 (South Building, Lower Mezzanine)

ME28  HOW DO I TEACH EBUS TBNA BRONCHOSCOPY?
J. Diaz-Mendoza, MD, Detroit, MI
C.R. Lamb, MD, Burlington, MA
A. Majid, MD, Boston, MA
Room 74/76 (South Building, Lower Mezzanine)

SECTION MEMBERSHIP MEETINGS

12:00-2:00 PM

SECTION ON TERRORISM AND INHALATION DISASTERS
MARRIOTT MARQUIS
Room: Yerba Buena Ballroom, Salon 10 (Lower B2 Level)

1:15-2:15 PM

SECTION ON MEDICAL EDUCATION
MARRIOTT MARQUIS
Room: Yerba Buena Ballroom, Salon 11-13 (Lower B2 Level)

Monday afternoon, May 16

PRESENTATION OF THE RECOGNITION AWARDS FOR SCIENTIFIC ACCOMPLISHMENTS

MOSCONE CENTER,
Room 3001/3003 (West Building, Level 3).

As part of the ATS Respiratory Health Awards, the Recognition Awards for Scientific Accomplishments recognizes outstanding scientific contributions in basic or clinical arenas to enhance the understanding, prevention and treatment of respiratory disease, critical illness, or sleep disorders and recognizes exemplary professionalism, collegiality and citizenship through mentorship and scientific involvement in the ATS community. Awardees are selected based on contributions made throughout their careers or for major contributions made at a particular point in their careers. Awardees will make a 20-minute presentation on their research.

Chairing:  Zea Borok, MD, ATSF, Los Angeles, CA
Juan C. Celedon, MD, DrPH, ATSF, Pittsburgh, PA

Awardees:
2:15  Molecular Phenotyping of ARDS: Moving Towards Precision Critical Care
Carolyn S. Calfee, MD, MSCR, San Francisco, CA

2:35  The Antifibrotic Benefit of the Null Hypothesis
Erica L. Herzog, MD, PhD, New Haven, CT

2:55  Broken Wings: Impaired Regeneration in Chronic Lung Disease
Melanie Koenigshoff, MD, PhD, ATSF, Pittsburgh, PA

3:15  Smoking, Vaping, and the Lung: Stress to Disease
Irfan Rahman, PhD, ATSF, Rochester, NY

Click Here to Access the Program Itinerary and Add Monday Sessions and Presentations to Your Calendar
VISIT THE EXHIBIT HALL
Take this opportunity between sessions to visit the Exhibit Hall to gain practical knowledge to advance care and research. Exhibitors will be on hand to provide information on pharmaceutical products, medical equipment, publications and research services.

ADULT CLINICAL CORE CURRICULUM
CME Credits Available: 1.5
MOC Points Available: 1.5

CC3 CRITICAL CARE CLINICAL CORE CURRICULUM
Education Committee
2:15 p.m. - 3:45 p.m. MOSCONE CENTER
Hall E (North Building, Exhibition Level)

Target Audience
Practicing internists, subspecialists, registered nurses and advanced practice providers in pulmonary, critical care, and sleep medicine who work in a clinical setting and are currently engaged in maintenance of certification.

Objectives
At the conclusion of this session, the participant will be able to:
• describe diagnosis and management of ICU Delirium;
• identify long term sequelae of critical illness including cognitive impairments and critical illness myopathy;
• define the diagnosis of Post Intensive Care Unit Syndrome and describe management strategies including the use of Post ICU Clinics.

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects that are not only included in recertification requirements, but also are timely and relevant to clinical practice in 2022. The ATS Clinical Core Curriculum Symposia focus on key topics in the areas of Pulmonary, Critical Care, and Sleep Medicine. The topics are aligned with corresponding MOC Medical Knowledge modules. This symposium is intended to help clinicians stay up to date with important information relevant to their medical practices, and to provide an opportunity for clinicians to evaluate their individual knowledge and skills while earning MOC Medical Knowledge points.

Chairing: S. Ahmed, MBBS, FCCP, Albuquerque, NM
D. Kelm, MD, ATSF, Rochester, MN

B81 THE PEDIATRIC YEAR IN REVIEW
Assemblies on Pediatrics; Behavioral and Health Services Research; Clinical Problems; Sleep and Respiratory Neurobiology
2:15 p.m. - 3:45 p.m. MOSCONE CENTER
Room 2002/2004 (West Building, Level 2)

Target Audience
Any provider of lung health for children, clinical and translational researchers who study pediatric respiratory problems.

Objectives
At the conclusion of this session, the participant will be able to:
• gain understanding of new clinical findings and scientific developments in the field of pediatric sleep medicine;
• identify strategies to improve our recruitment and retention of pediatric pulmonologists by learning about the current status of the pediatric pulmonology workforce;

This session will provide up-to-date and state-of-the-art information on the four topics: pediatric sleep medicine; status of the pediatric pulmonology workforce; impact of COVID-19 on the pediatric population, and disparities in pediatric respiratory disease.

Chairing: T.A. Laguna, MD, MSci, Chicago, IL
B.T. Kopp, MD, MPH, ATSF, Columbus, OH

2:15 Update on Pediatric Sleep Medicine
O. Afolabi-Brown, MD, Philadelphia, PA

2:37 Update on the Status of the Pediatric Pulmonology Workforce
J. Rama, MD, MEd, Houston, TX

2:59 The Impact of COVID-19 on the Pediatric Population
L. Yonker, MD, Boston, MA

3:22 Disparities in Pediatric Respiratory Disease
B.J. Sheares, MD, MS, New Haven, CT
B82 CRITICAL CHALLENGES AND COMPPELLING QUESTIONS FOR CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Assemblies on Clinical Problems; Respiratory Cell and Molecular Biology
2:15 p.m. - 3:45 p.m. MOSCONE CENTER
Room 3-4 (South Building, Exhibition Level)

Target Audience
Pulmonologists, fellows, residents, nurses

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

• learn and understand novel concepts in disease pathogenesis, health disparities, and therapeutic strategies;
• identify critical areas of future COPD research priorities in the upcoming decade;
• gain understanding of the critical challenges for optimal implementation of this research of COPD on improving treatment outcomes at a local and national level.

Chronic Obstructive Pulmonary Disease (COPD) is the third leading cause of death in the United States. Despite its significant impact on the world’s population, much about the disease remains poorly understood. Further research is crucial to inform healthcare providers about pathogenesis, risk factors, and better therapeutic approaches. This session will identify gaps in our current knowledge base, describe recent progress in the field of COPD research, and outline strategies to help answer compelling unanswered questions relevant to this disease.

Chairing: V. Kim, MD, ATSF, Philadelphia, PA
J. Bon, MD, MS, ATSF, Pittsburgh, PA
J.K. Quint, FRCP, MSc, PhD, London, United Kingdom

2:15 Introduction
V. Kim, MD, ATSF, Philadelphia, PA

2:18 COPD Prevention: Role of Emerging Exposures and Risk Factors on COPD Development
R. Kalhan, MD, MS, Chicago, IL

2:32 Health Disparities in COPD: Understanding Environmental and Social Determinants
M.B. Drummond, MHS, MD, ATSF, Chapel Hill, NC

2:46 Current and Emerging Concepts in Early Disease Pathogenesis
C.M. Freeman, PhD, Ann Arbor, MI

3:00 The Future of Regenerative Therapies for COPD
S. Krick, MD, PhD, Birmingham, AL

3:14 Translation to Clinical Practice: Implementation of the COPD National Action Plan
L. Postow, PhD, Bethesda, MD

3:28 Question and Answer Session
J. Bon, MD, MS, ATSF, Pittsburgh, PA

B83 BEYOND FIBROSIS: PATIENT CENTERED TREATMENT AND OUTCOMES IN SARCOIDOSIS

Assembly on Clinical Problems
2:15 p.m. - 3:45 p.m. MOSCONE CENTER
Room 7-8 (South Building, Exhibition Level)

Target Audience
Clinicians and researchers involved in the care of patients with sarcoidosis.

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

• incorporate patient-reported outcomes and dynamic functional assessments into routine practice of the care of patients with pulmonary sarcoidosis;
• improve the quality of life of sarcoidosis patients by understanding the societal factors that impact quality of life, and identifying and utilizing available resources to help alleviate these factors;
• define new strategies for the management of patients with sarcoidosis involving newer agents to minimize toxicity and improve quality of life.

A substantial number of sarcoidosis patients have disabling symptoms. Progressive pulmonary disease is the most frequent cause of sarcoidosis related mortality. Yet, other disease manifestations may contribute more to impaired quality of life. We will review the challenges of living with sarcoidosis, and the disparities in outcomes. Faculty will presentations will include contemporary assessment tools, including the limitations of PFTs and the potential role of patient reported outcome measures. We will also discuss the emerging treatments such as nicotine, JAK inhibitors and others, and the benefits of regular exercise, support groups and community engagement.

Chairing: M. Bhargava, MD, PhD, Minneapolis, MN
M.L. Ribeiro Neto, MD, Cleveland, OH
A. Gerke, MD, MS, Iowa City, IA

2:15 A Patient’s Perspective
R. Stanfel, Chicago, IL

2:20 Introduction to the Session: High-Risk Sarcoaidosis Phenotypes
D.M. Perlman, MD, Minneapolis, MN
2:25 Phenotype Outcomes and Implications for Precision Care in Sarcoidosis  
L.A. Maier, MSPH, MD, ATSF, Denver, CO

2:45 Beyond PFTs: How to Assess Complaints and Limitations due to Sarcoidosis  
M. Drent, MD, PhD, Nieuwegein, Netherlands

3:05 Into the Future: Novel Therapeutic Options in Sarcoidosis  
E.D. Crouser, MD, Columbus, OH

3:25 Outside the Clinic Door: Addressing Disparities in Sarcoidosis  
Y. Cozier, DSc, MPH, Boston, MA

This session and the International Conference are supported by independent medical educational grants from Boehringer Ingelheim Pharmaceuticals, Inc., Genentech, Inc.

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B84 DELIVERING EQUITABLE CARE IN STRAINED INTENSIVE CARE UNITS

Assemblies on Critical Care; Behavioral and Health Services Research  
2:15 p.m. - 3:45 p.m. MOSCONE CENTER  
Room 3020/3022/3024 (West Building, Level 3)

Target Audience  
Clinicians practicing in critical care settings, and health disparities researchers

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

- identify common health-system and clinical care processes under capacity strain and how they may contribute to inequitable care for minority patients with severe acute illness;
- gain strategies that other health centers have used that are designed to ensure equity in healthcare delivery under conditions of increased capacity strain.

When clinicians and health systems are under strain, implicit biases tend to become magnified and health outcomes for minoritized groups worsen. This session will focus on understanding capacity strain in the ICU, including lessons learned from the COVID-19 pandemic, and how capacity strain may contribute to inequities in the care of critically ill patients. Importantly, time will be devoted on discussion about strategies that can be implemented by clinicians and health systems to mitigate the impact of capacity strain on critical care for the explicit purpose of reducing disparities in critical care.

Chairing: D.C. Ashana, MD, MBA, MS, Durham, NC  
C.F. Chesley, MD, Philadelphia, PA  
J.C. Ferreira, MD, PhD, ATSF, Sao Paulo, Brazil

B85 CAN OLD CELLS LEARN NEW TRICKS: SENESCENCE AND LUNG DISEASE

Assemblies on Respiratory Structure and Function; Allergy, Immunology and Inflammation; Clinical Problems; Critical Care; Nursing; Pulmonary Circulation; Pulmonary Infections and Tuberculosis; Respiratory Cell and Molecular Biology; Thoracic Oncology  
2:15 p.m. - 3:45 p.m. MOSCONE CENTER  
Room 2010/2012 (West Building, Level 2)

Target Audience  
Practicing clinicians, trainees and those involved in research on aging. Given the fact that healthcare is focused on an aging population, this symposium should be of interest to a broad audience.

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

- describe new findings about cellular senescence and other mechanisms of aging;
- apply the knowledge of cellular senescence to better understand diseases such as IPF and COPD in the elderly;
- better diagnose lung disease in the elderly through an awareness of susceptibility to accelerated aging.
There is intense interest in the biology of aging, given the growing elderly population. This session will help the learner understand cellular mechanisms that occur with aging and how the lung is particularly susceptible to damage associated with these processes. Cellular senescence, mitochondrial dysfunction and altered intercellular communication are among the mechanisms to be discussed. Insight into immunological and physiological pulmonary changes that accompany aging will enhance the learner’s experience. The session will highlight lung diseases linked to acceleration of the aging process such as IPF and COPD, and will explore the therapeutic potential of targeting senescent cells.

Chairing: P. Lee, MD, Durham, NC
G.C. Sieck, PhD, Rochester, MN

2:15 Overview of Senescence and the Lung
Y.S. Prakash, MD, PhD, Rochester, MN

2:35 The Senescent Smoker: Accelerated Lung Aging and COPD
R. Gosens, PhD, Groningen, Netherlands

2:55 Senescence and IPF: Prototype of an Aging-Related Lung Disease
V.J. Thannickal, MD, New Orleans, LA

3:15 Senotherapy: Is Anti-aging a Possibility?
P. Lee, MD, Durham, NC

3:35 Panel Discussion: Q&A

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B86 DEBUNKING MYCOBACTERIAL MYTHS: NONTUBERCULOUS MEANS NOT TUBERCULOSIS

Assemblies on Pulmonary Infections and Tuberculosis
2:15 p.m. - 3:45 p.m. MOSCON CENTER

Target Audience
Pulmonary and infectious disease physicians; primary care physicians; medical residents and students; pulmonary and infectious disease fellows; nurses and nurse practitioners

Objectives
At the conclusion of this session, the participant will be able to:
- understand host vulnerability of NTM, its scientific and clinical relevance, and clinical implications;
- learn the differences in virulence and pathogenicity between NTM and TB, including their scientific and clinical relevance;
- improve health status of NTM patients by incorporating new guidelines into clinical practice, with a focus on patient needs that are distinct from TB management.

Now the dominant mycobacterial pathogen in the United States, nontuberculous mycobacteria (NTM) remain poorly understood from both a scientific and clinical standpoint. Mechanistic understanding of NTM host susceptibility, pathogen virulence and clinical management have been hindered by frequent comparisons to tuberculosis (TB). This session will debunk mycobacterial myths, and highlight key mechanistic and clinically relevant differences between these two challenging infections.

Chairing: K.A. Cohen, MD, Baltimore, MD
T.R. Aksamit, MD, Rochester, MN
S.E. Dorman, MD, Charleston, SC
M. Farhat, CM, MD, MSc, Boston, MA

2:15 Something Old and Something New: An Historic Overview of TB and NTM Disease
D.E. Griffith, MD, ATSF, Denver, CO

2:30 Eeny Meeny Miney Moe: Understanding Host Vulnerability to NTM Disease
K.N. Olivier, MD, MPH, ATSF, Bethesda, MD

2:45 Earth, Wind and Fire (Lava): Mycobacterial Virulence and the Environment
J.R. Honda, PhD, Denver, CO

3:00 Something Borrowed and Something Blue: NTM Treatment Paradigms That Originate from TB
C.L. Daley, MD, Denver, CO

3:15 Specialized Warfare Required: Unique Aspects to Clinical Management of NTM
R. Thomson, MBBS, PhD, FRACP, Greenslopes, Australia

3:30 Questions and Answers

—

B87 CAREGIVERS OF ADULTS WITH CHRONIC OR CRITICAL ILLNESS: CHALLENGES AND OPPORTUNITIES

Assemblies on Nursing; Behavioral and Health Services Research; Critical Care
2:15 p.m. - 3:45 p.m. MOSCON CENTER

Room 205-206 (South Building, Level 2)

Target Audience
Pulmonary and infectious disease physicians; primary care physicians; medical residents and students; pulmonary and infectious disease fellows; nurses and nurse practitioners

Objectives
At the conclusion of this session, the participant will be able to:
- understand host vulnerability of NTM, its scientific and clinical relevance, and clinical implications;
- learn the differences in virulence and pathogenicity between NTM and TB, including their scientific and clinical relevance;
- improve health status of NTM patients by incorporating new guidelines into clinical practice, with a focus on patient needs that are distinct from TB management.

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Target Audience
Clinicians, researchers, educators

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

- describe family caregiving from a theoretical and practical standpoint;
- apply information on the needs of caregivers when planning and delivering care to families with varied care contexts including life transitions, acute and chronic illnesses, underserved or vulnerable populations;
- describe opportunities and initiatives for caregiving research and policy at both the public and private levels.

Almost 48 million American adults are in need of unpaid informal caregiving from a family member or friend. Families represent the largest source of caregiving for persons with acute illness, chronic disorders, disabilities, and aging-related conditions. Although many caregivers share some experiences, the context of care and social determinants of health of the care recipient and the caregiver contribute to variability in caregiving experiences. This session will describe the concerns, and needs of caregivers as well as context and transitions in care. This session will address theoretical perspectives of caregiving, opportunities for caregiving research, and policy initiatives related to caregiving.

Chairing: J. Tate, PhD, RN, ATSF, Columbus, OH

2:15 A Patient’s Perspective
K. Page, Smithton, MO

2:20 Theoretical Perspectives of Caregiving
N.S. Mcandrew, PhD, RN, ACNS-BC, CCRN, Milwaukee, WI

2:34 Family Caregiving and Transitions in Care: The Emerging Adult with Chronic Illness
W.M. Gibson-Scipio, PhD, FNP-BC, ATSF, Detroit, MI

2:48 ICU Family Engagement
J. Choi, PhD, RN, ATSF, Seoul, Korea, Republic of

3:03 Family Caregiving in Chronic Critical Illness, Palliative Care and End-of-Life Decision Making
J.B. Seaman, PhD, RN, CHPN, Pittsburgh, PA

3:17 Opportunities for Caregiving Research
J. Tate, PhD, RN, ATSF, Columbus, OH

3:31 Public Policy and Caregiving: New Initiatives
S.J. Crowder, PhD, RN, ATSF, Indianapolis, IN
B89 PATHWAYS TOWARDS PERSONALIZED SLEEP MEDICINE: INTEGRATING ENDOTYPES, MEDICAL INFORMATICS, AND MULTI-OMICS

Assemblies on Sleep and Respiratory Neurobiology
2:15 p.m. - 3:45 p.m. MOSCONCE CENTER

Room 2014/2016 (West Building, Level 2)

Target Audience
This symposium will be of interest to practitioners and researchers who are interested in understanding disease heterogeneity in Obstructive Sleep Apnea (OSA) and learning about novel tools for risk stratification and personalized patient management.

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

- describe new findings about alternative polysomnographic measures of risk stratification for patients with sleep-disordered breathing;
- recognize and describe genomic and sex-specific factors as drivers of sleep-disordered breathing subtyping and risk stratification;
- describe new findings about the current state of biomarker research of sleep disorders. This will improve medical knowledge and utilization of informatics.

Precision Medicine improves personalized patient management and care by considering physiological and molecular features intrinsic to each patient. In sleep medicine, decades of basic and clinical research generated a corpus of information and methodologies that can be translated into clinical practice. Patients with different sleep disorder endotypes may present with different risks and strategies for treatment, despite similar clinical measures such as the apnea-hypopnea index. This session will provide an update on the latest developments in this field, exposing the attendees to novel informatics, clinical, and laboratory approaches. Current applications and future directions of personalized patient management will be discussed.

Chairing:  R. Cortese, PhD, Columbia, MO
M. Sanchez De La Torre, PhD, Lleida, Spain
D. Vena, PhD, Boston, MA

2:15 Aiming at the Target: Identification of Cardiovascular Risk Endotypes in Sleep Apnea
M. Sanchez De La Torre, PhD, Lleida, Spain

2:25 Integrating New Signals in Sleep Apnea for Stratification of Cardiovascular Risk: Beyond the Apnea-Hypopnea Index
R. Heinzer, MD, Lausanne, Switzerland

2:45 Sleep-Disordered Breathing Genomic and Sex-Specific Factors: Targets for Subtyping and Risk Stratification
B.E. Cade, PhD, Boston, MA

3:05 The Emerging Field of Epigenomics in Sleep Disorders
R. Cortese, PhD, Columbia, MO

3:25 Designing New RCTs in Cardiovascular Prevention in OSA: Putting All the Pieces Together
N.A. Shah, MD, MPH, MSci, New York, NY

B90 FACILITATING PARTICIPATION IN PULMONARY REHABILITATION AMONG PEOPLE WITH MULTIPLE MEDICAL AND PSYCHOSOCIAL COMPLEXITIES

Assemblies on Pulmonary Rehabilitation
2:15 p.m. - 3:45 p.m. MOSCONCE CENTER

Room 215-216 (South Building, Level 2)

Target Audience
Physicians, nurses, allied health professionals, trainees and clinical researchers

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

- develop further understanding around the effect of PR among people with multiple complexities to encourage health professionals to facilitate participation of PR among this population;
- identify opportunities and challenges in relation to provision of PR for people with multiple complexities;
- apply novel strategies used internationally to address some of the challenges in facilitating participation of PR among people with multiple complexities.

While pulmonary rehabilitation (PR) is a highly efficacious intervention in management of chronic respiratory diseases, many current models of PR exclude people with multiple complexities due to limitation in the funding and delivery models. Presence of co-morbidities such as obesity, complex cardiac history and cognitive impairments often deter people from participating in PR, resulting in missed opportunity for this population. In addition, people from ethnic minorities groups are often do not participate in PR. In this symposium, speakers will explore the effect of PR for people with multiple complexities and novel ways to facilitate participation among this group.

Chairing:  P. Camp, PT, PhD, Vancouver, Canada
F. Franssen, MD, PhD, Horn, Netherlands
B91 PUBLISHING THE BEST: THE COMPREHENSIVE SPECTRUM PROVIDED BY THE ATS FAMILY OF JOURNALS

Assemblies on Allergy, Immunology and Inflammation; Behavioral and Health Services Research; Clinical Problems; Critical Care; Environmental, Occupational and Population Health; Nursing; Pediatrics; Pulmonary Circulation; Pulmonary Infections and Tuberculosis; Pulmonary

2:15 p.m. - 3:45 p.m. MOSCONE CENTER
Room 3010/3012 (West Building, Level 3)

Target Audience
Providers of clinical care to patients with broadly defined respiratory disorders as well as investigators and educators who work in the same field

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

• define the optimal approach to maximize likelihood of publishing in one of the ATS journals;
• identify the impact of pre-publication servers on the peer review process;
• understand evolving approaches to data and methodology sharing at time of publication, reporting standards, and introduction of innovative educational methods.

The ATS family of journals includes the American Journal of Respiratory and Critical Care Medicine, the American Journal of Respiratory Cell and Molecular Biology, the Annals of the American Thoracic Society, and ATS Scholar. These journals provide an opportunity for publication of a broad swath of scientific expertise spanning a broad breadth of scientific interests. Moreover they are at the leading front of a wide range of publication challenges and opportunities. These will be discussed in detail to provide the scientific community an opportunity to define the optimal format for scientific publication.

Chairing:
R.M. Tighe, MD, ATSF, Durham, NC
S.D. Davis, MD, ATSF, Chapel Hill, NC

2:15 Introduction
R.M. Tighe, MD, ATSF, Durham, NC

2:25 American Journal of Respiratory and Critical Care Medicine
F.J. Martinez, MD, MS, New York, NY

2:35 American Journal of Respiratory Cell and Molecular Biology
P.T. Schumacker, PhD, ATSF, Chicago, IL

2:45 Annals of the American Thoracic Society
C.R. Cooke, MD, Ann Arbor, MI

2:55 ATS Scholar
N. Seam, MD, ATSF, Bethesda, MD

3:05 Discussion
S.D. Davis, MD, ATSF, Chapel Hill, NC

B92 THE PAST, PRESENT, AND FUTURE OF E-CIGARETTE OR VAPING ASSOCIATED LUNG ILLNESS (EVALI)

Assemblies on Environmental, Occupational and Population Health; Allergy, Immunology and Inflammation; Behavioral and Health Services Research; Respiratory Cell and Molecular Biology; Respiratory Structure and Function; Thoracic Oncology; Tobacco Action Committee; International Health Committee; EOPH's Early Career Professionals Working Group

2:15 p.m. - 3:45 p.m. MOSCONE CENTER
Room 209-211 (South Building, Level 2)

Target Audience
Providers of lung health services; EVALI or e-cig using patients; those with clinical, research, or administrative responsibilities

Objectives
At the conclusion of this session, the participant will be able to:
understand the need for careful inquiry and documentation of e-cigarette use in the clinical setting and the utility of this information in diagnosing e-cigarette induced lung injury;

synthesize the current state of knowledge on e-cigarettes and EVALI and evaluate the link between e-cigarettes and lung injury before and after the 2019 EVALI epidemic;

evaluate the need for increased public awareness of the risks of E-cigarette use and identify gaps in public health policies, regulations, research resources, and clinical assessments that can prevent future e-cigarette related lung injury.

EVALI emerged in 2019 and resulted in the hospitalization of 2800 and death of 68. While the pathophysiology remains under investigation, laboratory data implied that vitamin E acetate (VEA), an additive in THC-containing e-cigs, is strongly linked to EVALI. However, there are case reports prior to and during the EVALI epidemic not linked to VEA with unknown etiology. While the CDC has stopped aggregating data on EVALI, US cases continue to manifest despite public health efforts to increase public awareness to the dangers of e-cigarettes. This session will describe what is known about EVALI, mechanisms of injury, and the needed clinical, public health, and regulatory efforts to curb EVALI and prevent future e-cigarette induced lung injury as discussed in the EOPH EVALI Assembly Project Workshop.

Chairing:  
M.E. Rebuli, PhD, Chapel Hill, NC  
J.J. Rose, MD, MBA, Pittsburgh, PA  
A. Noel, PhD, MSc, BSc, Baton Rouge, LA  
A.C. Melzer, MD, MS, Minneapolis, MN

2:15 Public Health Consequences of E-Cigarette Use: How We Got to EVALI - An International Perspective  
E. Dagli, MD, Istanbul, Turkey

2:27 The Spectrum of E-Cigarette Induced Illness: EVALI Past and Present  
M.D. Mcgraw, MD, Rochester, NY

2:39 EVALI Pathologic Findings: What We Learned Throughout the Epidemic  
B.T. Larsen, MD, PhD, Scottsdale, AZ

2:51 The Intersection of E-Cigarette Use, EVALI, and Pathogen Infection: Viruses, Bacteria, and Other Second Hits  
L.E. Crotty Alexander, MD, ATSF, San Diego, CA

3:03 Mechanisms of EVALI: E-Cigarette Components That Contribute to Injury and What We Still Need to Learn  
A. Noel, PhD, MSc, BSc, Baton Rouge, LA

3:15 How Could We Prevent a Second EVALI-Like Illness?: Outcomes From the EOPH EVALI Workshop  
E.R. Neptune, MD, ATSF, Baltimore, MD

3:27 Panel Discussion and Q&A


Clinical Responses to Treatment with Tezepelumab Among Patients with Severe, Uncontrolled Asthma in the Phase 3 NAVIGATOR Study/C.S. Ambrose, G. Colice, K. Kmita, B. Cook, S. Ponnarambil, J.-P. Llanos Ackert, A. Menzies-Gow, Ann Arbor, MI, p.A3419

Characteristics of Asthma Exacerbations That Required Hospitalization in Patients with Severe, Uncontrolled Asthma Receiving Tezepelumab Compared with Placebo: Results from the Phase 3 NAVIGATOR Study/C.S. Ambrose, B. Cook, S.L. Roseti, H. Gelhorn, K. Cutts, A.W. Lindsley, G. Colice, Gaithersburg, MD, p.A3420


A Multivariable Protein-Inclusive Predictor of Death or Lung Transplant in Patients with Idiopathic Pulmonary Fibrosis: Data from the IPF-PRO Registry/J.L. Todd, M.L. Neely, H. Mulder, L.H. Lancaster, E.S. White, C. Hesslinger, Durham, NC, p.A3423


Minimal Clinically Important Differences in Radiological Changes of QLF Associated with Overall Survival in IPF: Analysis of Phase 2 Studies from FibroGen (Studies 049 and 067)/G.H.J. Kim, W. Chou, T. Lee, M.S. Brown, L. Poole, J.G. Goldin, Los Angeles, CA, p.A3426

B95  ARDS: WHAT’S THE LATEST AND GREATEST?

2:15 p.m. - 3:45 p.m.  MOSCONE CENTER

Room 3005/3007 (West Building, Level 3)

Chairing:
S. Sahetya, MD, MHS, Baltimore, MD
B. Ferreyro, MD, Toronto, Canada
R. Awdish, MD, MS, Detroit, MI

Featured Speaker:
2:15 Understanding ARDS Heterogeneity: Is Lumping or Splitting the Answer?/A. Esper, Atlanta, GA

Oral Presentations:


B96  FISHERMAN’S WHARF: OMICS AND TRANSLATIONAL APPROACHES IN PULMONARY VASCULAR DISEASE

2:15 p.m. - 3:45 p.m.  MOSCONE CENTER

Room 2006/2008 (West Building, Level 2)

Chairing:
N.K. Dhillon, PhD, Kansas City, KS
S.Y. Chan, MD, PhD, Pittsburgh, PA
S. Gräf, PhD, Cambridge, United Kingdom
C.J. Rhodes, PhD, London, United Kingdom

Oral Presentations:
2:15 Mediator 1 Regulation of the BMP/TGF-b Pathway in Endothelium: Implications for Pulmonary Hypertension/C. Wang, Y. Xing, Z. Jiao, H. Ming, Y. Zu-Yi, Y.X.-J. Jason, S.Y.-J. John, Xi’an, China, p.A3437


2:35 Lung Single-Cell Transcriptomic Analysis During the Development of Pulmonary Arterial Hypertension in the Rat SU5416-Chronic Hypoxia Model/N.D. Cober, E. McCourt, R. Soares Godoy, Y. Deng, K. Schlosser, D.P. Cook, L. Wang, D.J. Stewart, Ottawa, Canada, p.A3439

**B97 WHAT’S NEW IN PNEUMONIA**

2:15 p.m. - 3:45 p.m.  
MOSCONETE CENTER  
Room 11-12 (South Building, Exhibition Level)

**Chairing:** M.I. Restrepo, MD, MSc, PhD, San Antonio, TX  
J.P. Mizgerd, ScD, ATSF, Boston, MA

**Oral Presentations:**


2:35 Lefamulin Efficacy and Safety in Adults with Community-Acquired Bacterial Pneumonia (CABP): Pooled Analysis of the Lefamulin Evaluation Against Pneumonia (LEAP) 1 and LEAP 2 Trials in Patients with Asthma or Chronic Obstructive Lung Disease (COPD)/C.E. Sandrock, D. Mariano, S.P. Gelone, G.J. Moran, G.W. Waterer, T.M. File, Sacramento, CA, p.A3447

2:45 Demographics and Outcomes of Hospitalized Influenza and Pneumonia Patients with Pulmonary Heart Disease and Diseases of Pulmonary Circulation: A National Inpatient Sample Analysis/A. Jain, I. Ahmed, R.M. Rashid, N. Kagita, H.S. Sreemantula, Darby, PA, p.A3448


3:05 Differential CircRNA Expression Profiles in Peripheral Blood Mononuclear Cells Among Young and Elderly Patients with Community-Acquired Pneumonia/D. Cao, Y. Yin, H. Shen, S. Feng, X. Chen, C. Yang, L. Gu, Beijing, China, p.A3450

3:15 Early Prediction of Ventilator-Associated Pneumonia in Intensive Care Unit Patients Using an Intelligible Machine Learning Algorithm/J. Calvert, M. Faucher, S. Casie Chetty, S. Shokouhi, D. Evans, G. Barnes, Q. Mao, Houston, TX, p.A3451


**Featured Speaker:**

3:35 What's New in Pneumonia?/M.L. Metersky, Farmington, CT
BASIC • TRANSLATIONAL

MINI SYMPOSIUM

B98  MOLECULAR AND CELLULAR MECHANISMS OF INJURY AND REPAIR IN ACUTE LUNG INJURY AND ARDS

2:15 p.m. - 3:45 p.m.  MOSCONTE CENTER
Room 2001/2003 (West Building, Level 2)

Oral Presentations:

Chairing:  K.M. Ridge, PhD, Chicago, IL
A. Schwingshackl, MD, PhD, Los Angeles, CA
J. Hook, MD, New York, NY
E.A. Middleton, MD, Salt Lake City, UT


3:05  TREK-1 Potassium Channel Activation Protects Against Influenza-A Induced Lung Injury/T. Zyrianova, B. Lopez, D. Pham, A. Ye, A. Schwingshackl, Los Angeles, CA, p.A3458


3:25  Temporal Gene Expression Alterations in Self-Renewal and Maturation of Human Induced Pluripotent Stem Cell (iPSC)-Derived and Mouse Primary Alveolar Epithelial Type 2 Cells/J. Huang, C. Villacorta-Martin, R. Sohal, K.-D. Alysandratos, D.N. Kotton, Boston, MA, p.A3460


BASIC • TRANSLATIONAL

MINI SYMPOSIUM

B99  WHAT’S NEW IN AIRWAY BIOLOGY

2:15 p.m. - 3:45 p.m.  MOSCONTE CENTER
Room 2018/2020 (West Building, Level 2)

Oral Presentations:

Chairing:  S. Bose, MD, MPH, New York, NY
R.D. Britt, PhD, ATSF, Columbus, OH


2:55  Overcoming the Force-Dependent Inhibition of Collagenase to Target Collagen Deposition in Asthma/R. Jamieson, S.E. Stasiak, R.D. Augspurg, N. Bharath, J. Liu, Boston, MA, p.A3466


3:25  Locally Produced Estrogen Metabolites Regulate Airway Smooth Muscle Proliferation/A. Kumar, N.S. Ambhore, C.M. Pabelick, Y.S. Prakash, V. Satish, Fargo, ND, p.A3469
3:35 The Epithelium Modulates Bronchial - But Not Tracheal - Hyperreactivity After Acute Hypoxia and Reoxygenation in Isolated Rat Airways/T. Lewis, S. Lewis, R.M. Ryan, Cleveland, OH, p.A5672

Transcriptomics of Total and Allergen-Specific IgE in Nasal Epithelium from Children and Adolescents/Z. Xu, E. Forno, Y.-Y. Han, M.L. Manni, W. Chen, J.C. Celedon, Pittsburgh, PA, p.A3475


517 Elucidating Transcriptional Networks Driving Idiopathic Pulmonary Fibrosis/O. Lapohos, M. El-Hajjar, E.S. Charette, A. Emad, G. Fonseca, Montreal, Canada, p.A3486


525 Murine Ex Vivo Platform to Characterize Pneumonic Neutrophil Differentiation and Function in the Lung/R. Pihl, K. Traber, Boston, MA, p.A3494

B102 PROFESSIONAL TRAINING AND STAKEHOLDER PERSPECTIVES IN CHRONIC AND SERIOUS ILLNESS

2:15 p.m. - 3:45 p.m. MOSCONE CENTER Room 3016/3018 (West Building, Level 3)

Poster Viewing 2:15-2:45 Discussion 2:45-3:45

Chairing: L. Santhosh, MD, MEd, San Francisco, CA E.K. Kross, MD, Seattle, WA S.M. Kassutto, MD, Philadelphia, PA


1006 Partner Perspectives on Women’s Sexual and Reproductive Healthcare in Cystic Fibrosis/S. Ehrenberg, O. Stransky, C. Wright, R. Jain, T. Kazmerski, Pittsburgh, PA, p.A3501

1007 Women with Interstitial Pneumonia with Autoimmune Features Are Inconsistently Counseled on Family Planning/E.K. Joerns, T.N. Adams, U.E. Makris, B. Bermas, Dallas, TX, p.A3502

BASIC • CLINICAL • TRANSLATIONAL

POSTER DISCUSSION SESSION

B103 OUTCOMES AND BIOMARKERS IN ILD
2:15 p.m. - 3:45 p.m. MOSCONCE CENTER

Poster Viewing 2:15-2:45
Discussion 2:45-3:45

Chairing: E. Renzoni, PhD, London, United Kingdom
J. Oldham, MD, MS, Sacramento, CA
S.B. Montesi, MD, Boston, MA


411 Long-Term Outcomes in Patients with Idiopathic Pulmonary Fibrosis (IPF) Split by Surgical Lung Biopsy (SLBx) Status: A Post-Hoc Analysis from the Pooled CAPACITY Studies/S. Weigt, S. Gupta, J. Ko, K. Samara, J.A. Belperio, Los Angeles, CA, p.A3529


415 Sildenafil Added to Pirfenidone in Patients with Advanced Idiopathic Pulmonary Fibrosis (IPF) and Risk of Pulmonary Hypertension (PH): Impact on Health-Related Quality of Life/W.A. Wuyts, S.D. Nathan, A.U. Wells, S.A. Harari, K. Samara, M. Bengus, F. Gilberg, J. Behr, Leuven, Belgium, p.A3533


418 A Neo-Epitope Biomarker of Type VI Collagen Formation Reflects Patient-Reported Outcomes/A.H. Hansen, T.S. Prior, D.J. Leeming, M. Karsdal, J.M.B. Sand, E. Bendstrup, Herlev, Denmark, p.A3536


421 Incidence and Impact of Aspiration in Survival in Lung Transplant Recipients with Scleroderma/J. Gagermeier, B. Follman, B. Liem, V. Ananthanarayanan, Maywood, IL, p.A5676
B104  COVID ACROSS THE CARE CONTINUUM

2:15 p.m. - 3:45 p.m.  MOSCONE CENTER
Room 3009/3011 (West Building, Level 3)

Poster Viewing 2:15-2:45
Discussion 2:45-3:45

Chairing:
R.S. Stephens, MD, ATSF, Baltimore, MD
M. Hua, MD, MS, New York, NY
L.E. Ferrante, MD, MHS, ATSF, New Haven, CT


Alcohol Consumption and Misuse Among Patients with Respiratory Failure Before and During the COVID-19 Pandemic/G. Perry, C. Higgins, J. McKeehan, J. Gaydos, S.E. Jolley, E.L. Burnham; Aurora, CO, p.A3559


Household Air Pollution Is Associated with COPD Morbidity in a Rural Appalachia Cohort/S.E. Enoh, S. Raju, M. Maisonet, N. Putcha, H. Woo, Y. Li, K.J. Maier, P.R. Scheuerman, T. Green, M. Wood, R. Koehl, K. Koehler, N.N. Hansel; M.C. McCormack, Baltimore, MD, p.A3564

Physical Activity and Personal Exposure to Air Pollution Among Adults with Chronic Obstructive Pulmonary Disease/M. Aglan, A. Stanley Lee, K. Chen, L. Nurhussien, P. Koutrakis, B.A. Coull, M.B. Rice; Boston, MA, p.A3565


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<td>A.J. Badyda, P. Dabrowiecki, P.O. Czechowski, A. Chcialowski, Warsaw, Poland</td>
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<td>PolluRisk: An Innovative Platform Dedicated to Study the Health Effects of Air Pollution in Realistic Conditions</td>
<td>S. Lanone, P. Coll, M. Cazaunau, A. Bergé, Z. Lu, M. Blayac, Créteil, France</td>
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<td>M.N. Ballinger, K. Ho, G.S. Torres Matias, K.M. Gowdy, J.A. Englert, Columbus, OH</td>
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<td>Traffic-Related Air Pollution Induces a Concentration-Dependent Increase in Symptoms in a Controlled Human Exposure Study</td>
<td>J. Orach, C.F. Rider, A. Yuen, C. Carlsten, Vancouver, Canada</td>
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<td>M.H. Ryu, J. Kolmert, J. Zurita, C.E. Wheelock, C. Carlsten, Boston, MA</td>
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<td>Docosahexaenoic Acid Treatment Mitigates Inflammation Induced by Extracellular Vesicles Contained in Agricultural Dust</td>
<td>D.J. Romberger, A.J. Heires, D. Villageliu, T.M. Nordgren, D. Samuelson, Omaha, NE</td>
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**CLINICAL • TRANSLATIONAL POSTER DISCUSSION SESSION**

**B106 UNION SQUARE: OBSERVATIONAL STUDIES AND CLINICAL TRIALS IN PULMONARY HYPERTENSION**

2:15 p.m. - 3:45 p.m.  
Room 2005/2007 (West Building, Level 2)

| Poster Viewing | 2:15-2:45 |
| Discussion     | 2:45-3:45 |

**Chairing:**  
K.A. Fagan, MD, Mobile, AL  
S. Provencher, MD, Quebec city, Canada  
E.S. Klings, MD, Boston, MA  
C.D. Burger, MD, ATSF, FCCP, Jacksonville, FL  

**Ga-Dotatate PET Imaging in Pulmonary Arterial Hypertension**  


607 A Phase 3, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of Ralinepag to Improve Treatment Outcomes in Subjects with Pulmonary Arterial Hypertension (ADVANCE OUTCOMES)/V.V. Mclaughlin, R.N. Channick, C. Deng, M. Escudero, R. Grover, D.T. Solum, M.J.C. Humbert, Ann Arbor, MI, p.A3591

608 Clinical Improvement in Pulmonary Arterial Hypertension (PAH) Patients Transitioning from Selexipag to Oral Treprostinil: Interim Results from the ADAPT Registry/D. Lachant, R. Minkin, J. Swisher, M. Mogri, R. Zolty, D. Shelton, S. Seaman, M. Broderick, S. Sahay, Rochester, NY, p.A3592

609 Understanding Drivers and Barriers to Participation in Clinical Trials for Patients with Pulmonary Arterial Hypertension (PAH)/S. Sahay, E. Aselage, D.F. Harris, M. Mascia-Rand, R.F. Roscigno, E. Elman, S.C. Mathai, Houston, TX, p.A3593


613 The Prognostic Impact of Serum Uric Acid on Disease Severity and 5-Year Mortality in Patients with Idiopathic Pulmonary Artery Hypertension/Z. Huang, L. Yan, Z. Zhao, Q. Zhao, Y. Tang, Y. Zhang, X. Li, A. Duan, Q. Luo, Z. Liu, Beijing, China, p.A3597


616 Clinical Characteristics and Predictors of Methamphetamine-Associated Pulmonary Arterial Hypertension Among Methamphetamine Users Within the University of Kansas Health System/C.M. Cook, X. Shi, N.K. Dhillon, Kansas City, KS, p.A3600


Clustering of Systemic Sclerosis-related Pulmonary Hypertension by Global Longitudinal Left Ventricular Strain/K.K. Lui, M. Winburn, M.A. Trojanowski, A.M. Bujor, M.P. LaValley, D.M. Gopal, R.S. Wiener, E.S. Klings, Boston, MA, p.A3604


Does the Vascular Hypothesis of Bronchopulmonary Dysplasia Persist? VEGF Levels in Adults Born Preterm/K. Goss, G. Barton, Dallas, TX, p.A3606


Deubiquitinases Regulate ACE2 Protein Stability and SARS-CoV-2 Viral Infection in Epithelial Cells/J.S. Bednash, F. Johns, A. Elhance, J. Adair, J.D. Londino, Columbus, OH, p.A3614

SARS CoV-2 Infection Is Increased with Cigarette Smoke Exposure in Airway Epithelial Cells In Vitro and Blocked by Dual ACE2 and TMPRSS2 Blockade/S. Soni, S. Walton, Y. Tesfaigzi, Y.A. Mebratu, Boston, MA, p.A3615


716 FBXO45 Targets IFNLR1 to Impair IFN-lambda Signaling During Influenza Infection/M.J. Tsai, W. Osman, A. Elhance, J. Adair, L. Chafin, J.D. Londino, R.K. Mallampalli.


2108 ORIGINS AND OUTCOMES OF COPD
2:15 p.m. - 3:45 p.m.
ROOM 9-10 (SOUTH BUILDING, EXHIBITION LEVEL)

Poster Viewing
2:15-2:45

Discussion
2:45-3:45

Chairing: A. Noel, PhD, MSc, BSc, Baton Rouge, LA
S. Milne, BMedSci, MBBS, FRACP, PhD, Vancouver, Canada


102 Epigenetic Biomarker of Telomeric Age Highlights Sex Differences in Chronic Obstructive Pulmonary Disease Exacerbations/A.I. Hernandez Cordero, C.X. Yang, S. Milne, V.Y. Chen, Z. Hollander.

103 Minimally Invasive Endobronchial Valves for Severe Emphysema: Systematic Review and Meta-Analysis, an Update/Y.B. Moreno, A. Vu, Fort Lauderdale, FL.


106  Prognostic Value of Key Variables from Cardiopulmonary Exercise Testing in Patients with COPD: 42-Month Follow-Up/C.L. Goulart, M.R. Oliveira, M.G. Renata, A.B. Silva, Sao Carlos, Brazil, p.A3637


109  FEV1 and FVC Vital Lung Function Trajectories Associated to COPD/N. Olvera, A. Agusti, J. Ross, M.R. Faner, Barcelona, Spain, p.A3640


111  Emphysema Cluster Shape and Disease Progression in Chronic Obstructive Pulmonary Disease/S. Bodduluri, A. Nakhmani, J.M. Reinhardt, S.P. Bhatt, Birmingham, AL, p.A3642


113  Deep Learning and CT-Based Automated Measure of Pectoral Muscle Area and Its Association with Aging and COPD Severity/N. Dutta, S.A. Nadeem, E.A. Hoffman, A.P. Comellas, P.K. Saha, Iowa City, IA, p.A3644


116  Hypoxia Genes Associated with Different Infiltrating Immune Cells in Chronic Obstructive Pulmonary Disease (COPD) and Idiopathic Pulmonary Fibrosis (IPF)/F. Xu, D.M. Vasilescu, K. Ikezoe, N. Tanabe, D. Kinose, F. Chu, S. Ledoux, J. McDonough, K. Ng, S. Verleden, B. Vanaudenaerde, J.D. Cooper, Y. Mikami, R.C. Boucher, M.E. Lenburg, A. Spira, T.-L. Hackett, R. Ng, J.C. Hogg, Vancouver, Canada, p.A3647


120  Prevalence of Small Airway Dysfunction in Mild COPD and Smokers at Risk - Baseline Data from CAPTO-COPD/ F. Trinkmann, M. Abdo, K.F. Rabe, F.J.F. Herth, A.-M. Kirsten, H. Watz, Heidelberg, Germany, p.A5679

B109 FROM GUT TO BRAIN: NEW INSIGHTS INTO THE IMPACT OF OSA

2:15 p.m. - 3:45 p.m.

MOSCONEx CENTER

Room 2202/2024 (West Building, Level 2)

Poster Viewing 2:15-2:45
Discussion 2:45-3:45

Chairing: H.K. Yaggi, MD, New Haven, CT
R. Tamisier, MD, PhD, MBA, Grenoble, France
A.W. Varga, MD, PhD, New York, NY
G.G. Haddad, MD, La Jolla, CA


810 Association of Serum BDNF with Obstructive Sleep Apnea Severity/A.N. Adekunle, M. Gabani, I. Brimah, New York, NY, p.A3660


815 12-Years Follow-Up: Relationship Among Cardiovascular, Cerebrovascular Diseases and Obstructive Sleep Apnea Based on Karamay Health Study Cohort/H. Zhongming, Q. Zhang, X. Jiang, D. Chen, M. Han, S. Ma, P. Da, M. Li, J. Shi, F. Han, T. Penzel, H. Wang, Karamay, China, p.A5681

B110 THE MIDAS TOUCH INTERVENTIONAL PULMONOLOGY IN THORACIC ONCOLOGY

2:15 p.m. - 3:45 p.m. MOSCON CENTER

Room 207-208 (South Building, Level 2)

Viewing 2:15-2:45
Summaries/Discussion 2:45-3:45

Chairing:
C. Argento, MD, Baltimore, MD
S. Kuperberg, MD, Brooklyn, NY
B.D. Shaller, MD, Stanford, CA


305 Should we start with navigation or endobronchial ultrasound bronchoscopy? Insights from Monte Carlo simulations/B.E. Heideman, M.N. Kammer, F. Maldonado, Nashville, TN, p.A3669


312 Lower Paraspinous Muscle Cross-Sectional Area Is Associated with Shorter Survival in Patients with a Malignant Pleural Effusion/A.M. Meggyesy, C.L. Wilshire, J.A. Gorden, C. Gilbert, Seattle, WA, p.A3676


314 Application of Transthoracic Shear-Wave Ultrasound Elastography in Pleural Lesions/Y. -W. Kuo, Y.-L. Chen, H.-D. Wu, H.-C. Wang, Taipei City, Taiwan, p.A3678


The fourteen Assemblies are the primary groups of the American Thoracic Society. Each Assembly holds an annual Membership Meeting at the International Conference. The meetings will be held on Sunday, May 15th from 5-7 PM and Monday, May 16th from 5-7 PM.

All Assembly members and other interested individuals are invited to attend.

To learn more about an assembly, please click the button under each assembly and you will be re-directed to that assembly’s page.

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<td>Clinical Problems (CP)</td>
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Pre-registration and additional fees required. Attendance is limited.
Member: $100  LMIC Member: $70.

7:00 a.m. - 8:00 a.m.  MOSCONEN CENTER

ME29  MANAGEMENT OF CTD-ILD IN THE ERA OF ANTIFIBROTICS
T. Paul, MD, Charlottesville, VA
Room 52/54/56 (South Building, Lower Mezzanine)

ME30  CHRONIC TRACHEOSTOMY MANAGEMENT
R. Krochmal, MD, Washington, DC
K. Van Nostrand, MD, Atlanta, GA
Room 58/60 (South Building, Lower Mezzanine)

ME31  MAPPING HEALTH AND EXPOSURE: GIS TO IMPRESS!
H. Chapman, MD, PhD, MPH, Washington, DC
M.G. Macmurdo, MBChB, Cleveland, OH
A. Anyamba, PhD, Greenbelt, MD
Room 70/72 (South Building, Lower Mezzanine)

ME32  BRINGING WEIGHT LOSS TO THE FOREFRONT IN THE TREATMENT OF OBSTRICTIVE SLEEP APNEA: INTEGRATING EVIDENCE-BASED GUIDELINES INTO CLINICAL PRACTICE
V. Kundel, MD, New York, NY
S.R. Patel, MD, MS, ATSF, Pittsburgh, PA
Room 74/76 (South Building, Lower Mezzanine)

10:45 a.m. - 11:45 a.m.  MOSCONENE CENTER

ME33  AVOIDING BIAS WHEN ANALYZING LONGITUDINAL PATIENT TRAJECTORIES: NOT ALL REPEATED MEASURES DATA IS CREATED EQUALLY
M. Neely, PhD, Durham, NC
Room 50/52 (South Building, Lower Mezzanine)

ME34  LUNG TRANSPLANT IN IPF: WHO, WHEN, AND HOW?
N. Patel, MD, Philadelphia, PA
Room 52/54/56 (South Building, Lower Mezzanine)

ME35  BABY, BABY, BABY: EXPLORING OBSTRICTIVE SLEEP APNEA INFANTS
Z. Ehsan, MD, Kansas City, MO
Room 58/60 (South Building, Lower Mezzanine)

ME36  WHAT IS NEW IN PNEUMONIA AND IN PLEURAL DISEASE
G.W. Waterer, MBBS, MBA, PhD, Perth, WA
Y.C.G. Lee, MBChB, PhD, Perth, WA
Room 70/72 (South Building, Lower Mezzanine)

ME37  ARTIFICIAL INTELLIGENCE 101
B. Camoretti-Mercado, PhD, MBAIS, Tampa, FL
Room 74/76 (South Building, Lower Mezzanine)

Tuesday Morning, May 17

Tuesday Morning, May 17

K3  UNFINISHED BUSINESS: THE ACHIEVABLE GOAL OF ELIMINATING ALL TOBACCO PRODUCT USE IN THE UNITED STATES BY 2030
8:15 AM - 9:00 AM  MOSCONENE CENTER

Incredible progress has been achieved in terms of reducing tobacco use rates since the first Surgeon General's Report was released in 1964. Since that time, adult prevalence has declined from about 43% to about 14% now. Even with this progress, over 30 million Americans continue to smoke and half of them (over 15 million) will die prematurely of a tobacco-caused disease if they don’t quit.

In 2009, as part of the Family Smoking Prevention and Tobacco Control Act, regulatory authority was given to the FDA to essentially eliminate tobacco use, in large part by reducing the nicotine content of all tobacco products (including both combustible tobacco products and e-cigarette products) to non-addictive levels.

This keynote talk will broadly describe the greatest public health and clinic challenge facing Americans and the very real potential to eliminate that risk to both individuals and society by 2030.

Introduction: L.M. Schnapp, MD, ATSF, Madison, WI
Featured Speaker: M.C. Fiore, MD, MPH, MBA, Madison, WI
C1  CLINICAL YEAR IN REVIEW 3
9:30 a.m. - 11:00 a.m.  MOSCONCE CENTER
Hall E (North Building, Exhibition Level)

Target Audience
Pulmonary, critical care and sleep providers. The program will discuss general topics of interest to a broad group of providers, inside and outside of these subspecialties. The program is relevant to not only clinicians, but also to researchers and administrators.

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.

Clinical Year in Review sessions will 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.

Chairing:  
J.L. Gomez, MS, MD, ATSF, New Haven, CT  
R.J. Shah, MD, MSCE, San Francisco, CA  
J.C. Ferreira, MD, PhD, Sao Paulo, Brazil

9:30  General Critical Care
E. Wilcox, MD, PhD, FRCPC, Toronto, Canada

9:52  Cystic Fibrosis
C.M. Bojanowski, MD, New Orleans, LA

10:15  Sepsis
F.R. Machado, PhD, MD, Sao Paulo, Brazil

10:37  Bronchiectasis
W. Elmaraachli, MD, San Diego, CA

This session and the International Conference are supported by an independent medical educational grant from Insmed Incorporated.

All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).

C2  PRO/CON: INTERSTITIAL LUNG DISEASE DIAGNOSIS AND MANAGEMENT
Assemblies on Clinical Problems; Behavioral and Health Services Research; Environmental, Occupational and Population Health
9:30 a.m. - 11:00 a.m.  MOSCONCE CENTER
Room 3-4 (South Building, Exhibition Level)

Target Audience
Clinicians, nurses, other allied health staff, researchers and investigators in basic and clinical with focus on interstitial lung disease. Sponsors for research

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

- appreciate differences and similarities between the implications of a probable UIP pattern vs a UIP pattern on CT chest;
- discuss potential need for genetic testing and implications of genetic testing with patients who have fibrotic lung disease;
- integrate decisions on antifibrotic versus immunosuppressive medications for fibrotic hypersensitivity pneumonitis and fibrotic connective tissue disease associated ILD into clinical practice.

The aim of this session is to surface the evolving knowledge and controversies of hot clinical topics where there is not one clear “right” answer based on existing evidence, review reasoning on both sides of the issue/question to the clinician-pulmonologist. The following few specific and highly relevant clinical questions are cutting edge topics in interstitial lung disease and have not been answered well in existing guidelines and evidence to date. These will be addressed in this session as 4 pro/con debates: role of genetic testing in diagnosis and management of patients with interstitial lung disease; whether radiographic probable UIP and UIP should be merged as a single UIP pattern; decision to treat patients with progressive fibrotic HP and CTD with immunosuppression or antifibrotics first; whether patient reported outcomes should be formally evaluated at each clinic visit. Audience response software will be used pre and post each debate to assess attendees’ opinions on each topic and it is hoped that the information will be useful for future guideline developers on the specific questions.

Chairing:  
B. Collins, MD, Seattle, WA  
G. Raghu, MD, Seattle, WA

9:30  PRO: Genetic Testing is Prime Time for Evaluation of Fibrotic Lung Disease
A.E. Tzouvelekis, MD, PhD, Patras, Greece

9:38  CON: Genetic Testing is Prime Time for Evaluation of Fibrotic Lung Disease
C. Newton, MD, Dallas, TX
9:46 PRO: Definite UIP and Probable UIP Patterns on HRCT Images Should Be Merged as One UIP Pattern
M. Remy-Jardin, MD, Lille, France

9:54 CON: Definite UIP and Probable UIP Patterns on HRCT Images Should Be Merged as One UIP Pattern
D.A. Lynch, MB BCh, Denver, CO

10:02 PRO: Patient Reported Outcomes Should Be Formally Evaluated at Every Clinic Visit for Patients with Fibrotic Lung Disease
K.I. Aronson, MD, MSci, New York, NY

10:10 CON: Patient Reported Outcomes Should Be Formally Evaluated at Every Clinic Visit for Patients With Fibrotic Lung Disease
S.S. Birring, MD, London, United Kingdom

10:18 PRO: Antifibrotic Drugs Should Not Be Started Until Fibrotic HP and Fibrotic CTD-ILD Have Progressed on Immunosuppressive Medications
B. Collins, MD, Seattle, WA

10:26 CON: Antifibrotic Drugs Should Not Be Started Until Fibrotic HP and Fibrotic CTD-ILD Have Progressed on Immunosuppressive Medications
A. Azuma, MD, PhD, Tokyo, Japan

10:34 Highlights of the New Official 2022 ATS/ERS/JRS/ALAT Clinical Practice Guideline on Idiopathic Pulmonary Fibrosis (an Update) and Progressive Pulmonary Fibrosis in Adults
G. Raghu, MD, Seattle, WA

This session and the International Conference are supported by an independent medical educational grant from Boehringer Ingelheim Pharmaceuticals, Inc.

All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).

C3 PEDIATRIC CLINICAL CHEST ROUNDS
Assembly on Pediatrics
9:30 a.m. - 11:00 a.m. MOSCON CENT E CENTER
Room 2006/2008 (West Building, Level 2)

Target Audience
Pediatric pulmonary clinicians and trainees (including students, physicians, advanced practice providers, nurses and other health professionals interested in the diagnosis and management of challenging pediatric cases)

Objectives
At the conclusion of this session, the participant will be able to:
• generate a broad differential diagnosis for challenging cases in pediatric pulmonary medicine;
• apply current diagnostic testing to the management of challenging cases in pediatric pulmonary medicine;
• discuss state of the art management of challenging pediatric pulmonary cases.

Pediatric Clinical Chest Rounds focuses on the diagnosis and management of 4 challenging clinical cases selected from the case reports submitted to the Pediatric Assembly. Each case is presented by a trainee (usually a pediatric pulmonary fellow) and discussion is led by expert in the field.

Chairing S.C. Sadreameli, MD, MHS, Baltimore, MD
T.J. Moraes, BSc , MD, PhD, Toronto, Canada
C.E. Loughlin, MD, Chapel Hill, NC

9:30 The Curious Case of the Blues
S. Vaziri, MD, San Francisco, CA

9:42 Expert Discussant
R.K. Hopper, MD, Palo Alto, CA

9:53 Acute COVID-19: Keep a Broad Differential
B.D. Harris, MD, Charlotte, NC
R. Raffler, DO, Charlotte, NC

10:05 Expert Discussant
M. Kazachkov, MD, New York, NY

10:15 A Case of Dyspnea in an Ex-Prem
M.V. De La Paz, MD, MBA, Vancouver, Canada

10:27 Expert Discussant
S.A. Mcgrath-Morrow, MD, Philadelphia, PA

10:38 Recurrent Lobar Consolidation: An Unusual Cause and Treatment
D. Curran, MD, Boston, MA

10:50 Expert Discussant
B.K. Rubin, MD, MBA, FRCPC, Richmond, VA

C4 COMMUNICATING PROGNOSIS TO CRITICALLY ILL PATIENTS AND THEIR FAMILIES: CHALLENGES AND RECOMMENDED STRATEGIES WHICH CONSIDER CULTURE AND PREFERENCES
Assemblies on Critical Care; Behavioral and Health Services Research
9:30 a.m. - 11:00 a.m. MOSCON CENTER
Room 3020/3022/3024 (West Building, Level 3)
Target Audience
Nurses, physicians, respiratory and physical therapists, case managers, social workers, healthcare professionals working with ICU settings and advanced lung disease patients, patients, and surrogate decision-makers.

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

• understand critically ill patients’ and family members’ perspectives about prognosis communication;
• recognize risks of relying on either experiential/subjective prognostication or quantitative prognostic models in clinical practice;
• use evidence-based strategies for delivering prognostic estimates within compassionate shared decision making conversations.

This symposium will explore the challenges to compassionate communication about prognosis to critically ill patients and their families. We will learn about patient, family and provider perspectives about prognostication, and the risks/benefits of subjective (experience-based) prognostic communication compared to data-driven prognostication. This will include definitions of biases/heuristics, with particular emphasis on the challenges of including race and ethnicity as predictors without regard for social determinants of health and systemic racism. We will learn how providers can tailor communication about prognosis, for individual patient/family needs and preferences including cultural considerations.

Chairing:  
N. Hajizadeh, MD, MPH, Manhasset, NY  
D.B. White, MD, Pittsburgh, PA  
J. Hart, MD, MS, Philadelphia, PA  
N. Sederstrom, PhD, MPH, MA, FCCP, FCCM, Minneapolis, MN

9:30 Introduction  
N. Hajizadeh, MD, MPH, Manhasset, NY

9:35 Prognosticating in Serious Respiratory Illness: Assessing Risk Amidst the Unknown  
A.S. Iyer, MD, MSPH, Birmingham, AL

9:45 “She Won’t Ever Be the Same”: Sources of Prognostic Estimates Where Our Predictions Originate and How Bias May Prevail  
J. Hart, MD, MS, Philadelphia, PA

9:55 “We Told Her Family How Bad Things Are”: What Doctors Think They Say, What Surrogates Actually Hear  
D.B. White, MD, Pittsburgh, PA

10:05 Centering the Margins: Addressing Inequities in Patient-Clinician Communication  
C.E. Brown, MD, MA, Seattle, WA

10:15 Tools to Support Shared Decision Making Conversations: The Promise and Limits of Decision Aids  
N. Hajizadeh, MD, MPH, Manhasset, NY  

10:25 Applying Data to the Individual Patient: Considering the Ethics of Prediction Modeling and the Patient-Physician Relationship  
A.E. Turnbull, DVM, MPH, PhD, Baltimore, MD

10:35 Centering the Margins: Addressing Inequities in Patient-Clinician Communication  
N. Sederstrom, PhD, MPH, MA, FCCP, FCCM, Minneapolis, MN

10:45 A Patient and Caregiver Perspective: They Spoke and This is What I Heard  
E. Courtenay-Mann, Spring, TX

10:55 Wrap-Up and Discussion  
D.B. White, MD, Pittsburgh, PA

C5 PNEUMONIA IN THE IMMUNOCOMPROMISED HOST
Assemblies on Pulmonary Infections and Tuberculosis; Allergy, Immunology and Inflammation; Clinical Problems
9:30 a.m. - 11:00 a.m. MOSCONE CENTER Room 209-211 (South Building, Level 2)

Target Audience
Pulmonologists and other providers who care for patients in the acute setting, researchers interested in pneumonia and/or host immune responses

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

• apply new knowledge of immune vulnerabilities to better identify patients who are at increased risk of immunocompromised host pneumonia;
• better diagnose pneumonia in the immunocompromised host, including identification of pathogens of special interest;
• define new management strategies to improve the health of patients with immunocompromised host pneumonia.

Pneumonia remains a leading cause of death around the world, and immunocompromised hosts are at particular risk for atypical presentations and unusual organisms. They demand a diagnostic approach and management strategy that adapts to their circumstances. This session will shed light on the approach to pneumonia in the immunocompromised host by focusing on paradigmatic settings of immunocompromise and on specific etiologies of infections in this vulnerable population.
C6  GROWING UP OLD: EVIDENCE FOR PREMATURE LUNG AGING IN EARLY LIFE

Assemblies on Respiratory Structure and Function; Environmental, Occupational and Population Health; Pediatrics, Respiratory Cell and Molecular Biology

9:30 a.m. - 11:00 a.m.  MOSCONE CENTER

Room 2010/2012 (West Building, Level 2)

Target Audience
Pulmonary clinician scientists, population health scientists, environmental epidemiologists, basic and translational scientists

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

• gain perspective on altered physiologic trajectories of lung health beginning early in life that represent accelerated pathways towards age-related chronic lung disease;
• gain understanding of new findings about the cellular, molecular, and epigenetic alterations found in infants and children that reflect premature aging beginning in earlier life stages;
• increase awareness of early life exposomic factors which promote senescence of the respiratory system among children.

Numerous early life insults in the perinatal and childhood periods—for example, intrauterine hypoxia, environmental tobacco smoke, nutritional and metabolic factors, childhood respiratory infections and chronic airways disease, contribute to altered trajectories of lung health as early as infancy and childhood. This symposium focuses on current physiologic, epigenetic, cellular, and molecular evidence that supports that these factors may contribute to aged phenotypes early in the life course, leading to accelerated development of chronic lung disease.

C7  THE LONG TERM EFFECTS OF COVID-19 ON PATIENTS AND PUBLIC HEALTH

Assemblies on Pediatrics; Clinical Problems; Pulmonary Rehabilitation

9:30 a.m. - 11:00 a.m.  MOSCONE CENTER

Room 2002/2004 (West Building, Level 2)

Target Audience
Pediatric pulmonologists who are seeing patients with long term effects from COVID19 infection; physical therapists; epidemiologists for respiratory viral infections; individuals working in health disparities research

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

• apply new recommendations for patients with long COVID-19 to enhance pulmonary rehabilitation and overall well-being;
identify health disparities that have heightened due to the pandemic in pediatric respiratory care;

examine the changing landscape of viral respiratory epidemiology as a result of the pandemic.

One presentation would discuss the long term physical, behavioral, and psycho-social effects of COVID-19, including presenting data from “LONG COVID” clinics and management of these patients. The second presentation would look at the unintended benefits/challenges of the pandemic on lung health (eg asthma exacerbations) and the changes the pandemic brought on viral respiratory epidemiology. The third presentation and discussion would evaluate how the pandemic has heightened health disparities in terms of access to care, vaccine delivery, etc, specifically in Pediatrics. The fourth presentation would involve resiliency and well-being research with regards to our Pediatric providers during the pandemic.

Chairing: S. Das, DO, Houston, TX
T. Simoneau, MD, Boston, MA

9:30 A Patient’s Perspective
S. Ghanoongooi, Beverly Hills, CA

9:35 Long-Term Complications of Pediatric COVID-19 Infection
T. Simoneau, MD, Boston, MA

9:57 The Changing Viral Landscape During COVID-19
C. Rosas-Salazar, MD, MPH, ATSF, Nashville, TN

10:17 Health Disparities and Lung Health During COVID-19
A. De, MD., New York, NY

10:40 Physician Well-Being During the Pandemic
H.H. De Keyser, MD, MSCR, Aurora, CO

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

• describe and discuss new findings from bench to bedside with the hope to enable the development of effected targeted therapies PH patients;

• recognize and learn the benchmarks needed to launch a translatable preclinical study to clinical study;

• identify new potential avenues for therapeutic interventions targeting multiple groups of PH.

Pulmonary Hypertension (PH) is a multifactorial pulmonary vascular disease that can arise spontaneously or as a complication of left heart disease, or chronic pulmonary disease and commonly leads to profound and refractory RV failure and death. Although preclinical models of PH are extensively utilized in the field to identify novel pathways driving PH pathogenesis and to test potential therapeutic approaches, the translatability of findings using these models into clinical practice and patient care is contested. This session will discuss current and state of the art research identifying novel therapeutic approaches, following their progression from preclinical to clinical studies in PH.

Chairing: A.L. Frump, MS, PhD, Indianapolis, IN
Y.C.C. Lai, PhD, Indianapolis, IN
J.M. Elinoff, MD, ATSF, Bethesda, MD
C.E. Ventetuolo, MD, MSCR, Providence, RI

9:30 Rebalancing TGF/Activin/BMP Signaling in Pulmonary Arterial Hypertension
M. Gu, MD, PhD, Cincinnati, OH

9:45 Sotatercept for the Treatment of Pulmonary Arterial Hypertension: Restoring Balance Between Activin and BMP Pathways
D.B. Badesch, MD, Aurora, CO

10:00 Novel Findings From Preclinical and Clinical Studies of Group 2 PH
M.T. Gladwin, MD, Pittsburgh, PA

10:15 Updates From PVDIOMICS and FDA Recommendations for the Treatment of Group 2 PH
J. Leopold, MD, Boston, MA

10:30 Prostacyclin and Pulmonary Hypertension
M.W. Geraci, MD, Pittsburgh, PA

10:45 Inhaled Treprostinil in Pulmonary Hypertension Due to Interstitial Lung Disease
S.D. Nathan, MD, Falls Church, VA

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C9  SEX, LUNGS, AND ENVIRONMENTAL EXPOSURES

Assemblies on Environmental, Occupational and Population Health; Behavioral and Health Services Research; Pulmonary Infections and Tuberculosis; EOPH’s Early Career Professionals Working Group

9:30 a.m. - 11:00 a.m. MOSCONE CENTER Room 201-202 (South Building, Level 2)

Target Audience
Providers of lung health, basic and translational researchers who are interested in translational and impacts of environmental exposures, those with clinical or research responsibilities

Objectives
At the conclusion of this session, the participant will be able to:
• recognize and learn about new findings of sex specific responses to environmental exposures;
• apply and integrate sex as a biological variable appropriately in environmental exposure assessment research;
• improve ability to identify environmental lung disease by better understanding sex-specific effects and susceptibilities.

Lung disease susceptibility is often sex specific. However, only recently, have clinical and translational research studies incorporated a thorough analysis of sex differences in response to environmental exposures and the potential link of these differences to disease susceptibility. This session will explore the interaction of sex with environmental exposures to increase susceptibility to lung disease and infection. Studies in rodents, non-human primates, and humans will be described, providing an overview of this emerging field. This session will also provide recommendations on next steps for the study of respiratory sex differences in response to environmental exposures and best practices in study design and analysis to facilitate the incorporation of sex as a biological variable.

Chairing:  M.E. Rebuli, PhD, Chapel Hill, NC
L.S. Van Winkle, PhD, Davis, CA
J.P. Reilly, MD, MSCE, Philadelphia, PA

9:30  Sex Differences in Respiratory Health: Evidence from Epidemiology and the Exposome
R.J. Wright, MD, MPH, New York, NY

9:42  Where There Is Smoke, There Are Sex Differences: Part 1 - Wildfire Smoke
L.A. Miller, PhD, Davis, CA

9:54  Where There Is Smoke, There Are Sex Differences: Part 2 - Secondhand Tobacco Smoke
A. Noel, PhD, MSc, BSc, Baton Rouge, LA

10:06  Can Sex and Environmental Exposures Make Your Flu Worse?
M.E. Rebuli, PhD, Chapel Hill, NC

10:18  Sex Differences in Ozone Responses and the Influence of Diet and Microbiome
H. Tashiro, MD, PhD, Saga, Japan

10:30  Sex Differences With Environmental Exposure: What Do We Know and Where Do We Go From Here?
P. Silveyra, PhD, MSc, Bloomington, IN

10:42  Panel Discussion and Audience Q&A

C10  BIOMARKERS IN LUNG CANCER: PIERRE MASSION MEMORIAL SYMPOSIUM

Assembly on Thoracic Oncology

9:30 a.m. - 11:00 a.m. MOSCONE CENTER Room 205-206 (South Building, Level 2)

Target Audience
Pulmonary clinicians, thoracic surgeons, radiologists, and public health workers including those involved in organizing/running CT screening programs, or those referring to CT screening programs, as well as those interested in chemoprevention

Objectives
At the conclusion of this session, the participant will be able to:
• gain a greater understanding and narrowing of the field of high risk individuals to target for Lung cancer screening;
• establish a knowledge base for greater objectivity in nodule management and establishment of low, intermediate and high risk pools of screened individuals;
• understand the emerging for recurrence prediction. Understand the future behind advances beyond TNM.

Pierre Massion was a tremendous researcher, clinician, mentor and family man. Pierre passed away unexpectedly and far to soon this year leaving behind a tremendous family, a wealth of scientific accomplishment and list of friends and mentees to carry on his legacy. We honor Pierre through this symposium on biomarkers and risk assessment in cancer. This symposium will serve to better understand what populations are at risk for lung cancer and which nodules can move from intervention to surveillance. We will also explore determinants of risk for cancer recurrence and better understand populations that may benefit from adjuvant therapy. We will also explore decision making and make the case for models, genetics and metabolomics over experience and gut instinct.
Chairing:  
F. Maldonado, MD, Nashville, TN  
T.S. Blackwell, MD, Nashville, TN  
H. Kathuria, MD, ATSF, Boston, MA

BEHAVIORAL • CLINICAL

SCIENTIFIC SYMPOSIUM

C11 USE OF NOVEL TECHNOLOGIES TO IMPROVE CLINICAL TRAINING AND ENHANCE PATIENT SAFETY

Assemblies on Behavioral and Health Services Research; Training Committee; Education Committee

9:30 a.m. - 11:00 a.m.  
MOSCONEx 3010/3012 (West Building, Level 3)

Target Audience
All members of the interprofessional team, including trainee and international conference participants and leaders in education, clinical administration, patient safety, and information technology

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

• describe best practices for simulation and virtual reality to improve procedural teaching and learning;
• develop a successful interprofessional team training session using novel technologies in both high and low fidelity environments.

This symposium will introduce learners to novel technologies that are specifically relevant to pulmonary and critical care training and directed at enhancing patient safety. Through a critical appraisal of the literature, experts will review the roles of virtual reality, augmented reality and traditional manikin-based simulation to support the teaching of clinical procedures and interprofessional team training.

Chairing:  
S.M. Kassutto, MD, Philadelphia, PA  
M.M. Hayes, MD, ATSF, Boston, MA  
N. Seam, MD, ATSF, Bethesda, MD

9:30 Overview of Novel Technologies for Provider Education  
S.M. Kassutto, MD, Philadelphia, PA

9:40 Harnessing Novel Technologies to Teach Bronchoscopy and Other Bedside Procedures  
J.B. Richards, MD, MA, ATSF, FACP, Cambridge, MA

10:00 Interprofessional Team Training: High Fidelity Simulation vs. Virtual Reality  
A. Alismail, MS, MA, RRT, FCCP, Loma Linda, CA  
D.M. Donesky, PhD, ANP-BC, ATSF, Napa, CA

10:25 The Technology Enhanced Virtual Classroom: From UME to CME  
J.C. Ferreira, MD, PhD, Sao Paulo, Brazil

10:45 PRO-CON Discussion: What Should the Future of Clinical Training and Patient Safety Look Like?  
N. Seam, MD, ATSF, Bethesda, MD  
M.M. Hayes, MD, ATSF, Boston, MA

10:55 Questions and Wrap Up  
S.M. Kassutto, MD, Philadelphia, PA
**Target Audience**
Providers and researchers in the fields of pulmonary, sleep medicine, critical care and includes pediatrics

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

- improve the quality of life of patients by learning the evidence demonstrating disparities in health care access and outcomes related to lung cancer screening, sleep disorders, pulmonary hypertension and COVID-19;
- learn evidence demonstrating disparities in COPD prevalence and outcomes, highlighting environmental and other contributors (i.e. smoking) as well as learn potential points of intervention;
- understand and review evidence on disparities in the prevalence and outcomes for minority children with asthma and learn culturally tailored approaches to reduce these disparities.

Health disparities are an increasingly recognized driver of public health outcomes, especially health outcomes that are not only ameliorable but also high priority. Respiratory and sleep health disparities have been documented and have been shown to be related to these important outcomes. This multidisciplinary session will address the state of the on the impact of health disparities in common and orphan respiratory diseases and will to point to future directions in promoting pulmonary and sleep health equity.

**Chairing:**
S.R. Patel, MD, MS, ATSF, Pittsburgh, PA
M. Eakin, PhD, Baltimore, MD
R.S. Wiener, MD, MPH, ATSF, Boston, MA
C.A. Powell, MD, MBA, New York, NY
N. Shah, MD, MPH, New York, NY

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**BASIC • TRANSLATIONAL MINI SYMPOSIUM**

**C13 IMMUNE RESPONSES AND POTENTIAL INFLAMMATORY BIOMARKERS IN SARS-CoV-2 INFECTION**

9:30 a.m. - 11:00 a.m. MOSCONE CENTER

**Chairing:**
J.K. Kolls, MD, New Orleans, LA
A. Rogers, MD, MPH, ATSF, Stanford, CA

**Oral Presentations:**


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10:30 Humoral and Cellular Immune Responses Following SARS-CoV-2 Vaccination in Patients Receiving B-Cell Targeted Therapy

10:40 Identification of Highly Immunogenic Epitopes in the SARS-CoV-2 Spike Protein to Produce Neutralizing Monoclonal Antibodies for Treatment

10:50 Local SARS-CoV-2 Peptide-specific Immune Responses in Convalescent and Uninfected Human Lung Tissue Models
J. Deshane, K. Goliwas, V.J. Thannickal, K.S. Harrod, J. Donahue, Birmingham, AL, p.A3689

BEHAVIORAL • CLINICAL
 MINI SYMPOSIUM

C14 BURNOUT, DISPARITIES, AND OUTCOMES OF THE COVID-19 PANDEMIC
9:30 a.m. - 11:00 a.m. MOSCONE CENTER
Room 2014/2016 (West Building, Level 2)

Chairing:
C.E. Brown, MD, MA, Seattle, WA
A.C. Melzer, MD, MS, Minneapolis, MN
S. Rinne, MD, PhD, Boston, MA

Oral Presentations:


BASIC • CLINICAL
 MINI SYMPOSIUM

C15 “SURVIVING SEPSIS” IN THE POST PANDEMIC ERA
9:30 a.m. - 11:00 a.m. MOSCONE CENTER
Room 3005/3007 (West Building, Level 3)

Chairing:
B. Rochwerg, MD, MSCE, FRCPC, Hamilton, Canada
M.M. Hosey, PhD, Baltimore, MD

Featured Speaker:
9:30 Sepsis Syndemics and Surviving Sepsis in the PA Post-Pandemic Era/K. Rudd, Pittsburgh, PA

Oral Presentations:


Oral Presentations:


**BASIC • CLINICAL • TRANSLATIONAL**

**MINI SYMPOSIUM**

**C17  NOVEL THERAPEUTICS AND BIOMARKERS FOR IDIOPATHIC PULMONARY FIBROSIS**

9:30 a.m. - 11:00 a.m.  MOSCONE CENTER

Room 215-216 (South Building, Level 2)

Chairing:
- E.F. Redente, PhD, Denver, CO
- N. Kaminski, MD, ATSF, New Haven, CT
- D. Lagares, PhD, MSc, Boston, MA

**Oral Presentations:**


**BASIC • CLINICAL • TRANSLATIONAL**

**MINI SYMPOSIUM**

**C18  COPD: WHO, WHY, AND HOW**

9:30 a.m. - 11:00 a.m.  MOSCONE CENTER

Room 11-12 (South Building, Exhibition Level)

Chairing:
- T.-L. Hackett, PhD, ATSF, Vancouver, Canada
- S.S. Gutor, PhD, MD, Nashville, TN

**Oral Presentations:**


Oral Presentations:


10:10 Time-Restricted Feeding Improves Glucose Metabolism in a Mouse Model of Obstructive Sleep Apnea/M. Zhang, J. Reeves, E. Lawrence, A. Sanchez Azofra, L. Barnes, E.A. Moya, O.A. Mesarwi, La Jolla, CA, p.A3737


10:30 Prevalence of Nocturnal Cardiac Arrhythmias in Patients with Heart Failure and Sleep-Disordered Breathing from the ADVENT-HF Trial/C. Fisser, C.M. Horvath, D. Bradley, J.S. Flores, S. Sossalla, F. Rankin, M. Arzt, Regensburg, Germany, p.A3739

Featured Speaker:

10:40 Dying with OSA, or From It: A Perspective/J.C. Jun, Baltimore, MD
501  Leptin Augments Human Airway Fibroblast Invasion and IL-13-Induced Eotaxin Production in a Murine Model of Allergic Airway Disease/V. McQuade, M. Ihrie, J. Womble, K. Zhao, H. Kim, L.G. Que, J.L. Ingram, Durham, NC, p.A3740

502  Role of Secretoglobin+(Club Cell) NFκB/RelA-TGFβ Signaling in Aero-Allergen-Induced Epithelial Plasticity and Subepithelial Myofibroblast Transdifferentiation/M. Skibba, K. Weiss, J. Huisken, A. Brasier, Madison, WI, p.A3741


505  Purinergic Receptor Activation Stimulates Lipoxin A4 Production in Alveolar Macrophages Derived from Individuals with Asthma/E.A. Townsend, A.G. Guadarrama, L.C. Denlinger, Madison, WI, p.A3744


508  Fungal Allergen Induces Expansion of Invariant Natural Killer T Cell in an Acute Innate Type 2 Lung Inflammation/N. Azalde Garcia, R. Karkout, L. Labrie, H. Al Dossary, E.D. Fixman, Montréal, Canada, p.A3747

509  Airway Tuft/Brush Cells Are Required for Exaggerated Type 2 Inflammation and Mucous Metaplasia in Immature Mice Undergoing Heterologous Rhinovirus Infection/M. Han, H. Breckenridge, D. Sawicky, C. Stroupe, A. Goldsmith, K. Bentley, I. Matsumoto, M.B. Hershenson, Ann Arbor, MI, p.A3748

510  Vacuolating Cytotoxin A (VacA) - Therapeutic Potential of a Helicobacter Derived Molecule for Asthma/S. Reuter, J. Raspe, H. Beckert, A. Westendorf, E. Pastille, T. Cover, A. Müller, C. Taube, Essen, Germany, p.A3749

511  RLS-0071 Reduces Inflammatory Biomarkers in T2 Low (neutrophilic) Asthma Animal Model/P. Kumar, Norfolk, VA, p.A3750


513  Parkin Promotes Non-Type 2 Airway Inflammation Through Stat1 Signaling/B. Berg, H.W. Chu, K.G. Dimasuay, Denver, CO, p.A3752


517  Crosstalk Between Macrophages and Pericytes Promotes M2 Differentiation and Exacerbates Inflammatory Cytokine Release/J.R. Johnson, R.E. Bignold, I. Ragborta, E.S. Pugh, Birmingham, United Kingdom, p.A3756
Identifying Extracellular Vesicles in T2-High Bronchial Epithelium: Evidence from Ex Vivo and In Vitro Studies
A.J. Schuyler, R. Crum, J. Zhao, S. Badyak, S.E. Wenzel, Pittsburgh, PA, p.A3757

PRMT5 in T Cells Drives Mixed Granulocytic Inflammation and Severe Allergic Airway Inflammation

Chronic Allergic Lung Inflammation Negatively Influences Neurobehavioral Outcomes in Mice

Development of a Porcine Model of Mixed-Allergen Inflammatory Airway Disease

Mechanisms of Early Life Respiratory Syncytial Virus Infection-Mediated Enhancement of Type 2 Allergic Lung Inflammation

Mucosal Associated Invariant T Cells May Have Any Protective Role Against Type 2 Airway Inflammation in OVA-Induced Murine Asthma Model

Endothelial Thrombopoietin Receptor Controls Eosinophil Trafficking in Asthma and Chronic Rhinosinusitis

Dectin-2 Recognizes Gut Dysbiosis of the Commensal Fungi Wallemia Mellicola and Is Essential for the Gut-Lung Axis Interactions Aggravating Asthma in Murine Models

Examining Changes in Tobacco Consumption Amidst the COVID-19 Pandemic
H. Loui, L. Wisk, R. Buhr, Los Angeles, CA, p.A3763

Cannabis Use and Risk of Adverse Respiratory Events: A Population-Based, Data-Linkage Cohort Study
N. Vozoris, J. Zhu, C.M. Ryan, C.-W. Chow, T. To, Toronto, Canada, p.A3764

Y. Dai, B. Mohr, A. Harvey, Pittsburgh, PA, p.A3765

Barriers to TB Care During the COVID19 Pandemic: A Comparison Between Urban and Rural Populations in Uganda

Area Deprivation Index (ADI), a Marker of Socioeconomic Status, as a Predictor of Patient- and Family-Level Characteristics in COVID-19 Critical Illness

Impact of the COVID-19 Pandemic on Health Care Resource Utilization (HCRU) and Costs in Asthma in the United States: A Population-Based Study

The Impact of Insurance Coverage on COVID-19 Outcomes Among a Racially Diverse Population
P.A. Verhoef, Honolulu, HI, p.A3769

Factors Associated with Antimicrobial Overtreatment or Delayed Intervention for Early Sepsis in a Single Health System
Utilization of Addiction Treatment Services for Patients Admitted to the ICU with an Alcohol-Related ICU Encounter/K. Hills-Dunlap, M. Moss, S.E. Jolley, Boston, MA, p.A3771


Real-World Treatment Patterns Following Chronic Obstructive Pulmonary Disease (COPD) Exacerbation in Patients with Commercial or Medicare Insurance in the United States/M. Bogart, G. Germain, F. Laliberté, D. Lejeune, M.S. Duh, Research Triangle Park, NC, p.A3777

Red-Lining Magnifies Socio-Economic Contributions to COPD Prevalence/A. Baugh, M. Ye, P. Woodruff, N. Thakur, San Francisco, CA, p.A3778


Bridging to Adulthood — Pediatric to Adult Transition Experience of Young Adults with Neuromuscular Disease and Ventilator-Dependent Chronic Respiratory Failure/P. Cheng, A.G. Chidambaram, E. Chotzoglou, J.H. Hansen-Flaschen, J. Ackrivo, M.M. Rey, P. Nelin, L. Gagen, S. Vahlsing, A. Peng, L. Marchiano, A. Carraher, J. Aldridge, H.B. Panitch, Indianapolis, IN, p.A3783

Women Empowerment in Medical Literature: A Journey of 60 Years/S. Nadeem, O. Haider, S. Fatima, F.N. Masud, I. Ratnani, Houston, TX, p.A3784


CLINICAL • TRANSLATIONAL
POSTER DISCUSSION SESSION
C23 BEYOND THE LUNG: COMORBIDITIES IN COPD
9:30 a.m. - 11:00 a.m.
Room 9-10 (South Building, Exhibition Level)

Poster Viewing
9:30-10:00

Discussion
10:00-11:00

Chairing:
N.A. Hanania, MD, MS, MSc, ATSF, Houston, TX
J.K. Krishnan, MD, MBA, MSc, New York, NY
J. Bon, MD, MS, ATSF, Pittsburgh, PA


Depression Moderates Response to a Pedometer-Mediated, Web-Based Physical Activity Intervention in Veterans with Chronic Obstructive Pulmonary Disease (COPD)/P. Bamonti, S.A. Robinson, M. Mongiardo, M. Moy, Boston, MA, p.A3794

Impact of Heart Failure in Patients Admitted for Acute Exacerbation of Chronic Obstructive Pulmonary Disease/A. Shahi, U. Vardar, R. Atluri, M. Murthi, S. Khouri, Chicago, IL, p.A3795

Abnormalities of Ventricular Repolarization in Chronic Obstructive Pulmonary Disease/A.L. Koch, T. Siddharthan, N.M. Punjab, Miami, FL, p.A3796


Older US Adults with COPD Face High Risk of Polypharmacy, Falls, and Difficulty with Activities of Daily Living/E. Wang, K.E. Wroblewski, M.K. McClintock, J.M. Pinto, L.J. Witt, Chicago, IL, p.A3801


Characteristics and Clinical Outcomes of Type 1 Versus Type 2 Myocardial Infarction in Patients with Chronic Obstructive Pulmonary Disease/M. Al Khateeb, M. Yusuf, M. Aldiabat, Y. Al Jabiri, A. Horoub, Bronx, NY, p.A5687


Minimizing Lung Collapse versus Lung Overdistension in ARDS: A Randomized Controlled Experimental Study - Preliminary Results/M.L.D.A. Sousa, B.H. Katira, V. Hsing, D. Engelberts, M.B.P. Amato, M. Post, L. Brochard, Toronto, Canada, p.A3804


915 Variation in Ventilator Management and Mortality in Acute Respiratory Distress Syndrome (ARDS)/M. Lesieur, N.A. Bosch, A.J. Walkay, Boston, MA, p.A3817


920 Hospital-Level Availability of Prone Positioning, 2019 vs 2021/X. Audhya, N.A. Bosch, J. Stevens, A.J. Walkay, A. Law, Boston, MA, p.A3822


922 Prospective Evaluation of Serial Protein Biomarker Measurements in Sepsis-Induced Acute Respiratory Distress Syndrome/P. Yang, E. Iffrig, F. Harris, G.S. Martin, A.M. Esper, Atlanta, GA, p.A3824


Antidotal Effects of the HSP90 Inhibitor, AT13387, Against Exposure to HCl in Adult and Pubescent Mice/R.M.L. Colunga Biancsetti, P.A. Solopov, C. Dimitropoulou, J.D. Catravas, Norfolk, VA, p.A3832

Phytoestrogens as a Potential Antidotes Against Hydrochloric Acid-Induced Pulmonary Fibrosis/P.A. Solopov, R.M.L. Colunga Biancsetti, C. Dimitropoulou, J.D. Catravas, Norfolk, VA, p.A3833

Biomarkers and Drugs Targets for Phosgene Induced Pulmonary Inhalation Injuries/S. Achanta, A. Marcus, A. Caceres, I. Merutka, S.E. Jordt, Durham, NC, p.A3834

Epigenetic Modifications and Inflammatory Phenotype of Mouse Lung Topically Exposed to Chemical Vescant, Phenylarsine Oxide/S. Manzoor, N. Mariappan, I. Zafar, S. Shakil, R. Srivastava, M. Kashyap, J. Khan, S. Ahmad, A. Agarwal, M. Athar, V. Antony, A. Ahmed, Birmingham, AL, p.A3835


218 Cardiopulmonary Exercise Testing and Exertional Dyspnea STAMPEDE III Evaluation of Post-Deployment Respiratory Symptoms/M.M. Rosas, J. Hunninghake, B. Barber, R.J. Walter, M.J. Morris, Fort Sam Houston, TX, p.A3845


222 IL-17a Neutralization in Rats Exposed Repetitively to Diacetyl Vapors/E. House, S.-Y. Kim, C.J. Johnston, M.D. McGraw, Rochester, NY, p.A5688


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**CLINICAL POSTER DISCUSSION SESSION C26 ADVANCING CARE IN ACUTE AND CHRONIC ILLNESS**

**9:30 a.m. - 11:00 a.m.**

Room 212-214 (South Building, Level 2)

**Poster Viewing**

9:30-10:00

**Discussion**

10:00-11:00

**Chairing:** T.T. Von Visger, APRN, PhD, CCNS, PCCN, Buffalo, NY
K. Calkins, PhD, Milwaukee, WI

**401** Association Between Depression and Frailty Among Adults with Chronic Obstructive Pulmonary Disease: The Health and Retirement Study/S. Woo, K. Lee, Wilmington, NC, p.A3849


**403** A Dedicated Emergency Department Sepsis RN Team to Reduce Sepsis Mortality and Readmissions/L. Gomez, K. LeClair, D. Jenkins, J.K. Graham, Chula Vista, CA, p.A3851


**406** Results of Clinical Performance Testing of a Novel Wearable e-Stethoscope in Patients with Chronic Lung Diseases/M. Glass, J. Kroh, S. McClintock, H.L. Glass, Wilmington, DE, p.A3854


C27  JUST BREATHE: UPDATES IN PEDIATRIC LUNG EXPOSOME SCIENCE

9:30 a.m. - 11:00 a.m.  MOSCONE CENTER
Room 2005/2007 (West Building, Level 2)

Poster Viewing 9:30-10:00
Discussion 10:00-11:00

Chairing:  D.R. Rao, MD, Dallas, TX
J. Rice, MHS, Philadelphia, PA
A. Brown, MD, MBE, Valhalla, NY


602  Lung Disease Severity and Steroid Dosing in Adolescents with E-Cigarette, or Vaping Product, Use Associated Lung Injury (EVALI)/B. Abdallah, D.R. Rao, Dallas, TX, p.A3857

603  Impulsivity-Related Personality Traits as Predictors of E-cigarette Use Among Young Adults Over Time/A. Du, A. Mittal, W.W. Merz, M. Myers, L.E. Crotty Alexander, N. Doran, La Jolla, CA, p.A3858


607  Air Quality Index and Childhood Asthma: A Pilot Intervention/F.J. Rosser, Y.-Y. Han, S.D. Rothenberger, E. Forno, J.C. Celedon, Pittsburgh, PA, p.A3862

608  Associations Between Prenatal Exposure to Fine Particulate Matter and Age Four Impulse Oscillometry: Effect Modification by Maternal Atopy/L. Alpert, M. Minchala, E. Colicino, A. Wilson, B. Coul, R.J. Wright, A. Lee, New York, NY, p.A3863

C28  LET’S TALK NTM

9:30 a.m. - 11:00 a.m.  MOSCONE CENTER
Room 207-208 (South Building, Level 2)

Poster Viewing 9:30-10:00
Discussion 10:00-11:00

Chairing:  M.C.I. Lipman, MD, London, United Kingdom
T.R. Aksamit, MD, Rochester, MN
S.H. Kasperbauer, MD, Denver, CO


302  Reduction in Hospitalizations Following Initiation of Amikacin Liposome Inhalation Suspension: A Retrospective Cohort Study of Patients in Real-World Settings/J. Wu, M. Hassan, A. Cyhaniuk, C. Margiotta, A. Ratiu, A. Chatterjee, Bridgewater, NJ, p.A3866


307 Identification of Small Molecule Inhibitors Against Non-Tuberculous Mycobacteria (NTM) in Activated Macrophages/L. Danelishvili, R. Vande Voorde, E. Dzalamidze, Corvallis, OR, p.A3871


312 Home-Based Intermittent Inhaled High-Dose Nitric Oxide in Nontuberculous Mycobacterial Pulmonary Disease Using a Novel Nitric Oxide Generator and Delivery System Is Safe and Well Tolerated/R. Thomson, A.R. Colin, L. Morgan, Brisbane, Australia, p.A3876


319 A Pilot Geospatial Study of Environmental Risks of Nontuberculous Mycobacteria Disease for Patients with Cystic Fibrosis in Florida/R. Mercaldo, A. Weisman, G. Tupayachi Ortiz, A.R. Colin, E. Lipner, R. Prevots, Rockville, MD, p.A3883

320 Bronchiectasis and Gender: Results from the National Bronchiectasis and NTM Research Registry/C.J. Kang, R. Choate, M.L. Metersky, T. Shah, O. Rohret, N. Lapinel, D.J. Maselli, P.J. Mcshane, Tyler, TX, p.A3884


322 Natural History of Mycobacterium Avium Complex Pulmonary Disease According to Disease Severity/B.-G. Kim, H. Kim, O.J. Kwon, B.W. Jhun, Seoul, Korea, Republic of, p.A3886

C29  SENESCENCE, SENOLYTICS, AND AGING IN LUNG BIOLOGY

9:30 a.m. - 11:00 a.m. MOSCONE CENTER


C29: Single-Cell Transcriptomics Reveals Reduced Number of Lung Progenitors and Aberrant Vascular Homeostasis as Distinctive Features Associated with Lung Disrepair and Persistent Fibrosis with Aging/T.X. Pham, J. Lee, M. Trojanowska, X. Varelas, G. Ligresti, Boston, MA, p.A3891

C29: Nox4 Mediates Age-Associated Endothelial Barrier Dysfunction and Severity of Pre-Clinical ARDS/K. Kato, L. Hecker, Atlanta, GA, p.A3892


C30  LIFE AND LUNGS AFTER COVID: FUNCTIONAL RECOVERY AND OUTCOMES FOLLOWING SARS-CoV2 INFECTION

9:30 a.m. - 11:00 a.m. MOSCONE CENTER


C30: Hermansky-Pudlak Syndrome Type 1 (HPS1) Disrupts Proteostasis and Induces Cellular Senescence in the Alveolar Epithelium/R.E. Cardenas Castillo, F. Poli, R.S. Summer, I.O. Rosas, F. Romero, Houston, TX, p.A3898


Poster Viewing 9:30-10:00
Discussion 10:00-11:00
Chairing: A.A. Hope, MD, Portland, OR
I.D. Peltan, MD, MSc, Murray, UT

801  A Descriptive Study of Mean Inspiratory Pressures (MIPs) and Mean Expiratory Pressures (MEPs) in Covid-19 Patients/K. Sankar, I. Pedraza, C. Yoo, C. Le, R. Zabner, Los Angeles, CA, p.A3904


C31  LATE-BREAKING ABSTRACTS IN ALLERGY, IMMUNOLOGY AND INFLAMMATION

9:30 a.m. - 3:45 p.m.  MOSCONCE CENTER

Viewing: Posters will be on display for entire session  11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.

P527 Exploring Use of Regular ICS/LABA Dosing in Moderate to Severe Asthma Among Physicians: Results from the Asthma Patients' and Physicians' perspectives on the burden and management of asthma studies (APPaRENT 1 & 2)/K.R. Chapman, S. Bosnic-Anticevich, M.D.C. Cano, A. PG, Toronto, Canada, p.A5696

P528 Safety, Tolerability and Preliminary Signals of Activity in Adult Patients with Partly Controlled Asthma Treated with Live Biotherapeutic MRx-4DP0004 as an Add-On Maintenance Therapy to Inhaled Corticosteroids (ICS) With or Without Long-Acting Beta Agonis/C.E. Brightling, A. Stevenson, L. Markinson, C. Moore, C. Badham, Leicester, United Kingdom, p.A5697


P531 Hematopoietic Cell Transplantation Diminishes Lung Microbiota Lactobacillus and Alters T Helper Responses to Gammaherpesvirus Infection/X. Zhou, G.J. Oh, C. Guo, D.N. O’Dwyer, B.B. Moore, Ann Arbor, MI, p.A5700

P532 MALAT1 and MiR-155 Regulate Inflammatory Cytokine Signaling in HIV-Infected Macrophages/Z. Yuan, Y. Huang, R.T. Sadiqot, Omaha, NE, p.A5701


P534 IgE-Mediated Sensitization Towards Frequent and Rare Allergens in Severe Asthma. The ATLAS Project/J. Schreiber, C. Thurm, D. Reinhold, E. Luecke, B. Schraeven, Q. Wu, A. Lux, C. Mailaender, Magdeburg, Germany, p.A5703


P537 Chi3l1 Modulates ICOS Expression Downstream of CD4+ T Cell Activation/M.L. Curtiss, F. Lund, Birmingham, AL, p.A5706


P541 Lung-Delivered Interleukin (IL)-10 Hastens Recovery Following Acute High Dose Inhahent Endotoxin Exposure/R. Gaurav, T.A. Wyatt, A.J. Nelson, D.J. Romberger, J.A. Poole, Omaha, NE, p.A5710

P544 ORMDL3 Gene Polymorphisms in Patients with Pulmonary Alveolar Proteinosis (PAP) and Interstitial Lung Diseases (ILDs): Preliminary Results F. Bonella, D. Hässig, S. Cabric, J. Waelscher, E. Boerner, L. Jehn, C. Taube, M. Schedel, Essen, Germany, p.A3922

P545 Genetic Loci for Lung Function in Japanese Adults with Adjustment for Exhaled Nitric Oxide Levels as an Indicator of Type 2 Inflammation in Airway M. Yamada, I.N. Motoike, K. Kojima, A. Mitsune, T. Ohe, M. Ichinose, M. Yamamoto, H. Sugiura, Sendai, Japan, p.A3923


P550 Elucidation the Role of Macrophage Ageing in Idiopathic Pulmonary Fibrosis M. El-Hajjar, O. Lapohos, G. Fonseca, Montreal, Canada, p.A3928


P553 Causal Inference of DNA Methylation Identifies a Subtype of COPD Patients with Increased Survivability R. Gregg, P.V. Benos, D.L. DeMeo, Pittsburgh, PA, p.A5712


P565 Ex Vivo Stimulation of PBMCs from Pulmonary Sarcoidosis Patients Treated with ATYR1923 Show Reduced Inflammatory Responses/S. Paz, S. Tyler, S. Foerster, D. Sieker, M. Ferrer, E. Escobedo, Y. Becker, L. Carey, G. Walker, M. Muders, L. Nangle, San Diego, CA, p.A3938

P566 Outcomes in ANCA Associated Vasculitis with Diffuse Alveolar Hemorrhage Without Initial Dialysis Requirement/A.J. Wodarcyk, S. Cohen, A. Wong, K. Patterson, M. Lyons, A. Barnes, A. Meara, S. Almaani, L. Fussner, Columbus, OH, p.A3939


C34 ADVANCEMENTS IN MEDICAL EDUCATION AND PROFESSIONAL DEVELOPMENT

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Viewing: Posters will be on display for entire session

Discussion: authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.

P645 Student Exam Scores at the Beginning of Medical School: Factors Outside the Classroom/S.D. Nilaad, E. Lin, J. Bailey, A. Mittal, S. Gaboyan, C. Truong, K. Gulum, A. Iglewicz, L. Landers, S. Evans, C. Goldberg, L.E. Crotty Alexander, La Jolla, CA, p.A3948

P646 Sub-Internship Clerkships in the Medical Intensive Care Unit: A Needs Assessment/K. Selvan, A. Clark, R. Walters, S. Jain, V. Kaul, K.J. Caverzagie, J.B. Richards, G. Dallaghan, N.H. Stewart, Chicago, IL, p.A3949


P674 Expectations Versus Reality: Understanding the Accuracy of Impressions Made During Virtual Interviews of Pediatric Pulmonary Fellowship Programs/D. Atwood, L. Chiel, A.M.H. Casey, B.A. Nelson, Boston, MA, p.A5716


P679 A Summarized Literature Tool to Improve Implementation of Evidence-Based Medicine in the Medical Intensive Care Unit/S. Guleria, F. Adams, E. Kapania, A.P. Trivedi, Chicago, IL, p.A3979


P683 Patient Initiation of End-of-Life Discussions, a Randomized Control Trial/E.J. Smith, L. Nici, Providence, RI, p.A3983

P684 The Acquisition of New Medical Devices in Patients with Persistent Critical Illness: A Retrospective Cohort Study in the Veteran Affairs/E.M. Viglianti, E. Carlton, J.M. Mceapeke, X.Q. Wang, S. Seelye, T.J. Iwashyna, Ann Arbor, MI, p.A3984


P696 The Patient Journey in Patients with CRSwNP in the United States and Europe/J. Hwee, S.G. Smith, M. Small, L. Lee, S. Yang, Mississauga, Canada, p.A3992


P418 COPD Staging with Graph Neural Networks/P. Nardelli, R. San Jose Estepar, Boston, MA, p.A4006


P428 Clinical Characteristics and Predictors of Preserved Ratio Impaired Spirometry in China: Results from Population-Based, Cross-Sectional Study/N. Zhao, Y. Zhou, F. Wu, J. Peng, P. Ran, Guangzhou, China, p.A4016


P432 Influences of Hiatus Hernia and Gastro-Esophageal Reflux Disease on the Incidence of Acute Exacerbations in Older Patients with COPD (AECOPD)/Y. Iwata, S. Teramoto, Hachioji-shi, Japan, p.A4020


P434 Risk Factors Predicting of 30-Day Readmission of COPD Patients After Discharge From Hospital Related to Disease Exacerbation/A.S. Sadigov, A. Bagirzadeh, K. Abasaliyeva, Baku, Azerbaijan, p.A4022

P435 The Course of Chronic Obstructive Pulmonary Disease in Patients with Arterial Hypertension/O. Boiko, V. Rodionova, L. Glyniana, Dnipro, Ukraine, p.A4023

CLINICAL • TRANSLATIONAL
THEMATIC POSTER SESSION

C38 RARE AND COMMON ILDS: EPIDEMIOLOGY, DIAGNOSIS, AND MANAGEMENT

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Viewing: Posters will be on display for entire session 11:15-1:15
Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.


P320 Patient Characteristics and Manner of Clinical Presentation in Lymphangioleiomyomatosis/A.N. Khan, D.F. Dilling, Maywood, IL, p.A4027


P322 Effects of Sirolimus on Anti-Spike Protein Antibody Levels Following Vaccination of Patients with Lymphangioleiomyomatosis/T.A. Worthy, A.M. Jones, N. Gupta, J. Moss, Bethesda, MD, p.A4029

P323 In Patients with Highly Probable Pulmonary Sarcoidosis, the Detection of Granulomas in the First Lymph Node Station Is Sufficient to Secure the Diagnosis/A. Tharwani, A. Bharadwaj, F. Almeida, D.A. Culver, M. Lessa Ribeiro Neto, Cleveland, OH, p.A4030


P326 Clinical and Biochemical Characteristics of Multiorgan Sarcoidosis/D.M. Perlman, S.M. Leach, B. Thyagarajan, N. Kapur, M. Bhargava, Minneapolis, MN, p.A4033


P328 Characteristics of Danish Patients with Pulmonary Sarcoidosis/J. Moller, O. Hilberg, E. Bendstrup, Aarhus, Denmark, p.A4035

P329 Clinical Correlation of MRI with T2 Mapping and FDG-PET in Cardiac Sarcoidosis/D.J. Dennis, J. Burt, W.J. Rieter, B. Houston, A. Montes, G. Aquino, J. Chamberlin, W.E. James, Charleston, SC, p.A4036


P331 Thinking Outside of the Lungs; Screening for Extrapulmonary Features of Sarcoidosis/M. O'Callaghan, L. Brown, E. Mcgrath, M.P. Keane, C. Mccarthy, Dublin, Ireland, p.A4038

P332 Post-COVID: The Transformation of the Pulmonary Specialist into a Rheumatologist/D. Gagiannis, K. Steinenstel, Ulm, Germany, p.A4039


P343 Pulmonary Function Test Screening for Bronchiolitis Obliterans Syndrome in Recipients of Allogeneic Hematopoietic Stem Cell Transplantation Conditioned with Antithymocyte Globulin/N.A. Adderley, W.W. Flemons, K. Jamani, Calgary, Canada, p.A4050


P345 Effects of Tacrolimus on Mechanical and Humoral Determinants of Brain Death-Induced Lung Injury/A. Belhaj, L. Dewachter, M. Remmelink, B. Rondelet, Yvoir, Belgium, p.A4052

P346 Identifying Areas for Improvement in Vaccination Completion in Lung Transplant Recipients at a Tertiary Care Center/T.K. Boyle, A. Goree, C.M. Shaver, Nashville, TN, p.A4053


**C39  CASE REPORTS: SARCOIDOSIS IS ALWAYS IN THE DIFFERENTIAL**

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

**Viewing:** Posters will be on display for entire session 11:15-1:15

**Discussion:** 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.

**P771** Unique Case Involving an Extrapulmonary Manifestation of Sarcoidosis/K. Bhandari, D. Wu, M.F. Perez, Farmington, CT, p.A4064

**P772** Cystic Bronchiectasis in Pulmonary Sarcoidosis/R.S. Jadav, D. Budh, S. Maddika, A. Avula, Bronx, NY, p.A4065


**P774** Neurosarcoïdosis, Not an Easy Diagnosis to Ace/S. Tauscher, Philadelphia, PA, p.A4067

**P775** Frequent Falls - An Unusual Presentation of Sarcoidosis/S.E. Kennedy, F. Jung, S. Hadigal, D.C. Patel, D.C. Gomez Manjarres, Gainesville, FL, p.A4068

**P776** Rare Case of Transverse Myelitis as Initial Presentation of Sarcoidosis/M. Parmar, S. Gupta, S. Daouk, Oklahoma City, OK, p.A4069


**P778** Transverse Myelitis as an Initial Presentation of Sarcoidosis/T. Cook, Y. Fahmawi, R. Petrossian, P. Almalouf, Mobile, AL, p.A4071

**P779** Head, Shoulders, Knees, and Toes: An Uncommon Presentation of Sarcoidosis/T. Mandelkern, A. Doyle, N. Faraci, T. La, S. Nath, Pittsburgh, PA, p.A4072

**P780** Delayed Diagnosis of Sarcoidosis Leading to Unintended Progression of Neurosarcoïdosis/J.F. Hendrickson, R.P. Nayak, St. Louis, MO, p.A4073


**P782** Systemic Sarcoïdosis Maskerading as a Metastatic Malignancy/R. Swier, K. Jakharia, S.L. Tilley, T. Saint-Surin, Chapel Hill, NC, p.A4075

**P783** Possible Sarcoïdosis Flare After SARS CoV-2 Vaccination?/R. Kapil, J.P. Higuero Sevilla, S. Woo, M. Gulati, Bridgeport, CT, p.A4076

**P784** Non-Caseating or Caseating Granulomas in Sarcoidosis?/A. Marathe, R. Marrero Alamo, J. Parikh, J. Goyos, Kissimmee, FL, p.A4077

**P785** Seeds in the Lungs: A Pseudo-Miliary Pattern of Sarcoidosis/P. Ghimire, A. Chu, Syracuse, NY, p.A4078


**P787** Parathyroid Adenoma in Sarcoidosis Patient Presenting with Hypercalcemia/M. Andreas, T. Shih, D. Cabrera, A. Berman, Newark, NJ, p.A4080


**P789** Diagnostic Challenges of Sarcoidosis/A. Devine, S. John, J. Brady III, Lititz, PA, p.A4082


**C40  INVESTIGATIONS IN INTERVENTIONAL PULMONOLOGY AND PLEURAL DISEASE**

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

**Viewing:** Posters will be on display for entire session 11:15-1:15

**Discussion:** 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.


P371  Using Quality Improvement Methodology to Increase Efficiency in Pleural Procedures/E. McCully, Lanarkshire, United Kingdom, p.A4095


Value of Medical Thoracoscope for Pleural Diseases in Internal Medicine/Y. Hu, T. Ma, Q. Zhang, Changchun, China, p.A4111

A Multicenter Study Evaluating the Relationship Between Chest Tube Output and Outcomes in Patients with Pleural Infection Who Received Intrapleural Enzyme Therapy/B. Demarco, E. Bedawi, L.B. Yarmus, N. Rahman, J. Akulian, Chapel Hill, NC, p.A4112


Comparison of ZZ- and SZ-Genotype Patients in a Canadian Alpha-1 Antitrypsin Deficiency Population: Rate of FEV1 Decline and Other Clinical Characteristics/S.S. Gurupatham, J. Gould, S. Mohan, K.R. Chapman, Vancouver, Canada, p.A4116


COVID-19 Vaccination for Patients with Severe Alpha-1 Antitrypsin Deficiency/O. McElvaney, D. Fraughen, G. Kelly, O.F. McElvaney, M. Herron, M.P. Murphy, T.P. Carroll, N.G. McElvaney, Dublin, Ireland, p.A4119

Management of Pulmonary Exacerbations in a Cohort of Patients with Alpha-1 Antitrypsin Deficiency/R. Choate, R.A. Sandhaus, K. Holm, D.M. Mannino, C. Strange, Lexington, KY, p.A4120


Alpha-1 antitrypsin deficiency in pregnancy and birth outcomes/H.T. Orimoloye, J.E. Heck, Denton, TX, p.A4123
CASE REPORTS: CHALLENGES AND INTERESTING CASES IN INTERVENTIONAL PULMONOLOGY

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Area J, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.

P793 A Rare Presentation of Disseminated Coccidioidomycosis Requiring Mechanical Intervention/ A.M. Scott, A. Sam, B.A. Bixby, Tucson, AZ, p.A4124


P798 Two Peas in a Pod: Unusually Similar Foreign Body Presentations/E. Mackay, S. Alonzo, B. Madden, London, United Kingdom, p.A4129


P804 A Curious Case of Bronchial Stenosis/A. Asharaf, P. Sriram, D.C. Gomez Manjarres, L. Riley, Gainesville, FL, p.A4135

P805 “Yank It Out” - The Case of the Fallen Yankauer/D. Lazar, S. Quintiiiani, D. Marin, P.S. Patel, Newark, NJ, p.A4136

P806 An Unusual Case of Hemoptysis Following Heart Surgery/S.-E. Lemieux, F.-A. Vézina, Sherbrooke, Canada, p.A4137


P809 Endobronchial Chondroma: A Rare Case of Benign Pulmonary Tumor/M. Parmar, A. Bajwa, S. Gupta, A. Ghauri, F. Chaudry, Oklahoma City, OK, p.A4140

P810 Incidental Finding of a Tracheal Lipoma/A. Clark, M. Postigo Jasahui, Kansas City, KS, p.A4141


P816 Bronchus Suís as a Sequela of Prior Pneumonectomy Causing Intrathoracic Abscess via a Bronchopleural Fistula Requiring Endobronchial Valve/D. Young, A. Mei, K. D’Souza, M. Perwaiz, Elmhurst, NY, p.A4147

P843 Unsuspecting Adult Case of Rhinovirus Pleuropericarditis/M. Younan, M. Zaman, C. Harry, B. Patel, Morristown, NJ, p.A4173

P844 Successful Resolution of a Large Left Primary Spontaneous Pneumothorax with a Conservative Management Approach/N. Sharma, E. Lu, L. Barnes, M. Nobari, R.J. Miller, G.Z. Cheng, La Jolla, CA, p.A4174

P845 A Rare Case of Buffalo Chest in a Young Woman/H. Channa, J. Packer, Shreveport, LA, p.A4175

P846 A Rare Case of Massive Catamenial Hemothorax Complicated by Fibrothorax/V. Reyes Pinzon, P. Khamooshi, C.-Y. Kang, M. Saad Eldin, S.S. Fakhran, Chicago, IL, p.A4176

P847 Intrapleural Lytic Therapy in the Management of Pancreatic Pleural Effusion Due to a Post-Operative Complication/R. Ali, T.T. Pham, C. Brillante, Chicago, IL, p.A4177

P848 Pathologic Connections in the Poorly Connected: A Case of Bronchopleural Fistula/J. Meland, J. Zoglman, St. Louis, MO, p.A4178


P853 A Bilateral Chylothorax on a 65 Year Female with End Stage Invasive Ductal Carcinoma/R. P.D.C. Fajardo, Las Piñas City, Philippines, p.A4183


P856 A Rare Clinical Case of Ulcerative Colitis Presenting with Unexpected Pulmonary Findings/K.Z. Hernandez Moya, J.M. Garcia Puebla, A. Nieves-Ortiz, R.A. Hernandez-Castillo, R. Hernandez, San Juan, PR, p.A4186


P858 A Case of Left Sided Chylothorax as an Initial Manifestation of Stage 4 Follicular Lymphoma/J. Anwar, A. Ahmed, L.E. Stawowy, S. Deskins, J. Gelman, V. Badami, E. Rojas, A. Mittal, S. Hadique, Morgantown, WV, p.A4188

P859 Hemothorax as a Late Complication of Renal Biopsy: What Lurks Beneath the Diaphragm/C. Miller, H. Bakalli, R. Suri, S.S. Oh, G.W. Soo Hoo, Los Angeles, CA, p.A4189

P860 Chest X-ray Unremarkable: A Case of a “Late Blooming” Empyema/C.A. Macko, Oakland, CA, p.A4190

P861 Pneumothorax, Pneumomediastinum and Subcutaneous Emphysema as Complications of Asthma/N. Jiwa, D. Roeuth, J. Harrison, Farmington, CT, p.A4191

P862 Pleural Window Creation in a Trapped Lung Complicated by Covid-19, Tuberculous and Bacterial Infection/A.P. Calleja, Quezon City, Philippines, p.A4192


P866 A Case of Reexpansion Pulmonary Edema Following Large Volume Paracentesis/K. Holbert, M. MacDonald, F.A. Kaiksow, Madison, WI, p.A4196


P7 A Rare Cause of Multiple Organ Failure, With an Unusual Trigger/H. Arsenault, T. Al-Mohamad, A. Deitchman, Newark, DE, p.A4232

P8 A Rare Case of Complement Mediated Thrombotic Microangiopathy/K. Muralidharan, K. Nketaiah Sarpong, K. Mathialagan, P. Pednekar, M.S. Rahi, M. Buscher, Bridgeport, CT, p.A4233

P9 When a Car Accident Is More Than Meets the Eye/M. Hodge, R.C. Swazo, Indianapolis, IN, p.A4234

P10 Critical Iron Deficiency Anemia with Record Low Hemoglobin/A. Chai, Q. Huang, R. Rakocevic, P. Chung, Los Angeles, CA, p.A4235

P11 Bleeding Downhill Esophageal Varices as a Rare Complication of Superior Vena Cava Obstruction/M. Dvalishvili, O. Khdeir, Greenville, NC, p.A4236


P15 Sepsis, Sepsis, Sepsis! Except When It’s Not/S. Mullapudi, V. Arelli, Ann Arbor, MI, p.A4240

P16 A Rare Case of Splenic Vein Thrombosis Associated with Diffuse Large B-Cell Lymphoma/D. Abedeen, B.N. Nguyen, N. Ramesh, Harrisburg, PA, p.A4241

P17 A Bloody Mess: A Rare Case of Spontaneous Hemоторrhaces from Chronic Myeloid Leukemia/E. Tope, C.A.M. Buckley, B.A. Bagley, Indianapolis, IN, p.A4242


P20 A Complex Case of Hypercoagulability and Multiorgan Failure/N. Gupta, J. Kushner, A. Bhandary, New York, NY, p.A4245

C46  RHEUMATOLOGY, RENAL, NEUROLOGY, AND GASTROENTEROLOGY CASES

9:30 a.m. - 3:45 p.m.  MOSCONE CENTER

Area A, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.


P25  Acute Flaccid Quadriparesis and Respiratory Failure Due to Acute Intermittent Pophyria/R. Diaz Lankenau, A. Sutaria, D.J. De La Zerda, Miami, FL, p.A4249

P26  A Rare Case of Severe Isolated Enteritis in the Setting of Checkpoint Inhibitor Therapy/R. Ramanathan, H. Sauthoff, New York, NY, p.A4250

P27  The Urea Cycle, Trans-Arterial Chemoembolization and Refractory Hyperammonemia/A. Alam, B. Balakrishnan, T. Narumanchi, R.C. Stansbury, Morgantown, WV, p.A4251


P31  Unusual Reason for Urgent Hemodialysis; Iatrogenic Hypermagnesemia/K. Srour, J. Uduman, Detroit, MI, p.A4255


P41  Renal Transplant in Severe COPD and Granulomatosis with Polyangiitis (GPA)/C. Chao, Z. Khan, M. Bachan, Bronx, NY, p.A4265


P43  Stercoral Colitis: A Life-Threatening Complication of Constipation/S. Manickam, M. Dvalishvili, O. Khdeir, Greenville, NC, p.A4267

P44  Esophageal Perforation with Associated Low Pleural Fluid Amylase/J. Hitchings, A. Gandler, Philadelphia, PA, p.A4268

P45  Four-Limb Compartment Syndrome Related to Severe Hyponatremia/A. Henning, D. Guck, P. Patel, Hershey, PA, p.A4269

P46  The Role of POCUS in Establishing an Early Diagnosis of Abdominal Compartment Syndrome/M. Macdougall, R. Patel, N. Patel, J. Longoria, Orange, CA, p.A4270


C47 PREDICTORS OF COVID OUTCOMES

9:30 a.m. - 3:45 p.m. MOSCONE CENTER
Area D, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15
Discussion: 11:15-12:15 authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.

P229 Clinical Outcomes of Patients Hospitalized for COVID-19 Infection Treated with Tocilizumab/R. Swaney, I. Jackson, S. Aunty, C. Desatche, R. Walters, R. Vivekanandan, S. Narechania, M. Velagapudi, Omaha, NE, p.A4274

P230 Predictors of Severity of COVID19 Pneumonia in Patients Admitted in Philippine Heart Center/P.A. Dela Cruz, Quezon City, Philippines, p.A4275

P231 Critically Ill Patients Boarding in the Emergency Department and the Association with ICU Length of Stay and Hospital Mortality During COVID-19 Pandemic/E.N. Tuttle, C. Wisecup, E. Lemieux, X. Wang, A. Modykamien, Dallas, TX, p.A4276

P232 An Examination of Early Intubation Versus Initial Trial of Non-Invasive Ventilation on Outcomes in COVID-19 Pneumonia/S.A. Raia, I. Jackson, S. Aunty, C. Desatche, R. Walters, R. Vivekanandan, S. Narechania, M. Velagapudi, Omaha, NE, p.A4274


P247 A Retrospective Analysis of Serial Modified Sequential Organ Failure Assessment (SOFA) Scores in Intubated Patients with COVID-19/N.M. De La Rua, M. Middleton, P. Rabin, R.A. Balk, Chicago, IL, p.A4292


P253 LTOT and Its Delivery/S.S. Patil, Dhule, India, p.A4298


C48 MECHANICAL VENTILATION
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Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.


P52 Do Two-Point Restraints Prevent Unplanned Extubation in Medical Intensive Care Units?/V.K. Patel, Y.I. Lee, New York, NY, p.A4300

P53 The Utility of Respiratory Rate-Oxygenation (ROX) Index at Admission in Acute Hypoxic Respiratory Failure Patients/M. Anil Kumar, P.R. Addanki, D. Grover, D. Datta, Farmington, CT, p.A4301


P55 Chronic Critical Illness: Continuous Improvement at a Regional Weaning Center/M.S. Hassenpflug, D.R. Nelson, J. Steckart, Los Angeles, CA, p.A4303


P57 Prognostic Variables and Decannulation of Tracheostomy in the Long-Term Acute Care Hospital Environment: A Case for Clinician-Driven Decision-Making/K. Well, V. Baumann, B. Brown, R. Nadeau, B. Gerstenhaber, E.P. Manning, Syracuse, NY, p.A4305


P59 Pain Assessment of Intubated and Mechanically Ventilated Patients in PICU/L. Jankauskaite, G.C. Micieviuciete, A. Daugela, Kaunas, Lithuania, p.A4307
P60 Beta Blocker Use in Asthma Patients with Respiratory Failure in Intensive Care Unit and Mortality/A. Chohan, S. Choudhury, P.T. Taweesedt, R. Dadhwal, R. Franco, A. Vakil, P. Pattharanitima, Corpus Christi, TX, p.A4308


P63 Does the ROX Index Correlate with the Rapid Shallow Breathing Index as a Predictor of Successful Extubation?/D. Grover, M. Anilkumar, P.R. Addanki, D. Datta, Hartford, CT, p.A4311

P64 Tracheostomy in Patients on VV-ECMO for Acute Respiratory Failure with High Body Mass Index and High Positive End-Expiratory Pressure/C. Zheng, C. Rackley, Durham, NC, p.A4312


C49 VASCULAR AND HEMODYNAMICS

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Area A, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.


P71 Systematic Review of Coronary Air Embolism Following Percutaneous Lung Biopsy/H. Rashid, T. Pansuriya, A. Srinivasan, B. Wilson, H. Ahmed, S. Sarva, Houston, TX, p.A4314


P73 Gender Differences in Clinical Profile, Health-Related Quality of Life, and Clinical Outcomes in African Adults with Heart Failure/G.A. Amusa, B.I. Awokola, G.Z. Shut, Jos, Nigeria, p.A4316

P74 Impact of Aortic Valve Anomalies on Outcomes in Hospitalizations with Thoracic Aortic Dissection/O. Khdeir, S. Yalamanchili, Greenville, NC, p.A4317


P76 Real-World Operating Characteristics of Fellow-Performed Critical Care Echocardiography/S.W. Fox, Cleveland, OH, p.A4319


P78 Role of Vasopressin and Corticosteroid During Cardiopulmonary Resuscitation in In-Hospital Cardiac Arrest: A Meta-Analysis of Randomized Control Trials/S. Sarkar, A. Rout, Syracuse, NY, p.A4321
Brief Training in Ultrasound Allows Inexperienced Clinicians to Accurately and Reliably Assess Jugular Venous Pressure in Obese Patients/N.A. Pettit, B. Pedroja, Portland, OR, p.A5735


Single Nucleotide Polymorphisms of TRPM8 Gene as Predictors of Quality of Life in Asthma Patients with Cold Airway Hyperresponsiveness/N.L. Perelman, Blagoveschensk, Russian Federation, p.A4330


COPDGene 2019: Change in COPD Classification Over Time/G.L. Kinney, K. Young, E.A. Regan, K. Lowe, M.F. Ragland, Y. Li, E. Austin, J.D. Crapo, J.E. Hokanson, Aurora, CO, p.A4334

A Retrospective Observational Study to Investigate the Prevalence and Patient Profile in Chronic Cough Cohort Identified Using Claims Database in China/K. Lai, L. Chen, K.S. Lao, F. Yi, K. Xia, Guangzhou, China, p.A4335


An Update from the Irish National Alpha-1 Antitrypsin Deficiency Targeted Detection Programme/T.P. Carroll, R.C. Heeney, O. Cahalane, I. Ferrarotti, C. Gunaratnam, N.G. McElvaney, Dublin, Ireland, p.A4338

12-Month Follow-Up of Patients Included in the Italian Severe/Uncontrolled Asthma Registry (RItA)/G. Viegi, S. Maio, N. Murgia, S. Tagliaferro, F. Pirona, A. Angino, S. Baldacci, Palermo, Italy, p.A4339

P595 Causes of Mortality by GOLD Grade Airflow Obstruction in People with Chronic Obstructive Pulmonary Disease in England/H. Whittaker, K.J. Rothnie, J.K. Quint, London, United Kingdom, p.A4341


P598 Demographic Data from a Large Rural/Suburban Population Using PaTH to Develop a Sarcoidosis Cohort/R.C. Bernstein, A. Anderson, M. Sharp, E.S. Chen, W. Hwang, R. Bascom, Hershey, PA, p.A4344


P602 Comparison of Interstitial Lung Disease Diagnoses in Urban and Rural Areas Among Patients in the Pulmonary Fibrosis Foundation Patient Registry/A.E.F. Dimmock, E. White, Y. Furuya, E. Freiheit, H.J. Kim, Hershey, PA, p.A5738

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

THEMATIC POSTER SESSION

C51 TRACHEOSTOMIES AND BPD

9:30 a.m. - 3:45 p.m. MOSCONCE CENTER

Area B, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.


P88 Airflow Obstruction Among Children with Asthma, Bronchopulmonary Dysplasia or Both/L. Mukharesh, K. Greco, G.S. Sawicki, W. Pipatanakul, J.M. Gafin, Boston, MA, p.A4349


P91 High-Stakes Equipment Safety Issues Among Tracheostomy-Dependent Children at Home/A. Han, S. Hofman Deyoung, L. Hill, L. Elder, K. Evans, A. Faino, T. Ong, Seattle, WA, p.A4352


P96 Ventilator Weaning Protocol for Infants with Severe BPD Discharged on Home Ventilator/S.A.S. Adaikalam, M. Kidwell, S.E. Bauer, V.L. Ackerman, A.I. Cristea, Indianapolis, IN, p.A4357


P100  Polymorphisms of MMP-12, TNF-α, IL-6 Genes in Children with Chronic Bronchopulmonary Diseases/S.V. Suprun, E. Nagovicina, E. Suprun, G. Evseeva, N. Abdulina, M. Kuznecova, Khabarovsk, Russian Federation, p.A4361

P101  Tracheomalacia in Neonates Reduces Delivery of Nebulized Drugs to the Primary Bronchi/C.L. McKenzie, C.C. Gunatilaka, Q. Xiao, E. Hysinger, A. Bates, Cincinnati, OH, p.A4362


P104  Late Preterm Antenatal Steroid Use and Infant Outcomes in a Single Center/M.D. Wahl, C.T. Mcevoy, M. Go, Portland, OR, p.A4365


P106  Standardizing Terminology for Data Sharing in the Pediatric Long-Term Mechanical Ventilator Dependent Population/L. Kanbar, J. Dexheimer, N.M. Pajor, Cincinnati, OH, p.A4367

P107  Physical Inactivity Contributes to Skeletal Muscle Deficits and Worse Exercise Performance in Pediatric Pulmonary Hypertension/C. Avitabile, M. McBride, M. Harris, K. Whitehead, M. Fogel, S. Paridon, B. Zemel, Philadelphia, PA, p.A4368


P109  A Proof of Concept Single Institution Descriptive Study of a Multidisciplinary Care Model for Children with Pulmonary Hypertension/W. Thompson, C. Van Dorn, P. Boesch, S. Pillai, Rochester, MN, p.A4370


P115  New Tracheostomy Map/V. Acharya, Madera, CA, p.A5741

C52  CYSTIC FIBROSIS AND PCD - CASE REPORTS

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Area B, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.


P118  High-Frequency Percussive Ventilation in an Intubated Child with Cystic Fibrosis and End-Stage Lung Disease/Z.J. Johnson, M.L. Dowell, J. Palla, Chicago, IL, p.A4375


P121 Mepolizumab Therapy for Eosinophilic Bronchiectasis in a Young/N. Krupp, K.M. Kloepfer, Indianapolis, IN, p.A4378


P125 Late Diagnosis of Cystic Fibrosis and Omalizumab Toxicity in a Pediatric Patient with Acute Allergic Bronchopulmonary Aspergillosis and Vocal Cord Dysfunction/I. Lee, J. Lee, R.B. Moss, Palo Alto, CA, p.A4382

P126 A Rare Case of Tension Pneumomediastinum in a Pediatric Patient and Its Successful Treatment Using CT Guided Catheter Placement/R. Mohamed, H. Toma, A. Alneirab, M. Sunduram, A. Shabani, W. Mubarak, M. Abuhasan, Doha, Qatar, p.A4383


P129 A Former Full Term, Now 8 Week Old with Situs Inversus/A.C. Coates, Portland, ME, p.A4386


P132 A 12 Year Old Male in Drug Induced Adrenal Crisis/T. Davis, E.D. Schultz, Fort Worth, TX, p.A4388


P135 Severe Persistent Asthma with Poor Response to Therapy/K. Nutty, P. Ham, K. Vali, A. Ruchi, G.F. Perez, Buffalo, NY, p.A4391


P137 A Pneumonia as Rare as Hens Teeth/M.A. Gunnett, W.C. Hoover, Birmingham, AL, p.A4393


P140 Failure to Thrive in a 7 Month Old Infant: Possible Complication of Swyer James Syndrome/K. Ashby, C.N. Martin, Baltimore, MD, p.A4396

P141 Pleuro-Peritoneal Shunt for Treatment of Post-Operative Chylothorax Refractory to Medical Management/A.M. Arenas-Rojas, S.E. Zavaleta, Bucaramanga, Colombia, p.A4397

P142 A Rare Case of Obstructive Emphysema Due to Endobronchial Tuberculosis in an Infant/P.K. Sarkar, N. Akand, M. Kamruzzaman, S. Tahura, M. Jahangir Alam, Dhaka, Bangladesh, p.A4398


P144 Complete Left Lung Opacification Due to an Obstructive Endobronchial Tumor Consistent with Hodgkin Lymphoma on Lung Biopsy/S. Yaacoby-Bianu, A. Abramovich, N. Peled, G. Livnat, Haifa, Israel, p.A4401

P146 A Pediatric Case of Endobronchial EBV-Associated Smooth Muscle Tumor/A. Chang, A. Constantinescu, New York, NY, p.A4402

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL
THEMATIC POSTER SESSION
C53 PEDIATRIC PULMONOLOGY POTPOURRI FOR $500 - CASE REPORTS
9:30 a.m. - 3:45 p.m. MOSCONE CENTER
Area B, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15
Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.

BASIC • CLINICAL • TRANSLATIONAL

THEMATIC POSTER SESSION

P147 When Is Wheezing Not Asthma? Near Occlusion Right Main Stem Bronchus by Tumor/E.E. McHugh, J. Ongkasuwan, M. Silva Carmona, Houston, TX, p.A4403


P149 Pulmonary Hypertension Associated with Systemic Sclerosis in a Pediatric Patient/T. Isaacs, M.D. Mcdowell, N.P. Varghese, C. Chartan, R. Coleman, T. Vogel, N.M. Villafranco, Houston, TX, p.A4405


P152 Sometimes Recurrent Chest Pain with a History of Pulmonary Embolism Does Not Mean Pulmonary Embolism/S. Al Qatarneh, Morgantown, WV, p.A4408


P155 Patient with Hyperacute Allograft Dysfunction After Bilateral Lung Transplantation for Genetic Severe Pulmonary Hypertension/E.E. McHugh, D.R. Spielberg, S. Das, G.B. Mallory, E. Melicoff-Portillo, Houston, TX, p.A4411

P156 A Child with Academic Difficulties and Snoring, Maybe Not So Unique Presentation of Chiari I Malformation/J. Spear, D.P. Hsu, M.L. Kanney, Houston, TX, p.A4412


C54 HAIGHT-ASHBURY: THE TWO VENTRICLES
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9:30 a.m. - 5:00 p.m. Area K, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session

11:15-1:15 Discussion: authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.


P915 17ß-Estradiol, Via Era, Prevents NLRP3 Activation in Right Ventricular Function Impairment in Rats/R. Sobrano Fais, E. Mickler, J. Li, A. Waltz, A.L. Frump, T. Lahm, Denver, CO, p.A4419


P917 Challenging the PCWP Hypothesis: Reducing PCWP Does Not Improve Exertional Dyspnea in Patients with Heart Failure with Preserved Ejection Fraction and Obesity/B.N. Balmain, A.R. Tomlinson, J.P. MacNamara, S. Sarma, M. Morris, R.B. Moran, M. Payne, S. Samels, B.D. Levine, T.G. Babb, Dallas, TX, p.A4421

P918 Mechanical Remodeling of the RV and PA in PH/S. Neelakantan, A. Vang, P. Nicely, G. Choudhary, R. Avazmohammedi, College Station, TX, p.A4422

P920 Impact of Comorbid Depression on Hospitalizations and Outcomes of Non Group 1 Pulmonary Hypertension Patients with Obstructive Sleep Apnea and Heart Failure with Preserved Ejection Fraction: “Depression Paradox”?/B. Rizvi, A. Jain, N. Ghadge, M.C. Buhl Leon, F. Nunez Guzman, R. Desai, Fresno, CA, p.A4424

P921 The Impact of Atrial Fibrillation on In-Hospital Outcomes in Patients with Obesity Hypoventilation Syndrome/V. Reyes Pinzon, P. Khamooshi, C.-Y. Kang, N. Haghani Rad, H. Shaka, Chicago, IL, p.A4425

P922 Tacrolimus for Prevention of Right and Left Ventriculo-Arterial Coupling Changes in Experimental Brain Death/A. Belhaj, L. Dewachter, M. Remmelink, B. Rondelet, Yvoir, Belgium, p.A4426


P924 A Novel Model of Pulmonary Hypertension Due to Left Hearth Disease, Caused by Pulmonary Vein Banding in Male Wistar Kyoto Rats/J. Münks, A. Sydykov, B. Assmus, T.K. Antoine, P. Dorfmüller, B. Kojonazarov, N. Weissmann, R.T. Schermuly, Giessen, Germany, p.A5743

P925 Tricuspid Annular Plane Systolic Excursion (TAPSE) in Prognosis and Diagnosis of Pulmonary Embolism (PE)-A Systematic Review and Meta-Analysis/P. Saluja, N. Gautam, Little Rock, AR, p.A5744


P927 Packaging and Release Mechanism for Cyclic Adenosine Monophosphate (cAMP) Enriched Extracellular Vesicle (EV)/A. Bhadra, N.N. Bauer, Mobile, AL, p.A4427

P928 Cyclic Adenosine Monophosphate (cAMP) Enriched Extracellular Vesicle (EV) Signaling as an ‘Extracellular Compartment’ in Pulmonary Hypertension/A. Bhadra, J.L. Hewes, C. Zhou, J.Y. Lee, N.N. Bauer, Mobile, AL, p.A4428

P929 Cracking the Coagulation Case in PAH with Extracellular Vesicles/D. Lachant, A. Light, D. Haight, N. Mackman, R.J. White, Rochester, NY, p.A4429

P930 Utilizing Tracheal Aspirate-Derived Mesenchymal Stromal Cells to Explore the Pulmonary Vascular Abnormality in Congenital Diaphragmatic Hernia/Y. Bai, G.M. Amonkar, P. Lerou, X. Ai, Boston, MA, p.A4430


P935 Cracking the Coagulation Case in PAH with Extracellular Vesicles/D. Lachant, A. Light, D. Haight, N. Mackman, R.J. White, Rochester, NY, p.A4429

P936 The Role of Estrogen Receptor Alpha During Lung Development Under Hypoxic Conditions in a Rat Model/N. Severyn, R. Tepper, T. Lahm, Indianapolis, IN, p.A4434
P938 Omega-3 Fatty Acid Expression Attenuates Chronic Hypoxia-Induced and Smoke-Induced Pulmonary Hypertension

P939 The Role of Mitochondrial Cytochrome Coxidase Subunit 4 Isoform 2 (Cox4i2) in Acute Pulmonary Oxygen Sensing

P940 Rasa3 Expression Is Differentially Regulated in Pro-Inflammatory and Hypoxic Pulmonary Hypertension Models In Vitro and In Vivo
C.C. Prohaska, M. Teixeira Gomes, Y. Bai, A.D. Lockett, N.M. Jones, A. Carneiro, R.F. Machado, Indianapolis, IN, p.A4437

P941 R213G and Vascular Deficient Extracellular Superoxide Dismutase (EC-SOD) Variants Have Differential Effects on Interstitial Macrophage Expansion During Pulmonary Hypertension

P942 Loss of Vascular EC-SOD Is Associated with Worse RV Hypertrophy and Decreased Mitochondrial Content in a Model of Pulmonary Hypertension

P943 Rodatristat Ethyl Monotherapy and Combination with Ambisentan Reverses Incidence of Vascular Occlusions to Baseline Normoxic Levels in the Rat SUGEN-Hypoxia Model of Pulmonary Arterial Hypertension
P. Sen, M. Taylor, Mobile, AL, p.A4440

P944 Experimental Schistosoma Japonicum-Induced Pulmonary Hypertension

P945 Effect of Subacute Angiotensin II Elevations on Sphingolipid Levels and Lung Injury in Mice

P947 Hypoxia Downregulates Hemin Induced Necrotic Pulmonary Artery Endothelial Cell Death
J. Gonzalez, K. Holbert, D.R. Fraidenburg, Chicago, IL, p.A4442

P948 Targets of miR-155 in Human Lung Microvascular Endothelial Cells: Implications for PAH

P949 Acidosis Prevents the Intracellular Domain of Carbonic Anhydrase IX from Activating the PI3K/Akt Signaling Pathway in Pulmonary Microvascular Endothelial Cells

P950 CARMIL1 Expression Alters Pulmonary Endothelial Barrier Function Following Inflammatory Injury

P951 Human Pulmonary Artery Endothelial Cells Isolated from Patients with Pulmonary Hypertension Exhibit Anoikis Resistance

P952 PFKFB3 Mediates Pulmonary Microvascular Endothelial Cell Death Under a Hypoxic and Fructose-Rich Environment

P953 Comparing Dynamic Ca²⁺ Signaling Profiles Activated from Two Different Pathways in Pulmonary Microvascular Endothelial Cells
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P954 CES1 Deficiency Is Associated with Oxidative Stress Mediated Endoplasmic Reticulum/Mitochondrial Dysfunction in Pulmonary Endothelial Cells

Asymptomatic Unilateral Pulmonary Artery Atresia in a Patient with Stage 4 Cancer/H. Channa, P. Krishnan, Shreveport, LA, p.A4465

Delayed Presentation of Recurrent Pulmonic Stenosis/F. Kan, S. Pyskir, S. Randhawa, S.J. Evans, Honolulu, HI, p.A4466


Coincidence or Causative: Unique Imaging in a Patient with Pulmonary Arterial Hypertension Due to Congenital Heart Disease/S.H. Friedman, M. Veglia, D. Gregg, R.G. Argula, Charleston, SC, p.A4469

Friend or Foe? Role of Embryonic Remnant in Adult Life/R. Gorthi, V. Halani, R. Subramaniyam, R. Farhat, St. Louis, MO, p.A4470


Status Asthmaticus-Induced Takotsubo Cardiomyopathy/K. Patel, M. Pillai, P. Kariyanna, S. McFarlane, Brooklyn, NY, p.A4473

A Chain Reaction: Systemic Ventricularization from Severe Tricuspid Valve Regurgitation/B. Hyun, S.P. Sears, Portland, OR, p.A4474

Myopathy - A Forgotten Manifestation of Beriberi/A. Kainat, N.U. Ain, B. Agarwal, McKeensport, PA, p.A4475

Acute Hypoxemic Respiratory Failure Due to Post-Operative Acute Deseompensated Heart Failure Following Ross Procedure for Severe Aortic Stenosis/S. Simeone, K. Bhandari, M.S. Godfrey, Farmington, CT, p.A4476


To Drain or Not to Drain: Hemodynamic Characterization of Tamponade in PAH/N. Habib, N. Sher, A. Tandon, S. Kubba, M. Insel, A. Chatterjee, M. Seckeler, F.P. Rischard, Phoenix, AZ, p.A4479

Questioning the Janus Kinase (JAK) Inhibitors/I. Hussain, S. Faryad, D. Taneja, Peoria, IL, p.A4480


Not All That Glows Is Malignant: Actinomycosis as a Rare Mimic of Lung Cancer/S. Ekhelikar, R. Muthusami, R. Orme, N. Ahmad, Telford, United Kingdom, p.A4482


P164 All That Grows Is Not-Malignant: A 71-Year-Old Man with Chronic Pneumonia of a Rare Etiology Masquerading as Pulmonary Malignancy/H. Singh, C. Jani, L. Agarwal, M. Abdalla, R. Chepuri, V.S. Ramalingam, Milwaukee, WI, p.A4487


P169 Toxic Adenopathy with a Malignant Anchor/S. Randhawa, G. Ha, F. Kan, S.J. Evans, Honolulu, HI, p.A4492


P171 Legionella Pneumonia, a Rare Cause of Diffuse Alveolar Hemorrhage/S. Ehteshami-Afshar, J.H. Wehner, A. Gohil, Stanford, CA, p.A4494


P174 An Unexpected Cause of Cavitary Lung Lesions: Actinomycosis with Histoplasmosis/R. Schiff, M. Waters, J.C. Macaraeg, Omaha, NE, p.A4497


P178 Pulmonary Strongyloides in an Immunocompromised Patient/M. Abu-Rmaileh, M. Holtrop, A. Amaro, N. Madhani, R. Mehta, Dallas, TX, p.A4501


P180 In the Pursuit of a Diagnosis of Nocardiosis/S. Hart, L. Lande, Wynnewood, PA, p.A4503


P183 Pneumonic Tularemia: A Case Presentation/M. Horn, L. Zickuhr, St. Louis, MO, p.A4506

P184 Pulmonary Echinococcosis More Prevalent Than Liver Involvement in Children at High Altitude in the Peruvian Andes, a 5 Year Cross Sectional, Retrospective Study/J. Hernandez Cordova, V. Failoc, Lima, Peru, p.A5750


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P189 The Endobronchial Enigma/S.M. Upson, B.A. Bixby, Tucson, AZ, p.A4510

P190 Disseminated Coccidioidomycosis Following COVID-19/A. Bui, S. Shrivastava, G. Seda, San Diego, CA, p.A4511


P192 Unilateral Pneumocystis Jiroveci Pneumonia Associated with Recurrent Hepatic Hydrothorax/S.S. Wu, Miami, FL, p.A4513


P197 Chronic Pulmonary Aspergillosis Occurring Post Treatment of COVID-19 Pneumonia with Tocilizumab/A. Samreen, L. Moeng, J. Gajjala, Washington, DC, p.A4518


P204 Pulmonary Histoplasmosis: A Pulmonary Malignancy Mimic/H. Zia, Lexington, KY, p.A4525


P207 A Case of Massive Hemoptysis Due to Pulmonary Aspergilloma/S. Bishnoi, A. Vojtek, C. Hayes, G. Karamian, C.G. Petersen, Allentown, PA, p.A4528

P208 Fungitell Tells It All: A Case of Pneumocystis Jirovecii Pneumonia/G.K. Garcha, R. Rao, A. Gopalakrishnan, G. Garrido, Orlando, FL, p.A4529


P215 An Interesting Case of Coccidioidomycosis Pneumonia with Cutaneous Dissemination - Does It Ever Go Away?/A. Samreen, L. Moeng, J. Gajjala, Washington, DC, p.A4536
P216 Stubborn Valley Fever in the Electric City/V. Raheja, M.A. Amjad, P. Ochieng, Scranton, PA, p.A4537

P217 Pneumonectomy in an Elderly Patient with Congenital Unilateral Lung Agenesis and Recurrent Aspergillus/N. Ramesh, J.B. Velotta, Oakland, CA, p.A4538


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P222 Coincidence of Lung Mycosis and Tuberculosis in Squamous Cell Carcinoma/P. Aisyah, F.F. Taufik, M. Elhidsi, J. Zaini, Jakarta Timur, Indonesia, p.A4543


P224 Allergic Bronchopulmonary Aspergillosis and Bronchiectasis in a Patient with Asthma-Chronic Obstructive Pulmonary Disease Overlap Syndrome/I. Fakunle, S. Demian, M. Berrou, Flint, MI, p.A4545

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P273  A Case of Infected Bullous Lung Disease Followed by Therapy/K. Solomon, A. Katragadda, A. Misra, Providence, RI, p.A4561


P284  Radiological Outcomes of Covid-19 Pneumonia -Findings from an English Hospital/A. Ponnuswamy, H. Kamil, A. Abdelaziz, N. Eswaran, J. Coates, Chester, United Kingdom, p.A4573


P290  The Association of Chest Computed Tomography Scan Findings with the Natural Course of the Disease Among Patients with COVID-19 Pneumonia/K.I. Juico, M.E. Blanco-Limpin, A. Foronda, Quezon City, Philippines, p.A4580


P292  The Value of Inflammatory Markers in Predicting the Severity of Hypoxemia Among Covid-19 Patients at Philippine Heart Center/E.M. Castro, M.E. Limpin, Quezon City, Philippines, p.A4582

P293  Effect of SARS-COV-2 Mitigation Strategies on Non-Covid Respiratory Viral Infection/V. Ramsammy, J. Ma, B. Keller, Columbus, OH, p.A4583


P298 The Immune and Inflammatory Response to SARS-CoV-2 in Bronchoalveolar Lavage Fluid/R.C. Wilson, R. Relich, A. Yu, A. Bawa, P. Smith, H.L. Twigg, Indianapolis, IN, p.A4588


P302 A Randomized, Placebo-Controlled Study to Evaluate the Safety, Tolerability, and Pharmacokinetics of Inhaled Ribavirin Administered Via Air-Jet Nebulizer in Healthy Volunteers/M. Barakat, A. Brkovic, J.L. Vittitow, R.J. Israel, P. Couroux, Laval, Canada, p.A5755


P311 Risk Factors for Mortality of Covid-19 Confirmed Cases Admitted at Lung Center of the Philippines/M.E. DE Vera, G. Ombao, V.S. Delos Reyes, Quezon City, Philippines, p.A5765

P312 A Phase 2 Multicenter, Randomized, Controlled Study to Evaluate the Efficacy and Safety of Reparixin in Hospitalized Adult Patients with COVID-19 Pneumonia/E. Gavioli, G. Landoni, L. Piemonti, P. Grossi, S. Toya, E.M. Minnella, M. Allegretti, F. Mantelli, Boston, MA, p.A5766


P314 SPRINTER: A Randomized, Double-Blind, Placebo-Controlled, Phase 3 Trial to Determine the Efficacy and Safety of Inhaled Interferon Beta-1a (SNG001) for the Treatment of Patients Hospitalized Due to COVID-19 (NCT04732949)/P. Monk, T. Wilkinson, J. Brookes, T. Batten, V. Tear, M. Mankowski, F. Gabbay, D. Davies, C. Brightling, M. Kraft, R. Djukanovic, S. Holgate, Southampton, United Kingdom, p.A5768


C63 SLEEP GEMS: CASE REPORTS FROM THE WORLD OF SLEEP MEDICINE

9:30 a.m. - 3:45 p.m. MOSCONCE CENTER

Area J, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.

P897 A Rare Case of Narcolepsy Following SARS-CoV-2 Infection/P. Deshpande, M. Thomas, L. Tran, R. Sampath, D.R. Clark, Morganton, NC, p.A4589

P898 A Case of Rapid Eye Movement Sleep-Related Bradyarrhythmia Syndrome with Severe Obstructive Sleep Apnea Syndrome/P.A. Dela Cruz, Quezon City, Philippines, p.A4590


P900 A Case of Obstructive Sleep Apnea Presenting with Increased Intracranial Pressure in Type 1 Chiari Malformation/K. Garagozlo, K.D. Graw-Panzer, New York, NY, p.A4592

P901 A Case of Idiopathic Pulmonary Fibrosis and Obstructive Sleep Apnea Treated with High Flow Nasal Cannula/G. Zuccarini, A. Esposito, P. Prosperi, A. Spaccone, Pescara, Italy, p.A4593

P902 Being on the Wrong Side: A Case of Trepopnea During Pap Titration/M.J. Mendez Santana, Y.Y. Greenstein, Newark, NJ, p.A4594

P903 An Incidental Finding of Hypoxemia in a Child Leads to a Rare Diagnosis/S.H. Rizvi, A. Shakkottai, E. Basora, Dallas, TX, p.A4595

P904 Dexmedetomidine as a Potential Cause of Central Sleep Apnea/A. Balavenkataraman, N. Gopal, J.E. Moss, V. Arunthari, B. Colaco, Jacksonville, FL, p.A4596

P905 Continuous Positive Airway Pressure Treatment for Treatment of Cheyne-Stokes Respiration Occurring in Conjunction with Obstructive Sleep Apnea (OSA) - A Case Series/N.A. King, K. Workman, K.M. Sundar, Salt Lake City, UT, p.A4597


P909 Obstructive Sleep Apnea and Sudden Cardiac Death/A.J. Duval, A. Berman, Newark, NJ, p.A4601


C64 LUNG VASCULAR BIOLOGY AND MECHANISMS OF PULMONARY ARTERIAL HYPERTENSION

9:30 a.m. - 3:45 p.m. MOSCONCE CENTER

Area K, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.


**BASIC • TRANSLATIONAL**

**THEMATIC POSTER SESSION**

**C65 COPD: PRE-CLINICAL MODELS AND MECHANISMS**

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Viewing: Posters will be on display for entire session 11:15-12:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.


P441 Abnormal Iron Metabolism as a Marker for Alveolar Macrophage Heterogeneity and Dysfunction in Chronic Obstructive Pulmonary Disease
W.Z. Zhang, K. Kim, D. Santambrogio, New York, NY, p.A4622

P442 Cigarette Smoke Causes Forkhead Box Protein P1 (FoxP1) to Be Ubiquitinated and Degraded in Lung Epithelial Cells Resulting in a Dysregulated Endoplasmic Reticulum Stress Response
A. Maloy, A. Andreas, D. Chandra, Pittsburgh, PA, p.A4623

P443 Abnormal Iron Metabolism as a Marker for Alveolar Macrophage Heterogeneity and Dysfunction in Chronic Obstructive Pulmonary Disease
W.Z. Zhang, K. Kim, D. Redmond, E. Perez, S.M. Cloonan, New York, NY, p.A4624

P444 Targeting S100A9 Signaling Protects Lung Function in Alpha-1 Antitrypsin Deficiency

P445 Exosomal miR122, a Potential Prognostic Marker and Therapeutic Target in COPD

P446 Novel Single Cell Analysis of microRNA Levels in Response to Oxidative Stress and in COPD Using Microfluidic Technology

P447 Type II Pneumocytes Accumulates Hyperacetylated Histone H3.3 in Smokers and Chronic Obstructive Pulmonary Disease Subjects

P448 CEACAM6 impedes the HO-1-Mediated Defence Against Nitrosative/Oxidative Stress in COPD

P449 Extracellular S100A9-Mediated Secretion of Matrix Metalloproteinase 3 Does Not Contribute to Smoke-Induced Loss of Lung Function

P450 Defective Phagocytosis in COPD Macrophages Is Improved by Mitochondrial Antioxidants Without Alteration in Mitochondrial Function

P451 Synthetic Oligos Derived from mtDNA-Encoded Non-Coding RNAs as Potential Therapeutic Agents in Restoration of Mitochondrial Bioenergetics

P452 Sphingolipid Regulation of Lysosomal Fitness in Human Lung Microvascular Endothelial Cells During Homeostasis and Cigarette Smoke Exposure

P453 Cigarette Smoking Is a Secondary Cause of Folliculin Loss
S.D. Shapiro, Y. Jiang, T. Nyunoya, Pittsburgh, PA, p.A4634

P454 Cigarette Smoke-Induced Airspace Disease in Mice Develops Independently of HIF-1α Signaling by Leukocytes

P455 The Effect of HuR on Airway Epithelial GPX-1 Expression

P456 A High Concentration of HNP Impairs Macrophage Differentiation and Function in AATD Individuals

P457 COPD Macrophages Show Reduced Clearance of Senescent Airway Epithelial Cells

P458 Changes to Platelet Phenotype Triggered by Elastase-Induced Lung Damage in a Murine Model of Emphysema

P459 Secretion and Retention of Z AAT in Response to SARS-CoV-2 Infection and Similar Stimuli

P460 Cigarette Smoke Regulates Endothelial ACE2 Expression in the Lung

P461 Suppression of the Protein Phosphatase 2A/2C B Subunit (PPP2R2C) Enhances Immune Responses in Human Bronchiol Small Airway Epithelial Cells

P463 Study on the Role of Haptoglobin in Chronic Obstructive Pulmonary Disease/W.-Y. Chow, C.-L. Chen, S.-C. Ho, New Taipei City, Taiwan, p.A4644


P466 α7 Nicotinic Acetylcholine Receptor (α7 nAChR) Agonists Are Efficacious in a Novel Ferret Model of AECOPD/S.V. Raju, D. Stanford, J.L. Tipper, L.W. Rasmussen, A. Allen, K.S. Harrod, Birmingham, AL, p.A4647


P470 COPD Airway Epithelial Cells Show TLR2 Desensitization Due to Reduced IRAK-1 Expression/U. Sajjan, Philadelphia, PA, p.A4651


P473 Type 1 Diabetes Leads to Decline in Lung Function and Restrictive Pulmonary Defects/S.S. Park, M. Mai, M. Ploszaj, I. Garcia-Arcos, P. Geraghty, Brooklyn, NY, p.A4654


P478 Differentially Correlated Molecular Pathways with Hedgehog Interacting Protein in Human and Mouse Lungs/J.H. Yun, S. Han, J. Platig, A.X. Zhou, J. Lu, Boston, MA, p.A4658


P480 Splice Quantitative Trait Loci (sQTLs) in Whole Blood and Lung Tissue/A. Saferali, W. Kim, J. Yen, Z. Xu, R. Chase, M.H. Cho, P. Castaldi, C.P. Hersh, Boston, MA, p.A4660

VARIANTS IN THE FOXP1 GENE ARE ASSOCIATED WITH GENETIC REGULATORS OF SPUTUM MUCIN CONCENTRATION

ENHANCED mTOR ACTIVITY IN CRISPR/CAS9 GENE-EDITED IDENTIFIED DRUG REPURPOSING TARGETS FOR CHRONIC AN IN VIVO GENETIC SCREEN OF LUNG FUNCTION CANDIDATE GENES USING TISSUE SPECIFIC RNAI IN DROSOPHILA MELANOGASTER/ E. Szymiec, I. Sayers, M. Georgiou, Z. Markus, Nottingham, United Kingdom, p.A4663

IDENTIFIED DRUG REPURPOSING TARGETS FOR CHRONIC OBSTRUCTIVE PULMONARY DISEASE USING A SYSTEMS BIOLOGY APPROACH/ C.A. Barrero, F. Wang, Philadelphia, PA, p.A4664


VARIANTS IN THE FOXP1 GENE ARE ASSOCIATED WITH CHANGES IN LUNG FUNCTION AND LOSS OF FOXP1 PROTEIN INCREASES SECRETION OF MATRIX METALLOPROTEINASES AND INFLAMMATORY MEDIATORS BY LUNG EPITHELIUM/ A. Andreas, A. Maloy, Y. Zhang, D. Chandra, Pittsburgh, PA, p.A4667

COPD: TRANSLATIONAL SCIENCE

9:30 a.m. - 3:45 p.m. MOSCONE CENTER

Area F, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session
Discussion: 11:15-1:15 authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.


ANTI-CELA1KF4 ANTIBODY PREVENTS EMPHYSEMA IN MULTIPLE MOUSE MODELS/ B.M. Varisco, N. Smith, R. Joshi, Q. Fan, R. Schuman, A. Porillo, M. Batie, Cincinnati, OH, p.A4669


NO LUNG REGENERATION DETECTED FOR UP TO 1 YEAR AFTER SINGLE ELASTASE CHALLENGE IS USED TO INDUCE EMPHYSEMA IN MICE/ J.E. Phillips, K. Wilson, A. Gomez, X. Zhang, Thousand Oaks, CA, p.A4673


EXTRACELLULAR HISTONE H33 INDUCED PLATELETS ACTIVATION/ C.A. Barrero, M.L. Florez, G.J. Criner, M. Rico, Philadelphia, PA, p.A4675


P500  Cytokine Regulation by Alpha 1 Antitrypsin Therapy: A Pathway Analysis of a Pilot Clinical Trial/ P. Geraghty, M.A. Campos, New York, NY, p.A5772

BASIC • TRANSLATIONAL
THEMATIC POSTER SESSION

C68  LUNG CANCER: BASIC MECHANISMS
9:30 a.m. - 3:45 p.m.  MOSCONE CENTER
Area I, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session  11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion  12:15-1:15 authors will be present for discussion with assigned facilitators.


P718  Involvement of Caspase-11 and AIM2 Inflammasome in Smoking-Induced COPD and Lung Adenocarcinoma/C. Colaruso, M. Terlizzi, A. Pinto, R. Sorrentino, Fisciano, Italy, p.A4684


C69  OCCUPATIONAL AND ENVIRONMENTAL EXPOSURES: MODELS AND MECHANISMS

9:30 a.m. - 3:45 p.m.  MOSCONE CENTER

Area G, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session

Discussion: 11:15-12:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.

P604  London Subway PM<sub>10</sub> Increases Pneumococcal Adhesion to Respiratory Cells/L. Miyashita, G. Foley, J.M. Grigg, London, United Kingdom, p.A4694

P605  A Breathing Human Alveolus-on-Chip Model to Study Inhaled Nanoparticle-Induced Lung Inflammation/A. Sengupta, N. Roldan, J. Stucki, N. Hobi, O. Guenat, Bern, Switzerland, p.A4695


P611  Hyaluronan Regulation of AT2 Cell Proliferation at the Terminal Airway Following Ozone Exposure Is Age Dependent/A. Vose, A. Birukova, C.E. Barakauskas, R.M. Tighe, Durham, NC, p.A4701


P614  Succinate Dehydrogenase Is Required for Particulate Matter-Induced IL-1ß Production in Macrophages/P.S. Woods, K.A. Sun, A.Y. Meliton, O.R. Shamaa, R. Cetin-Atalay, R.B. Hamanaka, G.M. Mutlu, Chicago, IL, p.A4704

C70  NEW STUDIES OF LUNG FIBROSIS

9:30 a.m. - 3:45 p.m.  MOSCONE CENTER

Area K, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session

Discussion: 11:15-12:15 authors will be present for individual discussion

12:15-1:15 authors will be present for discussion with assigned facilitators.


P1018 Bleomycin-Induced Pulmonary Fibrosis Alters the Functioning of the Respiratory Neural Network and Abolished the Ventilatory Regulation to Hypoxia and Hypercapnia in Mice/N. Voituron, C.H. Yegen, D. Marchant, C. Planes, E. Boncoeur, Bobigny, France, p.A4714

P1019 A Study to Compare Baseline Functional Residual Capacity and Forced Vital Capacity as a Predictor of Mortality and Hospitalization In a Cohort of Mild to Moderate Interstitial Lung Disease/O.R. Gomez Rojas, E. Naeem, F. Ionescu, E. Castillo, G.B. Nair, Royal Oak, MI, p.A4715


P1023 Therapeutic Effect of Semaglutide on Pulmonary Function and Fibrosis in a Bleomycin-Induced and Spirometry-Confirmed Mouse Model of IPF/M.J. Feigh, D. Oro, A.M. Arraut, A. Graver Petersen, Horsholm, Denmark, p.A4719


BASIC • TRANSLATIONAL
THEMATIC POSTER SESSION

C71 CARDIOPULMONARY INTERACTIONS IN PH AND OSA

9:30 a.m. - 3:45 p.m. MOSCONET CENTER Area K, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.


P1033 Inhalation of GR127935 Inhibits Sumatriptan-Induced Enhancement of Apneic Reflexes in Anesthetized Rats/N.-J. Chan, Y.S. Lin, C.-C. Hsu, Taipei, Taiwan, p.A4727

P1034 Atrial Ectopic Burden in Patients with New Onset Paroxysmal Atrial Fibrillation and Obstructive Sleep Apnea/C. Humphreys, K. Murase, C.-H. Lin, C.M. Horvath, O.D. Lyons, Toronto, Canada, p.A4728

P1035 Denuding Endothelium in the Pulmonary Artery Modulates the Smooth Muscle Constriction Response to Purinergic Signaling/P. Robichaud, Ann Arbor, MI, p.A4729


P1038 Differential Effects of Carvedilol and Clenbuterol in Bleomycin-Induced Pulmonary Hypertension in Mice/P. Shivshankar, W. Wang, S. Collum, C. Wilson, A.M. Peters, W. Bi, H. Karmouty-Quintana, Houston, TX, p.A4732

P1039 Inhibitory Effect of Sulfur Dioxide Inhalation on Hering-Breuer Inflation Reflex in Mice: Role of 4-AP-Sensitive Potassium Channels/N.-J. Chan, C.-C. Hsu, Y.S. Lin, L.-Y. Lee, Lexington, KY, p.A4733


C72 WATER UNDER THE BRIDGE: SESSIONS IN PLEURAL DISEASE
9:30 a.m. - 3:45 p.m. MOSCONE CENTER
Area I, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session 11:15-1:15
Discussion: 11:15-12:15 authors will be present for individual discussion 12:15-1:15 authors will be present for discussion with assigned facilitators.

P729 The Silent Solitary Fibrous Tumor/S.M. Upson, B.A. Bixby, Tucson, AZ, p.A4734

P730 A Case of a Solitary Fibrous Tumor of the Pleura/M.Z. Munir, S. Rehmani, H. Zhang, Waterbury, CT, p.A4735

P731 Lymphoid Variant of Hypereosinophilic Syndrome Presenting with Recurrent Pleural Effusions/M. Wazirali, S. Raju, Cleveland, OH, p.A4736

P732 Congo Red Effusions: A Rare Cause of Pleural Disease/J. Fouad, K.T. Bramley, New Haven, CT, p.A4737


P734 Refractory Malignant Chylothorax Secondary to Diffuse Large B-Cell Mediastinal Lymphoma/M. Weaver, J.A. Bradley, U.A. Gauhar, Louisville, KY, p.A4739

P735 A Rare Case of Multiple Myeloma with Pleural Metastasis/K.I. Juico, Quezon City, Philippines, p.A4740

P736 Pleural Plasmacytomas in a Patient with Multiple Myeloma Relapse/H. Alataby, A. Al Tkrit, C.P. Seneviratne, M. Omballi, Toledo, OH, p.A4741


P738 A Rare Case of Invasive Sarcomatoid Mesothelioma Causing Spontaneous Tumor Lysis Syndrome and Shock/E. Santo, A. Deengar, M. Zutler, Farmington, CT, p.A5776

P739 An Enlarging Pleural-Based Mass in a Patient with NF1/L. Phan, A. Shengelia, New York, NY, p.A4744

P740 Dasatinib Induced Infected Chylothorax. The First Reported Case/M. Mohammed, M. Abdelrahim, Cleveland, OH, p.A4745

BEHAVIORAL • CLINICAL • TRANSLATIONAL

THEMATIC POSTER SESSION

C73 THE TERRIBLE Ts: SESSIONS IN THE MEDIASTINUM

9:30 a.m. - 3:45 p.m.  MOSCONET CENTER

Area I, Hall F (North Building, Exhibition Level)

Viewing: Posters will be on display for entire session
11:15-1:15

Discussion: 11:15-12:15 authors will be present for individual discussion
12:15-1:15 authors will be present for discussion with assigned facilitators.

P748 Diffuse Large B-Cell Lymphoma Presented as a Pulmonary Nodule/W. Hadid, R.I. Bechara, Augusta, GA, p.A4751


P750 Tick or Tack? Recurrence of Pulmonary Mucosa-Associated Lymphoid Tissue (MALT) Lymphoma Following Lyme Disease/J. Lizackle, P. Aylward, D. Berkheim, Omaha, NE, p.A4753


P754 Mediastinal Tumor Mixed with Mediastinal Tuberculosis: A Rare Case Report/L. Madison, M.I. Nugaraha, M. Elhidsi, R. Baginta, E. Syahruddin, East Jakarta, Indonesia, p.A4757


P756 Marginal Zone B-Cell Lymphoma Presenting as a Solitary Pulmonary Nodule/J. Sandhu, E. Weston, V. Kaul, Syracuse, NY, p.A4759

P757 Incidental Finding of Mediastinal Mass to Determine if PET Scan Is a Valuable Diagnostic Mode/O.S. Bawa, J. Childers, A. Vangara, S.S. Ganti, Harlan, KY, p.A4762

P758 A Rare Variant of a Rare Primary Pulmonary Lymphoma/Y. Balboul, A. Singh, M. Cui, J.T. Guerra, D. Steiger, A. Shujaat, New York, NY, p.A4760


P761 Recurrent Functional Paraganglioma in Middle and Posterior Mediastinum with Chronic Diarrhea Symptoms: A Case Report/F. Segnini, J.E. Rodriguez Fernandez, C.A. Segnini Alvarado, S. Contreras Paez, Bogota, Colombia, p.A4764

P762 Necrotic Mediastinal Mass in a Drug User; Squamous Cell Carcinoma of Unknown Primary Tumor/H.-B. Um, Newark, NJ, p.A4765

P763 Grey Zone Lymphoma in the Lungs: A Rare Presentation/D. Zakri, V. Saracino, C.W. Hughes, M. Kousha, Detroit, MI, p.A4766

P764 A (Lympho)cyte to See: Simultaneous Gastric and Pulmonary MALT Lymphomas/J. Whealdon, T. Demirci, L. Benes, A. Basavaraj, K. Hena, New York, NY, p.A4767


P766 Angioimmunoblastic T-Cell Lymphoma- A Tissue Diagnosis on Transbronchial Lung Biopsy/A. Halani, R. Subramaniam, R. Gorthi, E. Charbek, St. Louis, MO, p.A4769
MALTing Away: A Rare Case of Primary Pulmonary Lymphoma with Complete Necrosis of the Right Middle Lobe/T. Wong, G.S. Horng, San Francisco, CA, p.A4770

A Rare Finding of Concomitant Squamous Cell Cancer and Diffuse Large B Cell Lymphoma of the Lung/C.S. Davila-Chapa, U. Zaheer, I. Shaukat, K. Beedupalli, Shreveport, LA, p.A4771


Bronchial Artery Pseudoaneurysm Misdiagnosed as Malignant Mediastinal Mass/D.A. Lakhani, C. Kim, Morgantown, WV, p.A4773

Tuesday Mid-day, May 17

ATS PLENARY SESSION
MOSCONCE CENTER
Room 3000/3002/3004 (West Building, Level 3)

The Plenary Session will feature a keynote address by J. Randall Curtis, MD, MPH; a past ATS president (2009-2010). Dr. Curtis is the director of the Cambia Palliative Care Center of Excellence at UW Medicine at the University of Washington. He is also the A. Bruce Montgomery-American Lung Association endowed chair in pulmonary and critical care medicine and UW professor of medicine. He is an expert in critical care, palliative care, and pulmonary medicine.

Dr. Curtis earned his MD from Johns Hopkins University. He first went to UW as an intern and resident and completed his fellowship in pulmonary and critical care medicine. During his fellowship, he also completed the Robert Wood Johnson Clinical Scholars Program and earned an MPH from the UW School of Public Health. He is listed in "The Best Doctors in America."

The Plenary Session also will include the ratification of the 2022-2023 slate of officers as well as remarks from outgoing president Lynn Schnapp, MD, ATSF, and incoming president Greg Downey, MD, ATSF.

In addition, three Respiratory Health Awards will be presented, including:

Outstanding Educator:
Ilene M. Rosen, MD, MSCE, Philadelphia, PA

Research Innovation and Translation Achievement Award:
Colin E. Sullivan, MD, PhD, Sydney, NSW, Australia

Outstanding Clinician:
Shazia M. Jamil, MD, ATSF, La Jolla, CA

The Plenary Session is generously sponsored by GSK.
PCC3  PEDIATRIC CLINICAL CORE CURRICULUM

Education Committee
12:00 p.m. - 1:00 p.m.  MOSCONE CENTER
Room 2002/2004 (West Building, Level 2)

Target Audience
Pediatric pulmonary and critical care physicians who work in a clinical setting and are currently engaged in maintenance of certification.

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

• identify diagnostic and management strategies, including pulmonary function testing and appropriate ventilation strategies, for pediatric neuromuscular diseases;
• describe new and evolving treatments for pediatric neuromuscular diseases;
• characterize the use of palliative care consultation to guide physicians, patients, and families through challenging care decisions that occur in pediatric neuromuscular disease cases.

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. The Pediatric Core Curriculum symposia promote lifelong learning and the enhancement of the clinical judgment and skills essential for practicing pediatrician.

Chairing:  J.E. Gross, MD, PhD, Denver, CO
          C. Okorie, MD, MPH, Palo Alto, CA

Moderators:  J.E. Gross, MD, PhD, Denver, CO
             M. Mccown, DO, Takoma Park, MD

12:00  Palliative Care in Neuromuscular Disorders: An Approach to Guiding Patients and Families Through Care Decisions
       L. Treat, MD, Aurora, CO

12:30  Discussion
Pre-registration and additional fees required. Attendance is limited.
Member: $100  LMIC Member: $70.

12:15 p.m. - 1:15 p.m.  MOSCON CENTE
ME38  MANAGEMENT OF SCLERODERMA RELATED LUNG DISEASE IN 2022
A. Kumar, MD, Houston, TX
A. Perelas, MD, Richmond, VA
Room 50/62 (South Building, Lower Mezzanine)

ME39  OPTIMAL MANAGEMENT OF FULMINANT INTERSTITIAL LUNG DISEASES PRESENTING WITH ACUTE RESPIRATORY FAILURE
S.-A. Whittaker Brown, MD, MPH, Baltimore, NY
Room 52/54/56 (South Building, Lower Mezzanine)

ME40  BEYOND THE HYPE: USING MACHINE LEARNING TO IMPROVE CARE IN CRITICAL ILLNESS
M.M. Churpek, MD, MPH, PhD, ATS, Madison, WI
Room 58/60 (South Building, Lower Mezzanine)

ME41  UPDATE ON BURN PIT LEGISLATION AND ADVOCACY
A.M. Szema, MD, ATSF, South Setauket, NY
Room 70/72 (South Building, Lower Mezzanine)

ME42  PRAGMATIC TARGETING OF SLEEP APNEA ENDOPTIES AND PHENOTYPES
R.J. Thomas, MD, Boston, MA
Room 74/76 (South Building, Lower Mezzanine)

ATS 2022
INTERNATIONAL CONFERENCE
San Francisco, CA

Tuesday Afternoon, May 17

Click Here to Access the Program Itinerary and Add Tuesday Sessions and Presentations to Your Calendar

ADULT CLINICAL CORE CURRICULUM
CME Credits Available: 1.5
MOC Points Available: 1.5

CC4  PULMONARY CLINICAL CORE CURRICULUM
Education Committee

2:15 p.m. - 3:45 p.m.  MOSCONE CENTER
Hall E (North Building, Exhibition Level)

Target Audience
Practicing internists, subspecialists, registered nurses and advanced practice providers in pulmonary, critical care, and sleep medicine who work in a clinical setting and are currently engaged in maintenance of certification.

Objectives
At the conclusion of this session, the participant will be able to:
• identify a diagnostic approach to interstitial lung diseases including granulomatous diseases and IPF;
• characterize pulmonary manifestations of autoimmune disorders;
• describe therapeutic options for progressive fibrotic lung disease.

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects that are not only included in recertification requirements, but also are timely and relevant to clinical practice in 2022. The ATS Clinical Core Curriculum Symposia focus on key topics in the areas of Pulmonary, Critical Care, and Sleep Medicine. The topics are aligned with corresponding MOC Medical Knowledge modules. This symposium is intended to help clinicians stay up to date with important information.
relevant to their medical practices, and to provide an opportunity for clinicians to evaluate their individual knowledge and skills while earning MOC Medical Knowledge points.

**Chairing:** G.W. Garrison, MD, Burlington, VT
J.L. Cho, MD, Iowa City, IA

**Moderators:** G.W. Garrison, MD, Burlington, VT
M.M. Hayes, MD, ATSF, Boston, MA
B. Coruh, ATSF, FCCP, Seattle, WA

2:15 **Idiopathic Pulmonary Fibrosis**
A.O. Adegunsoye, MD, MS, Chicago, IL

2:45 **Therapeutic Options in Progressive Fibrotic Lung Disease**
R. Hallowell, MD, Boston, MA

3:15 **Discussion**

This session and the International Conference are supported by independent medical educational grants from Boehringer Ingelheim Pharmaceuticals, Inc., Genentech, Inc. All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).

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**BASIC • CLINICAL • TRANSLATIONAL**

**CLINICAL TOPICS IN PULMONARY MEDICINE**

CME Credits Available: 1.5

**C82 CHRONIC BRONCHITIS: BIOLOGIC UNDERRPINNINGS, CLINICAL IMPLICATIONS AND THERAPEUTIC OPPORTUNITIES**

Assembly on Clinical Problems
2:15 p.m. - 3:45 p.m. MOSCONE CENTER
Room 3-4 (South Building, Exhibition Level)

Target Audience
providers of lung health, including pulmonologists, interventional pulmonologists, trainees, respiratory therapists and nurses, as well as basic, translational and clinical research investigators with interests in airway biology and disease

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

- understand the pathobiology of chronic bronchitis, especially as it relates to airway mucin concentrations and mucus transport in the lung;
- describe the epidemiology and clinical implications of chronic bronchitis based on data from various longitudinal observational cohorts;
- appreciate the potential of several promising pharmacologic and interventional bronchoscopic therapies in chronic bronchitis.

Current and former smokers with and without airflow obstruction commonly experience debilitating symptoms of chronic bronchitis. However, despite the high prevalence of chronic bronchitis and its poor long-term prognosis, targeted treatment options remain limited. Recent evidence points to an improved understanding of the pathobiology of chronic bronchitis and identifies novel potential therapeutic targets. This session will describe the airway biology underpinnings of chronic bronchitis, review the clinical implications of chronic bronchitis in individuals with and without airflow obstruction, and highlight promising pharmacologic and interventional therapies for patients with chronic bronchitis.

**Chairing:** W.W. Labaki, MD, MS, Ann Arbor, MI
N. Putcha, MD, Baltimore, MD

2:15 **Introduction to Session**

2:18 **Airway Mucins: At the Core of the Pathobiology in Chronic Bronchitis**
M. Kesimer, PhD, MSci, Chapel Hill, NC

2:33 **Questions and Answers**

2:39 **Not Just a Symptom: Clinical Implications of Chronic Bronchitis in Patients With and Without Airflow Obstruction**
M.K. Han, MD, MS, ATSF, Ann Arbor, MI

2:54 **Questions and Answers**

3:00 **Time for Precision Medicine: Pharmacologic Therapeutic Targets in Chronic Bronchitis**
F.J. Martinez, MD, MS, New York, NY

3:15 **Questions and Answers**

3:21 **Inside the Airways: The Potential of Bronchoscopic Interventions in Chronic Bronchitis**
V. Kim, MD, ATSF, Philadelphia, PA

3:36 **Questions and Answers**

3:42 **Concluding Remarks**

This session and the International Conference are supported by an independent medical educational grant from Insmed Incorporated. All CME sessions have been planned and implemented in accordance with the Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME®) and are free of the control of ineligible companies (formerly commercial interests).

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**CLINICAL**

**CLINICAL TOPICS IN PULMONARY MEDICINE**

CME Credits Available: 1.5

**C83 CAN WE TRANSPLANT THIS PATIENT?**

Assembly on Clinical Problems
2:15 p.m. - 3:45 p.m. MOSCONE CENTER
Room 7-8 (South Building, Exhibition Level)
Target Audience
Providers of lung health; lung transplant providers

Objectives
At the conclusion of this session, the participant will be able to:
• recognize and learn about opportunities and pitfalls of transplanting patients with HIV;
• gain understanding about the assessment of frailty and impact on LTx candidate selection;
• learn about the impact of recreational and medical cannabis use on LTx candidacy.

The contraindications to lung transplant have been evolving over the last several years, with transplant centers “pushing the envelope”. This pro-con debate will discuss controversial topics in lung transplant candidacy—reviewing the evidence, opportunities and pitfalls in these situations.

Chairing: S. Sehgal, MBBS, Cleveland, OH
M.M. Budev, DO, MPH, Cleveland, OH

2:15 Should Cannabis Use Be a Contraindication to Transplant? YES
M.M. Budev, DO, MPH, Cleveland, OH

2:25 Should Cannabis Use Be a Contraindication to Transplant? NO
E.D. Lease, MD, FCCP, Seattle, WA

2:40 Should HIV Infection Be a Contraindication to Transplant? YES
A. Kumar, MD, Houston, TX

2:55 Should HIV Infection Be a Contraindication to Transplant? NO
C. Koval, MD, Cleveland, OH

3:10 Should Frailty Be a Contraindication to Transplant? YES
M. Venkata Subramani, MD, Cleveland, OH

3:25 Should Frailty Be a Contraindication to Transplant? NO
C.C. Kennedy, MD, Rochester, MN

3:40 A Patient’s Perspective
N. Lee, Oyster Bay, NY

Target Audience
Clinicians, trainees, nurses, and pharmacists who care for sepsis patients; healthcare leaders and administrators; individuals involved in sepsis research, quality improvement, advocacy, policy, or antibiotic stewardship

Objectives
At the conclusion of this session, the participant will be able to:
• apply data supporting early antibiotic and fluid treatment in sepsis, associated controversies, and potential adverse effects of efforts to optimize early sepsis treatment. This objective will provide an evidence base for improved clinical practice;
• identify barriers to prompt treatment for sepsis patients. This objective will help attendees improve care delivery for sepsis for patients at their institutions;
• apply and adapt novel strategies to deliver high-quality sepsis care. This objective will help attendees find innovative methods to ensure high-quality care for sepsis patients.

International guidelines and government mandates have emphasized early treatment for septic patients. In particular, observational studies show sepsis outcomes worsen for every hour effective antibiotics are delayed. Controversy persists, however, regarding this central premise, fluid resuscitation targets, and treatment timing. Recent guidelines and policy statements have advocated more personalized treatment goals and relaxing treatment metrics. This session will review the current evidence, new and updated guidelines, and controversies regarding early sepsis care, discuss potential adverse effects of prioritizing early treatment (especially during a viral sepsis pandemic), and evaluate the barriers to rapid treatment initiation and potential methods to overcome them.

Chairing: I.D. Peltan, MD, MSc, Salt Lake City, UT
H.C. Prescott, MD, MSc, Ann Arbor, MI
V.X. Liu, MD, MS, Oakland, CA

2:15 Early Sepsis Treatment Saves Lives: Truth, Hype and Consequences
H.C. Prescott, MD, MSc, Ann Arbor, MI

2:30 COVID-19, Non-Bacterial Sepsis, and Sepsis Subgroups: One Size Fits None?
N.J. Meyer, MD, MS, Philadelphia, PA

2:42 Sepsis Mandates: The View From Ground Zero
T.M. Osborn, MD, MPH, St. Louis, MO

2:57 Why Do We Struggle to Implement Rapid Sepsis Treatment?
I.D. Peltan, MD, MSc, Salt Lake City, UT

3:09 High-Quality Sepsis Care in Lower Resource Settings
L.A. Gorordo Delsol, MD, Mexico City, Mexico

3:21 Interprofessional Teams, Sepsis, and the of Implementation
D.K. Costa, PhD, RN, Ann Arbor, MI

3:33 Can We Help Clinicians Make Better Decisions Faster?
J.R. Carr, MD, Salt Lake City, UT
C85 LOCATION, LOCATION, LOCATION-SPECIFIC ENVIRONMENTAL TRIGGERS OF PEDIATRIC ASTHMA

Assemblies on Pediatrics; Allergy, Immunology and Inflammation; Environmental, Occupational and Population Health; Health Equity and Diversity Committee; Pediatric Assembly Advocacy Committee

2:15 p.m. - 3:45 p.m. MOSCONE CENTER

Target Audience
Pediatric and adult pulmonologists, residents, fellows, clinical and translational researchers, epidemiologists, allied health professionals

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

• understand how specific environmental triggers of asthma may be unique and/or distinct to different micro-environments where children spend time (i.e. home vs. school vs. outdoor play);

• identify potential targets for intervention related to location-specific exposures both at the individual patient level for clinicians and at a more global level for epidemiologists, clinician scientists, and child advocates;

• address how unique locations of environmental asthma triggers can be associated with health disparities.

Pediatric asthma is characterized by episodic exacerbations that are often triggered by environmental exposures. Triggers are often distinct within specific locations (e.g. home vs. school vs. in-transit) and high-risk populations of children may be uniquely impacted by location-specific exposures. This symposium will focus on how distinct, location-specific environmental exposures (i.e. aeroallergens and air pollution) contribute to asthma morbidity, personal risk factors and potential mitigation strategies. Attention will be given to variations in exposures unique to different populations world-wide, the impact of systemic racism on exposures within specific communities and the role of clinicians as advocates for improved air quality.

Chairing: S. Lovinsky-Desir, MD, MS, New York, NY
J.M. Gaffin, MD, Boston, MA
G. Chew, ScD, Atlanta, GA

2:15 Asthma Disparities: At the Intersection of Place, History, and Environment
E.C. Matsui, MD, MHS, Austin, TX

2:30 Asthma, Allergies, and Air Pollution in the School Environment
W. Phipatanakul, MD, Boston, MA

2:45 Exposures on the Go! The Role of Air Pollution Exposure During Childhood Activity and Play
S. Lovinsky-Desir, MD, MS, New York, NY

3:00 Is the Air at Home Safe to Breathe? The Impact of Indoor and Outdoor Air Quality on Respiratory Health in Rural and Indigenous Pediatric Populations
D.K. Radhakrishnan, MS, MD, Ottawa, Canada

3:15 Not All Microenvironments Are the Same: A Global Perspective on Differences in Exposure and Asthma
J.M. Grigg, MD, London, United Kingdom

3:30 Advocating for Clean Air for Children
J. Rice, MHS, Baltimore, MD

This session and the International Conference are supported by an independent medical educational grant from Genentech, Inc.

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C86 BIG DATA AT THE BEDSIDE IN CRITICAL CARE: THE GOOD, THE BAD, THE UGLY

Assemblies on Critical Care; Behavioral and Health Services Research; Clinical Problems; Nursing, Pediatrics

2:15 p.m. - 3:45 p.m. MOSCONE CENTER

Target Audience
All healthcare workers with an interest in bioinformatics and big data; researchers and clinicians caring for critically-ill patients; administrators interested in building a more equitable digital health platform

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

• define the state-of-the-art innovations in data that are likely to influence bedside clinical practice in the near future.

• understand and define the driving factors and consequences of a lack of diversity in data, and how it can limit innovation and have deleterious effects on patient care;

• define the structural biases in digital health and their consequences in the emerging innovations in artificial intelligence.

Big data analysis and machine learning algorithms are increasingly being used in critical care research. The implementation of big data projects into tangible clinical tools has so far been scarce. In this symposium, experts in the field will discuss the early successes of machine learning in critical care medicine and also areas where the field is currently coming up short. Healthcare workers attending this
symposium will get insights into state of the art innovations that are likely to change their future practice and aide decision-making. We will also discuss some of the challenges in data-sharing, implementation, and equity that need to be met before these powerful tools can realise their potential as clinical adjuncts.

Chairing: P. Sinha, MB BCh, PhD, St Louis, MO
M.M. Churpek, MD, MPH, PhD, ATSF, Madison, WI

2:15 Data as the New Oil: How Multi-Modal Data Sharing will Revolutionize Critical Care
L. Bastarache, MS, Nashville, TN

2:30 Expert-Level Automation for Critical Illness Diagnosis
M.W. Sjoding, MD, Ann Arbor, MI

2:45 Real-Time Phenotyping for Personalized Care
P. Sinha, MB BCh, PhD, St Louis, MO

3:00 Multidimensional Workforce for Multidimensional Data
Speaker To Be Announced

3:15 Rage Against the Machine: Biased Algorithms and the Ugly Underbelly of Data
M. McCradden, PhD, MHSc, Toronto, Canada

3:30 Machine Learning System Implementation: Taking Modelling to Bedside
M.M. Churpek, MD, MPH, PhD, ATSF, Madison, WI
• apply new knowledge to explain how the presence of more than one pathogen in the lung can alter disease progression and require changes in therapies, thus improve outcomes for patients;
• better diagnose whether the presence of pathogen (e.g. NTM or fungi) in the lung represent true infections to be treated, or colonizers to monitor;
• describe new findings about co-infections and also delineate identified gaps of knowledge in the area of co-infections that require additional research in order to improve patient outcomes.

This symposium will address complexities of diagnosing and treating co-infections in the lung. It will highlight how microbes in polymicrobial infections differ in their pathophysiology, virulence, and treatment sensitivity as compared to the same species in solo infections. We will cover clinical considerations of pulmonary co-infections (including diagnostic challenges, determining which species cause disease vs which are bystanders, and how to treat pulmonary co-infections) and molecular mechanisms that trigger changes in microbial pathogenesis when two microbes interact in the lung. Speakers will discuss co-infections in acute pneumonia and chronic lung disease, and the special categories of fungal co-infection, NTM co-infection, and co-infections in people with COVID19.

Chairing:
K.B. Hisert, MD, PhD, Denver, CO
C.S. Dela Cruz, MD, PhD, ATSF, New Haven, CT
B. Jones, MD, MSc, Salt Lake City, UT
M. Ferrer, PhD, Barcelona, Spain

2:15 Session Introduction
2:20 Novel Technologies for Diagnosis of Lung Infections
R.P. Dickson, MD, Ann Arbor, MI
2:35 Co-Infections and the Host Response in Non-COVID-19 Pneumonia
R.G. Wunderink, MD, Chicago, IL
2:55 Polymicrobial Infections in Chronic Lung Disease
J. Bomberger, PhD, Pittsburgh, PA
3:15 Fungal Co-Infections
C.A. Hage, MD, ATSF, Indianapolis, IN
3:30 Presence of NTM: Is it Co-Infection or a Colonizer?
S.H. Kasperbauer, MD, Denver, CO

C89 PRIORITIES FROM A JOINT-SOCIETY ATS POLICY STATEMENT ON PALLIATIVE CARE IN SERIOUS RESPIRATORY DISEASE

Assemblies on Behavioral and Health Services Research; Nursing
2:15 p.m. - 3:45 p.m. MOSCONE CENTER Room 3014 (West Building, Level 3)

Target Audience
International, inter-professional group of clinicians (nurses, respiratory therapists, pharmacists, physicians, social workers) and investigators from pulmonary and palliative care who care for patients with serious respiratory disease

Objectives
At the conclusion of this session, the participant will be able to:
• discuss the fundamental principles of palliative care including symptom management and conducting goals of care discussions;
• describe innovative solutions to equitably integrate primary and secondary palliative care early in the care continuum among patients with serious respiratory disease;
• define critical training and research priorities for palliative care in pulmonary medicine across multiple domains.

Our multiphase work over the past several years in ATS has demonstrated a critical need for early palliative care for people living with serious respiratory disease and their caregivers. In June 2021, we convened a virtual, international, and inter-professional committee of pulmonary and palliative care clinicians, researchers and patient stakeholders from multiple societies to develop an official ATS policy statement on palliative care for adults with respiratory disease. This session highlights the key findings from that meeting, including presentations from a diverse group of committee facilitators on fundamental principles, priorities, and next steps for improved integration of palliative care in pulmonary medicine.

Chairing:
D.R. Sullivan, MD, MA, MRes, Portland, OR
L.F. Reinke, PhD, APRN, BC, ATSF, Salt Lake City, UT
A.S. Iyer, MD, MSPH, Birmingham, AL

2:15 Fundamental Principles of Palliative Care in Respiratory Disease and Highlights from the Policy Statement
D.R. Sullivan, MD, MA, MRes, Portland, OR
2:23 Stakeholder Engagement: A PAR Perspective on Palliative Care in Serious Respiratory Disease
L. Gershon, PAR, Palo Alto, CA
2:33 Engaging Caregivers as Critical Members of the Care Team
K.O. Lindell, PhD, RN, ATSF, Charleston, SC
2:41 Health Disparities and Equitable Access to Palliative Care in Pulmonary Medicine  
T. Fasolino, PhD, FNP-BC, ACHPN, Clemson, SC

2:49 The Ins and Outs of Respiratory Disease: Comprehensive Symptom Management  
N.E. Smallwood, MBBS, MSCE, PhD, BMedSci, Melbourne, Australia

2:57 Innovative Palliative Care Delivery Models  
R.A. Mularski, MD, MS, ATSF, Portland, OR

3:05 It's the Journey Not the Destination: Goals of Care/Advance Care Planning in Respiratory Disease  
A.E. Turnbull, DVM, MPH, PhD, Baltimore, MD

3:13 Methodologies, Models, and Measurements: Research Priorities in Palliative Care  
C.E. Cox, MD, MPH, MHA, Durham, NC

3:21 Hoping for the Future While Planning for the Worst: Palliative Care in States of Emergency  
A. Wilkinson, PhD, Joondalup, Australia

3:29 Pallipulm, The New Frontier: Integrating Palliative Care in Pulmonary Medicine through Primary Palliative Care  
A.S. Iyer, MD, MSPH, Birmingham, AL

3:37 Questions and Answers

### C90 More Than Just Making up for Lost Time: Career Development After COVID-19

**Target Audience**
Individuals, organizations, and agencies involved in the training, mentorship, career development, recruitment, retention, and funding of early career pulmonary, critical care, and sleep clinicians and scientists

**Objectives**
At the conclusion of this session, the participant will be able to:
- characterize the impact of the pandemic on career development for individuals in pulmonary, critical care, and sleep medicine and;
- determine priorities for strengthening our field and our pipeline of early career professionals against future catastrophic events.

A diverse pipeline is essential to the Society’s mission to advance research, clinical care, and public health. Pre-existing threats coupled with COVID-19’s collateral effects on trainees and early career faculty have risked an entire generation's professional development, with outsized effects on racial and ethnic minorities, women, and other underrepresented groups in medicine. This session will detail pre-existing challenges facing early career individuals and how the pandemic exacerbated these, as identified through recent research. The speakers will then present evidence-based strategies for addressing these consequences to secure the future of our field.

**Chearing:**  
A.J. Admon, MD, MPH, MSc, Ann Arbor, MI  
S.K. Cribbs, MD, MSCR, ATSF, Decatur, GA

2:15 More Than Just Making up for Lost Time: Career Development After COVID-19  
A.J. Admon, MD, MPH, MSc, Ann Arbor, MI

2:20 Moving Forward After COVID-19: The Transition Out of the Pandemic for Trainees  
J.K. Krishnan, MD, MBA, MSc, New York, NY

2:35 How to Build a Diverse Pipeline of PCCM Clinicians Going Forward?  
N. Thakur, MD, MPH, San Francisco, CA  
J.C. Celedon, MD, DrPH, ATSF, Pittsburgh, PA

3:05 How Institutions Can Support Professional Recovery After COVID  
S.K. Cribbs, MD, MSCR, ATSF, Decatur, GA

3:20 How Funders Are Adapting to Recent Challenges to Strengthen Early Career Development  
Q. Lu, PhD, Bethesda, MD

3:35 Moving Forward: A Facilitated Discussion  
L. Kawano-Dourado, MD, Sao Paulo, Brazil
Target Audience
Scientists and physician scientists interested in understanding how senescence in the lung guides lung repair and regeneration and how this disruption contributes to mechanisms that influence homeostasis and disease in the lungs.

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

- learn the gaps in our knowledge about the functional impact of increased senescence on pathological changes underlying chronic lung disease;
- understand and define the importance of researching the functional impact of senescence to elucidate its role in lung pathology, as this is crucial to make the next step towards senescence targeting treatment strategies;
- gain understanding and learn the current state of the development of senescent targeting strategies and their potential to treat patients with lung diseases.

Higher levels of cellular senescence have been demonstrated in chronic lung disease. Accumulation of senescent cells can be detrimental to tissue function and targeting senescent cells has shown promising effects. To improve our understanding of how these senescent targeting drugs work and to which cell types in the lung we need to target these drugs, more insight is needed into the functional impact of senescent cells in chronic lung disease. Therefore, the experts presenting in this symposium will provide insight into the contribution of cellular senescence and the role of SASP to specific pathological processes and cell types involved in chronic lung diseases, with a focus on ECM dysregulation by lung fibroblasts and disturbed alveolar repair by alveolar epithelial cells. In the end, the potential benefits of senescence targeting treatments in these specific pathological processes in chronic lung disease will be discussed.

Chairing: R.R. Woldhuis, PhD, Groningen, Netherlands
D. Lagares, PhD, MSc, Boston, MA

2:15 Session Introduction
R.R. Woldhuis, PhD, Groningen, Netherlands

2:25 Cellular Senescence as a Driver of Extracellular Matrix Dysregulation
C.A. Brandsma, PhD, Groningen, Netherlands

2:45 Impact of Cellular Senescence on Lung Regeneration and Alveolar Repair
M. Lehmann, PhD, Neuherberg, Germany

3:05 The Future for Targeting Cellular Senescence in Chronic Lung Disease
J.L. Kirkland, MD, PhD, Rochester, MN

3:25 General Discussion

C92 SCIENCE AND INNOVATION BREAKTHROUGHS IN LUNG HEALTH AND DISEASE: EMPHASIS ON RNA BIOLOGY

Assemblies on Respiratory Structure and Function; Allergy, Immunology and Inflammation; Clinical Problems; Pulmonary Circulation; Respiratory Cell and Molecular Biology; Thoracic Oncology

2:15 p.m. - 3:45 p.m. MOSCONIE CENTER
Room 2001/2003 (West Building, Level 2)

Target Audience
The program will discuss general topics of interest to a broad group of researchers and physicians interested in lung health and disease.

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

- learn new findings about the application of innovative RNA sequencing technologies (single cell sequencing, spatial transcriptomics) to human lung health and disease;
- learn new findings about the role of mRNA vaccines in preventing severe viral pneumonias;
- contextualize the novel observations presented on each topic, identify their impact on lung health and disease, and consider applications to lung health beyond those presented.

The recent employment of cutting-edge RNA sequencing technologies to study lung tissues has resulted in a substantial growth in our understanding of lung disease. In parallel, the COVID-19 pandemic has led to the rapid implementation of mRNA vaccines. This symposium will focus on the recent insights into lung disease afforded by new and rapidly evolving RNA technologies, and will explore the human host response to mRNA vaccines and how this contributes to the prevention of severe viral illness. After the course, participants will better understand novel concepts that we hope will translate to an improved understanding of human lung disease.

Chairing: S. Christenson, MD, MS, San Francisco, CA
L.J. Quinton, PhD, Worcester, MA
T.J. Mariani, PhD, Rochester, NY

2:15 Metatranscriptomics to Study Host-Pathogen Interactions in the Lung
C. Langelier, MD, PhD, San Francisco, CA

2:45 mRNA Vaccine Technology and the Human Host Response
A. Carfi, PhD, Moderna, Cambridge, MA

3:15 The Single Cell Atlas in Human Lung Health and Disease
Y. Xu, PhD, Cincinnati, OH
C93  CLINICAL TRIALS IN CHRONIC LUNG DISEASE
2:15 p.m. - 3:45 p.m.  MOSCONE CENTER
Room 11-12 (South Building, Exhibition Level)
Chairing:  M.T. Dransfield, MD, Birmingham, AL
M. Wijsenbeek, MD, PhD, Rotterdam, Netherlands
R.M. Burkes, MD, MS, Cincinnati, OH

Oral Presentations:

2:25  Stepping Down from Triple Inhaled Therapy to a LABA/LAMA Fixed-Dose Combination: Data from the German Real-Life DACCORD COPD Cohort/C. Vogelmeier, H. Worth, R. Buhl, C.-P. Créié, E. Gückel, P. Kardos, Marburg, Germany, p.A4775


2:55  Brensocatib for the Treatment of Non-Cystic Fibrosis Bronchiectasis (NCFBE): Number Needed to Treat (NNT) and Number Needed to Harm (NNH)/J.D. Chalmers, M.L. Metersky, J. Feliciano, C. Fernandez, A. Teper, A. Maes, M. Hassan, A. Chatterjee, Dundee, United Kingdom, p.A4778


C94  THE ROAD TO RECOVERY TAKES MANY PATHS: OUTCOMES AFTER CRITICAL ILLNESS
2:15 p.m. - 3:45 p.m.  MOSCONE CENTER
Room 3001/3003 (West Building, Level 3)
Chairing:  H.E. Faust, MD, MS, Madison, WI
M.E. Mikkelsen, MD, MSCE, Aurora, CO

Featured Speaker:
2:15  Doing Better for Those We Save: Investing in Critical Illness Survivor Care/T.L. Eaton, Ann Arbor, MI

Oral Presentations:

2:35  CANCOV - Canadian


2:45 Utilization of Allergy and Immunology Services Among Rescue Workers Exposed to the World Trade Center Disaster/D.L. Caruana, G.T. Smith, P.H. Huang, A.M. Szema, New Haven, CT, p.A4791


2:25 Vitamin C Supplementation to Pregnant Smokers Improves Offspring Forced Expiratory Flows Through 5 Years of Age: Follow-Up of a Randomized Trial


2:35 Absence of IL-33 or Areg Results in Loss of Cilia in Organotypic Airway Epithelial Cell Cultures and Increased Hyperoxic Injury in In Vivo and Ex Vivo Models of BPD


2:45 Hyperoxia Exposure Produces Indirect Lung Injury by Altering Antimicrobial Peptide Production and the Microbiota of the Newborn Small Intestine


2:55 Asthma as a Risk Factor for Hospitalization in Children with COVID-19: A Nested Case-Control Study


3:05 Global Metabolomic Profiling of the Lower Airways in Children with Cystic Fibrosis

J.B. O’Connor, M. Mottlowitz, B.D. Wagner, T.A. Laguna, Chicago, IL, p.A4802

3:15 Multiple Breath Washout Testing to Identify Pulmonary Chronic Graft versus Host Disease in Children After Haematopoietic Stem Cell Transplantation


3:25 The Impact of Vaping on Lung Function and Nasal Epithelial Gene Expression in Adolescents


Featured Speaker:

3:35 Research Diversity: Empowering Your Career and Those Around You

B.T. Kopp, Columbus, OH

This session and the International Conference are supported by an independent medical educational grant from Boehringer Ingelheim Pharmaceuticals, Inc.

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ATS 2022 • San Francisco, CA


3:15 C98 DEEP PHENOTYPING FOR SLEEP APNEA THERAPY SUCCESS

2:15 p.m. - 3:45 p.m. MOSCONE CENTER Room 2018/2020 (West Building, Level 2)

Chairing: B.A. Edwards, PhD, Melbourne, Australia
S.A. Sands, PhD, Boston, MA
S. Op De Beeck, PhD, MSc, BSc, Wilrijk, Belgium

Oral Presentations:


3:15 C99 I SCREAM, YOU SCREAM, WE ALL SCREAM FOR LUNG CANCER SCREENING: A TASTE OF THE COMPONENTS

2:15 p.m. - 3:45 p.m. MOSCONE CENTER Room 205-206 (South Building, Level 2)

Chairing: L. Sakoda, PhD, MPH, Oakland, CA
E. Billatos, MD, Boston, MA

Oral Presentations:


Accepting Social E-Cigarette Behaviors Among Fraternity Members Found Utilizing Egocentric Network Analysis/A.C. Welch, M.S. Patterson, C.L. Wilshire, H. Kathuria, C. Gilbert, J.A. Gorden, Seattle, WA, p.A4828

EXPANDING THE USE OF ASTHMA BIOLOGICS AND OTHER NOVEL THERAPEUTICS TO ADDITIONAL PATIENT POPULATIONS

2:15 p.m. - 3:45 p.m. 
MOSCON CENTER
Room 2005/2007 (West Building, Level 2)

Poster Viewing 2:15-2:45
Discussion 2:45-3:45

Chairing: P. Akuthota, MD, ATSF, La Jolla, CA 
J.L. Gomez, MS, MD, ATSF, New Haven, CT


Long-Term Efficacy of Benralizumab in Patients with Severe Asthma Directly Transitioning from the ANDHI Double-Blind to the ANDHI in Practice Open-Label Extension Substudy/T. Harrison, R. Katial, N.L. Lugogo, A. Burden, J. Kwiatek, R. Louis, Nottingham, United Kingdom, p.A4835


610 Real-World Evidence of Steroid-Sparing Effect of Mepolizumab in EGPA
I. Simpson-Shelton, P. Akuthota, La Jolla, CA, p.A4838


618 Pharmacokinetics and Effect on Type 2 Biomarker Levels of Dupilumab Weight Tiered-Based Dose Regimens in Patients Aged 6 to 11 Years with Uncontrolled, Moderate-to-Severe Asthma/D.J. Jackson, L.B. Bacharier, L. Sher, C. Domingo Ribas, N. Papadopoulos, B.D. Modena, N. Li, C. Xia, S. Harel, K. Wolfe, M. Kamal, R. Gall, N. Amin, L. Mannent, E. Laws, P.J. Rowe, J.A. Jacob-Nara, Y. Deniz, D.J. Lederer, M.E. Hardin, C. Xu, Madison, WI, p.A4846


621 Assessment of Biologic Therapy Dosing Schedules and Duration of Efficacy in Severe Asthma: A Pilot Study/M.G. Trigiani, M.H.H. Khan, M. Watson, K.R. Chapman, Toronto, Canada, p.A4849


624 Towards Clinical Remission in Severe Asthma: An Analysis of Patients Treated with Benralizumab in the Phase 3b ANDHI Trial/T. Harrison, R.E. Louis, J. Kwiatek, P. Papeleu, D. Cohen, N. Keeling, R. Klatial, Nottingham, United Kingdom, p.A5782
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<td>The Relationship Between Chronic Lung Disease Diagnosis and the Susceptibility to Using E-Cigarette Use Adults: The Moderation Effects of Behavioral and Environmental Factors/M.M. Alqahtani, P. Hendricks, Birmingham, AL, p.A4851</td>
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<td>Assessment of Medication Adherence and the Association with Healthcare Resource Utilization and Costs Among HealthPrize Enrolled COPD Patients/J. Elder, Ridgefield, CT, p.A4856</td>
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<td>One Size Does Not Fit All: Adding Granularity to COPD Self-Management/M.V. Benzo, P. Novotny, R. Benzo, Rochester, MN, p.A4858</td>
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<td>The Cost-Effectiveness of Telehealth versus In-Person PAP Set-Up for Patients with Sleep Apnea/N. Jambulingam, A.M. Ryden, M.R. Zeidler, Los Angeles, CA, p.A4861</td>
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<td>The BAN Score: A Novel Anthropometry Based Screening Tool for Obstructive Sleep Apnea/A. Iyer, P.T. Taweesedt, S.R. Surani, Bliarstown, NJ, p.A4867</td>
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920 A Novel Method for Assessing Goal-Concordant Care Among Patients with Serious Illness/C.L. Auriemma, A. Song, J. Han, A. Bain, L. Walsh, S.D. Halpern, K.R. Courtright, Philadelphia, PA, p.A4870

921 Use of the Electronic Health Record to Determine Nurse-Patient Assignments in the Intensive Care Unit/K.A. Riman, B.S. Davis, J.B. Seaman, J.M. Kahn, Pittsburgh, PA, p.A4871


925 Bringing Respiratory Education for Improved Adherence and Technique Home Through E-Interventions for Self-Management (BREATHES) - Preliminary Results/P. Zajac, N. Munger, N. Kappel, V.G. Press, Chicago, IL, p.A4875

**CLINICAL • TRANSLATIONAL**

**POSTER DISCUSSION SESSION**

**C103 IT'S NOT JUST ABOUT IPF**

2:15 p.m. - 3:45 p.m. MOSCON CENTER

Room 9-10 (South Building, Exhibition Level)

Poster Viewing 2:15-2:45

Discussion 2:45-3:45

Chairing: P.L. Molynieux, MRCP(UK), MBBS, BS(Hons), London, United Kingdom

J. Kim, MD, MS, Charlottesville, VA

M.L. Salisbury, MD, MS, Nashville, TN


102 Investigating Clinical Characteristics and Biomarkers of Sarcoidosis Patients with Obstructive Respiratory Physiology/D. Vanderhoef, N. Marka, N. Kapur, D.M. Perlman, M. Bhargava, Minneapolis, MN, p.A4877


106 Role of Serum Soluble Interleukin-2 Receptor Level in the Diagnosis of Sarcoidosis: A Systematic Review and Meta-Analysis/S. Gupta, S.M. Farooqui, M. Parmar, R.P. Padappayil, S. Daouk, Oklahoma City, OK, p.A4881


Real-Life Performance of the New Hypersensitivity Pneumonitis Diagnostic Criteria in a Tertiary Referral Center/O. Freund, T. Perluk, B. Tiran, T. Hershko, S. Ben Ami, A. Unterman, Tel Aviv, Israel, p.A4892

Comparison of CHEST and ATS/JRS/ALAT Guidelines in Diagnosing Hypersensitivity Pneumonitis/J. Gu, Y.-C. Huang, Durham, NC, p.A4893


BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

RAPID: RAPID ABSTRACT POSTER DISCUSSION SESSION

C104 CHANGE IS HAPPENING AT A RAPID RATE: ARDS AND MECHANICAL VENTILATION, GO

2:15 p.m. - 3:45 p.m. MOSCONCE CENTER Room 3016/3018 (West Building, Level 3)

Viewing 2:15-2:45
Summaries/Discussion 2:45-3:45

Chairing: M.M. Hayes, MD, ATSF, Boston, MA
C.S. Calfee, MD, MSCR, San Francisco, CA
E. Fan, MD, PhD, Toronto, Canada


BASIC • CLINICAL • TRANSLATIONAL

RAPID: RAPID ABSTRACT POSTER DISCUSSION SESSION

C105 CIVIC CENTER: PULMONARY VASCULAR DISEASE

2:15 p.m. - 3:45 p.m. MOSCONCE CENTER

Room 303-304 (South Building, Level 3)

Viewing 2:15-2:45
Summaries/Discussion 2:45-3:45

Chairs: T. Lahm, MD, ATSF, Denver, CO
L.A. Shimoda, PhD, Baltimore, MD
J. Aman, MD, PhD, Amsterdam, Netherlands


502 The Impact of CircTREM1 in Peripheral Blood Monocyte Cells on Prognosis of Idiopathic Pulmonary Arterial Hypertension/P. Yuan, Y.-Y. Sun, Shanghai, China, p.A4910


506 Selexipag Experience in Patients with Pulmonary Arterial Hypertension Associated with Connective Tissue Disease (PAH-CTD): Real-World Experience from EXPOSURE/S.P. Gaine, P. Escribano, A. Muller, R. Klement, S. Söderberg, T.J. Lange, Dublin, Ireland, p.A4914


512 Pulmonary Artery Calcification in Pulmonary Hypertension Due to Left Heart Disease/S. Liu, M.M. Kucherenko, P. Sang, Q. Li, J. Yao, I. Alesutan, J. Voelkl, C. Knosalla, W.M. Kuebler, Berlin, Germany, p.A4920

513 The Effects of Oxygenation on Acute Vasodilator Challenge in Pulmonary Arterial Hypertension/M. Rockstrom, T.M. Bull, Aurora, CO, p.A4921

514 Cardiac Effort Provides a Reproducible Remote Assessment of 6-Minute Walk Test/D. Lachant, A. Light, E. Kennedy, M. Lachant, R.J. White, Rochester, NY, p.A4922

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<td>A Clinical and Diagnostic Challenge in a Lung Transplant Recipient with Overwhelming BK Viremia</td>
<td>M.T. Olson, B. Buddhdev, H. Mohamed, A. Arjuna, Phoenix, AZ</td>
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<td>Pseudomembranous Tracheobronchitis Due to Pseudomonas Aeruginosa in a Patient with Cystic Fibrosis During Lung Transplant Surveillance Bronchoscopy</td>
<td>K. Bruening, M. Matta, B.P. Young, R.J. Schilz, S.K. Avasarala, T. Panchabhai, Cleveland, OH</td>
<td>Cleveland, OH, p.A4950</td>
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<td>Outcomes of SARS-CoV-2 Infection in Solid Organ Transplant Recipients</td>
<td>K.M.S.A. Nada, E. Polychronopoulo, G. Sharma, A.G. Duarte, Galveston, TX</td>
<td>Galveston, TX, p.A4953</td>
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<td>219</td>
<td>Disseminated Verruconis Gallopava Infection in a Patient with History of Renal Transplant and Hemophagocytic Lymphohistiocytosis (HLH)</td>
<td>R. Joshi, M. Narkhede, Birmingham, AL</td>
<td>Birmingham, AL, p.A4955</td>
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<td>HIV Infection Upregulates EMAP II in Lungs of Humanized Mice</td>
<td>R. Elmergawy, A. Schneider, E. Suarez, C. Matthias, S. Almodovar, Indianapolis, IN, p.A4958</td>
<td>Indianapolis, IN, p.A4958</td>
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**CLINICAL • TRANSLATIONAL**

**RAPID: RAPID ABSTRACT POSTER DISCUSSION SESSION**

**C108 THE IMPACT OF REHABILITATION ON MIND AND BODY**

2:15 p.m. - 3:45 p.m.

**Room 2009/2011 (West Building, Level 2)**

**Viewing**
2:15-2:45

**Summaries/Discussion**
2:45-3:45

**Chairs:** C.Y. Tang, DPT, Penrith, Australia
M. Spruit, PT, PhD, Horn, Netherlands

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<td>701</td>
<td>Hospital Rehabilitation Using Elastic Bands Provides Early Improvements and Maintenance of Endothelial Function in Patients with Acute Exacerbation of Chronic Obstructive Pulmonary Disease (AECOPD): a Randomized Controlled Trial</td>
<td>N. Leonardi, E.Z. Kabbach, N.S. Schafauser, A.D. Heubel, A.C. Sentanin, V. Castello-Simoes, V.A.P. Di Lorenzo, A.B. Silva, R.G. Mendes, Sao Carlos, Brazil</td>
<td>Sao Carlos, Brazil, p.A4959</td>
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<td>702</td>
<td>Understanding the Use of a High Frequency Airway Oscillating Device for Patients with Chronic Obstructive Pulmonary Disease- A Qualitative, Focus Group Study</td>
<td>E. Daynes, L. Houchen-Wolloff, A.C. Barradell, N.J. Greening, S.J. Singh, Leicester, United Kingdom</td>
<td>Leicester, United Kingdom, p.A4960</td>
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<td>Feasibility of Software Enabled Virtual Pulmonary Rehabilitation Program</td>
<td>S. Flynn, S. Cornelison, W. Pu, J.A. Ohar, Altadena, CA</td>
<td>Altadena, CA, p.A4963</td>
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710 The Effect of Domiciliary High Flow Nasal Cannula Treatment on Walking Distance in Patients with Interstitial Lung Disease, a Pilot Study/U.M. Weinreich, C. Burchardt, J. Huremovic, Aalborg, Denmark, p.A4968


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**C109 PULMONARY FIBROSIS: MOVING FORWARD WITH GENETICS AND SEQUENCING**

2:15 p.m. - 3:45 p.m. MOSCONET CENTER

Room 212-214 (South Building, Level 2)

**Poster Viewing**

2:15-2:45

**Discussion**

2:45-3:45

**Chairing:** J. Kropski, MD, Nashville, TN

Y. Zhang, PhD, Pittsburgh, PA

S. Han, MD, MPH, Chicago, IL

Y. Aschner, MD, Aurora, CO

D.N. O’Dwyer, BM BCH, BMedSci, PhD, Ann Arbor, MI


402 The idiopathic Pulmonary Fibrosis-Associated SNP rs35705950 Is Transcribed in a MUC5B Promoter Associated Long Non-Coding RNA (AC061979.1)/I. Enekwa, R. Neatu, G. Fois, M. Frick, S.A. Moschos, Newcastle-Upon-Tyne, Tyne & Wear, United Kingdom, p.A4974


409 Epigenetic Upregulation of KCNMB1 and BK Channel Activity in Systemic Sclerosis-Related Interstitial Lung Disease/A. Scruggs, E. Tsou, J. Varga, S. Huang, Ann Arbor, MI, p.A4981

410 A CD44/Brg1/PRMT5 Nuclear Complex Epigenetically Represses the RBL1 Tumor Suppressor Gene Promoting IPF Mesenchymal Progenitor Cell Self Renewal/A. Jbeli, L. Yang, H. Xia, P.B. Bitterman, C.A. Henke, Minneapolis, MN, p.A4982

411 Epigenetic Regulation by O-GlcNAc Alters Anti-Fibrotic Gene Expression in IPF Fibroblasts/Q. Wu, J. Zhou, E.S. Helton, S. Vang, J.W. Barnes, Y.Y. Sanders, Birmingham, AL, p.A4983


416 Non-Fibrotic Central Lung Gene Expressions Associate with Myofibroblasts Activity in Idiopathic Pulmonary Fibrosis/Y. Huang, R. Guzy, S.F. Ma, J. Kim, C. Bonham, C.M. Hogaboam, A.I. Sperling, I. Noth, Charlottesville, VA, p.A4988


423 Construction and Validation of the Prognostic Value of Lipid Related Microenvironment Gene Signature in Idiopathic Pulmonary Fibrosis/J. Yang, Z. Li, Xinxiang, China, p.A5792
C110 BRIDGING THE GAPS: SLEEP, NIV, PULMONARY DISEASE, AND COMORBIDITIES

2:15 p.m. - 3:45 p.m. MOSCONEN CENTER
Room 202/2024 (West Building, Level 2)
Poster Viewing 2:15-2:45
Discussion 2:45-3:45
Chairing:
H. Schotland, MD, ATSF, New York, NY
J. Jun, MD, Baltimore, MD
R. Schwab, MD, Philadelphia, PA


806 Respiratory Arousal Threshold Among Patients with Isolated Sleep Apnea and with Comorbid Insomnia (COMISA)/M. Yanagimori, M.D. Fernandes, M.L. Garcia, P.G. Scudeller, C.R.R. Carvalho, G. Lorenzi-Filho, P. Genta, Sao Paulo, Brazil, p.A4999


808 Fatigue in People Living with HIV and Relationship with Sleep Duration, Sleep Timing, and Sleep Disordered Breathing/J. Velazquez, J.E. Orr, C.N. Schmickl, R. Brena, N.-O.A. Bosompfa, P.N. DeYoung, A. Malhotra, M. Karris, S. Ancoli-Israel, R.L. Owens, La Jolla, CA, p.A5001


813 Duration of Intermittent Hypoxia Impacts Metabolic Outcomes and Severity of Murine NAFLD/L. Barnes, A. Sanchez Azofra, E.A. Moya, M. Zhang, A. Malhotra, O.A. Mesarwi, La Jolla, CA, p.A5006

MEET THE EXPERTS
CME Credits Available: 1

Pre-registration and additional fees required. Attendance is limited.
Member: $100  LMIC Member: $70.

7:00 a.m. - 8:00 a.m. MOSCON CENTER

ME43 DIAGNOSTIC EVALUATION OF ILD PATIENTS
S. Sood, MD, MS, Philadelphia, PA
Room 52/54/56 (South Building, Lower Mezzanine)

ME44 SLEEP DISORDERED BREATHING IN HEART FAILURE:
PROPER DIAGNOSIS AND TREATMENT
W. Healy, MD, Augusta, GA
Room 58/60 (South Building, Lower Mezzanine)

ME45 MALIGNANT PLEURAL DISEASES: TRANSLATIONAL
RESEARCH TO CLINICAL MANAGEMENT
W. Hadid, MD, Augusta, GA
G. Stella, MD, PhD, Pavia, Italy
S. Islam, MD, Augusta, GA
Room 70/72 (South Building, Lower Mezzanine)

ME46 BRONCHIECTASIS: UPDATE ON GUIDELINES
AND NEW THERAPEUTICS
A.E. O'Donnell, MD, WASHINGTON, DC
G. Tino, MD, ATSF, Philadelphia, PA
Room 74/76 (South Building, Lower Mezzanine)

10:00 a.m. - 11:00 a.m. MOSCON CENTER

ME47 MANAGEMENT OF NON-CF BRONCHIECTASIS:
TARGETING INFLAMMATION AND INFECTION
C.M. Bojanowski, MD, New Orleans, LA
Room 50/62 (South Building, Lower Mezzanine)

ME48 PATIENT SELECTION FOR BRONCHOSCOPIC LUNG
VOLUME REDUCTION FOR EMPHYSEMA
D.-J. Slebos, MD, PhD, Professor, Groningen, Netherlands
Room 52/54/56 (South Building, Lower Mezzanine)

ME49 SLEEP HEALTH: A NEW FRONTIER OF HARM
FROM AIR POLLUTION
S. Bose, MD, MPH, New York, NY
Room 58/60 (South Building, Lower Mezzanine)

ME50 ASSESSING RV FUNCTION USING PRESSURE-VOLUME
LOOPS: PRECLINICAL AND CLINICAL APPROACHES
R.R. Vanderpool, PhD, Tucson, AZ
K. Tello, MD, Giessen, Germany
A.L. Frump, MS, PhD, Indianapolis, IN
J.M. Elinoff, MD, Bethesda, MD
Room 70/72 (South Building, Lower Mezzanine)

ME51 INTERSTITIAL LUNG DISEASE RADIOLOGY:
INTERPRETING IMAGES TO NARROW YOUR
DIFFERENTIAL DIAGNOSIS
S. Dua, MBBS, ATSF, New York, NY
Room 74/76 (South Building, Lower Mezzanine)

11:30 a.m. - 12:30 p.m. MOSCON CENTER

ME52 MYOSITIS-ASSOCIATED ILD: MANAGING DIAGNOSTIC
AND TREATMENT CHALLENGES
R. Hallowell, MD, Boston, MA
Room 50/62 (South Building, Lower Mezzanine)

ME53 IMMUNE CHECKPOINT INHIBITION IN LUNG CANCER
PATIENTS CARRYING COVID-19-RELATED FIBROSIS
G. Stella, MD, PhD, Pavia, Italy
Room 52/54/56 (South Building, Lower Mezzanine)

ME54 INCREASING COMPLEXITY OF LUNG TRANSPLANT
CANDIDATES: FROM ADVANCED AGE TO BRIDGE
FROM ECMO
L. Zaffiri, MD, PhD, Durham, NC
Room 58/60 (South Building, Lower Mezzanine)

ME55 DRUG-INDUCED SARCOIDOSIS
A.S. Morgenthau, MD, New York, NY
Room 70/72 (South Building, Lower Mezzanine)

ME56 PREHOSPITAL ANTIBIOTICS FOR SEPSIS: EVIDENCE,
CHALLENGES, AND RISKS
C. Polito, MD, MSc, Toronto, Canada
D.C. Scales, MD, PhD, Toronto, Canada
Room 74/76 (South Building, Lower Mezzanine)
D1 CLINICAL YEAR IN REVIEW 4
8:15 a.m. - 9:45 a.m. MOSCONE CENTER
Hall E (North Building, Exhibition Level)

Target Audience
Pulmonary, critical care and sleep providers. The program will discuss general topics of interest to a broad group of providers, inside and outside of these subspecialties. The program is relevant to not only clinicians, but also to researchers and administrators.

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.

Clinical Year in Review sessions will 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.

Chairing:
J.L. Gomez, MS, MD, ATSF, New Haven, CT
R.J. Shah, MD, MSCE, San Francisco, CA
J.C. Ferreira, MD, PhD, Sao Paulo, Brazil

8:15 Post-ICU Syndromes/Long COVID
K.J. Haines, PhD, BHS, Melbourne, Australia

8:37 Medical Education
S.M. Kassutto, MD, Philadelphia, PA

9:00 Interventional Pulmonology
J. C. Cicenia, MD, Cleveland, OH

9:22 ARDS
K.S. Mathews, MD, MPH, MSCR, New York, NY

D2 NOVEL INSIGHTS IN ALPHA-1 ANTITRYPSIN DEFICIENCY

Assemblies on Clinical Problems; Respiratory Cell and Molecular Biology
8:15 a.m. - 9:45 a.m. MOSCONE CENTER
Room 7-8 (South Building, Exhibition Level)

Target Audience
clinicians and researchers

Objectives
At the conclusion of this session, the participant will be able to:
• describe new insights into alpha-1 antitrypsin deficiency pathogenesis;
• more appropriately diagnose and manage AATD to improve quality of life or health of the patient;
• define new strategies to treat alpha-1 antitrypsin deficiency.

Alpha-1 antitrypsin deficiency is a genetic condition that results in both a toxic gain-of-function hepatic insult as well as a loss-of-function defect leading to chronic lung disease. This forum will report on new insights into mechanisms of disease pathogenesis, explore new biological and imaging-based biomarkers of disease, detail new therapeutic areas, highlight unique sub-phenotypes, and provide guidance on management of pulmonary and hepatic sequelae of AATD.

Chairing:
J.M. Wells, MD, MSPH, Birmingham, AL
C.H. Wendt, MD, ATSF, Minneapolis, MN
M.P. Goldklang, MD, New York, NY

8:15 Patient Perspective: What I’d Like to Know about Alpha-1
J. Hagstrom, B.S., Westchester County, NY

8:20 Proteolysis Meets Cellular Senescence in Alpha-1 with Accelerated LungDecline
K.A. Serban, MD, Denver, CO

8:40 The Diversity of Pathogenic SERPINA1 Variants and the Influence of Genotype
V.E. Ortega, MD, PhD, ATSF, Scottsdale, AZ

8:53 Modeling ZAAT-Driven Gain-of-Function Toxicity in MZ Heterozygous and ZZ Homozygous Patient iPSC Derivatives
J. Kaserman, MD, Boston, MA

9:06 Advances in Biomarkers: From Blood to Imaging
M.P. Goldklang, MD, New York, NY
D3 CONUNDRUMS IN CTD-ILD
Assemblies on Clinical Problems; Allergy, Immunology and Inflammation
8:15 a.m. - 9:45 a.m.  MOSCONE CENTER
Room 3-4 (South Building, Exhibition Level)

Target Audience
Clinicians caring for patients with CTD-ILD and clinical researchers interested in advancing the field

Objectives
At the conclusion of this session, the participant will be able to:
• gain better understanding of the indications for screening HRCTs in subjects with CTD at risk for ILD;
• understand the role of the anti-fibrotics and anti-inflammatories in the management of CTD-ILD and integrate information into the treatment of these patients;
• recognize and learn the benefits and hurdles to the implementation of multi-center randomized clinical trials in CTD-ILD.

This session will address some of the common conundrums and debates that exist in the field of CTD-ILD by clinicians and will shed light on these critical issues to help clinicians better care for patients suffering from CTD-ILD.

Chairing:  J. Solomon, BS, MD, Denver, CO  
            L. Kawano-Dourado, MD, Sao Paulo, Brazil

8:15 The Emerging Field of CTD-ILD  
J. Solomon, BS, MD, Denver, CO

8:20 A Patient’s Perspective  
S. Okuno, San Diego, CA

8:25 Screening in CTD-ILD: When and For Whom  
L. Kawano-Dourado, MD, Sao Paulo, Brazil

8:41 CTD-ILD: Do I Need to Biopsy?  
A.O. Adegunsoye, MD, MS, Chicago, IL

8:57 Antifibrotics vs Immunosuppression in CTD-ILD  
K.A.M. Johannson, MD, MPH, ATSF, Calgary, Canada

9:13 CTD-ILD During COVID-19: Management and Vaccination  
P.M. George, MBBS, BSc, PhD, FRCP, London, United Kingdom

D4 BEDSIDE TO WEBSIDE: ICU TELEMEDICINE MEETING THE DEMANDS OF THE CHANGING TIMES
Assemblies on Critical Care; Behavioral and Health Services Research; Nursing
8:15 a.m. - 9:45 a.m.  MOSCONE CENTER
Room 3020/3022/3024 (West Building, Level 3)

Target Audience
Physicians, nurses and allied health professionals in all stages of their careers who care for critically ill patients. The topics are also appropriate for researchers in critical care and health services research

Objectives
At the conclusion of this session, the participant will be able to:
• understand the evolution to current state of ICU telemedicine including its use during the COVID-19 pandemic;
• recognize the controversy surrounding effectiveness of ICU telemedicine;
• discuss metrics for success and sustainability of ICU telemedicine and future directions.

ICU telemedicine is an innovation that seeks to improve access to quality critical care and mitigate the intensivist shortage that has become most apparent during the COVID-19 pandemic. Hospitals of all sizes and scopes have come to adopt ICU telemedicine over the last decade. More recently, the predictions of ICU telemedicine growth in the post-pandemic world is expected to rise at a rate of 20% annually from 2020-2026. The goal of this session is to provide attendees of the international conference a multi-faceted understanding of ICU telemedicine. After attending this session, participants will be better equipped to objectively evaluate if ICU telemedicine is a feasible and appropriate solution for their individual hospital or hospital system and be well informed regarding knowledge gaps in the field.

Chairing:  N.R. Nadig, MD, MSci, ATSF, Chicago, IL  
            D.W. Ford, MD, Charleston, SC  
            T.G. Buchman, MD, PhD, Atlanta, GA

8:15 Welcome and Introductions  
D.W. Ford, MD, Charleston, SC
8:20 Evolution and Effectiveness of ICU Telemedicine and Its Use During the COVID-19 Pandemic
T. Buchman, MD, PhD, Atlanta, GA

8:30 ICU Telemedicine and Healthcare Disparities
N.R. Nadig, MD, MSci, ATSF, Chicago, IL

8:40 The Multidisciplinary Aspects of ICU Telemedicine and Impact on Education
R. Levine, MD, Miami, FL

8:50 Strategies for Successful ICU Telemedicine Implementation and Future Research Needs
K.C. Vranas, MD, Portland, OR

9:00 Return on Investment From ICU Telemedicine and Sustainability
I. Kopec, MD, St. Louis, MO

9:10 Can Palliative Care Be Provided via ICU Telemedicine?
M.D. Silva, MD, New York, NY

9:20 The Future of ICU Telemedicine
D.W. Ford, MD, Charleston, SC

9:30 Panel Discussion/Questions and Answers
N.R. Nadig, MD, MSci, ATSF, Chicago, IL

THE IMPACT OF FLAVORED NICOTINE PRODUCTS: BIOLOGY, BEHAVIOR AND THE “BAN”

Assemblies on Behavioral and Health Services Research; Environmental, Occupational and Population Health; Thoracic Oncology; Tobacco Action Committee

8:15 a.m. - 9:45 a.m.
MOSCON CENTER Room 2014/2016 (West Building, Level 2)

Target Audience
Physicians, nurses, trainees, all healthcare professionals, policymakers, public health officials

Objectives
At the conclusion of this session, the participant will be able to:
• understand the role flavored tobacco products have in increasing product uptake and use and in increasing tobacco-related health disparities;
• understand how flavorings directly contribute to the toxic effects of tobacco products, including susceptibility to infection;
• gain insight into the new FDA policy banning flavored tobacco products.

Tobacco dependence continues to be the greatest preventable risk factor for many morbidities, contributing to both the etiology of and worsening of many illnesses. Product flavorings have contributed significantly to tobacco-related health disparities and youth uptake of vaping. This session will discuss the scientific data underlying the restrictions on tobacco product flavoring including implications for personal health and smoking/vaping behavior. The session will conclude with an update from the Director of the FDA Center for Tobacco Products about the new legislation and expected benefits for health.

Chairing: M. Eakin, PhD, Baltimore, MD
I. Jaspers, PhD, Chapel Hill, NC

8:15 Biologic Effects of Flavorings: E-Cigs and Mentholated Tobacco
E. Omaiye, BS, Riverside, CA

8:30 Emissions From Novel Electronic Nicotine Delivery Systems and Vulnerability to Airway Infection
J.M. Grigg, MD, London, United Kingdom

8:45 Racial Disparities in Tobacco-Related Diseases: The Role of Menthol
E.R. Neptune, MD, ATSF, Baltimore, MD

9:00 Effects of Flavoring on Tobacco Product Use and Uptake: Implications for Local Policy
D.J. Upson, MD, MA, ATSF, Albuquerque, NM

9:15 FDA Perspective on Flavored Tobacco Products
P. Callahan-Lyon, MD, Spring, MD

9:30 Discussion

OBESITY-RELATED ASTHMA: TRANSLATING INTO THE CLINIC

Assemblies on Allergy, Immunology and Inflammation; Clinical Problems; Environmental, Occupational and Population Health; Pediatrics; Respiratory Structure and Function; Section on Genetics and Genomics

8:15 a.m. - 9:45 a.m.
MOSCON CENTER Room 3006/3008 (West Building, Level 3)

Target Audience
Primary care providers and pulmonary specialists taking care of children and adults with asthma. Basic, translational, and clinical scientists whose research focuses on improving our understanding of obese asthma or the management of this phenotype

Objectives
At the conclusion of this session, the participant will be able to:
• better understand the heterogeneity of obese asthma, including subphenotypes and endotypes related to atopy, systemic inflammation, and metabolic dysregulation; and their impact on asthma management;
• describe and highlight the importance of lifestyle modifications, medical, and surgical weight loss in the management of patients with asthma and obesity;
• discuss new developments in the management of obesity-related asthma and gaps in knowledge to be addressed by ongoing and future research.

Obesity is associated with increased asthma risk and morbidity. In this session, we will review some of the underlying mechanisms of obese asthma, and the importance of recognizing that this complex phenotype is comprised of different sub-phenotypes and endotypes. We will then examine different approaches for the management of patients with obesity and asthma, including lifestyle changes, medical and surgical weight loss, and novel pharmacological approaches. Finally, we will discuss knowledge gaps and future directions in the field.

Chairing: E. Forno, MD, MPH, ATSF, Pittsburgh, PA
A.E. Dixon, MA, BM BCH, ATSF, Burlington, VT

8:15 Introduction
A.E. Dixon, MA, BM BCH, ATSF, Burlington, VT

8:20 Lifestyle Interventions, Medical and Surgical Weight Loss in Patients With Obesity and Asthma
J. Ma, MD, PhD, Chicago, IL

8:32 Questions

8:36 Genomics and Metabolomics of Obesity-Related Asthma
E. Forno, MD, MPH, ATSF, Pittsburgh, PA

8:48 Questions

8:52 Endotyping and Phenotyping to Improve Our Understanding and Management of Obese Asthma
D. Rastogi, MBBS, MS, ATSF, Washington, DC

9:04 Questions

9:08 Endotyping and Phenotyping to Improve Our Understanding and Management of Obese Asthma
D. Rastogi, MBBS, MS, ATSF, Washington, DC

9:20 Questions

9:24 Gaps and Future Clinical Research Directions for Obesity-Related Asthma
F. Holguin, MD, MPH, Aurora, CO

9:36 Questions

9:40 Conclusions
E. Forno, MD, MPH, ATSF, Pittsburgh, PA

This session and the International Conference are supported by an independent medical educational grant from Genentech, Inc.

D7 DIAGNOSING PEDIATRIC OBSTRUCTIVE SLEEP APNEA: CURRENT CONTROVERSIES AND OPPORTUNITIES

Assemblies on Pediatrics; Sleep and Respiratory Neurobiology
8:15 a.m. - 9:45 a.m. MOSCONE CENTER
Room 2002/2004 (West Building, Level 2)

Target Audience
Providers of sleep disorders, respiratory disorders; providers of care for children; administrators overseeing provision of diagnostic services for sleep disorders

Objectives
At the conclusion of this session, the participant will be able to:
• gain knowledge on the benefits and limitations of current diagnostic testing, including issues of access, to decision making for the investigation of pediatric obstructive sleep apnea;
• recognize differences in the pathophysiological mechanism and clinical presentation to better diagnose obstructive sleep apnea in children;
• integrate the role of new technology and digital approaches to diagnostic testing, including consideration of global health and health equity, for children with obstructive sleep apnea.

For children with suspected obstructive sleep apnea (OSA), in-laboratory polysomnography is the standard for the diagnosis of OSA. Advances in physiological monitoring technology and analytic methods, including artificial intelligence, provide options for novel diagnostic modalities. These advances, combined with recognition that pediatric OSA has multiple causes and presentations, mean that personalized approaches are possible. In this symposium, we will explore the benefits and limitations of current methods of identifying OSA and examine novel technology and analytic methods. We will explore how current and novel strategies impact global health and health equity and can shape the future for children with OSA.

Chairing: J.E. Maclean, BSc(Hons), MD, PhD, Edmonton, Canada
R. Amin, MD, Toronto, Canada

8:15 Introduction to the Session
R. Amin, MD, Toronto, Canada

8:25 Identifying Obstructive Sleep Apnea in Infants: What We Know Now and the 2030 Plan
Z. Ehsan, MD, Kansas City, MO
8:45 Exploring Phenotypes and Endotypes of Pediatric Obstructive Sleep Apnea: What It Means, Why It Matters
J.E. Maclean, BSc(Hons), MD, PhD, Edmonton, Canada

9:05 Artificial Intelligence Applied to the Pediatric Sleep Laboratory
A. Bandyopadhyay, MD, Indianapolis, IN

9:25 Moving Diagnostic Testing Outside the Pediatric Sleep Laboratory With the Help of New Technology and Artificial Intelligence
G.R. Nino, MD, Washington, DC

D8 SICK BY ASSOCIATION: THE PULMONARY VASCULAR STRUCTURE IN CHRONIC LUNG DISEASES

Assemblies on Pulmonary Circulation; Respiratory Cell and Molecular Biology
8:15 a.m. - 9:45 a.m. MOSCONE CENTER Room 3000/3002/3004 (West Building, Level 3)

Target Audience
Pulmonologists treating ILD and COPD, clinicians treating pulmonary hypertension, researchers in COPD, ILD and pulmonary vascular disease world

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

• understand the complex interaction between chronic lung diseases, such as COPD/emphysema and interstitial lung disease, and the pulmonary vascular structure and cell function;
• integrate pathobiology, imaging and clinical parameters for a comprehensive understanding of the pulmonary vascular changes in chronic lung diseases;
• understand the evidence and ongoing clinical investigations in clinical assessment and treatment of pulmonary hypertension associated with ILD and COPD.

In this session we explore the latest in the both the scientific understanding of the development of pulmonary hypertension in COPD and fibrotic lung disease as well as the ongoing advances and challenges in the diagnosis and treatment of pulmonary hypertension associated with COPD and ILD. Historic and recent clinical trials, as well as ongoing efforts will be discussed.

Chairing:
L. Farkas, MD, Columbus, OH
O.A. Shlobin, MD, Falls Church, VA
F.N. Rahaghi, MD, PhD, Boston, MA

8:15 Patient Perspective

8:20 Molecular Mechanisms of Vascular Remodeling in Fibrotic Lung Disease
M. Eghbali, PhD, Los Angeles, CA

8:35 Mechanisms of Vascular Remodeling in COPD and Emphysema
I. Petrache, MD, ATS, Denver, CO

8:50 Should We Treat Pulmonary Hypertension in the Setting of COPD?
J.A. Barbera, MD, Barcelona, Spain

9:05 Update in the Treatment of Pulmonary Hypertension Associated with Interstitial Lung Disease
L. Piccari, MD, Barcelona, Spain

9:20 Clinical Trial Design and End Points in Pulmonary Hypertension Associated with Lung Disease
I.R. Preston, MD, Boston, MA

9:35 Panel Discussion
L. Farkas, MD, Columbus, OH

This session and the International Conference are supported by independent medical educational grants from Actelion Pharmaceuticals US, Inc., a Janssen Pharmaceutical Company of Johnson & Johnson, Boehringer Ingelheim Pharmaceuticals, Inc., Genentech, Inc.

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D9 PRECISION CUT LUNG SLICES: USE AND APPLICATIONS OF AN EX VIVO TECHNIQUE FOR PULMONARY RESEARCH

Assemblies on Respiratory Structure and Function; Respiratory Cell and Molecular Biology
8:15 a.m. - 9:45 a.m. MOSCONE CENTER Room 2010/2012 (West Building, Level 2)

Target Audience
Basic Researchers, Translational Researchers, Clinician Scientists

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

• integrate the PCLS method into pulmonary research for diverse applications, thus a broadening of research spectra is achieved;
• better translate basic research results, especially with regards to the use of human PCLS for pulmonary research;
learn and understand the 3R advantages of PCLS and consider the model as alternative to in vivo experimentation.

The ex vivo technique Precision Cut Lung Slices (PCLS) is a versatile method that allows direct translation of results between animals and humans as well as analysis of various unique endpoints. Thus, PCLS can serve as an approach for validation and a tool for extrapolation to the clinic. In this scientific session, renowned speakers from industry, academia and government will cover the wide array of PCLS applications for pulmonary research.

Chairing: J. Herbert, DVM, PhD, Piscataway, NJ
C. Koziol-White, PhD, New Brunswick, NJ

8:15 Human Precision-Cut Lung Slices: A Potential Model for Detecting Respiratory Sensitization
H. Behrsing, BA, PhD, Gaithersburg, MD

8:30 Using PCLS as a Model to Study Contraction and Relaxation of the Airways
C. Koziol-White, PhD, New Brunswick, NJ

8:45 Translational Benefits of Precision Cut Lung Slices for Chronic Lung Pathologic Processes and Drug Discovery
M. Koenigshoff, MD, PhD, ATSF, Pittsburgh, PA

9:00 Cold Storage of Rat Precision Cut Lung Slices: Applicability in Biomedical Research
T. Wille, Lieutenant-Colonel, MD, PhD, Munich, Germany

9:15 Toxicity of Menthol Containing E-Cigarette Condensates in Precision Cut Lung Slices
J. Herbert, DVM, PhD, Piscataway, NJ

9:30 Pulmonary Hypertension: Vascular Pathophysiological Changes in PCLS
C. Martin, PhD, Aachen, North Rhine-Westphalia, Germany
D11 NON-COVID-19 HEALTH IMPACTS OF THE PANDEMIC: APPLYING LESSONS TO IMPROVE RESPIRATORY HEALTH

Assemblies on Behavioral and Health Services Research; Nursing
8:15 a.m. - 9:45 a.m. MOSCONE CENTER Room 3001/3003 (West Building, Level 3)

Target Audience
All providers of pulmonary, critical care, and sleep medicine, nursing staff, health system administrators, epidemiologists, and other clinical scientists

Objectives
At the conclusion of this session, the participant will be able to:
- describe the impacts of COVID-19 on lung cancer care and lung cancer screening including methods of increasing access amidst a pivot to virtual care;
- define the impact of the pandemic on pediatric and adult outcomes for obstructive lung diseases discuss and ways this information can be applied post-pandemic;
- identify potential equity concerns related to rapid dissemination of technology-based interventions during the COVID-19 pandemic and opportunities to avoid these factors in future intervention implementation.

The direct health effects of COVID-19 have been widely reported, but the pandemic also had wide-ranging impacts on health care access and health outcomes across numerous non-covid health conditions. The impacts of changes in access to health care and health behaviors, such as mask wearing, led to unexpected outcomes—some good and some bad. This session will examine the impacts of COVID-19 on key respiratory health outcomes and examine the underlying causes. Sessions will focus on lessons learned that can support future improvements in pulmonary and critical care, and ways care can be adapted to increase access to care in the future. A particular focus will be placed on the role of the pandemic in widening technology-related health disparities and how health systems can best close these gaps.

Chairing:
A.C. Melzer, MD, MS, Minneapolis, MN
A. Volerman, MD, Chicago, IL
A.J. Admon, MD, MPH, MSc, Ann Arbor, MI

8:15 Innovating to Minimize COVID-19 Impacts on Lung Cancer Screening and Outcomes
L.M. Henderson, PhD, Chapel Hill, NC

8:29 Applying Lessons from the Pandemic to Improve Pediatric Asthma Care
S. Lovinsky-Desir, MD, MS, New York, NY

8:43 COPD and Asthma Care in a Pandemic: The Good, the Bad and the Unexpected
N.J. Greening, MBBS, PhD, MRCP(UK), BMedSci, Leicester, United Kingdom

8:57 Equity Concerns Related to Rapid Dissemination of Technology-Based Interventions: Lessons Learned From the COVID-19 Pandemic
V.G. Press, MD, MPH, ATSF, Chicago, IL

9:11 COVID-19 Impacts on Palliative and End of Life Care
D.M. Donesky, PhD, ANP-BC, ATSF, Napa, CA

9:25 Discussion: Q&A
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9:05 Innate Lymphoid Cells Populations in Prednisone Dependent Severe Asthmatics with Differential Inflammatory Profiles in Sputum - Evidence for In Situ Cell Plasticity/X.N. Ju, A. Bhalla, K. Radford, M. Mukherjee, P. Nair, R. Sehmi, Hamilton, Canada, p.A5012


8:25 Initiation with Inhaled Long-Acting Anti-Muscarinic Agent (LAMA) Is Associated with Lower Medical Cost and HCRU Compared to Combination of Inhaled Corticosteroid and Long-Acting Beta-Agonists (ICS/LABA) in Patients with Chronic Obstructive Pulmonary Disease/H.I. Kim, C.K. Rheem, K.H. Yoo, Y. Kim, Y.B. Park, S. Lee, D. Lee, Y.I. Hwang, Anyang-si, Korea, Republic of, p.A5017

8:35 Resource Use, Costs and Clinical Outcomes Among COPD Patients Initiated on Tiotropium/Olodaterol or Fluticasone Furoate/Umeclidinium/Vilanterol Based on Exacerbation History/S. Sethi, B. Clark, L. Bengtson, E. Buysman, S. Pali, A. Sargent, A. Shaik, G.T. Ferguson, Buffalo, NY, p.A5018

8:45 Annual Inhaled Corticosteroid, Short-Acting Beta2-Agonist and Systemic Corticosteroid Exposure in Adolescents and Adults with Asthma in the United States/N.L. Lugogo, J.A. Gilbert, M. Pollack, H. Gandhi, J. Tkaczyk, M.J. Lanz, Ann Arbor, MI, p.A5019


D14 EMERGING PREDICTORS OF COPD OUTCOMES

8:15 a.m. - 9:45 a.m. MOSCONE CENTER

Chairing: G.R. Washko, MD, Boston, MA
W.W. Labaki, MD, MS, Ann Arbor, MI
L.M. Paulin, MD, MHS, Lebanon, NH

Featured Speaker

8:15 Imaging for Subtyping and the Assessment of Disease Activity/G.R. Washko, Boston, MA

Oral Presentations:


9:05 Harnessing the Proteome in COPD to Identify Individuals Vulnerable to Frequent Exacerbations/S. Sethi, M. Morris, S. Richman, X. Zhu, S. Shen, S. Qian, M.J. Mammen, J. Qu, G. Broderick, Buffalo, NY, p.A5028


D15 GOOD, BETTER, BEST CARE: WHAT CAN WE?

8:15 a.m. - 9:45 a.m. MOSCONE CENTER

Chairing: C. Polito, MD, MSc, Atlanta, GA
M.P. Kerlin, MD, MS, Philadelphia, PA

Featured Speaker

8:15 New Insights in Critical Care: From the Bench to the Bedside/E.M. Viglianti, Ann Arbor, MI

Oral Presentations:


D16  WILDFIRES AND WOODSMOKE

8:15 a.m. - 9:45 a.m.  MOSCONCE CENTER

Room 201-202 (South Building, Level 2)

Chairing:  T.K. Takaro, MD, MPH, MS, Burnaby, Canada
K. Gowdy, BS, MS, PhD, Columbus, OH

Featured Speaker:


Oral Presentations:


8:35  Wood Smoke Exposure, Health-Related Quality of Life, and All-Cause Mortality: An Epidemiological Study in a Southwestern US Population/S. Bayliss, A. Sood, P.M. Meek, M. Unruh, S. Belinsky, S. Leng, Albuquerque, NM, p.A5041

8:45  Early-Life Exposure to Wildfire Smoke Results in Dysregulated Pulmonary Immune Responses in Rhesus Macaques/D. You, J.A. Bassein, A. Rindy, L.A. Miller, Davis, CA, p.A5042

8:55  Sugars as Wood Smoke Constituents Induce Mucin Gene Expression/D.D. Tassew, J. McDonald, Y. Tesfaigzi, Boston, MA, p.A5043


D17  TOP KNOWLEDGE IN COVID

8:15 a.m. - 9:45 a.m.  MOSCONCE CENTER

Room 2018/2020 (West Building, Level 2)

Chairing:  C. Dela Cruz, MD, PhD, ATSF, New Haven, CT
J.K. Kolls, MD, New Orleans, LA

Oral Presentations:


8:55 COVID19-Related Non-Pharmacologic Interventions Are Associated with Reductions in Hospitalizations for Respiratory Conditions but Not Other Acute Illnesses/R.A. Khanolkar, S. Krawchuk, M.A. Pauls, E. Lang, Calgary, Canada, p.A5052


9:35 COVID-19 Case-Fatality Rate Is Associated with State Health Disparity in the United States/Y.-C. Lee, K.-Y. Chang, M. Mirsaeidi, Buffalo, NY, p.A5056

BASIC • TRANSLATIONAL
MINI SYMPOSIUM
D18 NEW INSIGHTS IN FIBROBLAST BIOLOGY AND PULMONARY FIBROSIS
8:15 a.m. - 9:45 a.m. MOSCONE CENTER
Room 215-216 (South Building, Level 2)

Chairing: J.C. Horowitz, MD, ATSF, Columbus, OH
P.J. Sime, MD, FRCP, ATSF, Richmond, VA
M. Podolsky, MD, New York, NY
B.D. Southern, MD, Cleveland, OH
S.B. Montesi, MD, Boston, MA

Oral Presentations:


9:05 Lactate Transport Inhibition Therapeutically Reprograms Fibroblast Metabolism in Experimental Pulmonary Fibrosis/D.R. Ziehr, K.J. Leahy, J. Varon, R.M. Baron, E. Kim, R.S. Knipe, W.M. Oldham, Boston, MA, p.A5062


BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

MINI SYMPOSIUM

D19 HOT TOPICS IN SLEEP APNEA TREATMENT: NEW TARGETS, NEW TRIALS, AND PAP RECALL

8:15 a.m. - 9:45 a.m. MOSCON CENTER Room 2006/2008 (West Building, Level 2)

Chairing: S.R. Patel, MD, MS, ATSf, Pittsburgh, PA
B.E. Cade, PhD, Boston, MA

Oral Presentations:

8:15 Impact of Ramelteon and Delirium on Objective Sleep and Circadian Rhythm Measurements in the ICU/R.L. Owens, S. Bagas, E. Takata, S. Ancoli-Israel, S. Jaiswal, La Jolla, CA, p.A5065

8:25 Trajectories of Residual Apnea-Hypopnea Index Associated with Mask Changes in Continuous Positive Airway Pressure-Treated Obstructive Sleep Apnea Patients/A. Midelet, Grenoble, France, p.A5066


Featured Speaker:

9:35 Early Cognitive Decline and Dementia: A New Target for Sleep Apnea Therapy/C.M. Hoyos, Glebe, Australia

CLINICAL • TRANSLATIONAL

MINI SYMPOSIUM

D20 NOT YOUR GRANDFATHER’S CT SCAN: RADIOMICS AND DEEP MACHINE LEARNING FOR PULMONARY NODULES AND LUNG CANCER EVALUATION

8:15 a.m. - 9:45 a.m. MOSCON CENTER Room 205-206 (South Building, Level 2)

Chairing: F. Maldonado, MD, Brentwood, TN
M.I. Fukunaga, MD, MSci, Worcester, MA
J.A. Barta, MD, ATSF, Philadelphia, PA

Oral Presentations:


8:35 Lung Volume at Diagnosis and Overall Survival in Non-Small Cell Lung Cancer Patients/T. Zhai, D.C. Christiani, Boston, MA, p.A5075


506  Association Between Income and Likelihood of Right Heart Catheterization in Patients with a Diagnosis of Pulmonary Hypertension/E. Schikowski, G. Swabe, S.Y. Chan, J.W. Magnani, Pittsburgh, PA, p.A5086


508  Correlation of Inpatient and Outpatient Sleep Studies to Determine Risk of Sleep Disordered Breathing/V. Badami, E. Rojas, S.F.Z. Naqvi, S. Aryal, J. Easterling, R. Stansbury, S. Sharma, Morgantown, WV, p.A5088

509  Arterial Stiffness in Patients with OSAS and Its Possible Role in the Development of Comorbidities Associated with It/A. Abdelaziz, E.A. Abdelghany, R. Adel, M. Higazi, A. Kasem, Minia, Egypt, p.A5089


518 Impact of the COVID-19 Pandemic on Exacerbation Rates in Patients with Asthma and/or Chronic Obstructive Pulmonary Disease in the NOVELTY Study/H. Muellerova, R. Hughes, B. Fenby, C. Keen Fredriksson, G. de Miquel, C. Emmas, E. Rapsomaniki, C. Erhardt, H. Reddel, A. Papi, Cambridge, United Kingdom, p.A5098


520 Disease Complexity and Prevalence of Comorbidities Among Adults with COPD in the United States/M. Barrett, V. Vuong, E. Boers, A. Cameron, L. Kaye, C. Woodford, C.M. Nurse, K.L. Sterling, San Diego, CA, p.A5100


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CLINICAL

POSTER DISCUSSION SESSION

D22 ADDRESSING HEALTH DISPARITIES IN LUNG DISEASE

8:15 a.m. - 9:45 a.m. MOSCONE CENTER Room 207-208 (South Building, Level 2)

Poster Viewing 8:15-8:45
Discussion 8:45-9:45

Chairing: N.N. Hansel, MD, MPH, Baltimore, MD
D.H. Au, MD, MS, ATSF, Seattle, WA
A.K. Baldomero, MD, MS, Minneapolis, MN


307 Association Between Income and Pulmonary Complications in Long-Term Survivors of Blood or Marrow Transplantation (BMT) in the BMT Survivor Study (BMTSS)/T. Parekh, Y.-I. Kim, R. Ramachandran, M.T. Dransfield, S. Bhatia, Birmingham, AL, p.A5111

308 The Effect of Socioeconomic Inequality on Morbidity Among Adult Bronchiectasis Patients in NHS Greater Glasgow and Clyde/E. Johnson, E. McCully, C. Fugaccia, D. Anderson, D. Whitters, Glasgow, United Kingdom, p.A5112

309 Effect of Socioeconomic Status on Tuberculosis Care and Diagnosis in Uganda During the COVID19 Pandemic/M. Helwig, I. Sekitoleko, M. Bbuye, T. Siddharthan, P.D. Jackson, S. Zawedde Muyanja, Richmond, VA, p.A5113


D23 NOT THE USUAL SUSPECTS: CASE REPORTS IN RARE LUNG DISEASE

8:15 a.m. - 9:45 a.m. MOSCONE CENTER

Poster Viewing 8:15-8:45
Discussion 8:45-9:45

Chairing: T.J. Huie, MD, Denver, CO, C.A. Merlo, MD, MPH, Baltimore, MD

101 Chylous Diarrhea as Primary Symptom of Lymphangioleiomyomatosis Successfully Treated with Sirolimus/M. Arif, D. Buenaventura, D. Razia, S. Tokman, Phoenix, AZ, p.A5121

102 Triple Threat; JRA, LAM & PAH/S.S. Aleem, S. Aryal, Roanoke, VA, p.A5122

103 Sporadic Lymphangioleiomyomatosis Without a TSC1 or TSC2 Mutation/J.L. Sun, L. Chen, C. Wisecup, A. Ghazi, S. Mathai, M. Millard, Dallas, TX, p.A5123

104 A Rare Case of Adult Diagnosis of Congenital Cystic Adenomatoid Malformation/N. Kika, N. Patel, R. Minkin, Brooklyn, NY, p.A5124


107 Follicular Bronchiolitis Associated with Primary IgG2/IgG4 Deficiency in a Previously Healthy 40-Year-Old Woman/A. Aqeel, M. Assaad, J.J. Walsh, Sayre, PA, p.A5127

109 The Unlikely Duo - Concomitant Celiac Disease in a Patient with ANCA-Associated Vasculitis/L.H. Vu, Rochester, MN, p.A5129

110 The Bugs Were Not to Blame; Granulomatosis with Polyangiitis Camouflaging as a Renal Abscess/K.S. Nketiah Sarpong, A. Andoh-Duku, P. Pednekar, N. Ding, M. Alam, K. Muralidharan, Bridgeport, CT, p.A5130

111 Pulmonary Hemosiderosis Secondary to Venous Congestion of the Lungs Presenting as Diffuse Pulmonary Nodules/K. Gharaibeh, J. Galvin, N.G. Shah, Baltimore, MD, p.A5131

112 Bronchiolitis Obliterans Associated with FLNA Mutation/J. Keen, H.J. Kim, Minneapolis, MN, p.A5132

113 Paget-Schroetter Syndrome Causing a Rare Case of Venous Thoracic Outlet Syndrome/H. Dalal, J. Saaed, E. Qaja, D. Kung, Poughkeepsie, NY, p.A5133

BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

POSTER DISCUSSION SESSION

D24 SEPSIS BIOMARKERS AND OUTCOMES: WHAT CAN WE PREDICT?

8:15 a.m. - 9:45 a.m. MOSCONE CENTER Room 3009/3011 (West Building, Level 3)

Poster Viewing 8:15-8:45 Discussion 8:45-9:45

Chairing: T.J. Iwashyna, MD, PhD, Ann Arbor, MI P. Bhatraju, MD, MSc, Seattle, WA I.D. Peltan, MD, MSc, Murray, UT


909 Norepinephrine Vs Phenylephrine for Heart Rate Control in Patients with Sepsis and Atrial Fibrillation/A. Law, N.A. Bosch, D. Peterson, A.J. Walkey, Boston, MA, p.A5142


918 Predicting Infection in Hospitalized Patients After Trauma/F. Behzadi, C. Joyce, E. Eguia, S. Kulshrestha, A. Cobb, R. Gonzalez, M.M. Churpek, M. Afshar, Maywood, IL, p.A5151


921 The U-Shaped Association Between Peak Glucose Level and Mortality of Critically Ill Sepsis Patients with Diabetes Mellitus: A Retrospective Multicenter Cohort Study/Y.-H. Tsai, K.-Y. Hung, W.-F. Fang, Kaohsiung, Taiwan, p.A5154


923 Among Critically Ill Patients, Initial Lactate Clearance Is an Unreliable Predictor of Overall Lactate Trajectories and In-Hospital Mortality/R. McCallister, R.P. Dickson, M.W. Sjoding, M. Nuppnau, S. Kay, R. Chanderraj, Ann Arbor, MI, p.A5798


BEHAVIORAL • CLINICAL • TRANSLATIONAL

POSTER DISCUSSION SESSION

D25 THE VIEW AHEAD: EXPOSURE ASSESSMENT, COMMUNICATION, AND EARLY LIFE IMPACT

8:15 a.m. - 9:45 a.m. MOSCONE CENTER Room 203-204 (South Building, Level 2)

Poster Viewing 8:15-8:45

Discussion 8:45-9:45

Chairing: S. Raju, MD, MPH, Baltimore, MD E. Garcia, PhD, MPH, Los Angeles, CA D. Gold, MD, Boston, MA

201 Child Maltreatment, Anxiety and Depression, and Asthma Among British Adults in the UK Biobank/Y.-Y. Han, Q. Yan, W. Chen, J.C. Celedon, Pittsburgh, PA, p.A5156


203 Disease Control, Not Severity, Drives Welfare Resource Utilization in Young Adults with Asthma: A 15-Year Nationwide Cohort Study/K.E.J. Håkansson, V. Backer, C.S. Ulrik, Hvidovre, Denmark, p.A5158

204 Influence of PM and NO\textsuperscript{2} Exposure on the Increased Risk of RSV Hospitalizations in Polish Children/A.J. Badyda, A. Wrotek, P. Dabrowiecki, P.O. Czechowski, T. Owczarek, T. Jackowska, Warsaw, Poland, p.A5159

205 Prenatal Exposure to Air Pollution: A Susceptibility Factor to Develop Chronic Obstructive Pulmonary Disease?/Z. Lu, C. de Franceschi, M. Cazaunau, A. Bergé, E. Al Marj, P. Coll, S. Lanone, Crétéil, France, p.A5160

206 Early Exposure to Nanomaterials: A Risk Factor to Develop Chronic Obstructive Pulmonary Disease?/Y. Watanabe, J. Bruniaux, C. Buisson, A. Geeverding, B. Angeletti, J. Rose, S. Lanone, Crétéil, France, p.A5161
207 Associations Between Prenatal Particulate Air Pollution and Lung Function in 6-Month-old Infants/S. Tolani, W. Cowell, M. Minchala, B. Coull, R.J. Wright, A. Lee, New York, NY, p.A5162


211 Facilitating Case-Crossover Studies Using Environmental Protection Agency Data/J. Kelchtermans, F. Mentch, H. Hakonarson, Philadelphia, PA, p.A5167


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D26 THE FUTURE’S BRIGHT: PRIMARY CILIARY DYSKINESIA AND CYSTIC FIBROSIS DIAGNOSTIC AND THERAPEUTIC ADVANCES

8:15 a.m. - 9:45 a.m. MOSCONE CENTER

Poster Viewing 8:15-8:45

Discussion 8:45-9:45

Chairing: J.H. Rayment, MD, MSc, Vancouver, Canada

A.J. Shapiro, MD, Montreal, Canada

J.E. Pittman, MD, MPH, Saint Louis, MO


604 Correlations Between Human Nasal Cell and Lung Physiology and Therapeutic Response in Cystic Fibrosis Patients, Single Disease-Causing CFTR Mutation Carriers, and Healthy Controls/T.E. Corcoran, C.A. Bertrand, M.M. Myerburg, R.S. Parker, D.J. Weiner, S.A. Frizzell, A. Li, B. Agostini, M. Shapiro, A. Muthukrishnan, N.D. Hages, B.P. Mulhern, J.M. Pilewski, Pittsburgh, PA, p.A5176


Prevalence of Adverse Childhood Experiences in Children with Cystic Fibrosis/W. Williams, B. Bedford, S.A. McColley, Chicago, IL, p.A5183

Age and Host Microbiota Affect the Abundance and Composition of Airway Mucus/A. Livraghi-Butrico, C. Jania, A. Saldana-Montavon, G. Radicioni, L. Morton, E. Waller, M. Kesimer, W. O'Neal, Chapel Hill, NC, p.A5184

Prevalence of Monoallelic Variants in the Cystic Fibrosis (CFTR) and Primary Ciliary Dyskinesia (PCD)-Associated Genes in a Nontuberculous Mycobacteria (NTM)-Predominant Bronchiectasis Cohort/K. Avaiya, S. Wasim, K. Kumar, M. Walkiewicz, K.N. Olivier, Bethesda, MD, p.A5185

Correlation of Lung Function Using Forced Oscillation Technique with Spirometry in Children Aged (4-18 Years) with Cystic Fibrosis (CF)/S. Singh, M. Singh, J.L. Mathew, Chandigarh, India, p.A5802


Hypoxia Signaling and p53 Regulate Expression of Endosomal GTPase RAB7 in Pulmonary Artery Endothelial Cells in PAH/B. Piper, A.R. Bhagwani, J. Hudson, E.A. Goncharova, L. Farkas, Columbus, OH, p.A5187

RAB7 Silencing Induces an Anti-Angiogenic mRNA Signature in Human Pulmonary Artery Endothelial Cells/J. Hudson, K. Shin, A. Pan, M. Ali, A.R. Bhagwani, S. Bogamuwa, B. Piper, P. Yan, E.A. Goncharova, L. Farkas, Columbus, OH, p.A5188


Role of SOX17 Mutations in the Pathogenesis of Pulmonary Arterial Hypertension/D. Yi, B. Liu, Z. Dai, Phoenix, AZ, p.A5192


1012 CircCMC1 in Peripheral Blood Mononuclear Cells Impact on Idiopathic Pulmonary Arterial Hypertension/Y.-Y. Sun, J.-M. Liu, P. Yuan, Shanghai, China, p.A5197


1016 Pharmacologic Inhibition of Wnt Signaling in a Murine Model of Pulmonary Hypertension Halts Neointimal Growth and Causes Neointimal Lesion Regression in Pulmonary Arteries/L.C. Steffes, D.N. Cornfield, M.E. Kumar, Palo Alto, CA, p.A5201

1017 Sotatercept Analog RAP-011 Is More Effective Than Praligciguat in Improving Pulmonary Hypertension and Reducing Right Ventricular Hypertrophy in a ZSF1 Rat Model of Heart Failure with Preserved Ejection Fraction/S.R. Joshi, J. Liu, P. Andre, R. Kumar, G. Li, Cambridge, MA, p.A5202


1021 Neointima Formation in the Chronic Inflammation Model of Pulmonary Hypertension Is T Cell-Dependent/A.M. Andruska, L. Steffes, A. Khan, E. Spiekerkoetter, M. Kumar, Stanford, CA, p.A5206

1022 The Thromboxane Receptor Antagonist NTP42 Promotes Beneficial Right Ventricular Adaptation and Preserves Right Heart Function in the Pulmonary Artery Banding Model of Pressure Overload/E. Mulvaney, F. Renzo, P. Mendes-Ferreira, R. Adao, C. Brás-Silva, B.T. Kinsella, Dublin, Ireland, p.A5207


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D28 ASSESSING THE PATHOPHYSIOLOGY AND PSYCHOLOGY OF PATIENTS FOR REHABILITATION

8:15 a.m. - 9:45 a.m. MOSCON CENTER Room 212-214 (South Building, Level 2)

Poster Viewing 8:15-8:45
Discussion 8:45-9:45
Chairing: S.C. Lareau, RN, MS, ATSF, Denver, CO
G. Wesseling, MD, Maastricht, Netherlands

401 The Underappreciated Connection Between Different Aspects of Muscle and Cardiovascular Function During Exacerbation of Chronic Obstructive Pulmonary Disease/R. G. Mendes, N.S. Schafauser, M.G. Roscani, D.M. Oliveira Kawakami, A.D. Heubel, E.Z. Kabbach, N. Leonardi, V. Castello-Simoes, V.A.P. Di Lorenzo, A.B. Silva, Sao Carlos, Brazil, p.A5208


403 COVID-19 Restrictions Negatively Impact Physical Activity and Health-Related Quality of Life In Elderly Smokers/D. Baez, R.A. Calmelat, R. Casaburi, H.B. Rossiter, A. Adami, Kingston, RI, p.A5210
Reliability, Validity, and Responsiveness of the DEG, a Three-Item Dyspnea Measure
D. Ha, L. Deng, A.V. Lange, J.J. Swigris, D. Bekelman, Aurora, CO, p.A5211

Clinical Implications of Frailty in Hospitalized Patients with Pulmonary Arterial Hypertension

Standardized Interpretation of Hand Grip Strength Improves Correlation with Functional Impairment and Symptom Burden in COPD Patients

Proof of Concept for Deriving Physical Activity (PA) Intensity Levels from Field-Based Walking Tests

Sex Differences in Prevalence and Determinants of Anxiety in Patients with COPD Initiating Pulmonary Rehabilitation
A.M. Yohannes, R. Casaburi, S. Dryden, N.A. Hanania, Azusa, CA, p.A5215

Active PAL Monitored Sleep Measures and Self-Reported Symptoms of Depression and Anxiety in Relation to Physical Activity in Patients with Severe COPD

Physical Activity (PA) of People Living with Post-Tuberculosis Lung Disease (pTBLD) in Uganda

Long-Term Impact in Intensive Care Survivors of Coronavirus Disease-19 (AFTERCOR Study): Preliminary 3-Month Analysis After ICU Discharge

Inhibition of YAP/TAZ Signaling by the FDA Approved Drug Verteporfin Attenuates Fibrosis in Mouse and Human Tissue

Translational Co-Culture Model Reveals Epithelial-Mesenchymal Mechanisms of Lung Fibrosis and Identifies NFkappaB as Potential Therapeutic Target
P. Sieber, A. Schäfer, R. Lieberherr, U. Lüthi, J. Ryge, R. Studer, E.S. White, O. Nayler, Allschwil, Switzerland, p.A5226


Extracellular Vesicles Promote the Propagation of Scleroderma-Associated Lung Fibrosis/J. Mouawad, C. Feghali-Bostwick, Charleston, SC, p.A5230


CKD-506, a Selective HDAC6 Inhibitor, Is a First-in-Class Drug Candidate for the Treatment of Idiopathic Pulmonary Fibrosis (IPF)/.J.-J. Lee, M.C. Kim, J. Baek, D. Suh, J.W. Song, N. Ha, Yongin-si, Korea, Republic of, p.A5233


ADRB2 Inhibition Alleviates Pulmonary Fibrosis Through Preventing and Reversing Myofibroblast Differentiation/R. Wan, L. Wang, H. Lian, P. Yan, M. Zhao, J. Yang, X. Chen, X. Guo, K. Xu, G. Yu, Xiniang, China, p.A5242


IRE1α Drives Lung Epithelial Progenitor Dysfunction to Establish a Niche for Pulmonary Fibrosis/V. Auyeung, M. Lehmann, M. Königshoff, Munich, Germany, p.A5244


707 PLN-74809, an Oral, Dual-Selective α5β6/α5β1 Inhibitor in Phase 2 Clinical Trials for Idiopathic Pulmonary Fibrosis (IPF), Sustainably Reduces Transforming Growth Factor Beta (TGF-β) Activity in the Lungs of Healthy Participants with Once-Daily Dosing/G.P. Cosgrove, M. Decaris, S. Wong, E. Park, S. Turner, E. Adegbite, E. Lefebvre, South San Francisco, CA, p.A5251


709 Delivery of Soluble Klotho cDNA to the Lung Alleviates Acute Lung Injury/J. Gagan, D.M. Dane, C.W. Hsia, Dallas, TX, p.A5253


ADULT CLINICAL CORE CURRICULUM
CME Credits Available: 1.5
MOC Points Available: 1.5

CC5 SLEEP CLINICAL CORE CURRICULUM
Education Committee
10:45 a.m. - 12:15 p.m. MOScone CENTER
Room 2014/2016 (West Building, Level 2)

Target Audience
Practicing internists, subspecialists, registered nurses and advanced practice providers in pulmonary, critical care, and sleep medicine who work in a clinical setting and are currently engaged in maintenance of certification.

Objectives
At the conclusion of this session, the participant will be able to:
• identify disparities of care within sleep medicine and characterize strategies to eliminate or lessen these disparities;
• describe diagnosis and management of narcolepsy, PLM, and RLS;
• characterize effects of jet lag and shift work on circadian rhythm.

The goal of the core is to support clinicians who are engaged in maintenance of certification activities by providing updates on subjects that are not only included in recertification requirements, but also are timely and relevant to clinical practice in 2022. The ATS Clinical Core Curriculum Symposia focus on key topics in the areas of Pulmonary, Critical Care, and Sleep Medicine. The topics are aligned with corresponding MOC Medical Knowledge modules. This symposium is intended to help clinicians stay up to date with important information relevant to their medical practices, and to provide an opportunity for clinicians to evaluate their individual knowledge and skills while earning MOC Medical Knowledge points.

Chairing:  S. Shafazand, MD, MS, ATSF, Miami, FL
K.A. Dudley, MD, MPH, Cambridge, MA

Moderators:  K.A. Dudley, MD, MPH, Cambridge, MA
M.R. Zeidler, MD, Los Angeles, CA

10:45 When Laughing Makes You Weak: Narcolepsy Diagnosis and Management
K. Maski, MD, MPH, Waltham, MA

11:15 Medical and Psychological Consequences of Insomnia
H.L. Paz Y Mar, MD, MD, Los Angeles, CA

11:45 Jet Lag, Shift Work, and How to Get Along with Your Circadian Rhythm
S. Abbott, MD, PhD, Chicago, IL

Click Here to Access the Program Itinerary and Add Wednesday Sessions and Presentations to Your Calendar

DIVISION OF LUNG DISEASES; NHLBI, NIH

L20 NEW FINDINGS FROM THE SUBPOPULATIONS AND INTERMEDIATE OUTCOME MEASURES IN COPD II (SPIROMICS II) STUDY

12:00 p.m. - 1:00 p.m. MOScone CENTER
Room 3014 (West Building, Level 3)

Target Audience
Researchers, medical trainees, those with an interest in COPD pathogenesis

Objectives
At the conclusion of this session, the participant will be able to:
• learn about natural history of smokers with respiratory symptoms;
• learn about biomarkers of COPD;
• understand social determinants influence on respiratory outcomes.

SPIROMICS II is an NHLBI-sponsored study that supports the prospective collection and analysis of phenotypic, biomarker, genetic, genomic, and clinical data from subjects with COPD for the purpose of identifying subpopulations and the biological underpinnings of clinical phenotypes in COPD. Participants in this session will learn about the progress in SPIROMICS II including results and analyses of data.

Chairing:  L. Postow, PhD, Bethesda, MD
P. Woodruff, MD, MPH, San Francisco, CA

12:00 SPIROMICS II Update
P. Woodruff, MD, MPH, San Francisco, CA

12:12 The Natural History of Smokers with Symptoms Despite Preserved Spirometry
W. Mckleroy, MD, San Francisco, CA
12:24 Utilizing Imaging to Understand Disease Progression
M.K. Han, MD, MS, ATSF, Ann Arbor, MI

12:36 Clinical Relevance of Airway Mucin (MUC5AC and MUC5B) Concentrations in COPD
G. Radicioni, PhD, Chapel Hill, NC

12:48 Before We Can Run: Race, Lung Function and Health Equity
A.D. Baugh, MD, San Francisco, CA

DIVISION OF ALLERGY, IMMUNOLOGY, AND TRANSPLANTATION; NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASE; NIH

L22 FINDINGS FROM THE MECHANISMS UNDERLYING ASTHMA EXACERBATIONS PREVENTED AND PERSISTENT WITH IMMUNE-BASED THERAPY: A SYSTEMS APPROACH PHASE 2 (MUPPITS-2)

12:00 p.m. - 1:00 p.m. MOSCONE CENTER
Room 2006/2008 (West Building, Level 2)

Target Audience
Physicians, nurse practitioners, clinical researchers

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

• apply the results of phenotype-directed therapy with mepolizumab in urban children and adolescents to clinical practice to better manage moderate to severe asthma;
• describe new findings about the mechanistic pathways which are affected by mepolizumab and the mechanistic pathways which continue to contribute to exacerbations;
• apply to clinical practice knowledge about distinguishing phenotypic characteristics in the circulating eosinophil population that could be utilized to identify asthma patients who might benefit most from eosinophil-depleting strategies.

This session will present the findings from MUPPITS-2 a randomized double blind clinical trial studying the efficacy of mepolizumab in moderate to severe eosinophilic asthma. In addition to the clinical findings, nasal transcriptomics analyses will identify mechanistic pathways leading to exacerbations which were suppressed or unaffected by therapy and eosinophilic heterogeneity and its relation to clinical disease will be discussed.

Chairing: P.J. Gergen, MD, Rockville, MD

12:00 Phenotype-directed Therapy with Mepolizumab for Urban Children with Exacerbation-Prone Asthma
D.J. Jackson, MD, Madison, WI

12:20 Distinct Airway Inflammatory Pathways Associated with Exacerbation are Responsive to Modulation by Mepolizumab Therapy in Children
M.C. Altman, MD, MPhil, Seattle, WA

12:40 Eosinophil Surface Heterogeneity Exists Between Pediatric Patients With Severe, Exacerbation-Prone Asthma
J. Schwartz, MD, PhD, Cincinnati, OH

NATIONAL INSTITUTES OF HEALTH; OFFICE OF THE DIRECTOR

L23 ENVIRONMENTAL INFLUENCES ON CHILD HEALTH OUTCOMES (ECHO): INSIGHTS INTO THE ORIGIN OF AIRWAY DISEASES

12:00 p.m. - 1:00 p.m. MOSCONE CENTER
Room 2001/2003 (West Building, Level 2)

Target Audience
Providers of maternal and child health; Providers of lung health; Researchers of Developmental Origins of Health a Pediatric Pulmonologists; Environmental researchers and physicians

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

• learn the epidemiologic characteristics of asthma exacerbation and its determinants;
• learn the impact of prenatal inflammation (e.g., CRP, IL-8) and exposures (e.g., air pollutant exposures on DNA methylation) in asthma and allergic diseases;
• learn state-of-art multi-omics approaches that integrate multi-level omics data in airway diseases.

The NIH-supported Environmental Influences on Child Health Outcomes (ECHO) program supports multiple synergistic, longitudinal studies across the U.S. to investigate how environmental exposures in early life—including physical, chemical, social, behavioral, biological, natural, and built environments—affect child health and development. The multiple cohorts share standardized core data elements from ~50,000 children using common data elements. This session will focus on examples of recent ECHO cohort research that offers insight into mechanisms and pathways of the development of airway diseases and related outcomes in children.

Chairing: C.L.M. Joseph, PhD, Detroit, MI

12:00 Overview of the ECHO Program
C.J. Blaisdell, MD, North Bethesda, MD

12:10 U.S. Incidence Rates of Childhood Asthma Exacerbations
R.L. Miller, MD, New York, NY
12:20 Maternal Prenatal Inflammatory Markers and Childhood Asthma and Atopy
Y.-C. Chen, MD, Boston, MA

12:30 Prenatal to Postnatal Air Pollution Exposure and DNA Methylation in Multiple Cell Types
C. Ober, PhD, Chicago, IL

12:40 Associations Between the Nasal Transcriptome and Childhood Asthma Across Diverse Populations
G.N.K. Hershey, MD, PhD, Cincinnati, OH

12:50 Airway Metatranscriptome Endotypes in Infant Bronchiolitis, Distinct Host Immune Profiles, and Differential Asthma Risks
K. Hasegawa, MD, MPH, MS, Boston, MA

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DIVISION OF LUNG DISEASES; NHLBI; NIH

L24 THE PEDIATRIC ADENOTONSILLECTOMY TRIAL FOR SNORING (PATS)

12:00 p.m. - 1:00 p.m. MOSCONE CENTER Room 3006/3008 (West Building, Level 3)

Target Audience
Pediatric sleep clinicians and researchers, clinicians managing sleep-disordered breathing in children.

Objectives
At the conclusion of this session, the participant will be able to:
• better understand risk factors for neuro-behavioral and cognitive impairment, and reduced quality of life in children with MSDB;
• more appropriately refer patients with snoring for adeno-tonsillectomy;
• identify better metrics from polysomnography and clinical history to identify children with snoring-related adverse outcomes.

PATS is a 12 month randomized clinical trial comparing adeno-tonsillectomy to watchful waiting with supportive care for children ages 3-12 yrs. who have snoring without frequent obstructive apneas and oxyhemoglobin desaturation (referred to as “mild sleep disordered breathing” MSDB). MSDB has been linked to behavioral and neurocognitive deficits and often treated with adeno-tonsillectomy. It is not yet known whether adeno-tonsillectomy results in improved health outcomes, and whether there are specific subgroups who experience better or worse outcomes with surgery. Study results from the baseline research examinations will be presented, highlighting novel study design features and the variation in, and risk factors for, MSDB-related adverse behavioral and health outcomes.

Chairing: S.S. Redline, MD, MPH, Boston, MA
M.K. Brown, PhD, Bethesda, MD

12:00 The Design of the Pediatric Adenotonsillectomy Trial for Snoring (PATS)
S.S. Redline, MD, MPH, Boston, MA

12:10 Neurobehavioral Morbidity with Mild Sleep Disordered Breathing
P.K. Yu, MPH, BA, Boston, MA

12:25 Risk Factors for Reduced Quality of Life in Children with Mild Sleep Disordered Breathing
C. Baldassari, MD, Norfolk, VA

12:40 Inter-relationships Among Pediatric Sleep Disordered Breathing, Asthma and Atopy
K.R. Ross, MD, MS, Cleveland, OH

12:55 Discussion
S.S. Redline, MD, MPH, Boston, MA

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DIVISION OF LUNG DISEASES; NHLBI; NIH

L25 THE MOLECULAR ATLAS OF LUNG DEVELOPMENT (LUNGMAP), PHASE 2

12:00 p.m. - 1:00 p.m. MOSCONE CENTER Room 3001/3003 (West Building, Level 3)

Target Audience
Providers of lung health, medical fellows in training, and basic and clinical researchers interested in lung biology, developmental biology, pediatric lung disease pathogenesis, bioinformatics, and systems biology

Objectives
At the conclusion of this session, the participant will be able to:
• learn the newest datasets of LungMAP that could inform lung research;
• understand the innovative technologies for molecular profiling, imaging, and data analysis of the developing lung;
• understand how to access and use the LungMAP resources

Molecular Atlas of Lung Development (LungMAP) is an NHLBI-sponsored program. The overall goal of this program is to establish an open-access reference resource by creating a comprehensive molecular atlas of the late-stage developing human lung with data and reagents available to the research community. Speakers will demonstrate how systems biology and bioinformatic approaches can be used to inform processes in development that are recapitulated in disease and repair. The session will illustrate the LungMAP data pipeline which integrates high resolution multi-omics and imaging data.

Chairing: S. Lin, PhD, Bethesda, MD

12:00 Defining and Refining Lung Cell Complexity
J. Planer, MD, PhD, Philadelphia, PA

12:12 Spatially Resolved Transcriptomics to Understand Lung Development and Disease
M. Gu, MD, PhD, Cincinnati, OH

12:24 Single Cell Transcriptomic and Epigenomic Datasets of the Normal and Diseased Developing Human Lung
V.H. Yu, PhD, San Diego, CA
L26    THE NHLBI IPF MODELS CONSORTIUM

12:00 p.m. - 1:00 p.m. MOSCONE CENTER
Room 3005/3007 (West Building, Level 3)

Target Audience
Those with research interests involving the study of idiopathic pulmonary fibrosis.

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

• learn new findings regarding the pathogenesis of IPF from its onset through disease progression;
• increase awareness among the broader IPF research community of the availability of new and improved model systems to study IPF;
• inform model selection for future research studies that aim to uncover specific IPF disease mechanisms and screen/test drugs or biologics that target IPF.

This session highlights recent scientific advances and collaborative research opportunities brought about by five NHLBI-sponsored studies funded through RFA-HL-20-007:Advancing Novel Research Models to Study Idiopathic Pulmonary Fibrosis that seeks to establish a set of complementary model systems that reproduce essential disease-defining features of human idiopathic pulmonary fibrosis (IPF).

Chairing: M. Craig, PhD, Bethesda, MD

12:00 Surfactant Protein C Mouse Models: A Fit for Purpose Preclinical Platform for Advancing Discovery in and Treatment of Idiopathic Pulmonary Fibrosis
M.F. Beers, MD, Philadelphia, PA

12:12 Validation of an in vitro Model of Progressive Fibrosis that Mimics Idiopathic Pulmonary Fibrosis
B. Gomperts, MD, Los Angeles, CA

12:24 Developing a Patient-Specific Organoid Model of Pulmonary Fibrosis using iPSCs
D.N. Kotton, MD, Boston, MA

12:36 Therapeutic Targeting of MUC5B in a Novel Ferret Model of Idiopathic Pulmonary Fibrosis
S.M. Rowe, MD, Birmingham, AL

12:48 Therapeutic ECM Resorption in Cellular Systems and Precision Cut Lung Slices
D.J. Tschumperlin, PhD, Rochester, MN
Clinicians to evaluate their individual knowledge and skills while earning MOC Medical Knowledge points.

Chairs:
S. Shafazand, MD, MS, ATSF, Miami, FL
K.A. Dudley, MD, MPH, Cambridge, MA

Moderators:
K.A. Dudley, MD, MPH, Cambridge, MA
M.R. Zeidler, MD, Los Angeles, CA

12:45 Twitching Through the Night: PLM and RLS Diagnosis and Management
A.M. May, MD, MS, Cleveland, OH

1:15 Sleep Disparities: What We Know and the Way Forward
C. Jackson, PhD, Research Triangle Park, NC

1:45 Discussion
A. Placeholder, MD, New York, NY

D82 KEEPING THE ‘HOME’ IN HOME MECHANICAL VENTILATION FOR NEUROMUSCULAR RESPIRATORY FAILURE: TRANSITIONING HOME AND STAYING HOME WITH TELEMEDICINE

Assemblies on Clinical Problems; Pediatrics; Sleep and Respiratory Neurobiology

12:45 p.m. - 2:15 p.m. MOSCONEN CENTER
Room 3-4 (South Building, Exhibition Level)

Target Audience
Adult and pediatric pulmonologists, trainees, mid-level providers, respiratory therapists

Objectives
At the conclusion of this session, the participant will be able to:
- recognize hypoventilatory respiratory failure of neuromuscular disease, in acute respiratory failure and complicated by co-morbid pulmonary disorders. Understand use of non-invasive ventilation in acute and chronic neuromuscular respiratory failure;
- understand how to transition from invasive mechanical ventilation to non-invasive ventilation and airway clearance, with needs and monitoring unique to patients with neuromuscular respiratory weakness;
- use multiple newer diagnostic and monitoring modalities to optimize and individualize non-invasive or invasive ventilation in the home, including transcutaneous CO2 monitoring, home diagnostic sleep testing and cloud-based monitoring capabilities.

Patients with pediatric neuromuscular disorders are surviving into adulthood, and adult-onset neuromuscular disorders are also increasing in prevalence and survival with advancing technologies in airway clearance and non-invasive ventilation. We will focus on of advanced neuromuscular respiratory failure, with the unique focus on the inpatient recognition, and the transition to home-based mechanical ventilation. We will address cloud-based telehealth monitoring, review the role for home CO2 monitoring and home sleep testing to optimize home-based mechanical ventilation. The final will provide concrete guidance to help Providers navigate the insurance hurdles to ensure the patients get the right care, at the right time in their disease trajectory.

Chairs:
K.A. Provost, DO, PhD, FCCP, Buffalo, NY
M. Cao, DO, Stanford, CA
L.F. Wolfe, MD, Chicago, IL

1:15 Home CO2 Monitoring: Optimizing Ventilation in the Home
R. Amin, MD, Toronto, Canada

1:30 Indications for Home Sleep Testing for Optimizing Home Mechanical Ventilation
M. Cao, DO, Stanford, CA

1:45 Navigating the Insurance Guidelines to Get Your Patients the Right Care at the Right Time
L.F. Wolfe, MD, Chicago, IL

2:00 Question and Answer Panel Discussion

D83 THE CURIOUS CASE OF BENJAMIN BUTTON: FIXED AIRFLOW LIMITATION IN YOUNG ADULTS. THE “LOW FLYERS”

Assemblies on Clinical Problems; Pediatrics; Respiratory Cell and Molecular Biology; Respiratory Structure and Function

12:45 p.m. - 2:15 p.m. MOSCONEN CENTER
Room 7-8 (South Building, Exhibition Level)

Target Audience
COPD and asthma clinicians, pediatricians, basic scientists working on asthma and COPD

Objectives
At the conclusion of this session, the participant will be able to:
• understand what is the clinical importance of the low flyers and what are the best strategies to approach this category of patients;
• harmonize the pediatric and adult pulmonary approaches to early fixed airflow limitation and the knowledge on the topic;
• understand how asthma can shape into fixed airflow limitation and discuss the best imaging and therapeutic approaches to these individuals who have fixed airflow limitation from a young age.

COPD has always been considered a disease of the elderly. However, in a significant proportion of cases, COPD can develop as a result of lung function deficits that are established by young adult life, with no accelerated decline of lung function thereafter. This session will shed light onto the “low flyers”: a long-overlooked category of individuals with low lung function early in life, and who meet the spirometric criteria for COPD in their young adulthood.

Chairing:
G.R. Washko, MD, Boston, MA
F. Polverino, MD, PhD, Houston, TX
J.L. Curtis, MD, ATSF, Ann Arbor, MI

12:45 A Patient’s Perspective
J. Linnell, Viroqua, WI

12:50 Get to Meet the Unusual Suspects: The Low Flyers
S. Dharmage, MD, PhD, Melbourne, Australia

1:02 Multiple Shades of Gray: From Severe Asthma to Early-Onset COPD
R.A. Covar, MD, Denver, CO

1:14 The Pediatrician Perspective. Tackling Airflow Limitation From the First Years of Life to Early Adulthood: Are We Still Behind?
E. Hysinger, MD, MSCE, Cincinnati, OH

1:26 Small Airways and Pathogenesis of Early Fixed Airflow Limitation: Scenes From a Foreseeable Disaster
T.L. Hackett, PhD, ATSF, Vancouver, B.C., Canada

1:38 More Than Meets the Eye: The Role of Imaging in the Longitudinal Follow-Up of Airflow Limitation During the Lifespan
S.P. Bhatt, MD, MSPH, Birmingham, AL

1:50 Treatment Strategies Targeting the Low Flyers: The Ugly, the Bad, and the Good
G.G. Brusselle, MD, PhD, Gent, Belgium

2:02 Questions and Answers

ATS 2022 • San Francisco, CA
D85  CHATTER IN THE LUNG MICROENVIRONMENT: HOW CELLULAR CROSSTALKS CONTRIBUTES TO LUNG AGING, CANCER, AND REMODELLING

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

12:45 p.m. - 2:15 p.m.  MOSCONE CENTER
Room 205-206 (South Building, Level 2)

Target Audience
Clinicians and scientists who are interested in understanding the cross talk between cancer and chronic lung disease would benefit from this symposium

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

- understand the similarities of lung cancer and chronic respiratory diseases;
- understand and identify the cross talk between cancer and chronic lung disease;
- gain understanding on why the influence of common lung cancer comorbidities on the microenvironment will be a key for developing more enhanced lung cancer therapies.

Lung cancer is the primary cause of cancer deaths worldwide. Even though therapies have developed in recent years, lung cancer prognosis often remains poor. One important reason for this circumstance is caused by the various comorbidities that regularly accompany lung cancer. In this context chronic obstructive pulmonary disease (COPD), pulmonary hypertension, heart failure and pulmonary fibrosis are important to mention. A better understanding of the bidirectional interplay of these diseases will allow for better lung cancer treatment options in the future.

Chairing:  R. Savai, PhD, Bad Nauheim, Germany

12:45  Chatter in the Lung Microenvironment: How Cellular Crosstalks Contributes to Lung Aging, Cancer, and Remodelling
R. Savai, PhD, Bad Nauheim, Germany

12:50  Organoid Modeling of Early Stage Lung Cancer
C. Kim, PhD, Boston, MA

1:07  Common Language in Idiopathic Pulmonary Fibrosis, Aging, and Cancer
M. Koenigshoff, MD, PhD, ATSF, Pittsburgh, PA

1:24  Cancer and Pulmonary Hypertension: Learning Lessons and Real-Life Interplay
S.S. Pullamsetti, PhD, Bad Nauheim, Germany

1:41  Cellular Dialects in COPD and Lung Cancer
Speaker To Be Announced

1:58  Genetic and Epigenetic Basis for Cellular Crosstalk Associated With Regeneration and Tumorigenesis
P.R. Tata, MSc, PhD, Durham, NC

This session and the International Conference are supported by an independent medical educational grant from Merck & Co.

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D86  HEARTH OF THE MATTER: DO HOUSEHOLD AIR POLLUTION INTERVENTIONS IMPROVE HEALTH OUTCOMES?

Assemblies on Environmental, Occupational and Population Health; International Health Committee

12:45 p.m. - 2:15 p.m.  MOSCONE CENTER
Room 201-202 (South Building, Level 2)

Target Audience
Environmental health researchers, air pollution researchers, trainees, researchers, and clinicians with an interest in global health and health disparities

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

- gain understanding of the effects of household air pollution exposures on health across the lifespan;
- learn and provide practical recommendations in the design and conduct of household air pollution interventions and potential challenges with scale-up.

Energy, poverty, and exposure to household air pollution from the burning of solid fuels for cooking are at the heart of health equity policies focused on the poorest communities in the world. Does replacing solid fuel with a cleaner fuel result in lower exposure to household air pollution and improved health outcomes in resource-poor settings? In this session, we detail results from several groundbreaking trials in seven low- and middle-income countries that aimed to mitigate household air pollution exposures and improve health: a key health equity target.
D87  **THE PRESENT AND FUTURE OF VACCINATION IN RESPIRATORY MEDICINE**

Assemblies on Pulmonary Infections and Tuberculosis; Behavioral and Health Services Research

12:45 p.m. - 2:15 p.m.  
**MOSCON CENTER**  
Room 215-216 (South Building, Level 2)

Target Audience  
Healthcare professionals; researchers in basic, clinical, and translational; trainees

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

- describe the status of COVID-19 vaccine development, delivery, and impact;
- define and describe current advances in vaccine development for respiratory diseases;
- improve patient health through promotion of vaccination.

Vaccines have had a significant impact on global health, reducing mortality from or even eradicating several devastating infections. However, vaccine-preventable illnesses remain a threat due to low vaccine coverage among adults, with the ongoing SARS-CoV-2 pandemic being no exception. The goal of this session is to highlight the critical need for global vaccination strategies in combating a variety of respiratory illnesses and to emphasize the impact vaccines have on improving overall respiratory health. Multiple perspectives will be represented, including pneumology, infectious diseases, and behavioral and health research.

Chairing: S.J. Bartlett, PhD, Montreal, Canada  
J.W. Jones, PhD, Melbourne, Australia

12:45  Introduction

12:46  Developing a Vaccine to the Novel Coronavirus  
L. Corey, MD, Seattle, WA

1:05  Vaccine Delivery in the U.S. and Globally  
A. Reingold, MD, Berkeley, CA

1:24  Vaccination as a Global Health Intervention  
C. Feldman, MD, PhD, DSc, ATSF, Johannesburg, South Africa

1:39  Developing Vaccines to Effectively Combat Respiratory Diseases  
J.E. Mccombs, PhD, New Orleans, LA

1:54  The Role of Vaccination in Respiratory Medicine: Learning Points Out of the Pandemic  
T. Welte, MD, Hannover, Germany

2:09  Discussion/Questions and Answers

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D88  **DISSECTING LUNG DISEASE DOWN TO A SINGLE-CELL: RECENT SINGLE-CELL RNA SEQUENCING BREAKTHROUGHS IN PULMONARY PATHOGENESIS**

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

12:45 p.m. - 2:15 p.m.  
**MOSCON CENTER**  
Room 2001/2003 (West Building, Level 2)
Target Audience
Health professionals and life scientists interested in lung disease pathogenesis; trainees in biomedical research interested in single cell profiling studies, bioinformatics, lung disease pathogenesis

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

• describe recent findings from scRNAseq analyses that improved our understanding of lung disease pathogenesis;

• understand the role and limitations of single cell profiling in the future of clinical pulmonary medicine;

• define emerging single-cell technologies and analytic techniques for the study of lung disease.

Single-cell RNA sequencing (scRNAseq) provides high-throughput RNA profiling at the resolution of individual cells. Recent studies have harnessed this technology to identify novel mechanisms of lung disease pathogenesis. The goal of this symposium is to cover recent breakthroughs in our understanding of lung disease, enabled by the application of single-cell profiling technologies. This session reviews the current landscape of ARDS, cystic fibrosis, asthma, and COPD pathophysiology discoveries through the lens of single-cell profiling. As we review these recent breakthroughs, we will highlight the strengths and limitations of this approach, and discuss emerging technologies that will shape the future of this field.

Chairing: C.J. Britto-Leon, MD, ATSF, New Haven, CT
R.L. Zemans, MD, Ann Arbor, MI

12:45 Macrophage Transcriptional Heterogeneity in Acute Lung Injury
K. Mould, MD, MPH, Denver, CO

1:00 Immunologic Cell States in the Asthmatic Lung
Speaker To Be Announced

1:15 Epithelial Cell States and Composition in Cystic Fibrosis
B. Gomperts, MD, Los Angeles, CA

1:30 Transcriptional Profiles of Alveolar Stress in the Emphysematous Lung
M. Sauler, MD, New Haven, CT

1:45 Novel Pathogenic Cell Populations in the Fibrotic Lung
J. Kropski, MD, Nashville, TN

2:00 Overview and Limitations of Emerging Single-Cell Technologies
Speaker To Be Announced

D89 WHAT COULD REPLACE THE AHI FOR EVALUATING SLEEP APNEA?

Assembly on Sleep and Respiratory Neurobiology
12:45 p.m. - 2:15 p.m. MOSCONEx CENTER

Room 2006/2008 (West Building, Level 2)

Target Audience
Physicians and researchers with clinical and/or research responsibilities in the broad area of sleep disordered breathing

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

• describe new findings about the limitations of the AHI;

• define new strategies to manage the care of sleep apnea;

To date it has remained difficult to find an optimal physiological metric capturing severity of obstructive sleep apnea (OSA) - desirable for diagnosis, and potentially for predicting response to therapy. The Apnea Hypopnea Index (AHI) is widely used but captures only the occurrence rate of sleep respiratory events. It has been repeatedly observed that the AHI has many conceptual and demonstrable limitations. Through talks that span the domains of ventilatory, hypoxic, and arousal burden in sleep, we will explore the potential of novel metrics that could replace the AHI.

Chairing: D.M. Rapoport, MD, ATSF, New York, NY
C.H. Won, MD, MA, New Haven, CT

12:45 Introduction: Limitations of the AHI
D.J. Gottlieb, MD, MPH, Boston, MA

1:00 Ventilatory Burden in OSA
A. Parekh, PhD, New York, NY

1:15 Hypoxic Burden
T. Leppanen, PhD, Kuopio, Finland

1:30 Arousal Burden
A. Jordan, PhD, Parkville, Australia

1:45 Global Clinical Implications of AHI Replacement
C.H. Won, MD, MA, New Haven, CT

2:00 Panel Q&A
D90 COVID-19: LESSONS LEARNED AND THE PATH FORWARD
12:45 PM - 2:15 PM Moscone Center

Target Audience
All providers who care for patients will benefit from this session. In addition, those with administrative responsibilities will benefit from hearing about the concerns related to COVID and burnout. Finally, as we will have an international talk, providers who practice global health may be interested in this topic.

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

• understand the effects of COVID-19 on wellness and interventions to use in response;
• describe changes in nursing practices with COVID-19 and implications for the future;
• understand the impact of COVID-19 on global public health systems.

This session will discuss provider wellbeing related to COVID as well as interventions that can alleviate some of these challenges. In addition, we will discuss the COVID response in Brazil and how the Brazilian health system responded. Finally, we will hear about changes to nursing practices related to COVID that may have implications for future nursing practice.

Chairing:
D.M. Boyer, MD, MPHE, Columbus, OH
M. Moss, MD, ATSF, Aurora, CO

12:45 Introduction
D.M. Boyer, MD, MPHE, Columbus, OH

12:48 Lifting Nursing Workforce Restrictions: COVID-19 Policy Approaches and the Path Forward
D.K. Costa, PhD, RN, Ann Arbor, MI

1:08 COVID-19 in Brazil: Lessons Learned
M.P. Dalcolmo, MD, PhD, Rio De Janeiro, Brazil

1:28 Transitioning from Quotas to Empowerment: New Perspectives on Clinical Trial Diversity in the Era of COVID-19
A.J.O. Davis, MD, Madison, WI

1:48 Studying a Creative Arts Therapy Intervention for Health Care Professionals During the COVID-19 Pandemic: Trials and Tribulations
M. Moss, MD, ATSF, Aurora, CO

2:08 Questions and Answers


D92 TRYING TO NIP IT IN THE BUD: ADVANCES IN UNDERSTANDING INTERSTITIAL LUNG ABNORMALITIES

12:45 p.m. - 2:15 p.m. MOSCONNE CENTER

Room 209-211 (South Building, Level 2)

Chairing: A. Podolanczuk, MD, New York, NY
R.K. Putman, MD, MPH, Boston, MA
G. Raghu, MD, Seattle, WA

Oral Presentations:


1:25 Blood Leukocyte Levels Are Associated with Radiological Progression of Early Fibrotic ILA Within Five Years/A. Achaia, P. Lyon, E. Fraser, P. Saunders, R. Benamore, V. Iotchkova, R. Hoyles, L.-P. Ho, Oxford, United Kingdom, p.A5272


1:45 Increased Monocyte Count Is Associated with Adverse Outcomes in Interstitial Lung Abnormality (ILA)/J. Shaw, S. Liew, G. Ng Man Kwong, Z. Borrill, C. Hayton, Oldham, United Kingdom, p.A5274


D93 ADVANCES IN PRE AND POST LUNG TRANSPLANT CARE: FROM SELECTION TO CLAD

12:45 p.m. - 2:15 p.m. MOSCONNE CENTER

Room 11-12 (South Building, Exhibition Level)

Chairing: J.L. Todd, MD, Durham, NC
M.M. Crespo, MD, Philadelphia, PA
S. Weigt, MD, MSCR, Los Angeles, CA

Oral Presentations:


2:05 Distinct Pulmonary Virome Signatures in Lung Transplant Recipients Modulate the Airway Mucosal Immune Responses Leading to Tissue Injury/N.S. Sharma, M. Banday, Boston, MA, p.A5283

CLINICAL MINI SYMPOSIUM

D94 PANDEMIC OUTPUT: ALL THAT IS COVID-19

12:45 Building Back Better: Covid-19 as Springboard for Innovation and Collaboration in ICU Research/E.C. Goligher, Toronto, Canada

Oral Presentations:


Featured Speaker:
2:05 Modern Chest MRI: Shedding Light on Regional Structure and Function/J.C. Woods, Cincinnati, OH

D95 A STAR IS BORN: NOVEL STEPS TO DIAGNOSE AND TREAT CONGENITAL LUNG DISORDERS
12:45 p.m. - 2:15 p.m. MOSCONE CENTER
Room 2002/2004 (West Building, Level 2)

Chairing: B. Shivanna, MD, DM, PhD, Houston, TX
A.I. Cristea, MD, MS, ATSF, Indianapolis, IN

Oral Presentations:

12:55 Perinatal Overactive Adipose Tissue Induces DNA Damage Response, Loss of Alveolar Epithelial Cells Type II (ATII) and Arrest Alveolarization/J. Selle, B. Abend, O. Klymenko, T. Georgomanolis, C. Vohlen, R. Wilke, J. Dötsch, M.A. Alejandre Alcazar, Cologne, Germany, p.A5293

1:05 Transcriptional Characterization Suggests Accelerated Epithelial Differentiation in Trisomy 21 Lungs/S. Danopoulos, S. Bhattacharya, C. Cherry, G. Deutsch, T.J. Mariani, D. Alam, Torrance, CA, p.A5294


1:55 Neonatal Lung Mesenchymal Stomal Cells (MSCs) as Early-Life Predictors of Asthma in Survivors of Prematurity/D.R. Vanbeckum, N. Kaciroti, T.X. Cui, A.P. Popova, Ann Arbor, MI, p.A5299

Featured Speaker:
2:05 Modern Chest MRI: Shedding Light on Regional Structure and Function/J.C. Woods, Cincinnati, OH

D96 EMBARCADERO: MACHINES AND DEEP PHENOTYPING OF THE PULMONARY CIRCULATION
12:45 p.m. - 2:15 p.m. MOSCONE CENTER
Room 3000/3002/3004 (West Building, Level 3)

Chairing: E. Brittain, MD, Nashville, TN
F.N. Rahaghi, MD, PhD, Boston, MA
L. Zhao, PhD, Palo Alto, CA
A. Sweatt, MD, Stanford, CA

Oral Presentations:


Predicting Survival in Pulmonary Arterial Hypertension by Combining Machine Learning and Game Theory - A Platform for Patient Tailored Treatment/V.O. Kheyfets, A. Sweatt, R.T. Zamanian, K.R. Stenmark, Aurora, CO, p.A5306


D98 TARGETING THE SCAR: MECHANISMS AND TREATMENTS FOR FIBROTIC LUNG DISEASE
12:45 p.m. - 2:15 p.m. MOSCON CENTER
Room 2018/2020 (West Building, Level 2)

Chairing: R.M. Tighe, MD, ATSF, Durham, NC
I.K. Sundar, BSc, MSc, PhD, Kansas City, KS

Oral Presentations:

12:55 Quantification of Cellular Injury Distribution During the Progression of Ventilator-Induced Lung Injury and Model Inference of Injury Interdependence/C. Mattson, B.J. Smith, Aurora, CO, p.A5318


1:15 Effects of Vitamin D Administration in a Murine Neonatal Model of Acute Hypoxic Lung Injury/T. Tran, J.L. Davies, R.A. Johnston, H. Karmouty-Quintana, J.L. Alcorn, Houston, TX, p.A5320


D101 TRANSLATIONAL AND BASIC SCIENCE ADVANCES IN PULMONARY FIBROSIS
12:45 p.m. - 2:15 p.m. MOSCON CENTER
Room 212-214 (South Building, Level 2)

Poster Viewing 12:45-1:15
Discussion 1:15-2:15

Chairing: C. Bonham, MD, Charlottesville, VA
C.L. Vigeland, MD, Chapel Hill, NC


An Exploratory Analysis of Blood Biomarkers in Idiopathic Pulmonary Fibrosis Based on Interim Data from the INJUSTIS Study
F. Khan, I. Stewart, L. Howard, C. Barber, G. Hearson, S.C. Jones, L. Matthews, G. Saini, S. Johnson, G. Jenkins, Nottingham, United Kingdom, p.A5329

Investigating the Pro-Fibrotic Effects of Galectins in Idiopathic Pulmonary Fibrosis - A Potential Role for Glycan-Mediated Interactions with Integrins
J.F. Calver, G. Harris, R. Lithgo, R. Slack, D. Scott, R.G. Jenkins, A.E. John, Nottingham, United Kingdom, p.A5330

Horizontal Transmission of Gut Microbiota Attenuates Lung Fibrosis in Pre-Clinical Models

Identification of Different Lung Immune Phenotypes in Idiopathic Pulmonary Fibrosis (IPF)

[64]Cu-FBP8 PET-CT to Detect Ongoing Lung Injury in IPF

The Role of CD74 in Bleomycin-Induced Pulmonary Fibrosis

Rheumatoid Arthritis Related Antibodies in Idiopathic Pulmonary Fibrosis

Non-Canonical Aryl-Hydrocarbon Receptor Signaling Exacerbates Pulmonary Fibrosis by Augmenting Dendritic Cell and Macrophage Inflammatory Cytokine Output
S.J. Gurczynski, M. Bame, B.B. Moore, Ann Arbor, MI, p.A5336

The Risk of Idiopathic Pulmonary Fibrosis in Inflammatory Bowel Disease

Thermoneutral Housing Attenuates Lung Injury and Fibrosis
D.N. O’Dwyer, J.H. Lipinski, S.J. Gurczynski, B. Moore, S.P. Hogan, Ann Arbor, MI, p.A5338

Immunopathological Mechanisms of Bird Related Hypersensitivity Pneumonitis in an Acute and Chronic Murine Model

Mast Cell-Expressed Membrane Protein 1 (MCEMP1), a Mortality Predictive Gene in Idiopathic Pulmonary Fibrosis (IPF), Is Transcriptionally Regulated by TGF-ß and Promotes Phenotypic Changes in Monocyte-Derived Macrophages
C. Perrot, B. Tourki, A. Arsenault, J.D. Herazo-Mayo, Tampa, FL, p.A5340

Caveolin Scaffolding Domain (CSD) Peptide LTI-2355 Modulates Phagocytic and Synthetic Activity of Idiopathic Pulmonary Fibrosis (IPF) Myeloid Cells
B. Creyns, B. Mackenzie, A.L. Coelho, J.B. Windsor, C.M. Hogaboam, Los Angeles, CA, p.A5341

Cytokine Profiles for Elucidation of Pathogenesis in Interstitial Pneumonia with Autoimmune Features

Interstitial Lung Diseases After Hematopoietic Stem Cell Transplantation: New Pattern of Lung Chronic Graft-Versus-Host Disease?

IL10 Polarizes Lung Monocyte Derived Macrophages to a Pro-Fibrotic Phenotype
A. Bhattacharyya, K. Boostanpour, M. Bouzidi, L. Magee, T. Chen, R. Wolters, P. Torre, S. Pillai, M. Bhattacharya, San Francisco, CA, p.A5344

Safety, Tolerability and Pharmacokinetics of BI 1015550 in Healthy Male Subjects
C. Schlecker, A. Schultz, D. Luedtke, C. Coeck, Ingelheim am Rhein, Germany, p.A5345

Safety, Tolerability and Pharmacokinetics of BI 1015550 in Patients with Idiopathic Pulmonary Fibrosis

Prevalence of Circulating Levels of Natural Antibodies to Oxidation-Specific Epitopes with Lung Function in Fibrotic Interstitial Lung Disease
BEHAVIORAL • CLINICAL
POSTER DISCUSSION SESSION

D102 TOPICS IN BEHAVIORAL SCIENCE AND HEATH SERVICE RESEARCH

12:45 p.m. - 2:15 p.m. MOSCONE CENTER
Room 303-304 (South Building, Level 3)

Poster Viewing 12:45-1:15
Discussion 1:15-2:15

Chairing: R. Buhr, MD, PhD, Los Angeles, CA
K. Duan, MD, Seattle, WA
K.C. Vranas, MD, Portland, OR


503 Pulmonary Embolism Response Team - Improving Outcomes at a Community Hospital/O.S. Mudhar, C. King, J. Chong, P. Khanna, J. DeMellow, Stockton, CA, p.A5350


505 Extent and Use of ICS-LABA (Maintenance Only and MART) in Routine Clinical Practice and Associated Clinical and Symptom Unmet Need in the US/W. Zhang, A. Czira, J. Harley, K.J. Rothnie, L. Lee, M. Small, Collegeville, PA, p.A5352


509 Impact of Baseline Asthma Control on Physical Activity and Asthma Outcomes Among Black Women with Asthma/S.M. Nyenhuis, A. Bag, Chicago, IL, p.A5356

510 Fractional Exhalation of Nitric Oxide and Mortality in a National Cohort with Asthma and/or Chronic Obstructive Pulmonary Disease/I.I. Ikwu, L.G. Nicolas, A. Mehari, R. Gillum, Washington, DC, p.A5357


516 A Primary Care-Based Narrative Exposure Therapy on Patients with Post-Traumatic Stress Disorder Following Intensive Care/J.enschen, C. Friemel, K. Schmidt, L. Sanftenberg, J. Dohmann, U.-D. Reips, T. Elbert, Munich, Germany, p.A5363


Knowledge of Sleep Medicine Among Pulmonary-Critical Care Fellows/M. Acho, J.L. Newitt, P.J. Strollo, Ann Arbor, MI, p.A5366


A Case of Endobronchial Valve Single Lobe Treatment of Severe Emphysema in a Patient with Alpha One Antitrypsin Deficiency (AATD) Dominant Right Middle Lobe Emphysema/M. Masoudi, M. Masoudi, Y.R. Shweihat, F.M. Zeid, Huntington, WV, p.A5373


The Use of a Personalized T-Tube to Treat Tracheal Stenosis Due to Actinomyces Necrotizing Tracheitis/G. Senyei, B. Louie, M.M. Nobari, R.J. Miller, J. Boys, P. Weissbrod, T. Guo, G.Z. Cheng, La Jolla, CA, p.A5379

Enterococcus Faecalis Empyema as a Rare Complication of Indwelling Pleural Catheter Used in the Management of Chronic Non-Malignant Pleural Effusion/M. Assaad, R. Meenakshisundaram, F.A. Siddiqui, Sayre, PA, p.A5380


Contained Intrafissural Pneumothorax Following Bronchoscopic Lung Volume Reduction/M.A. Dirico, T. Daly, T. Zanders, D. Stahlecker, Bethlehem, PA, p.A5384

114 Successful Treatment of Pleural Effusions in Yellow Nail Syndrome with Thoracoscopy and Pleurodesis/J. Choa, D. Becnel, New Orleans, LA, p.A5386


BASIC • BEHAVIORAL • CLINICAL • TRANSLATIONAL

POSTER DISCUSSION SESSION

D104 “EVERY BREATH YOU TAKE”: MANAGING VENTILATION

12:45 p.m. - 2:15 p.m. MOSCONE CENTER
Room 3009/3011 (West Building, Level 3)

Poster Viewing 12:45-1:15
Discussion 1:15-2:15

Chairing:
A. Gallo De Moraes, MD, FACP, Rochester, MN
G.D. Rubenfeld, MD, MSc, Toronto, Canada
R.D. Stapleton, MD, PhD, ATSF, Burlington, VT


903 Intensive Care Unit Hyperoxia in Chronic Obstructive Pulmonary Disease Patients Receiving Supplemental Oxygen/P.J. Kramer, A.M. May, Cleveland, OH, p.A5390


911 Oxidized Lipid Biomarkers in Patients with Acute Respiratory Failure as Predictors for Hyperoxia Associated Lung Injury/S. Pannu, M.C. Exline, J.W. Christman, G. Brock, B. Klammer, M. Yeager, K.M. Gowdy, N. Parinandi, Columbus, OH, p.A5398


913 Obesity Paradox in Mechanically Ventilated Patients with Refractory Hypoxemia/S. Gupta, S.R. Brown, H. Wu, R. Bernardo, Oklahoma City, OK, p.A5400


918 Patient Work of Breathing During a Spontaneous Breathing Trial: T-Piece vs CPAP 0 cm H₂O on Ventilator/M. Sameed, R. Chatburn, U. Hatipoglu, Cleveland, OH, p.A5405

919 The Impact of Body Position on the Distribution of Ventilation in Acute Respiratory Distress Syndrome (ARDS)A.K. Pearce, W.C. Mcguire, A.R. Elliott, A. Malhotra, La Jolla, CA, p.A5407


D106 NOE VALLEY: CLOTS, COVID, AND LUNG VASCULAR DISEASES

12:45 p.m. - 2:15 p.m. MOSCONE CENTER

Room 3016/3018 (West Building, Level 3)

Poster Viewing 12:45-1:15
Discussion 1:15-2:15

Chairing:
E. Schmidt, MD, ATSF, Denver, CO
J.A. Bastarache, MD, Nashville, TN
M. Damarla, MD, Baltimore, MD
S.M. Dudek, MD, Chicago, IL


1002 Balloon Pulmonary Angioplasty in Chronic Thromboembolic Pulmonary Hypertension: 5-Year Experience from Cleveland Clinic/A. Bhardwaj, A.A. Fawaz, A. Tharwani, A. Bansal, A.M. Goyanes, I. Haddadin, G.A. Heresi, Cleveland, OH, p.A5419


1006 COVID-19 and Its Association with the Development of Pulmonary Hypertension: The Potential Role for Pulmonary Vasodilators/R.R. Bollam, F. Mamauag, S.A.A. Zaidi, Pittsburgh, PA, p.A5424

1007 Outcomes of Patients with Acute Pulmonary Embolism Managed with Catheter-Based Therapies as Compared to Medical Therapy at 3-6 Months Follow-Up/N. Kong, M. Acosta, A. Zahid, M. Clarke, K. Teerapuncharoen, R. Bag, J. Paul, Chicago, IL, p.A5425


1011 Patient with Bone Morphogenetic Protein Receptor Type II (BMPR2) Mutation and AVMs Without Pulmonary Hypertension/B. Scarpato, L.M. Keenan, Salt Lake City, UT, p.A5429

1012 MicroRNA-126 Signaling and Targets in COPD and COPD-Pulmonary Hypertension/K. Goel, N. Egersdorf, D. Cao, S.M. Majka, H. Karmouty-Quintana, I. Petrache, Aurora, CO, p.A5430

1013 Deep Learning Approaches to Classify Lung Parenchymal Disease on CT Images/M. Mallakaj, K. Dwivedi, M. Sharkey, S. Alabed, P. Metherall, D. Kiely, A. Swift, Sheffield, United Kingdom, p.A5431


**Clinical Poster Discussion Session**

**D107 SHOW US WHAT YOU’VE GOT: INTERESTING CASE REPORTS**

**12:45 p.m. - 2:15 p.m.**

**MOS CONE CENTER**

**Room 203-204 (South Building, Level 2)**

- **Poster Viewing:** 12:45-1:15
- **Discussion:** 1:15-2:15
213 Double Trouble: Eosinophilic Pneumonia Following SARS-CoV-2 Infection and 5-ASA Treatment/M. Kuchuk, Hadera, Israel, p.A5454


218 A Case of Refractory Pulmonary Aspergillosis Treated with Micafungin and Liposomal Amphotericin B/W. Lodhi, N. Ghimirey, R. Wajahat, Parma, OH, p.A5459


803 iPS-Produced Alveolar Epithelial Type 2 Cells Resemble Their Primary Counterparts and Can Serve as Preclinical Disease Models of Pulmonary Diseases/K.-D. Alysandratos, C. Garcia de Alba Rivas, C. Yao, P. Pessina, C. Villacorta-Martin, J. Huang, O. Hix, B. Konda, B.R. Stripp, C.F. Kim, D.N. Kotton, Boston, MA, p.A5463


806 Integration of the Induction Method of Human Pluripotent Stem Cells into Respiratory Epithelial Cells and Core-Shell Hydrogel Microfiber Culture Technology/S. Ikeo, Y. Yamamoto, K. Ikeda, N. Sone, Y. Korogi, T. Hirai, S. Gotoh, Kyoto, Japan, p.A5466

807 Effects of GHRH-R Antagonist MIA-602 or Agonist MR-409 on Human iAT2 Cells Exposed to Cytokines or LPS/R. M. Jackson, T. Cui, M. Wangpaichitr, A.V. Schally, Miami, FL, p.A5467

808 Generation of Human Alveolar Epithelial Type I Cells from Pluripotent Stem Cells/C. Burgess, C. Villacorta-Martin, X. Varelas, E.E. Morrisey, D.N. Kotton, Boston, MA, p.A5468

809 An Induced Pluripotent Stem Cell-Based Model to Study Lung Mesenchyme Development and Disease/A. B. Alber, M. Ma, H.A. Marquez, C. Villacorta-Martin, J. Lindstrom-Vautrin, W. Shi, L. Ikonomou, D.N. Kotton, Boston, MA, p.A5469

810 Smoke Without Fire: E-Liquid Exposure Impairs Cross-Talk Between Human Induced Pluripotent Stem Cell-Derived Vascular Cell Types Via a Paracrine Mechanism/M. Ho, M. Ho, C. Librach, Toronto, Canada, p.A5470


815 Group 2 Innate Lymphoid Cells Promote Tracheal Epithelial Growth and Repair/A. Ysasi, B. Thapa, L. Ma, J. Rock, G. Murphy, Boston, MA, p.A5475


823 Overproduction of MUC5B Impairs the Alveolar Repair in COPD/Y. Hu, K. Riemondy, B. Gao, J. Hesselberth, M. Koenigshoff, C. Evans, Aurora, CO, p.A5483


Relaxation of Mouse Trachea via Betaionone Activation of Opsin 3/P.D. Yim, New York, NY, p.A5492


Mucus Properties and Airway Inflammatory Profiles Across the Spectrum of Airways Diseases/E. Cant, M. Bottier, R. Urquhart, A. Gilmour, M. Crichton, D. Cassidy, M. Shuttleworth, H. Keir, J. Huang, A. Shoemark, J.D. Chalmers, Dundee, United Kingdom, p.A5494


Pitavastatin Potentiates Beta2-Agonist Induced Bronchodilation/N. Schaible, R. Guo, E. Phalen, K. Chmiel, X. Ai, Y. Bai, A.A. Zeki, R. Krishnan, Boston, MA, p.A5496


Small-Molecule Mediated Chemical Knockdown of Muscle RING-Finger Protein 1 (MuRF1) Prevents Diaphragm Dysfunction Induced by Mechanical Unloading Driven by Unilateral Denervation/F. Ribeiro, C. Vieira, S. Labeit, A. Moriscot, Sao Paulo, Brazil, p.A5503


Cases in Thoracic Oncology: A Lively Poster Discussion

12:45 p.m. - 2:15 p.m. MOSCON CENTER

Room 207-208 (South Building, Level 2)

Poster Viewing 12:45-1:15

Discussion 1:15-2:15

Chairing: Y. Gesthalter, MD, San Francisco, CA M. Ramsey, MD, Standford, CA

An Unusual Case of Accelerated Pulmonary Metastatic Disease in a Patient with Endometrial Carcinoma/F. Figueroa Rodriguez, A.A. Ghauni, S. Gupta, H. Bhardwaj, Oklahoma City, OK, p.A5504


Deceptive Pulmonary Nodule Imaging in the Setting of Chest Wall Lesions/S. Ely, G.A. Woodard, New Haven, CT, p.A5506


Myelomatous Pleural Effusion. Case Series from the Myeloma Center at the University of Arkansas for Medical Sciences (UAMS)/A.A. Mitma, F. van Rhee, E.G. Kocurek, Little Rock, AR, p.A5508
306  A Ping Pong Ball in My Airway: An Uncommon Endotracheal Tumor/D. Kulkarni, E.A. Celis, Tampa, FL, p.A5509


308  Isolated Endobronchial Diffuse Large B-Cell Lymphoma- A Rare Presentation/R. Meenakshisundaram, M. Assaad, A. Karki, J. Lantry, M. Swalih, Sayre, PA, p.A5511

309  A Case of SMARCA4-Deficient Non-Small Cell Lung Carcinoma with Aggressive Clinical Course and Poor Response to Chemotherapy/N. Khan, P. Jani, B. Zhao, S.H. Jafri, S. Zhang, H. Sun, Houston, TX, p.A5512

310  Organizing Pneumonia Secondary to Eribulin/V. Chun, R.P. Lau, S.S. Oh, Los Angeles, CA, p.A5513

311  Case Series of Bronchial Adenomas Treated with Cryoablation Therapy/N.G. Gomez, J.R. Gonong, Quezon City, Philippines, p.A5514

312  Management of a Rare Thoracic Tumor Presenting as an Asthma Mimic/T.W. Campbell, M.J. Sobieszczky, W.A. Warren, J.C. Hunninghake, Ft. Sam Houston, TX, p.A5515

313  Sjogren’s-Associated Interstitial Lung Disease or Neoplasia: Surgical Cuts Will Cut to the Chase/A. Karambelkar, M.A. Ghamloush, Boston, MA, p.A5516


315  A Case of Endobronchial Lipoma with Severe Secondary Sequelae/L.V. Burkart, V. Terla, N. Kister, Charleston, WV, p.A5518

316  Four Unique Cases of Non-Small Cell Cancer Transformation to Small Cell Carcinoma/H.M. Aslam, S. Veeraballi, Z. Saeed, Greenville, NC, p.A5519

317  Rare Case of Mantle Cell Lymphoma Presented as Malignant Pleural Effusion and Pleural Nodules/Z. Noori, M. Omballi, Toledo, OH, p.A5520

