Highlights for Clinicians
Now Available! This completely revised 7th Edition covers the prevention, diagnosis, and treatment of tuberculosis and nontuberculous mycobacterial infections.

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“A truly modern book that offers students, practitioners, and all readers the chance for a full immersion into the science of tuberculosis.”

—Mario Raviglione, MD, Global TB Programme, World Health Organization
Dear Clinician,

Welcome to ATS 2018 San Diego!

Each year, the ATS International Conference offers clinicians from many disciplines the opportunity to learn about the latest developments in the fields of pulmonary, critical care, and sleep disorders. As one of the largest gatherings of its kind, the conference fosters formation of professional networks that individuals can call upon when they have a difficult case or are looking for integrated clinical approaches or research collaborators. The conference also provides attendees with state of the art information and cutting-edge insights into the diagnosis and management of lung diseases, critical illness, and sleep disorders.

In addition to the highly popular adult and pediatric core curriculum sessions, select scientific symposia incorporate corresponding Maintenance of Certification modules through the Accreditation Council for Continuing Medical Education (ACCME) and the American Board of Pediatrics (ABP), providing opportunities for attendees to earn MOC points and ABP MOC Part 2 Self-Assessment credits. Sessions offering MOC points are designated in the Final Program.

To advise those focused on directly advancing their clinical skills and knowledge at the 2018 ATS International Conference, we have produced this condensed program, **Highlights for Clinicians**, which contains selected sessions that may be of particular interest for practicing clinicians. The sessions that are highlighted will be presented by some of the world’s most respected clinicians, educators, and scientists in pulmonary, critical care, and sleep medicine today. We hope the Highlights for Clinicians is useful to you as you plan your activities at ATS 2018.

We are delighted that you have joined us at the ATS International Conference and hope that you will have a productive and enjoyable week in San Diego.

Marc Moss, MD
President,
American Thoracic Society

Jess Mandel, MD
Chair,
International Conference Committee
The ATS Would Like to Acknowledge its 2018 Corporate Members

Thank you for your support.

American Thoracic Society

CORPORATE MEMBERSHIP PROGRAM

For more information, please visit www.thoracic.org
We invite you to take time out of your Conference schedule to visit the Exhibit Hall in the San Diego Convention Center, Hall C-G (Ground Level). See the latest products, equipment and services displayed by exhibitors in your field.

**EXHIBIT HALL HOURS**

Sunday, May 20 ......10:30 a.m. – 3:30 p.m.
Monday, May 21 ......10:30 a.m. – 3:30 p.m.
Tuesday, May 22 ......10:30 a.m. – 3:30 p.m.

Take advantage of the Exhibit Hall Only time from 1:15 – 2:15 p.m. each day.
The members of the ATS Interprofessional Team have identified a variety of symposia and review sessions within the Highlights for Clinicians that may be of specific interest to the Interprofessional Clinician (RN, APN, PA, PT, OT, and RT.) Please also search through the entire International Conference Final program for research symposia and poster sessions related to your specific research or clinical interests.

**SUNDAY, MAY 20**

- **K1** NHLBI and the Evolution of Pulmonary Research
- **A1** Clinical Year in Review 1
- **A2** JAMA and The New England Journal of Medicine. Discussion on the Edge: Reports of Recently Published Pulmonary Research
- **A4** Surviving Critical Illness: Optimizing Outcomes in the Post-ICU Space
- **A10** Pathobiology of Age-Related Lung Disease: From Bench to Bedside
- **A11** ATS/JRS/CTS/ERS Symposium on Severe Asthma: Rationalizing Targeted Therapeutics
- **A12** From Spanish Flu of 1918 to Today: What Can We Learn from Viruses?
- **A81** Pediatric Year in Review
- **A82** Reaching for the Gold: Addressing Gaps in the Current GOLD Guidelines
- **A84** The New England Journal of Medicine And JAMA Discussion on the Edge. Reports of Recently Published Critical Care Research
- **A88** CPAP and Weight Gain: Mechanisms and Beyond
- **A92** From Principles to Practice: Exploring Mechanistic Knowledge to Advance Clinical Care

**MONDAY, MAY 21**

- **B1** Clinical Year in Review 2
- **B4** Targets for Improved Sepsis Care: What, When, and How
- **B11** From E-Cigarettes to Marijuana: Addiction in Pulmonary and Critical Care Medicine
- **B12** Global Care for Sleep Disorders: Towards Universal Access
- **B82** Controversies in the Diagnosis and Treatment of COPD
- **B84** Six Controversies in Fluid Administration in Sepsis
B86 Firing on All Cylinders: Optimizing Critical Care Delivery and Improving Outcomes
B88 Just Do It: Reducing Pediatric Respiratory Health Disparities
B92 AJRCCM in 2018
WS3 How to Design a Robust Clinical Trial in Sleep Apnea: Looking Back, Looking Ahead
WS4 Caring for the Chronically-Ventilated Child: From Hospital to Home

TUESDAY, MAY 22

C1 Clinical Year in Review 3
C4 Modern Dilemmas in Critical Care: Why a Little Bit of Knowledge Can be a Dangerous Thing
C7 Medication and Beyond: Targeted Symptom Management for the Mechanically Ventilated Patient
C84 Managing Early Acute Hypoxic Respiratory Failure
C88 Yes, Your Pulmonary Patient Is Ready for Palliative Care
C93 ATS Clinical Practice Guidelines: Clinical Practice on the Cutting Edge

WEDNESDAY, MAY 23

D1 Clinical Year in Review 4
D11 Battling Burnout: Overcoming the Biggest Threat to Health Care Quality and Safety
D82 Interventional Approaches to the Treatment of Obstructive Lung Diseases
D88 Personalized Prevention of Lung Disease
D89 Long-Term Complications After Respiratory Infections and Sepsis
D90 Diversity Across the Critical Care Spectrum from Patients to Clinicians to Leaders: Why It Matters
WS8 Should This Study Change My Practice? Skills for Adept Appraisal of Critical Care Literature
The American Thoracic Society's Washington Office works on legislative and regulatory issues on behalf of ATS members. The Washington Office is the hub of an advocacy network that enables ATS members to quickly and easily participate in public policy debates by interacting with members of Congress and the federal government.

Below are just a few examples of the recent accomplishments of the ATS advocacy program:

• Advocated in Congress for research funding increases at NIH, CDC, EPA and VA
• Advocated for affordable health insurance coverage for patients with respiratory and critical illness and sleep disorders in congressional debate over the Affordable Care Act
• Secured funding for the development of the COPD National Action Plan
• Proposed new ICD-10 codes to record patient e-cigarette use;
• Participated in multiple court cases to preserve EPA’s authority to reduce air pollution;
• Participated in multiple court cases to defend FDA’s authority to regulate all tobacco products;
• Supported legislation to reauthorize and expand CDC’s domestic and international TB control programs.
• Opposed Administration proposed cuts to NIH, EPA and CDC programs.

To keep ATS members informed of its activities on Capitol Hill, the Society’s Washington Office publishes the Washington Letter, a weekly e-newsletter that updates members on what’s happening in Washington, DC. To ensure members know about changes related to Medicare coding and regulatory compliance issues, the ATS publishes the ATS Coding & Billing Quarterly, a newsletter which covers ICD-10 codes, CPT codes, Medicare regulations and responses to member questions about coding and billing issues. The ATS also produces the ATS Research News Quarterly, which provides research news on the NIH and other federal research programs. The Washington Office also sends alerts out to the membership when immediate action is needed.

To learn more about ATS advocacy initiatives and recent successes—as well as how you can become involved—please contact the ATS Government Relations staff by regular mail, phone or email, or by visiting the “advocacy” section of our website www.thoracic.org.

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Website: www.thoracic.org/advocacy
The ATS Foundation would like to thank our Research Program Partners who funded a new or ongoing grant in 2017. Thank you for helping to make this program a success!

Alpha-1 Foundation
American Lung Association of the Mountain Pacific
ATS Foundation Tobacco-Dependence Research Fund
Breathe California of Los Angeles County
Genentech

Hermansky-Pudlak Syndrome Network
Mallinckrodt Pharmaceuticals, Inc.
Pulmonary Hypertension Association
Primary Ciliary Dyskinesia (PCD) Foundation
ResMed

Our members, partners, and friends have made the ATS Foundation Research Program astoundingly successful launching research careers dedicated to scientific discovery—and better patient care.

Research Program awards and grants provide crucial support for early-career investigators from around the world.

APPLY FOR RESEARCH FUNDING: Advance your career with a grant from the ATS Foundation Research Program. Deadline for Letter of Intent: June 12, 2018

View the portfolio at thoracic.org/go/researchgrants
The American Thoracic Society is dedicated to improving the International Conference experience for pulmonary, critical care and sleep medicine professionals. To assist you with planning for the Conference, we have highlighted some events and resources which we feel will enhance your overall experience at ATS 2018.

THE NETWORKING EXCHANGE FOR EARLY CAREER PROFESSIONALS
Saturday, May 19, 5:30 p.m. – 6:30 p.m.
Marriott Marquis San Diego Marina, Pacific Ballroom Foyer (North Tower, First Floor)
The Networking Exchange for Early Career Professionals is an annual networking event for early career professionals and first time conference attendees. This event is intended to provide a relaxed atmosphere where attendees can network with peers, ATS leaders, program directors, associate program directors and division directors, as well as other prominent thought leaders. Cocktails and appetizers are served.

CENTER FOR CAREER DEVELOPMENT
Sunday, May 20 – Tuesday, May 22, 7 a.m. – 5 p.m.
Wednesday, May 23, 7:00 a.m. – 1:00 p.m.
San Diego Convention Center, Sails Pavilion (Upper Level)
The Center for Career Development is a professional networking and career development forum for early career professionals (medical students, residents, fellows, post docs, other allied health care and research professionals) in training or transitioning from training in pulmonary, critical care and sleep medicine. Informal workshops aimed at enhancing the professional development for early career professionals are held each day.

CLINICIANS CENTER
Sunday, May 20 – Tuesday, May 22, 7 a.m. – 5 p.m.
Wednesday, May 23, 7 a.m. – 1 p.m.
San Diego Convention Center, Sails Pavilion (Upper Level)
The Clinicians Center is an area designed to enhance the International Conference experience for pulmonary, critical care and sleep medicine practitioners. Meet, network, relax, refresh, and learn in a comfortable and congenial environment while gathering information and resources suited for clinicians and interprofessionals.

INTERNATIONAL PARTICIPANTS CENTER
Sunday, May 20 – Tuesday, May 22, 7 a.m. – 5 p.m.
Wednesday, May 23, 7 a.m. – 1 p.m.
San Diego Convention Center, Sails Pavilion (Upper Level)
The International Participants Center is designed to enhance the conference experience for participants from outside North America and provide opportunities for all participants to become more knowledgeable about ATS international activities. The Center also provides a place to meet with colleagues, network or just relax during your time at ATS 2018.

SCIENCE & INNOVATION CENTER
Sunday, May 20 – Tuesday, May 22, 7 a.m. – 5 p.m.
Wednesday, May 23, 7 a.m. – 1 p.m.
San Diego Convention Center, Sails Pavilion (Upper Level)
The Science & Innovation Center is a forum for scientists and researchers to meet, network, learn, and relax. The Center also offers SIC 101, a series which will provide basic principles of the some of the high profile scientific symposia.

NEW THIS YEAR
The SIC planners would like to invite PhDs and other Basic Science Researchers to a special reception event in the SIC. This event is FREE to conference registrants, and is based on first come, first serve basis. Space is limited!
Clinicians Center and Learning Lab

SUNDAY, MAY 20 – TUESDAY, MAY 22, 7 a.m. – 5 p.m.
WEDNESDAY, MAY 23, 7 a.m. – 1 p.m.

San Diego Convention Center, Sails Pavilion (Upper Level)
The Clinicians Center is an area designed to enhance the International Conference experience for pulmonary, critical care and sleep medicine practitioners. Meet, network, relax, refresh and learn in a comfortable and congenial environment while gathering information and resources suited for clinicians and interprofessionals.

Events and Education at the 2018 Clinicians Center include:

- **Shark Tank Lung Nodules**
  Sunday, May 20, 11:30 a.m. – 12:40 p.m.

- **Coding and Billing: Clinical Examples**
  Sunday, May 20, 12:50 – 2:00 p.m.

- **Best and Worst ICU Rounds**
  Monday, May 21, 11:30 a.m. – 12:40 p.m.

- **Pulmonary Hypertension, Right Heart Cath**
  Monday, May 21, 12:50 – 2:00 p.m.

- **Outstanding Clinician Award Reception**
  Monday, May 21, 4:00 – 5:00 p.m.

- **Health Policy for Clinicians**
  Tuesday, May 22, 11:30 a.m. – 12:40 p.m.

- **Advanced Disease State – Financial Principals**
  Tuesday, May 22, 12:50 – 2:00 p.m.

- **Resources for clinicians including Clinical Year in Review, Nursing Year in Review, Pediatric Year in Review**

Learning Labs
Observe Educational Session Demos in the adjacent Learning Labs while you enjoy light fare and refreshments.

**SUNDAY, MAY 20**
11:30 a.m. – 12:40 p.m.
Shock State Volume Assessment

12:50 – 2:00 p.m.
Oxygen Therapies

**MONDAY, MAY 21**
11:30 a.m. – 12:40 p.m.
Ventilator Emergencies

12:50 – 2:00 p.m.
Advanced Diagnostic Bronchoscopy

**TUESDAY, MAY 22**
11:30 a.m. – 12:40 p.m.
Real World Use of Aerosol Drug Delivery Devices: Technologies and Inhalation Techniques

12:50 – 2:00 p.m.
AVAPS/ASV/High Flow Oxygen

Free coffee and light breakfast available every morning from 7 – 9 a.m.
The ATS is offering MOC for participation in the Core Curriculum and selected symposia. Participants have the flexibility to take MOC exams for any or all of the eligible symposia attended for the conference to earn MOC.

**ABIM CME/MOC ACCREDITED**

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 44.5 MOC in the American Board of Internal Medicine’s (ABIM) Maintenance of Certification (MOC) program. It is the CME activity provider’s responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

**AMERICAN BOARD OF PEDIATRICS PART 2 MOC**

Successful completion of this CME activity, which includes participation in the activity, with individual assessments of the participant and feedback to the participant, enables the participant to earn up to 10 MOC points in the American Board of Pediatrics’ (ABP) Maintenance of Certification (MOC) program. It is the CME activity provider’s responsibility to submit participant completion information to ACCME for the purpose of granting ABP MOC credit.

See the Final Program, conference app or itinerary for information on the sessions eligible for MOC. For information on how to earn MOC, visit [http://conference.thoracic.org/program/moc.php](http://conference.thoracic.org/program/moc.php) or email moc@thoracic.org.

**CONTINUING EDUCATION**

The ATS is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The ATS partners with National Jewish Health® to provide Nursing Contact Hours for selected sessions. Provider approved by the California Board of Registered Nursing, Provider Number 12724.

To claim credits and/or hours, go to [http://conference.thoracic.org/program/cme-nursing-ce.php](http://conference.thoracic.org/program/cme-nursing-ce.php) or you may use the designated computers located in the San Diego Convention Center, Room 6 Lobby (Upper Level).
The ATS Keynote Series provides state of the art lectures on selected topics in an unopposed format showcasing timely and diverse topics in pulmonary critical care and sleep medicine.

The series includes two lectures from internationally recognized clinician scientists daily in from 8:15 – 9:00 a.m. The Series is held in the San Diego Convention Center.

**SUNDAY, MAY 20**

*Room 6 B (Upper Level)*

**NHLBI and the Evolution of Pulmonary Research**

J.P. Kiley, PhD

*Room 6 C/F (Upper Level)*

**Slow Medicine: The Key to Post-ICU Recovery?**

V. Sweet, MD

**MONDAY, MAY 21**

*Room 6 B (Upper Level)*

**Nature and Nurture of Tissue Resident Macrophages in Health and Disease**

C.K. Glass, MD, PhD

*Room 6 C/F (Upper Level)*

**Reducing Burnout and Promoting Engagement: Individual and Organizational Approaches To Physician Well-Being**

T.D. Shanafelt, MD

**TUESDAY, MAY 22**

*Room 6 B (Upper Level)*

**Hypoxemic and Ischemic Protection in Deep-Diving Seals**

P.J. Ponganis, MD, PhD

*Room 6 C/F (Upper Level)*

**Bacteriophage Therapy for Serious Multidrug Resistant Bacterial Infections**

R.T. Schooley, MD, S. Strathdee, PhD, T. Patterson, PhD

**WEDNESDAY, MAY 23**

*Room 6 B (Upper Level)*

**On Pharma: The Complexity of Innovation**

T.F. Reiss, MD, MBE

*Room 6 C/F (Upper Level)*

**The Pulmonologist as Medical Educator: A Personal Perspective**

S.E. Weinberger, MD
Postgraduate Courses are held Friday, May 18 and Saturday, May 19 and use a lecture format. Several courses also consist of a practical skills component with equipment demonstrations and these are marked below. Course attendance is limited and requires additional registration and fees.

PG1A and PG1B are parts of a 2-day course held on Friday and Saturday. Those registering for PG1A will be enrolled for both days. Below is a list of courses. Complete program and registration information is provided in the conference Final Program.

FRIDAY, MAY 18 8:00 A.M. – 4:00 P.M.

PG1A CRITICAL CARE ULTRASOUND AND ECHOCARDIOGRAPHY I (PRACTICAL SKILLS COURSE)
San Diego Convention Center, Room 9 (Upper Level)
Chairing: M.J. Lanspa, MD, MSCR, X. Monnet, MD, PhD

This session and the International Conference are supported by in-kind grants from Cook Medical, FUJIFILM Sonosite, Inc. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.

PG2 EXPANDING HORIZONS IN SUPPORT FOR RESPIRATORY FAILURE: ECMO AND BEYOND (PRACTICAL SKILLS COURSE)
San Diego Convention Center, Room 4 (Upper Level)
Chairing: H.J. Dalton, MD, C. Agerstrand, MD

This session and the International Conference are supported by an in-kind grant from FUJIFILM Sonosite, Inc. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.

PG3 ADVANCED PAP THERAPY: TREATMENT OF SLEEP DISORDERED BREATHING BEYOND OSA (PRACTICAL SKILLS COURSE)
San Diego Convention Center, Room 10 (Upper Level)
Chairing: M.E. Billings, MD, MSc, G.W. Pien, MD, MS

This session and the International Conference are supported by in-kind grants from Fisher Paykel, Philips Respironics, ResMed. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.

PG4 ASTHMA STATE OF THE ART 2018
San Diego Convention Center, Room 6 F (Upper Level)
Chairing: B.D. Medoff, MD, P. Akuthota, MD, M. Kraft, MD

This session and the International Conference are supported by an educational grant from GlaxoSmithKline. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.
PG5  RACING TO EXCELLENCE: THE ART AND SCIENCE OF CRITICAL CARE QUALITY IMPROVEMENT  
San Diego Convention Center, Room 11 B (Upper Level)  
Chairing: D.W. Ford, MD, M.E. Mikkelsen, MSCE, MD, A. Amaral, MD

PG6  SARCOIDOSIS UPDATE  
San Diego Convention Center, Room 3 (Upper Level)  
Chairing: D.A. Culver, DO, J.C. Grutters, MD  
This session and the International Conference are supported by an educational grant from Mallinckrodt Pharmaceuticals. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.

PG7  PLEURAL DISEASE 2018: EVIDENCE BASED BEST PRACTICE IN INVESTIGATIONS AND MANAGEMENT  
San Diego Convention Center, Room 6 D (Upper Level)  
Chairing: N. Rahman, BM, BCH, MSc, Y.C.G. Lee, MBChB, PhD

PG8  A PHYSIOLOGIC APPROACH TO MECHANICAL VENTILATION  
San Diego Convention Center, Room 11 A (Upper Level)  
Chairing: C.C. Hardin, MD, PhD, K. Hibbert, MD

PG9  DOES MY PATIENT HAVE ENVIRONMENTAL OR OCCUPATIONAL LUNG DISEASE?  
San Diego Convention Center, Room 7 A (Upper Level)  
Chairing: P.S. Lai, MPH, MD, Y.T. Huang, MHS, MD

PG10  DIFFICULT CLINICAL PROBLEMS IN PULMONARY AND CRITICAL CARE INFECTIONS  
San Diego Convention Center, Room 7 B (Upper Level)  
Chairing: C.A. Hage, MD, K.A. Crothers, MD, G.W. Waterer, MBBS, MBA, PhD  
This session and the International Conference are supported by an educational grant from Insmed Incorporated. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.

PG11  GENETIC PULMONARY MEDICINE  
San Diego Convention Center, Room 1 A (Upper Level)  
Chairing: B.A. Raby, MPH, MD, T.B. Kinane, MBChB, MD, L. Yonker, MD

PG12  PEDIATRIC RESPIRATORY PHYSIOLOGY: TESTS OF LUNG FUNCTION AND DISEASES THEY TEST FOR  
San Diego Convention Center, Room 1 B (Upper Level)  
Chairing: H.B. Panitch, MD, J.L. Allen, MD
PG13 FORGOTTEN AND CONTROVERSIAL TOPICS IN PULMONARY HYPERTENSION
San Diego Convention Center, Room 8 (Upper Level)
Chairing: M.G. Risbano, MD, MA, G.A. Heresi, MD, H.J. Ford, MD
This session and the International Conference are supported by an educational grant from Actelion Pharmaceuticals US, Inc. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.

PG14 ARE YOUR MITOCHONDRIA HAPPY? A BEGINNERS GUIDE TO ASSESSING MITOCHONDRIAL FUNCTION AT THE BENCH (PRACTICAL SKILLS COURSE)
San Diego Convention Center, Room 6 E (Upper Level)
Chairing: M.N. Gillespie, PhD, S.M. Cloonan, PhD, A.L. Mora, MD

PG15 PULMONARY FUNCTION AND CARDIOPULMONARY EXERCISE TESTING: CLINICAL UPDATES FOR 2018 AND CASE CONFERENCE
San Diego Convention Center, Room 2 (Upper Level)
Chairing: C. Oropez, MD, MHS, M.C. McCormack, MHS, MD, D.A. Kaminsky, MD

SATURDAY, MAY 19 8:00 A.M. – 4:00 P.M.

PG1B CRITICAL CARE ULTRASOUND AND ECHOCARDIOGRAPHY II (PRACTICAL SKILLS COURSE)
San Diego Convention Center, Room 9 (Upper Level)
Chairing: M.J. Lanspa, MD, MSCR, X. Monnet, MD, PhD
This session and the International Conference are supported by in-kind grants from Cook Medical, FUJIFILM Sonosite, Inc. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.

PG16 BRONCH DAY: A COMPREHENSIVE, HANDS-ON GUIDE TO BASIC BRONCHOSCOPY AND EBUS (PRACTICAL SKILLS COURSE)
San Diego Convention Center, Room 1 B (Upper Level)
Chairing: C. Channick, MD, S.S. Oh, DO
This session and the International Conference are supported by in-kind grants from Cook Medical, ERBE USA, Inc. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.

PG17 STUDYING PHARMACOGENOMICS IN LUNG DISEASE AND CRITICAL ILLNESS
San Diego Convention Center, Room 7 B (Upper Level)
Chairing: M.M. Wurfel, MD, PhD, G.H. Koppelman, MD, PhD, D.A. Myers, PhD

PG18 THE NUTS AND BOLTS OF QUALITATIVE RESEARCH: HOW TO DO IT WELL IN RESEARCH, MEDICAL EDUCATION, AND QUALITY IMPROVEMENT
San Diego Convention Center, Room 1 A (Upper Level)
Chairing: A. Volerman, MD, M. Eakin, PhD
PG19 INTERSTITIAL LUNG DISEASE: UPDATE AND EVOLVING TRENDS IN DIAGNOSIS AND MANAGEMENT
San Diego Convention Center, Room 6 F (Upper Level)
Chairing: G. Raghu, MD, L. Richeldi, MD, PhD, B. Collins, MD

PG20 THORACIC IMAGING FOR THE PULMONOLOGIST AND CRITICAL CARE PHYSICIAN: A CASE-BASED REVIEW
San Diego Convention Center, Room 6 E (Upper Level)
Chairing: J.P. Kanne, MD, C.C. Wu, MD

PG21 A HANDS-ON INTRODUCTION TO STUDYING THE LUNG MICROBIOME
San Diego Convention Center, Room 2 (Upper Level)
Chairing: L.N. Segal, MD, R.P. Dickson, MD, A. Pragman, MD, PhD

PG22 BRONCHIECTASIS AND ADULT CYSTIC FIBROSIS: WHERE DO WE STAND TODAY?
San Diego Convention Center, Room 11 A (Upper Level)
Chairing: A. Basavaraj, MD, S.H. Kasperbauer, MD, K.L. Winthrop, MD MPH
This session and the International Conference are supported by educational grants from Insmed Incorporated, Vertex Pharmaceuticals Inc. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.

PG23 ADVANCES IN THE DIAGNOSIS AND MANAGEMENT OF PEDIATRIC SEVERE ASTHMA
San Diego Convention Center, Room 3 (Upper Level)
Chairing: J. Gaffin, MD, L.B. Bacharier, MD, K.R. Ross, MD, MS
This session and the International Conference are supported by an educational grant from GlaxoSmithKline. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.

PG24 AERODIGESTIVE APPROACH TO COMPLEX CHRONIC PEDIATRIC DISEASES
San Diego Convention Center, Room 6 D (Upper Level)
Chairing: R.P. Boesch, DO, MS, M. Kazachkov, MD

PG25 PULMONARY EMBOLISM: A JOURNEY FROM SUBMASSIVE TO CHRONIC COMPLICATIONS
San Diego Convention Center, Room 4 (Upper Level)
Chairing: B.N. Rivera-Lebron, MD, MS, G.A. Heresi, MD

PG27 MASTER PHYSIOLOGY CLASS: COMMON DISEASES FROM A PHYSIOLOGIC PERSPECTIVE
San Diego Convention Center, Room 11 B (Upper Level)
Chairing: A. Luks, MD, R.W. Glenny, MD

PG28 WHAT THE PULMONOLOGIST AND THE INTENSIVIST SHOULD KNOW ABOUT SLEEP APNEA
San Diego Convention Center, Room 7 A (Upper Level)
Chairing: R.L. Owens, MD, B.A. Phillips, MD, MPH, R.J. Schwab, MD

PG29 STATE OF THE ART: LUNG CANCER IN 2018
San Diego Convention Center, Room 8 (Upper Level)
Chairing: D.J. Feller-Kopman, MD, M.P. Rivera, MD
Sunday, May 20 Sessions

SUNDAY MORNING, MAY 20  
7:00 A.M. – 11:15 A.M.

PCC1 PEDIATRIC CLINICAL CORE CURRICULUM
7:00 a.m. – 8:00 a.m.
San Diego Convention Center, Room 1 A-B (Upper Level)
Chairing: A. Horani, MD, MPH

7:00  Cystic Fibrosis: Update on Diagnosis, R.F. Brown, MD
7:30  Cystic Fibrosis: Update on Treatment, T. Ong, MD

This session and the International Conference are supported by an educational grant from Vertex Pharmaceuticals Inc. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.

K1 KEYNOTE SERIES
8:15 a.m. – 9:00 a.m.
San Diego Convention Center, Room 6 B (Upper Level)
NHLBI and the Evolution of Pulmonary Research, J.P. Kiley, PhD

K2 KEYNOTE SERIES
8:15 a.m. – 9:00 a.m.
San Diego Convention Center, Room 6 C/F (Upper Level)
Slow Medicine: The Key To Post-ICU Recovery? V. Sweet, MD

A1 CLINICAL YEAR IN REVIEW 1
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Hall H (Ground Level)
Chairing: D.W. Ford, MD, V.E. Ortega, MD, PhD, J.S. Lee, MD

9:15  ILD, K.A. Johannson, MD, MPH
9:45  Pulmonary Rehabilitation, W. Man, MD, PhD
10:15 Lung Transplantation, M.M. Budev, DO, MPH
10:45 Interventional Pulmonology, N. Navani, MD, MSc

A2 JAMA AND THE NEW ENGLAND JOURNAL OF MEDICINE. DISCUSSION ON THE EDGE: REPORTS OF RECENTLY PUBLISHED PULMONARY RESEARCH
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Room 29 A-D (Upper Level)
This session provides 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.

Speakers and talks to be announced

A3 FELLOWS CASE CONFERENCE
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Ballroom 20 D (Upper Level)
Chairing: L.E. Crotty Alexander, MD

9:15  Welcome and Introduction, L.E. Crotty Alexander, MD
9:20  Could This Be Related to My Dog? P. Chung, MD
9:30  Cloaked in Chyle: An Under Recognized Etiology, A. Egan, MD
9:40  Hunting for Zebras with a Local Hunter, A. Deitchman, MD

9:50  A Mysterious Etiology Causing Dyspnea in a 71 Year Old Man, T. Kukkadapu, MD

10:00  Puzzling Pulmonary Nodules, Z. Salman, MD

10:10  Don't Blame It On the Fluid, A. Arjuna, MD

10:20  Expert Clinicians, M.I. Schwarz, MD, A.E. Dixon, MD, A.H. Limper, MD

10:55  Expert Radiologist, S. Kligerman, MD

A4  SURVIVING CRITICAL ILLNESS: OPTIMIZING OUTCOMES IN THE POST-ICU SPACE
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Ballroom 20 A (Upper Level)
Chairing: D.M. Needham, MD, H. Dunn, MS

9:15  Introduction, D.M. Needham, MD, PhD, H. Dunn, MS

9:35  A Patient’s Perspective, W. Gluba

9:40  Processes of Care for Persistent and Chronic Critical Illness, L. Rose, RN, PhD

9:59  Care of Ventilated Patients at an LTACH, A. Jubran, MD

10:19  The Fire is Still Burning: A Continuing Inflammatory Cascade Post-ICU, P.A. Efron, MD

10:31  Lost in Translation: Are Interventions Designed to Assess and Support ICU Patients and Their Families Useful in the Post-ICU Period? J. Tate, PhD, RN

10:51  Care Innovations in the Post-ICU Space, S.I. Hammerman, MD

A7  LEVERAGING MOLECULAR MECHANISMS OF GRANULOMA FORMATION IN SARCOIDOSIS TO IMPROVE CARE
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Ballroom 20 B-C (Upper Level)
Chairing: N.Y. Hamzeh, MD, K.C. Patterson, MD, J.C. Grutters, MD

9:15  A Patient’s Perspective, T. Waters, ANP-BC, MBA

9:20  A Brief Review of Granuloma Immunology, L. Koth, MD

9:30  Insights into Early Sarcoidosis Granuloma Formation in Sarcoidosis and TB using a Human in Vitro Model, E.D. Crouser, MD

9:50  mTORC1: A Checkpoint for Sarcoidosis Progression and Novel Mouse Model of Disease, T. Weichhart, PhD

10:10  Genetic, Environmental and Microbiome Drivers of Granuloma Formation in Sarcoidosis, L.A. Maier, MSPH, MD

10:30  The Integral Role of Transcriptomics in Disease Manifestations: New Insights from the NHLBI GRADS Study, N. Kaminski, MD

10:50  Pursuit of the Holy Grail of Sarcoidosis: Identifying Disease Causing Antigens, A.P. Fontenot, MD

11:00  General Discussion

This session and the International Conference are supported by an educational grant from Mallinckrodt Pharmaceuticals. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.
A9 ACCELERATING SCIENTIFIC ADVANCEMENT OF RARE PEDIATRIC LUNG DISEASES
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Room 7 A-B (Upper Level)
Chairing: A.L. Firth, PhD, D. Al Alam, PhD, MS
9:15 Neuroendocrine Cell Hyperplasia of Infancy (NEHI): What’s New and What’s NEBulous, L.R. Young, MD
9:35 Pathogenetics of Lethal Neonatal Developmental Lung Diseases, P. Stankiewicz, MD, PhD
9:55 Cell/Gene Therapy for Pediatric Pulmonary Alveolar Proteinosis (PAP), B.C. Trapnell, MD
10:15 The Ciliary Proteome: New Insights for PCD, L. Ostrowski, PhD
10:35 Exploring ABCA3 Mutations in Pediatric Interstitial Lung Disease, M. Griese, MD
10:55 Using In Vitro Lung Models for Personalized Approaches to Treat Rare Lung Diseases, B. Gomperts, MD

A10 PATHOBIOLOGY OF AGE-RELATED LUNG DISEASE: FROM BENCH TO BEDSIDE
9:15 a.m. – 11:15 a.m.
Marriott Marquis San Diego Marina, Pacific Ballroom 22 (North Tower, First Floor)
Chairing: G.S. Skloot, MD, Y.S. Prakash, MD, PhD, P. Lee, MD
9:15 Overview of the Aging Respiratory System, Y.S. Prakash, MD, PhD
9:35 Accelerated Lung Aging and COPD, R. Gosens, PhD
10:00 Idiopathic Pulmonary Fibrosis: Prototype of Aging-Related Lung Disease, V.J. Thannickal, MD
10:25 The Impact of Aging on Acute Lung Injury and ARDS, P. Lee, MD
10:50 Anti-Aging Molecules and Therapeutic Interventions, I. Petrache, MD

A11 ATS/JRS/CTS/ERS SYMPOSIUM ON SEVERE ASTHMA: RATIONALIZING TARGETED THERAPEUTICS
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Room 6 A (Upper Level)
Chairing: G.P. Downey, MD, B.D. Levy, MD, K. Asano, MD, E. Bel, MD, PhD
9:15 Introduction and Overview of Severe Asthma, S.E. Wenzel, MD
9:20 ORMDL3 and Epithelial Derived Mediators for Induction of Asthmatic Response, C.M. Lloyd, PhD
9:40 Complex Crosstalk Between Epithelial Cells and Immune Cells in Asthma, H. Nakajima, PhD, MD
9:58 New Insights Into Severe Eosinophilic Inflammation: ETosis and Extracellular Traps, S. Ueki, MD, PhD
10:15 Targeting IL5 in Severe Asthma: The Ligand or the Receptor? P.K. Nair, MD, PhD
10:35 Mitochondrial Arginine Metabolism Supported Bioenergetics in Asthma, S.C. Erzurum, MD
10:55 Early School-Based Interventions to Treat and Prevent Childhood Asthma, W. Phipatanakul, MD

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A12 FROM SPANISH FLU OF 1918 TO TODAY: WHAT CAN WE LEARN FROM VIRUSES?
9:15 a.m. – 11:15 a.m.
Marriott Marquis San Diego Marina, Grand Ballroom 8-9 (North Tower, Lobby Level)
Chairing: S. Donnelly, MD, B.B. Moore, PhD, C. Dela Cruz, MD, PhD, S.M. Cloonan, PhD

9:15 Spanish Flu of 1918: Lesson Learnt, M. Worobey, PhD
9:40 Viruses and Pulmonary Fibrosis, S. Donnelly, MD
10:05 Virus, Immunity and Asthma, N.W. Lukacs, PhD
10:30 Viruses and Immune Memory: The Adaptation Race, F.E. Lee, MD
10:55 An Update on Ebola Virus, S. Schendel, PhD

A13 ATS/ALA IMPLEMENTATION GUIDE FOR LUNG CANCER SCREENING: AN OPERATIONAL TOOLKIT
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Room 16 A-B (Mezzanine Level)
Chairing: C.C. Thomson, MD, MPH, R.S. Wiener, MD, MPH, P.J. Mazzone, MD, MPH

9:15 Welcome, C.C. Thomson, MD, MPH
9:20 Implementing Lung Cancer Screening: Promise and Pitfalls of Translating Evidence to Practice, R.S. Wiener, MD, MPH
9:30 ATS/ALA Implementation Guide and Toolkit for Lung Cancer Screening, C.C. Thomson, MD, MPH
9:40 Lung Cancer Screening Program Development: The Importance of a Steering Committee to Guide the Way, A. McKee, MD
9:55 Patient Selection and Promoting Lung Cancer Screening Among PCPs: Getting It Right, C.G. Slatore, MD
10:10 Operational Toolkit for Image Acquisition and Radiology Reporting in Lung Cancer Screening Programs, K. Sandler, MD
10:25 A Tough Act To Follow: Pulmonary Nodules Detected by Lung Cancer Screening, M.K. Gould, MD, MS
10:40 Shared Decision Making, Smoking Cessation, and Promoting Health Equality in Lung Cancer Screening Programs, A. Borondy-Kitts, MS, MPH
11:00 Wrap Up and Discussion, P.J. Mazzone, MD, MPH

SUNDAY MID-DAY, MAY 20
11:45 A.M. – 1:15 P.M.
WS1 DIAGNOSING PRIMARY CILIARY DYSKINESIA IN ADULTS AND CHILDREN
11:45 a.m. – 1:15 p.m.
San Diego Convention Center, Room 9 (Upper Level)
Registration Fee: $75. Attendance is limited. Pre-registration is required.
Chairing: A.J. Shapiro, MD, S.D. Dell, MD

11:45 Case Presentations, D. Polineni, MPH, MD
11:55 Overview of PCD Pathophysiology and Utility of Clinical Symptoms for Diagnosis, S.D. Dell, MD
12:15 High Speed Video Microscopy and Nasal Nitric Oxide for Diagnosing PCD, A.J. Shapiro, MD
12:35 Utility of Genetic Testing in Diagnosing PCD, D. Polineni, MPH, MD
12:50 Summary of Recommendations for the Diagnosis of PCD, A.J. Shapiro, MD
1:00 Question and Answer Period, S.D. Dell, MD
WS2  BRONCHOSCOPIC CRYOBIOPSY IN INTERSTITIAL LUNG DISEASE: EVIDENCE AND TECHNIQUE
11:45 a.m. – 1:15 p.m.
San Diego Convention Center, Room 10 (Upper Level)
Registration Fee: $75. Attendance is limited. Pre-registration is required.
Chairing: G.Z. Cheng, MD, PhD, M.M. Wahidi, MBA, MD
11:45  Evidence of Cryobiopsy in Interstitial Lung Disease, L.B. Yarmus, DO
12:05  Technique in Transbronchial Cryobiopsy: American Perspective, M.M. Wahidi, MBA, MD
12:25  Technique in Transbronchial Cryobiopsy: European Perspective, F.J. Herth, MD
12:45  Interactive Session: Learning from the Experts, G.Z. Cheng, MD, PhD, L.B. Yarmus, DO, M.M. Wahidi, MBA, MD, F.J. Herth, MD

CC1  SLEEP MEDICINE CLINICAL CORE CURRICULUM I
11:45 a.m. – 1:15 p.m.
San Diego Convention Center, Hall H (Ground Level)
Chairing: S.M. Jamil, MD, T.S. Wang, MD, W.D. Conwell, MD
11:45  Etiology and Assessment of Hypersomnia, J. Cooksey, MD
12:15  Narcolepsy: Pathophysiology and Treatment, M. Cao, DO
12:45  Non-Narcoleptic Hypersomnias: Pathophysiology and Treatment, L.A. Panossian, MD

MP  MEET THE PROFESSOR SEMINARS
12:15 p.m. – 1:15 p.m.
Marriott Marquis San Diego Marina
Registration Fee: $70. Attendance is limited. Pre-registration if required.
See Final Program for seminar titles and speakers.

TSS1  NEUROMUSCULAR RESPIRATORY FAILURE
12:15 p.m. – 1:15 p.m.
Marriott Marquis San Diego Marina, Palomar (South Tower, Third Floor)
This is a 3-part series. Those registering for this seminar series are registered for all 3 parts.
Registration Fee: $140. Attendance is limited. Pre-registration is required.
Identification and Treatment Options by Disease Stage, D. McKim, MD
Transitoning Care from Pediatric to Adult Treatment Modalities, D.W. Sheehan, MD, PhD
Part 2, Monday, May 21, 12:15 p.m. – 1:15 p.m.
Part 3, Tuesday, May 22, 12:15 p.m. – 1:15 p.m.

SUNDAY AFTERNOON, MAY 20
2:15 P.M. – 4:15 P.M.

A81  PEDIATRIC YEAR IN REVIEW
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 6 B (Upper Level)
Chairing: P.E. Moore, MD, S.D. Dell, MD
2:15  Update on Management of Severe Asthma in Children, C.L. Yang, MD, MSc
2:45  Enhancing Innate Immune Function to Counter Multidrug-Resistant Superbugs in Pneumonia and Cystic Fibrosis, V. Nizet, MD
A82 REACHING FOR THE GOLD: ADDRESSING GAPS IN THE CURRENT GOLD GUIDELINES
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Ballroom 20 B-C (Upper Level)
Chairing: B.R. Celli, MD, J.A. Wedzicha, MD, PhD, S.P. Bhatt, MD
2:15 GOLD Guidelines 2018: Where are We Going and Where Have We Been?
A. Agusti, MD
2:25 The Forgotten Phenotypes: Symptomatic Smokers and Chronic Bronchitis,
V. Kim, MD
2:40 Exercise Testing and Physical Activity Assessment: Who, When and Why?
R. Casaburi, MD, PhD
2:55 Beyond the Lung: Addressing Comorbidity Screening and Treatment,
J.M. Bon, MD, MS
3:10 Not Just Smoking Cessation: Addressing Non-Tobacco Smoke COPD Risk
Factors, N.N. Hansel, MD, MPH
3:25 Treatment in stable COPD: Navigating the LABA/LAMA/ICS Road Map,
J.A. Wedzicha, MD, PhD
3:40 Treatment in Stable and Unstable COPD: Non-Invasive Ventilation,
N. Hart, MD
3:55 Panel Discussion, B.R. Celli, MD
This session and the International Conference are supported by educational grants from
AstraZeneca LP, GlaxoSmithKline. All CME sessions have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) and are free of the control of commercial interests.

A83 GREAT CASES: CLINICAL, RADIOLOGIC, AND PATHOLOGIC CORRELATIONS BY MASTER PHYSICIANS
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Ballroom 20 D (Upper Level)
Chairing: A.C. Wang, MD, S.P. Kantrow, MD
2:15 A Persistent Narrowing, L. Riley, MD
2:25 Homeless in LA, S.C. Guo, MD
2:35 Looking Past the Heartache, K.I. Aronson, MD
2:45 Casting a Wide Diagnostic Net in Pediatric Respiratory Failure, J. Levin, MD
2:55 Things That Go Bump in the Airway, J. Ng, MD
3:05 A Mosaic Mystery, B.L. Icard, DO
3:15 The Lungs as “The Punisher”, M. Scoulous-Hanson, DO
3:25 Radiologic Findings, A.G. Wilcox, MD
3:37 Pathologic Findings, J.L. Myers, MD
3:50 Master Clinicians, S.I. Rounds, MD, M.I. Schwarz, MD
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A84  THE NEW ENGLAND JOURNAL OF MEDICINE AND JAMA. DISCUSSION ON THE EDGE: REPORTS OF RECENTLY PUBLISHED CRITICAL CARE RESEARCH

2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 29 A-D (Upper Level)
This session provides 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 critical care 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 critical care medicine.

Speakers and talks to be announced

A88 CPAP AND WEIGHT GAIN: MECHANISMS AND BEYOND

2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 7 A-B (Upper Level)
Chairing: E. Tasali, MD, M.T. Naughton, MD, C.P. O’Donnell, PhD, N. Ayas, MPH, MD
2:15 CPAP and Weight Gain: Up to Date Evidence From Randomized Clinical Trials, L.F. Drager, MD
2:35 CPAP and Weight Gain: What do We Know About the Mechanisms? S. Pamidi, MD
3:00 Is the Weight Gain After CPAP Clinically Meaningful? D. Schoeller, PhD
3:25 CPAP and Weight Gain: Good or Bad? C.M. Hoyos, BSc(Hons), MPH, PhD
3:50 Future in OSA Management: New Technology-Based Weight Loss Interventions, B. Spring, PhD

A89 EMERGING CONCEPTS IN CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION

2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 15 A-B (Mezzanine Level)
Chairing: G.A. Heresi, MD, MS, W.R. Auger, MD
2:15 From Acute PE to CTEPH: Epidemiology and Detection — Can We Do Better? F.E.A. Klok, MD, PhD
2:35 CTEPH Pathogenesis and Pathology: A New Understanding, P. Dorfmuller, PhD, MD
2:55 Diagnosis and Surgical Treatment: Time Tested Strategies and Recent Advances, W.R. Auger, MD
3:15 Chronic Thromboembolic Disease Without Pulmonary Hypertension: A New Frontier? G.A. Heresi, MD, MS
3:35 Balloon Pulmonary Angioplasty: The “Not So New” Kid on the Block, D.S. Poch, MD
3:55 Medical Therapy and Future Perspectives in CTEPH, N.H. Kim, MD

A90 CRACKING THE VACCINE CODE IN TB: INNATE IMMUNITY

2:15 p.m. – 4:15 p.m.
Marriott Marquis San Diego Marina, Grand Ballroom 8-9 (North Tower, Lobby Level)
Chairing: M. Divangahi, PhD, J.M. Keane, MD, D.M. Lewinsohn, MD, PhD
2:15 Conventional T Cells in Vaccines Against TB, J.D. Ernst, MD
2:35 Interferon-Gamma and Vaccines Against TB, S. Behar, MD, PhD
2:55 Unconventional T Cells in TB Vaccine Development, D.M. Lewinsohn, MD, PhD
3:08 The Impact of Diabetes on Immunity Against TB, H. Kornfeld, MD
3:28 Targeting Metabolism in Vaccines Against TB, J.M. Keane, MD
3:41 Stem Cells in TB Vaccine Development, M. Divangahi, PhD
3:54 Trained Innate Immunity in Vaccines Against TB, M. Netea, MD, PhD
A91 REDUCING DISPARITIES IN ENVIRONMENTAL LUNG DISEASE: EMERGING METHODS IN EXPOSURE MITIGATION
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 30 A-B (Upper Level)
Chairing: J.C. Celedon, DrPH, MD, E. Brigham, MD, MHS, F.D. Gilliland, MD, PhD, B.J. Sheares, MD, MS
2:15 Disparities in Environmental Exposures and Lung Health, J.R. Balmes, MD
2:40 Home Air Purifier Implementation, S. Bose, MD, MPH
3:00 Reducing Exposures Through Patient Advocacy: Legal Partnerships, D. Harris, MD
3:20 A Patient’s Perspective, M. Brisuela
3:30 Interventions to Reduce Occupational Exposure Disparities, D. Heederik, PhD
3:50 Clean Cook Stove Interventions, C.C. Hooper Miele, MD
4:10 Questions and Answers

A92 FROM PRINCIPLES TO PRACTICE: EXPLORING MECHANISTIC KNOWLEDGE TO ADVANCE CLINICAL CARE
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 33 A-C (Upper Level)
Chairing: E.R. Neptune, MD, J.L. Koff, MD, J.M. Pilewski, MD
2:15 Paradigmatic Breakthroughs for COPD, CF and Lung Transplantation, E.R. Neptune, MD
2:20 Defining Eosinophilic and Type 2 Inflammation in COPD, S. Christenson, MD
2:35 Therapeutic Interventions for COPD with Eosinophilic Inflammation, J.M. Wells, MD
2:50 Questions and Answers
2:58 Improving the Quality of Life in Patients with CF Through CFTR Modulation, J.L. Taylor-Cousar, MD
3:13 Multi-Drug CFTR Modulator Therapy Targeting the F508del CFTR Mutation, S.M. Rowe, MD
3:28 Questions and Answers
3:36 Advances in Extracorporeal Membrane Oxygenation (ECMO) as a Bridge to Transplantation, J.M. Reynolds, MD
3:51 Emergence of Ex Vivo Lung Perfusion (EVLP) to Assess and Optimize Donor Lungs, J. D’Cunha, MD, PhD
4:06 Questions and Answers

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MONDAY MORNING, MAY 21 7:00 A.M. – 11:15 A.M.

SS SUNRISE SEMINARS
7:00 a.m. – 8:00 a.m.
Marriott Marquis San Diego Marina
Registration Fee: $50. Attendance is limited. Pre-registration is required.
See Final Program for seminar titles and speakers.

PCC2 PEDIATRIC CLINICAL CORE CURRICULUM
7:00 a.m. – 8:00 a.m.
San Diego Convention Center, Room 1 A-B (Upper Level)
Chairing: P.E. Moore, MD
7:00 Neuromuscular Disorders in Children, O.H. Mayer, MD
7:30 Update on Management of Children with SMA and DMD, R. Shell, MD

K3 KEYNOTE SERIES
8:15 a.m. – 9:00 a.m.
San Diego Convention Center, Room 6 B (Upper Level)
Nature And Nurture Of Tissue Resident Macrophages In Health And Disease, C.K. Glass, MD, PhD

K4 KEYNOTE SERIES
8:15 a.m. – 9:00 a.m.
San Diego Convention Center, Room 6 C/F (Upper Level)
Reducing Burnout And Promoting Engagement: Individual And Organizational Approaches To Physician Well-Being, T.D. Shanafelt, MD

B1 CLINICAL YEAR IN REVIEW 2
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Hall H (Ground Level)
Chairing: D.W. Ford, MD, V.E. Ortega, MD, PhD, J.S. Lee, MD
9:15 COPD, M. Drummond, MHS, MD
9:45 Asthma, L.C. Denlinger, MD, PhD
10:15 Lung Cancer, R.S. Wiener, MD, MPH
10:45 Management in Pleural Disease, V.C. Broaddus, MD

B2 INTERSTITIAL LUNG DISEASE (ILD), IDIOPATHIC INTERSTITIAL PNEUMONIA (IIP) AND HYPERSENSITIVITY PNEUMONITIS (HP): CONTROVERSIES IN MANAGEMENT. A PRO/CON DEBATE
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Ballroom 20 B-C (Upper Level)
Chairing: G. Raghu, MD, B. Collins, MD
9:15 Introduction and Opening Remarks, G. Raghu, MD
9:19 Case Presentation, B. Collins, MD
9:23 Serum Biomarkers are Useful in the Guiding Diagnosis and Treatment of Idiopathic Interstitial Pneumonia and Hypersensitivity Pneumonitis, B. Crestani, MD

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9:33 Serum Biomarkers are Not Useful in the Guiding Diagnosis and Treatment of Idiopathic Interstitial Pneumonia and Hypersensitivity Pneumonitis, N. Kaminski, MD

9:43 Rebuttal: Comments and Discussion, B. Collins, MD

9:47 Case Presentation, G. Raghu, MD

9:51 Cryobiopsy is the Procedure of Choice for Obtaining Lung Tissue for Diagnosis of ILD/IIP/HP, V. Poletti, MD, PhD

10:01 Cryobiopsy is Not the Procedure of Choice for Obtaining Lung Tissue for Diagnosis of ILD/IIP/HP, A.C. Mehta, MBBS

10:11 Rebuttal: Comments and Discussion, G. Raghu, MD

10:15 Case Presentation, B. Collins, MD

10:19 Predictive Models Are Useful in Diagnosis of HP and IIP, K.A. Johannson, MD, MPH

10:29 Predictive Models Are Not Useful in Diagnosis of HP and IIP, C.J. Ryerson, MD

10:39 Rebuttal: Comments and Discussion, B. Collins, MD

10:43 Case Presentation, G. Raghu, MD

10:48 Genetic Screening Should be Routinely Done for Patients with Interstitial Pneumonia of Unknown Etiology, D.A. Schwartz, MD

10:58 Genetic Screening Should Not be Routinely Done for Patients with Interstitial Pneumonia of Unknown Etiology, M. Armanios, MD

11:08 Rebuttal: Comments and Discussion, G. Raghu, MD

11:12 Closing Remarks, G. Raghu, MD

B3 THE REVOLUTION OF LUNG IMAGING: FROM PIXELS TO PATIENTS

9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Ballroom 20 D (Upper Level)
Chairing: A. Diaz, MD, M. Kirby, PhD, F.C. Sciurba, MD

9:15 Measuring COPD with Inspiratory and Expiratory Images, M.K. Han, MD, MS

9:35 MRI for Airway Diseases: Seeing is Believing, G. Parraga, PhD

9:55 Imaging in Bronchiectasis: New Insights for an Old Problem, A. Diaz, MD

10:15 Measuring the Fibrotic Lung Beyond the Naked Eye, D.J. Lederer, MD, MS

10:35 No Cath! Assessing Pulmonary Vascular Disease with Non-Contrast CT, G.R. Washko, MD

10:55 Is Lung Imaging an End-Point Ready for Trials? D.G. Parr, MA, MBBS, MD

B4 TARGETS FOR IMPROVED SEPSIS CARE: WHAT, WHEN, AND HOW

9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Ballroom 20 A (Upper Level)
Chairing: M.M. Churpek, MD, MPH, PhD, V. Liu, MD, MS, H.C. Prescott, MD, MSci

9:15 Targeting Earlier Identification: From qSOFA to Big Data, M.M. Churpek, MD, MPH, PhD

9:32 Aiming for Early Antibiotics: Should we Move the Needle to the Pre-Hospital Setting? C.W. Seymour, MD, MSc

9:49 Should We be Clearing Lactate for All our Patients? V. Liu, MD, MS

10:06 Fever Control as a Therapeutic Target in Sepsis: Is it Cool to Be Hot or Hot to Be Cold? P. Young, MBChB

10:23 Intravenous Vitamin C: An Evolving Role in Sepsis and Acute Lung Injury, A.A. Fowler, MD

10:40 Restoring the Microbiome to Improve Recovery, H.C. Prescott, MD, MSci

10:57 How I Treat Patients with Sepsis in 2018, L.E. Evans, MD, MSc
B6  PRINCIPLES TO PRACTICE IN PULMONARY REHABILITATION: A PRO/CON DEBATE  
9:15 a.m. – 11:15 a.m.  
San Diego Convention Center, Room 16 A-B (Mezzanine Level)  
Chairing: R. Casaburi, MD, PhD, M. Steiner, MBBS, MD  

9:15  Introduction, R. Casaburi, MD, PhD  
9:17  Increasing Physical Fitness Should Be the Primary Goal of Pulmonary Rehabilitation, H.B. Rossiter, PhD  
9:31  Increasing Physical Activity Should Be the Primary Goal of Pulmonary Rehabilitation, T. Troosters, PT, PhD  
9:45  Muscle Fiber Atrophy in COPD Starts with Loss of Integrity in the Neuromuscular Junction, R. Hepple, PhD  
10:00  Muscle Fiber Atrophy in COPD Starts with Inflammatory-Mediated Ubiquitin Proteasome Activation, E. Barreiro, MD, PhD  
10:15  Ventilatory Limitation is the Major Etiology of Exercise Intolerance in COPD, D.E. O’Donnell, MD  
10:30  Skeletal Muscle Oxygen Delivery and Utilization Limitations are the Major Etiologies of Exercise Intolerance in COPD, R. Casaburi, MD, PhD  
10:45  Exercise Training Reverses Muscle Dysfunction in COPD, P.D. Wagner, MD  
11:00  Exercise Training Does Not Reverse Muscle Dysfunction in COPD, F. Maltais, MD  

B7  GENETICS, EPIGENETICS, AND GENOMICS OF CHILDHOOD LUNG DISEASES  
9:15 a.m. – 11:15 a.m.  
San Diego Convention Center, Room 1 A-B (Upper Level)  
Chairing: E. Forno, MD, MPH, E.D. Austin, MD  

9:15  Introduction, E. Forno, MD, MPH  
9:20  Recent Advances in the Genetics and Epigenetics of Childhood Asthma, E. Forno, MD, MPH  
9:40  Questions and Answers, E. Forno, MD, MPH  
9:43  The Role of the Transcriptome in Asthma and Glucocorticoid Response, B.E. Himes, PhD  
10:03  Questions and Answers, B.E. Himes, PhD  
10:06  CFTR Regulation, Disease Modifiers, and Their Interactions, L. Strug, PhD  
10:26  Questions and Answers, L. Strug, PhD  
10:29  Genomic Regulation in Pulmonary Hypertension, E.D. Austin, MD  
10:49  Questions and Answers, E.D. Austin, MD  
10:52  Genetics and Epigenetics of Bronchopulmonary Dysplasia, N. Ambalavanan, MD  
11:12  Questions and Answers, N. Ambalavanan, MD  

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B8  NONTUBERCULOUS MYCOBACTERIA INFECTION: CURRENT KNOWLEDGE AND RECENT ADVANCES  
9:15 a.m. – 11:15 a.m.  
Marriott Marquis San Diego Marina, Grand Ballroom 8-9 (North Tower, Lobby Level)  
Chairing: K.L. Winthrop, MD, MPH, S.H. Kasperbauer, MD, K.N. Olivier, MD, MPH
9:15 A Patient’s Perspective, M. O’Bryan
9:20 NTM Epidemiology, E. Henkle, PhD, MPH
9:35 Environmental NTM, R. Thomson, MBBS, PhD
9:55 Molecular Epidemiology, J. van Ingen, PhD
10:15 Immunology/Pathogenesis, K.N. Olivier, MD, MPH
10:35 Diagnosis of NTM, K. Morimoto, MD
10:55 Updates in Pulmonary NTM Disease Treatment: At the Start of a Pipeline? C.L. Daley, MD

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B10 LUNG CANCER SCREENING: WHO’S IN AND WHO’S OUT? A PRO/CON DEBATE
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Room 32 A-B (Upper Level)
Chairing: J. Iaccarino, MD, M.P. Rivera, MD, L.T. Tanoue, MD, C.R. Sears, MD

9:15 Patients with Moderate to Severe COPD Should Undergo LDCT Screening for Lung Cancer, J.J. Zulueta, MD
9:35 Patients with Moderate to Severe COPD Should Not Undergo LDCT Screening for Lung Cancer, J. Iaccarino, MD
9:55 LDCT Screening Patient Selection Should Be Based on USPSTF Guideline Criteria, C.G. Slatore, MD
10:15 LDCT Screening Patient Selection Should Be Based on Personalized Lung Cancer Risk Prediction Models, M.C. Tammemagi, PhD
10:35 Biomarkers Should Be Utilized in Determining Patient Selection for Lung Cancer Screening, R.P. Young, MBChB, MD, PhD
10:55 Biomarkers Should Not Be Utilized in Determining Patient Selection in Lung Cancer Screening, C.R. Sears, MD

B11 FROM E-CIGARETTES TO MARIJUANA: ADDICTION IN PULMONARY AND CRITICAL CARE MEDICINE
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Room 14 A-B (Mezzanine Level)
Chairing: B.J. Clark, MD, MS, W.J. Janssen, MD, A.C. Melzer, MD, MS

9:15 What Does Translational Research Teach Us About the Toxicities of Electronic Cigarettes? L.E. Crotty Alexander, MD
9:30 Are Electronic Cigarettes an Emerging Public Health Problem? Speaker To Be Announced
9:45 What Does Translational Research Teach Us About the Toxicities of Inhaled Marijuana? D.P. Tashkin, MD
10:00 Marijuana and Lung Health in 2018: What Do We Know and Where Should We Go? E.L. Burnham, MD
10:15 Emerging Therapies to Alter the Natural History of COPD, P.J. Barnes, MD, DSc
10:30 Personalizing Financial Incentives for Smoking Cessation, S.D. Halpern, MD, PhD
10:45 Modifying Impaired Immunity in the Alcoholic Lung Through PPAR-Gamma, S.M. Yeligar, PhD, MS
11:00 Are ICU Teams Missing an Opportunity to Intervene in Alcohol Misuse? M. Afshar, MSCR, MD
MONDAY MID-DAY, MAY 21

WS3 HOW TO DESIGN A ROBUST CLINICAL TRIAL IN SLEEP APNEA: LOOKING BACK, LOOKING AHEAD
11:45 a.m. – 1:15 p.m.
San Diego Convention Center, Room 9 (Upper Level)
Registration Fee: $75. Attendance is limited. Pre-registration is required.
Chairing: N.A. Shah, MD, MPH, MSci, S. Pamidi, MD, D.J. Gottlieb, MD, MPH

11:45 Introduction, N.A. Shah, MD, MPH, MSci
11:55 Looking Ahead: Future Clinical Trial Designs in Sleep Apnea, S.S. Redline, MD
12:15 Dosing and Interpretation of CPAP Adherence in Clinical Trials, D.M. Rapoport, MD
12:35 Strategies to Improve CPAP Adherence in Future Clinical Trials: Lessons From Other Disciplines, K.A. Riekert, PhD
12:55 Individual and Composite Study Endpoints: Separating the Wheat from the Chaff, R.J. Goldberg, PhD

WS4 CARING FOR THE CHRONICALLY-VENTILATED CHILD: FROM HOSPITAL TO HOME
11:45 a.m. – 1:15 p.m.
San Diego Convention Center, Room 10 (Upper Level)
Registration Fee: $75. Attendance is limited. Pre-registration is required.
11:45 Pediatric Chronic Home Invasive Ventilation Guidelines, L.M. Sterni, MD
11:55 A Standardized Discharge Process for Unique Chronically-Ventilated Children, C.D. Baker, MD
12:05 Trach Safe: Improving the Safety of Every Child with a Trach, J.J. Soares, MD
12:15 Variation in the Approach to Chronic Ventilation: Location Matters, J. Edwards, MD, MA
12:30 Weaning Chronic Ventilation and Decannulation: It’s All About the Timing, A. Cristea, MD
12:45 Round Table Discussion (with all speakers), C.D. Baker, MD

CC2 CRITICAL CARE CLINICAL CORE CURRICULUM I
11:45 a.m. – 1:15 p.m.
San Diego Convention Center, Hall H (Ground Level)
Chairing: J.I. McSparron, MD, M.M. Hayes, MD, A. Luks, MD
11:45 Neurology: Monitoring, M.D. Boone, MD
12:15 Neurology: Non-Traumatic Intracranial Hemorrhage, B. Czeisler, MD
12:45 Endocrinology/Metabolism: Endocrinologic Emergencies, A. Brady, MD

MP MEET THE PROFESSOR SEMINARS
12:15 p.m. – 1:15 p.m.
Marriott Marquis San Diego Marina
Registration Fee: $70. Attendance is limited. Pre-registration if required.
See Final Program for seminar titles and speakers.

TSS1 NEUROMUSCULAR RESPIRATORY FAILURE
12:15 p.m. – 1:15 p.m.
Marriott Marquis San Diego Marina, Palomar (South Tower, Third Floor)
This is a 3-part series. Those registering for this seminar series are registered for all 3 parts.
Registration Fee: $140. Attendance is limited. Pre-registration is required.
Update on the Management of Respiratory Failure in DMD, R. Shell, MD
Extubation Protocols for the “Unweanable”, L. Wolfe, MD
Part 1, Sunday, May 20, 12:15 p.m. – 1:15 p.m.
Part 3, Tuesday, May 22, 12:15 p.m. – 1:15 p.m.

MONDAY AFTERNOON, MAY 21  2:15 P.M. – 4:15 P.M.

CC3 SLEEP MEDICINE CLINICAL CORE CURRICULUM II
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Hall H (Ground Level)
Chairing: S.M. Jamil, MD, T.S. Wang, MD, W.D. Conwell, MD
2:15 RLS/PLMD, B.A. Philips, MD, MPH, S. Pasha, MD
2:45 REM Behavior Disorders, B. Fields, MD
3:15 Sleep in Neurologic Disorders, M. Lipford, MD
3:45 Sleep in Neuromuscular Disease, T. Russell, MD

B81 NURSING YEAR IN REVIEW
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 30 A-B (Upper Level)
Chairing: J. Tate, PhD, RN, J.L. Guttormson, PhD, RN
Monday, May 21 Sessions

2:15 Physiologic Considerations in Older Adults with Pulmonary, Critical Care, and Sleep Conditions, C.M. Risaliti, MD

2:35 Older Adults and Chronic Pulmonary Disorders, V.M. McDonald, PhD

2:55 Critical Illness and Older Adults, J. Tate, PhD, RN

3:15 Pulmonary Rehabilitation in the Older Adult, G.S. Bauldoff, PhD, RN

3:35 Sleep Disordered Breathing in Older Adults, L. Baniak, PhD, RN

3:55 Health Policy and the Older Adult, S.J. Crowder, PhD

B82 CONTROVERSIES IN THE DIAGNOSIS AND TREATMENT OF COPD
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Ballroom 20 B-C (Upper Level)
Chairing: G.J. Criner, MD, B.R. Celli, MD, A. Agusti, MD

2:15 PRO: Is Airflow Obstruction Essential to Diagnose and Treat COPD? B.R. Celli, MD

2:25 CON: Is Airflow Obstruction Essential to Diagnose and Treat COPD? R.A. Stockley, MD, DSc

2:35 PRO: Is Personalized Treatment a Viable Goal? F.C. Sciurba, MD

2:45 CON: Is Personalized Treatment a Viable Goal? C.F. Vogelmeier, MD

2:55 PRO: Peripheral Eosinophils Are a Useful Biomarker in COPD, I.D. Pavord, MD

3:05 CON: Peripheral Eosinophils Are a Useful Biomarker in COPD, L.M. Fabbri, MD

3:15 PRO: A New Definition of COPD Exacerbation Is Needed, A. Agusti, MD

3:25 CON: A New Definition of COPD Exacerbation Is Needed, R. Rodriguez-Roisin, MD, PhD

3:35 PRO: Pulmonary Treatment of Exacerbations is Currently Adequate, J.A. Wedzicha, MD, PhD

3:45 CON: Pulmonary Treatment of Exacerbations is Currently Adequate, G.J. Criner, MD

3:55 Panel Discussion: Controversies in COPD Treatment

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B83 THE OTHER (NON–NON SMALL CELL LUNG CANCER) THORACIC MALIGNANCIES
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 1 A-B (Upper Level)
Chairing: Z.G. Fridlender, MD, D.H. Sterman, MD

2:15 Introduction: Not All Thoracic Malignancies are NSCLC, Z.G. Fridlender, MD

2:22 A Patient’s Perspective, N. Beaty

2:27 Mesothelioma: State of the Art, T. Peikert, MD

2:52 Current and Future Diagnosis and Treatment of Small Cell Lung Cancer, Speaker To Be Announced

3:17 How to Deal with Mediastinal Masses: Lymphoma and Beyond, F. Detterbeck, MD

3:37 Benign Parenchymal and Endobronchial Tumors: Diagnosis and Management, D.H. Sterman, MD

3:57 Pulmonary Neuroendocrine Tumors: Pathogenesis, Diagnosis and Management, Speaker To Be Announced
B84  SIX CONTROVERSIES IN FLUID ADMINISTRATION IN SEPSIS
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Ballroom 20 A (Upper Level)
Chairing: N. Shapiro, MD, V. Liu, MD, MS, M.J. Lanspa, MD, MSCR
2:15  What Is the Correct Target for Fluid Administration? D. Kelm, MD
2:35  How Do We Predict Response to Fluid Administration? M.J. Lanspa, MD, MS
2:55  When Should We Administer Fluid? N. Shapiro, MD
3:15  What Type of Fluid Should We Administer? M.W. Semler, MD, MSc
3:35  What Are the Harms of Excess Fluid Administration? A. Acheampong, MD
3:55  When Is It Acceptable to Diurese or Dialyze the Septic Patient? P. Honore, MD, PhD

B86  FIRING ON ALL CYLINDERS: OPTIMIZING CRITICAL CARE DELIVERY AND IMPROVING OUTCOMES
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 33 A-C (Upper Level)
Chairing: G.L. Anesi, MD, MBE, M.N. Gong, MS, MD, J. Stevens, MD, MS
2:15  Evolution of Modern Critical Care Medicine: From the Past to Future, M.N. Gong, MD, MS
2:27  Overnight Intensivist Staffing: Myths, Facts, and Lessons Learned, M.P. Kerlin, MD, MSCE
2:45  Allies in Critical Care: Integrating Advanced Practice Providers into ICU Teams, D.K. Costa, PhD, RN
3:03  In Pursuit of the Optimal Patient Load for Intensivists, H. Wunsch, MD, MSc
3:21  Determining ICU Net Benefit in Peri-Critical Illness, G.L. Anesi, MD, MBE
3:57  Who’s in Charge: Novel Organizational Models of Centralized Critical Care Governance, S.M. Pastores, MD

B87  PAYING TOO HIGH A PRICE! THE LUNG HEALTH COST OF ENERGY EXTRACTION
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 7 A-B (Upper Level)
Chairing: A. Sood, MD, MPH, T.K. Takaro, MD, M.B. Rice, MD, MPH
2:15  A Day in the Life of an American Miner, W. Jarrell, CMSP
2:25  The Life Cycle of Respiratory Disease in Coal Miners, R.A. Cohen, MD
2:45  Update on Respiratory Hazards of Natural Gas Extraction by Hydraulic Fracturing (Fracking), D.N. Weissman, MD
3:00  Petrochemical Industry and the Lung: A Clinical Translational Study on the Gulf of Mexico Oil Spill, V.B. Antony, MD
3:20  Uranium Industry and Lung Disease: Why “Clean” Fuel Might Not Be so Clean! N.A. Assad, MD
3:35  The Health Impact of Greenhouse Gas Production: A Nigerian Perspective, O.N. Nwankwo, MBBS, MSc
3:55  Alternatives to Fossil Fuels: California’s Policies to Promote Clean Energy, M.D. Nichols, JD
B88  JUST DO IT: REDUCING PEDIATRIC RESPIRATORY HEALTH DISPARITIES
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 6 B (Upper Level)
Chairing: B.J. Sheares, MD, MS, S. Lovinsky-Desir, MD, E. Brigham, MD, MHS

2:15  Targeting Poverty to Reduce Respiratory Health Disparities in Children, B. Dreyer, MD
2:40  Pediatric Asthma Disparities: Better, Worse, or About the Same, E.G. Burchard, MD, MPH
3:00  Upscaling Interventions to Reduce Disparities in Childhood Pneumonia: A Global Imperative, H.J. Zar, MD, PhD
3:20  Disparities in Cystic Fibrosis Outcomes: How Can We Close the Gap? S.A. McColley, MD
3:40  Disparities in Sleep: Is This a Silent Epidemic? B.J. Sheares, MD, MS

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B90  RAPID MOLECULAR DIAGNOSTICS FOR PNEUMONIA: IS SPEED THE ONLY THING?
2:15 p.m. – 4:15 p.m.
Marriott Marquis San Diego Marina, Grand Ballroom 8-9 (North Tower, Lobby Level)
Chairing: R. Nusrat, MD, R. Patel, MD, S. Yende, MD

2:15  Introduction, R. Nusrat, MD
2:19  The Microbiology Laboratory in the Age of Rapid Diagnostics, R. Patel, MD
2:39  Application of Rapid Technology to Community Acquired Pneumonia, M.L. Metersky, MD
2:59  Application of Technology to Hospital and Ventilator Associated Pneumonia, M.H. Kollef, MD
3:19  Predictive Values and Cost Considerations, R. Nusrat, MD
3:39  What Should a Research Agenda Look Like to Define the Clinical Utility of New Diagnostic Tests? M.S. Niederman, MD

B92  AJRCCM IN 2018
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Ballroom 20 D (Upper Level)
Chairing: J.A. Wedzicha, MD, L.J. Brochard, MD

2:15  Issues in Publication Ethics for Authors, J.A. Wedzicha, MD
2:35  Detecting Plagiarism and Image Manipulation, E. Gumpert
2:50  Statistical Pointers for AJRCCM Authors, G.C. Donaldson, PhD, BSc(Hons)
3:10  Highlights in Critical Care, L.J. Brochard, MD
3:25  Highlights in Asthma, F.D. Martinez, MD
3:40  Highlights in COPD and Interstitial Lung Disease, F.J. Martinez, MD, MS
3:55  Neonatology and Paediatric Critical Care in AJRCCM, S.H. Abman, MD

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TUESDAY MORNING, MAY 22
7:00 A.M. – 11:15 A.M.

SS  SUNRISE SEMINARS
7:00 a.m. – 8:00 a.m.
Marriott Marquis San Diego Marina
Registration Fee: $50. Attendance is limited. Pre-registration is required.
See Final Program for seminar titles and speakers.

PCC3  PEDIATRIC CLINICAL CORE CURRICULUM
7:00 a.m. – 8:00 a.m.
San Diego Convention Center, Room 1 A-B (Upper Level)
Chairing: D.M. Boyer, MD
7:00 Dysphagia and Aspiration (Diagnosis), S.L. Peterson-Carmichael, MD
7:30 Multidisciplinary Approaches to the Care of Children with Aerodigestive Disorders, R.L. Rosen, MD, MPH

K5  KEYNOTE SERIES
8:15 a.m. – 9:00 a.m.
San Diego Convention Center, Room 6 B (Upper Level)
Hypoxemic and Ischemic Protection in Deep-Diving Seals, P. J. Ponganis, MD

K6  KEYNOTE SERIES
8:15 a.m. – 9:00 a.m.
San Diego Convention Center, Room 6 C/F (Upper Level)
Bacteriophage Therapy for Serious Multidrug Resistant Bacterial Infections, R.T. Schooley, MD, S.A. Strathdee, PhD, T. Patterson, PhD

C1  CLINICAL YEAR IN REVIEW 3
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Hall H (Ground Level)
Chairing: D.W. Ford, MD, V.E. Ortega, MD, PhD, J.S. Lee, MD
9:15 Genomics and Precision Medicine in Lung Disease, V.E. Ortega, MD, PhD
9:45 ARDS, A.J. Goodwin, MD, MSCR
10:15 Cystic Fibrosis, N.E. West, MD
10:45 Sleep Disordered Breathing, S. Shafazand, MD, MS
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C2  INTERSTITIAL LUNG DISEASE FROM CRADLE TO GRAVE
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Ballroom 20 B-C (Upper Level)
Chairing: J. Morisset, MD, M. Wijsenbeek, MD, PhD, H.R. Collard, MD
9:15 Introduction, J. Morisset, MD
9:20 Case Vignette 1, M. Wijsenbeek, MD, PhD
9:25 CHILD: From Infancy to Puberty and Beyond, R.R. Deterding, MD
9:50 Case Vignette 2, M. Wijsenbeek, MD, PhD
9:55 ILA: The Unexpected Detected and What Now? G.M. Hunninghake, MD, MPH
10:20 Case Vignette 3, M. Wijsenbeek, MD, PhD
10:25 Pulmonary Fibrosis: One Size Fits All? K.K. Brown, MD
10:50 Case Vignette 4, M. Wijsenbeek, MD, PhD
10:55 ILD Care: A Matter of Life and Death, J. Morisset, MD
C3 STATE OF THE ART PLEURAL DISEASE MANAGEMENT: CLINICAL TRIALS CHANGING CARE PRACTICE
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Ballroom 20 D (Upper Level)
Chairing: V.C. Broaddus, MD, D.J. Feller-Kopman, MD

9:15 State of the Art Management of Malignant Pleural Effusions, N. Maskell, MD
9:40 State of the Art Management of Pleural Infection, Y.C.G. Lee, MBChB, PhD
10:05 State of the Art Translational Advances in Tuberculous Pleural Effusions, C.F. Koegelenberg, MD, PhD
10:25 State of the Art Management of Pneumothorax, N. Rahman, BM BCH, MSc, DPhil
10:50 State of the Art Application of Biomarkers for Pleural Diseases, J.M. Porcel, MD

C4 MODERN DILEMMAS IN CRITICAL CARE: WHY A LITTLE BIT OF KNOWLEDGE CAN BE A DANGEROUS THING
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Ballroom 20 A (Upper Level)
Chairing: K. Hibbert, MD, M. Hua, MD, MSci, H.B. Gershengorn, MD

9:15 Why the Data in Critical Care Are so Difficult, T.J. Iwashyna, MD, PhD
9:33 Should We Teach the Old Ways? DL vs VL in Airway Management, M.W. Semler, MD, MSc
9:51 Should We Re-Evaluate the Evidence? Early Physical and Occupational Therapy in the ICU, R. Bakhru, MD
10:09 Should We Believe Counter-Intuitive Data? Palliative Care Communication and Increased Symptomatology, J.E. Nelson, MD
10:27 How Far Should We Extrapolate Data? Spontaneous Breathing in ARDS, M.B. Amato, MD
10:45 How Do We Reconcile Conflicting Data? Fluids Are Harmful, but so Are Pressors, N. Shapiro, MD, MPH
11:03 Panel Discussion, K. Hibbert, MD

C7 MEDICATION AND BEYOND: TARGETED SYMPTOM MANAGEMENT FOR THE MECHANICALLY VENTILATED PATIENT
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Room 30 A-B (Upper Level)
Chairing: J.L. Guttormson, PhD, R.O. Hopkins, PhD

9:15 The Patient Experience of Mechanical Ventilation: What Symptoms Should We Be Assessing? B.A. Khan, MD
9:30 Symptom Assessment During Mechanical Ventilation: Strategies to Address Challenges with Self-Report in Nonvocal Patients, J.L. Guttormson, PhD
9:45 Management of Anxiety During Mechanical Ventilation, L.L. Chlan, PhD, RN
10:05 Managing Pain and Discomfort During Mechanical Ventilation, C. Gelinas, BScN, MScN, PhD
10:25 Management of Ventilator Dyssynchrony and Dyspnea During Mechanical Ventilation, K.G. Mellott, PhD, MSN, BSN, RN
10:45 Pediatric Patients on the Ventilator: Targeted Symptom Management, M.A. Curley, PhD, RN
11:05 Panel Discussion: Integrating Targeted Symptom Assessment and Management into Your Clinical Practice, J.L. Guttormson, PhD
C8 TRANSLATIONAL IMMUNOLOGY AND LUNG DISEASE: INTEGRATING PATHOBIOLOGY TO THERAPY
9:15 a.m. – 11:15 a.m.
Marriott Marquis San Diego Marina, Grand Ballroom 5-6 (North Tower, Lobby Level)
Chairing: B.D. Medoff, MD, L. Koth, MD
9:15 COPD: Therapeutic Implications of Novel Immunologic Insights, G.G. Brusselle, MD, PhD
9:40 Asthma: Is Inflammation Only Half of the Story? J.L. Cho, MD
10:05 IPF: T Cell Co-Stimulatory Molecules in Idiopathic Pulmonary Fibrosis: Biomarkers or Players? A.I. Sperling, PhD
10:30 Occupational: What Have We Learned About Lung Immunity from Berylliosis? A.P. Fontenot, MD
10:55 Uncovering Mechanisms of Autoimmune-Mediated Lung Disease Through Studies of Rare Mendelian Disorders, A. Shum, MD

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C9 MAKING TUBERCULOSIS PREVENTION GREAT AGAIN
9:15 a.m. – 11:15 a.m.
Marriott Marquis San Diego Marina, Grand Ballroom 8-9 (North Tower, Lobby Level)
Chairing: A. Cattamanchi, MD, P.A. Lobue, MD, C.D. Hamilton, MD
9:15 Making the Case for Scaling-Up LTBI Testing and Treatment: Insights From Modeling Studies, P.B. Shete, MD
9:30 Accuracy and Recommended Use of Current Blood Tests for Diagnosing LTBI, J.E. Stout, MD
9:45 Decoding the Immune Response to Predict Risk of Progression to Active TB, D.M. Lewinsohn, MD, PhD
10:00 Current Options for Short-Course LTBI Treatment, C.D. Hamilton, MD
10:15 Can We Go Even Shorter? Novel Approaches to LTBI Treatment, T.R. Sterling, MD
10:30 The TB Prevention Continuum of Care: Where Are the Gaps and How Can We Close Them? A. Cattamanchi, MD
10:45 Panel Discussion: Scaling-Up LTBI Testing and Treatment, P.A. Lobue, MD

C10 NOVEL STRATEGIES TO COMPLEMENT PULMONARY REHABILITATION IN COPD
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Room 16 A-B (Mezzanine Level)
Chairing: S.P. Bhatt, MD, C. Garvey, FNP, MSN, MPH, R.S. Goldstein, MD
9:15 Newer Devices for Rehabilitative Training, M.A. Spruit, PT, PhD
9:35 Neuromuscular Electrical Stimulation: Can It Replace or Augment Conventional Pulmonary Rehabilitation? M. Maddocks, PhD
9:55 Telehealth Interventions for Pulmonary Rehabilitation, S.P. Bhatt, MD
10:15 Strategies to Enhance the Physical Activity Benefits of Pulmonary Rehabilitation, R. Casaburi, MD, PhD
10:35 Web-Based Self Management Programs, S.J. Singh, PhD
10:55 Tai Chi and Yoga to Maintain Benefits of Pulmonary Rehabilitation Over the Long-Term, M. Moy, MD, MSc
C12 CHOOSING RIGHTLY: AT THE INTERSECTION OF PERSONALIZED MEDICINE AND DE-ADOPTION OF LOW-VALUE CARE
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Room 14 A-B (Mezzanine Level)
Chairing: T.S. Valley, MD, MSc, R.S. Wiener, MD, MPH, L.C. Feemster, MSc, MD
9:15 Identifying Pneumonia Patients Who Need Intensive Care (and Those Who Don’t) T.S. Valley, MD, MSc
9:35 Personalizing Lung Cancer Screening Through Risk Modeling and Shared Decision-Making, G.A. Silvestri, MD
9:55 Take a Deep Breath: Approaches to Selecting Patients with Chronic Lung Diseases for Self-Management, D.M. Donesky, PhD, ANP-BC
10:15 Don’t Take Five: How Can We Reduce Inappropriate Use of PDE5 Inhibitors in Pulmonary Hypertension? R.S. Wiener, MD, MPH
10:35 Improving Safety Through De-Implementation of Unnecessary Inhaled Corticosteroids in COPD, L.C. Feemster, MSc, MD
10:55 What Do We Do After We’re Done Choosing Wisely® S.D. Halpern, MD, PhD

TUESDAY MID-DAY, MAY 22
11:45 A.M. – 1:15 P.M.
WS5 CAREER DEVELOPMENT WORKSHOP: SWIMMING IN THE SEA OF BIG DATA FOR PULMONARY RESEARCH
11:45 a.m. – 1:15 p.m.
San Diego Convention Center, Room 9 (Upper Level)
Registration Fee: $75. Attendance is limited. Pre-registration is required.
Chairing: D.I. Kasahara, PhD, J. Jaffar, PhD, G. Ijpma, PhD
11:45 Entering Big Data, W.T. Gerthoffer, PhD
11:55 So, Do You Think You Can Code?: Tools of Big Data, R. Knight, PhD
12:05 Challenges Ahead, N. Cox, PhD
12:15 Case Reports: This Is How We Do It - Examples from the Experts, S.T. Weiss, MD
12:25 Case Reports: This Is How We Do It - Examples from the Experts, N. Kaminski, MD
12:35 The Future: Where Are We Going From Here? D.I. Kasahara, PhD
WS6 BRONCHOSCOPIC APPROACH TO THE PERIPHERAL LUNG NODULE
11:45 a.m. – 1:15 p.m.
San Diego Convention Center, Room 10 (Upper Level)
Registration Fee: $75. Attendance is limited. Pre-registration is required.
Chairing: M.M. Wahidi, MBA, MD, G.Z. Cheng, MD, PhD
11:45 Current Approaches in Electromagnetic Navigation Bronchoscopy 1, M.M. Wahidi, MBA, MD
12:00 The Role of Radial Endobronchial Ultrasound in Peripheral Bronchoscopy 1, A.C. Chen, MD
12:15 Interactive Session: Learning from the Experts, G.Z. Cheng, MD, PhD, A.C. Chen, MD, M.M. Wahidi, MBA, MD
MP MEET THE PROFESSOR SEMINARS
12:15 p.m. – 1:15 p.m.
Marriott Marquis San Diego Marina
Registration Fee: $70. Attendance is limited. Pre-registration if required.
See Final Program for seminar titles and speakers.

TSS1 NEUROMUSCULAR RESPIRATORY FAILURE
12:15 p.m. – 1:15 p.m.
Marriott Marquis San Diego Marina, Palomar (South Tower, Third Floor)
This is a 3-part series. Those registering for this seminar series are registered for all 3 parts.
Registration Fee: $140. Attendance is limited. Pre-registration is required.
Management of Respiratory Failure in ALS: The VA as a Model in Team Based Approach to Care, K.A. Provost, DO, PhD
Advance Disease Management and Transitioning to Hospice, J.O. Benditt, MD
Part 1, Sunday, May 20, 12:15 p.m. – 1:15 p.m.
Part 2, Monday, May 21, 12:15 p.m. – 1:15 p.m.

TUESDAY AFTERNOON, MAY 22 2:15 P.M. – 4:15 P.M.

CC4 CRITICAL CARE CLINICAL CORE CURRICULUM II
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Hall H (Ground Level)
Chairing: J.I. McSparron, MD, M.M. Hayes, MD, A. Luks, MD
2:15 Infectious Diseases: CNS Infections, J. Town, MD
2:45 Infectious Diseases: Emerging Viral Infections, W.A. Fischer, MD
3:15 Infectious Diseases: Empyema and Mediastinitis, L. Frye, MD
3:45 Infectious Diseases: Pneumonia CAP/HCAP/VAP, K. Hibbert, MD

C82 SHIFTING FOCUS: HOW TO STUDY LUNG HEALTH INSTEAD OF DISEASE
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Ballroom 20 B-C (Upper Level)
Chairing: R. Kalhan, MD, MS, N.N. Hansel, MD, MPH, M.T. Dransfield, MD
2:15 Introduction, R. Kalhan, MD, MS
2:18 Lung Health Across the Lifespan: What Birth Cohorts Teach Us, M.R. Sears, MD
2:38 The Implications of Impaired Lung Health From Young Adulthood to Middle Age, G.R. Washko, MD
2:58 Impaired Lung Health: Interstitial Changes in Healthy Populations, D.J. Lederer, MD, MS
3:18 Lung Health Cannot Be Defined by Normal Spirometry, M.K. Han, MD, MS
3:38 Setting the Research Agenda for Lung Health in the 21st Century, J.P. Kiley, PhD
3:58 General Discussion, R. Kalhan, MD, MS

C83 PEDIATRIC CLINICAL CHEST ROUNDS
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Ballroom 20 D (Upper Level)
Chairing: J. Harrison, MBChB, MRCP, MRCPCH, J. Needleman, MD, A.G. Filbrun, MD
2:15 A 16 Month Old with Breathlessness, M. Vielkind, MD
Expert Discussant, M. Dovey MD
2:45  A 16 Year Old with Cough and Fatigue, L. Feld, MD
Expert Discussant, T. Vece MD

3:15  An 8 Month Old with Blue Spells, S. Shanthikumar, MBBS
Expert Discussant, S. Ward MD

3:45  A 15 Year Old with Weight Loss, E.A. Dominguez Silveyra, MD
Expert Discussant, P. Stillwell MD

C84 MANAGING EARLY ACUTE HYPOXIC RESPIRATORY FAILURE
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Ballroom 20 A (Upper Level)
Chairing: H.C. Prescott, MD, MSci, V. Liu, MD, MS, B.K. Patel, MD

2:15  Are AHRF and ARDS Different? What Is the Proof? T. Pham, MD, PhD, MPH

2:32  High-Flow Nasal Cannula for All, A.J. Walkey, MD, MSc

2:49  Is There Still a Role for NIPPV? B.K. Patel, MD

3:06  Preventing Progression to ARDS, M.N. Gong, MS, MD

3:23  PRO: Early Intubation, L.J. Brochard, MD

3:40  CON: Early Intubation, J.P. Kress, MD

3:57  Early AHRF: Current Management and Future Directions, B.T. Thompson, MD

4:01  MOC Questions

C87 WHAT’S OLD IS NEW AGAIN: REPURPOSING APPROVED MEDICATIONS FOR
NOVEL THERAPEUTICS IN PAH - EARLY CLINICAL STUDIES
2:15 p.m. – 4:15 p.m.
Marriott Marquis San Diego Marina, Pacific Ballroom 22 (North Tower, First Floor)
Chairing: I.M. Lang, MD PhD, K. Prins, MD PhD

2:15  My Patient Is on Triple Therapy but Still Symptomatic, What’s Next?, Speaker To
    Be Announced

2:30  Metformin for End-Stage PAH (RV), A. Hemnes, MD

2:45  Beta-Blockers for RV Dysfunction in PAH (RV), T. Thenappan, MD

3:00  Anastrozole Reduces Estradiol Levels and Increases Walk Distance in PAH
    (Pulmonary Vasculature), S.M. Kawut, MD, MS

3:15  Tacrolimus for End-Stage PAH, E.F. Spiekerkoetter, MD

3:30  Ubenimex in Patients With Pulmonary Arterial Hypertension, M.R. Nicolls, MD

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Medical Education (ACCME) and are free of the control of commercial interests.

C88 YES, YOUR PULMONARY PATIENT IS READY FOR PALLIATIVE CARE
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 30 A-B (Upper Level)
Chairing: D.M. Donesky, PhD, ANP-BC, K.O. Lindell, PhD, RN

2:15  A Patient’s Perspective, C. Camacho, MA, LSW

2:20  Developing and Funding a Breathlessness Service in Prehistoric Times, S. Booth,
    MD

2:55  Nurse-Led Palliative Care Interventions, L.F. Reinke, PhD, APRN,BC

3:15  Transitions Across the Continuum of Care: Lessons From ILD, A. Russell, MScN

3:35  10 Tips for Setting Up a Multidisciplinary Breathlessness Clinic, M.M. Roberts, RN
3:55  Palliative Care as a Bridge Between Pulmonary Rehabilitation, Critical Care, and Hospice, A.R. Stephens, MD

C89  FUTURE RESPIRATORY HEALTH IN CHILDREN: CLIMATE CHANGE AND INCREASING WORLD POPULATION
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 6 C/F (Upper Level)
Chairing: P.N. Le Souef, MD, MBBS
2:15  Current Projections of Climate Change and Respiratory Health in Children, Speaker To Be Announced
2:40  100 Year Projection of Child Health Outcomes By Population, Region and Age, C. Bradshaw, PhD
3:05  The Effects of Loss of Biodiversity on Children’s Respiratory Health, A. Annamalay, PhD
3:30  The Effect of Climate Change on Respiratory Disease in Developing Countries, R.T. Stein, MD
3:50  100 Year Projections of Future Child Respiratory Health: Environment and World Population, P.N. Le Souef, MD, MBBS

C92  DISEASE MODIFICATION IN COPD: ARE WE THERE YET?
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 33 A-C (Upper Level)
Chairing: C. Reisner, MD, F.C. Sciurba, MD, M. Bafadhel, MD
2:15  What is Disease Modification in COPD? What Are the Potential Methods for Assessment? M.K. Han, MD, MS
2:32  Disease Modification in RA and IBD: Lessons Learned, P. Lipsky, MD
2:49  What is Early COPD and Why Does It Matter? J.A. Wedzicha, MD, PhD
3:06  Practical Considerations for Clinical Trial Design, F.J. Martinez, MD, MS
3:23  Respiratory Disease Modification with Targeted Therapy: Is It Possible? G.P. Anderson, PhD
3:40  Thinking Outside the Box, B.R. Celli, MD
3:57  Panel Questions and Answers, C. Reisner, MD

C93  ATS CLINICAL PRACTICE GUIDELINES: CLINICAL PRACTICE ON THE CUTTING EDGE
2:15 p.m. – 4:15 p.m.
San Diego Convention Center, Room 32 A-B (Upper Level)
Chairing: R.A. Dweik, MD, R.C. Hyzy, MD, C.C. Thomson, MPH, MD
2:15  Welcome, R.A. Dweik, MD
2:20  Grading Strength of Recommendations and Quality of Evidence, K.C. Wilson, MD
2:50  Prevention of COPD Exacerbations, M. Miravitlles, MD
3:10  Smoking Cessation in Lung Cancer Screening, H. Kathuria, MD
3:30  Non-Invasive Mechanical Ventilation, N.S. Hill, MD
3:50  Diagnosis and Treatment of LAM, N. Gupta, MD
4:10  Closing Remarks, R.C. Hyzy, MD

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WEDNESDAY MORNING, MAY 23 7:00 A.M. – 11:15 A.M.

SS SUNRISE SEMINARS
7:00 a.m. – 8:00 a.m.
Marriott Marquis San Diego Marina
Registration Fee: $50. Attendance is limited. Pre-registration is required.
See Final Program for seminar titles and speakers.

PCC4 PEDIATRIC CLINICAL CORE CURRICULUM
7:00 a.m. – 8:00 a.m.
San Diego Convention Center, Room 6 A (Upper Level)
Chairing: J. Retting, MD
7:00 New Concepts in Pediatric Pulmonary Physiology, C.L. Ren, MD
7:30 How Pulmonary Physiology Guides Intensive Care Management, P.A. Verhoef, PhD, MD

K7 KEYNOTE SERIES
8:15 a.m. – 9:00 a.m.
San Diego Convention Center, Room 6 B (Upper Level)
On Pharma: The Complexity Of Innovation, T.F. Reiss, MD, MBE

K8 KEYNOTE SERIES
8:15 a.m. – 9:00 a.m.
San Diego Convention Center, Room 6 C/F (Upper Level)
The Pulmonologist as Medical Educator: A Personal Perspective, S.E. Weinberger, MD

D1 CLINICAL YEAR IN REVIEW 4
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Hall H (Ground Level)
Chairing: D.W. Ford, MD, V.E. Ortega, MD, PhD, J.S. Lee, MD
9:15 General Critical Care, H.C. Prescott, MD, MSci
9:45 Quality Improvement in Critical Care, A. Amaral, MD
10:15 Health Disparities, E. Forno, MD, MPH
10:45 Nosocomial Pneumonia, M. Klompas, MD, MPH

D2 UNDERSTANDING CHRONIC LUNG ALLOGRAFT DYSFUNCTION: UPDATE FROM THE BEDSIDE AND BENCH
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Ballroom 20 B-C (Upper Level)
Chairing: A.R. Glanville, MD, MBBS, E. Belloli, MD, V.N. Lama, MD, MS
9:15 The CLAD Nomenclature: What Is in This Basket? G.M. Verleden, MD, PhD
9:35 Graft Monitoring and Prognostication: How Can We Use Physiologic and Radiologic Methodologies to Guide Patient Care? E. Belloli, MD
9:55 Immune Modulation as a Key in Targeting CLAD: Are We Getting Any Wiser? D. Kreisel, MD, PhD
10:15 Is It All Fibrosis? Fibrotic Mechanisms in Pathogenesis of CLAD and Role of Anti-Fibrotic Therapeutic Modalities, V.N. Lama, MD, MS
10:35 Role of Guidelines in Advancing Clinical Care and Research in the Lung Transplant Arena, A.R. Glanville, MD, MBBS
D3 WOMEN AND LUNG DISEASE
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Ballroom 20 D (Upper Level)
Chairing: T.Y. Beiko, MD, K.K. Guntupalli, MD
9:15 A Patient’s Perspective, P. Ortiz
9:20 Asthma in Women, K.K. Guntupalli, MD
9:43 COPD in Women, T.Y. Beiko, MD
10:06 ILD in Women, T.P. Whelan, MD
10:29 Lung Cancer in Women, B. Bade, MD
10:52 PAH in Women, R.G. Argula, MBBS, MPH
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D4 EXTRACORPOREAL LIFE SUPPORT FOR RESPIRATORY FAILURE IN ADULTS: KEEPING PACE WITH THE DATA
9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Ballroom 20 A (Upper Level)
Chairing: R.S. Stephens, MD, D. Abrams, MD, C.L. Hodgson, PhD
9:15 EOLIA: Putting It Into Context, N.D. Ferguson, MD, MSc
9:40 ECCO2R: The Future of Extracorporeal Support for ARDS? M. Gillies, MD
10:00 We Don’t Need ECLS for ARDS: Ultra-Protective Ventilation Without ECLS, M.N. Gong, MS, MD
10:20 ECCO2R for COPD: Where Do We Stand? D. Brodie, MD
10:40 ECLS as Bridge to Transplant, E. Fan, MD, PhD
11:00 Panel Discussion, R.S. Stephens, MD

D5 MECHANOBIOLOGY IN THE AIRWAY ENVIRONMENT: FEEL THE FORCE
9:15 a.m. – 11:15 a.m.
Marriott Marquis San Diego Marina, Pacific Ballroom 18-19 (North Tower, First Floor)
Chairing: R. Krishnan, PhD, MS, A.J. Ammit, PhD, C. Pascoe, PhD
9:15 Introduction, R. Krishnan, PhD, MS
9:21 Contractile Responses of Bioengineered Muscle Microtissues Under Physiologic and Pathologic Loading Conditions, B. Fabry, PhD
9:40 Studying Morphogenesis and Remodeling in Airway Organoids, D.J. Tschumperlin, PhD
9:59 Fluctuation-Driven Mechanotransduction Drives Mitochondrial-Network Structure and Function, B. Suki, PhD
10:18 Unjamming Transition of the Airway Epithelium: A Biomechanical Link to Asthma, J.A. Park, PhD
10:37 Tissue-Based Human Pulmonary Models for Mechanotransduction Research, D.E. Wagner, PhD
10:56 The Role of Extracellular Matrix Forces in Asthma, T.L. Hackett, PhD
**Wednesday, May 23 Sessions**

**D7 FROM CANCER BIOLOGY TO NEW THERAPEUTICS: TARGETING CELL PROLIFERATION SIGNALING HUBS IN PULMONARY HYPERTENSION AND FIBROSIS**

9:15 a.m. – 11:15 a.m.  
*San Diego Convention Center, Room 15 A-B (Mezzanine Level)*  
Chairing: M. Rabinovitch, MD, W. Seeger, MD

- **9:15** PH: Analogous Features with Carcinogenesis, R. Savai, PhD
- **9:35** HIPPO-mTOR Signaling Hubs: Cancer-Like Alterations in Pulmonary Hypertension, E.A. Goncharova, PhD
- **9:55** IPF: Analogous Features of Carcinogenesis — TGFβ-ALK5 Signaling Hub as an Example, R.C. Chambers, PhD
- **10:15** FoxO: Critical Integrator of Growth Factor and Inflammatory Signaling Hubs — FoxO Activation as a Strategy to Treat PH and IPF, S.S. Pullamsetti, PhD
- **10:35** New Molecular Targets in Pulmonary Fibrosis: Experiences and Perspective From the Clinic, P.W. Noble, MD
- **10:55** PH: From Cancer Biology to New Therapeutics: Are We Ready to Translate? M.T. Gladwin, MD

**D9 CONTROVERSIES IN CLINICAL PEDIATRIC PULMONOLOGY**

9:15 a.m. – 11:15 a.m.  
*San Diego Convention Center, Room 6 A (Upper Level)*  
Chairing: A.C. Koumbourlis, MD, MPH, M. Gappa, MD

- **9:15** Introduction, A.C. Koumbourlis, MD, MPH
- **9:20** PRO: Bronchodilators, Steroids and Oxygen Should Not Be Given in Viral Bronchiolitis, M.A. Brown, MD
- **9:37** CON: Bronchodilators, Steroids and Oxygen Should Not Be Given in Viral Bronchiolitis, M.A. Wall, MD
- **9:54** PRO: Pulmonary Function Testing and Evaluation Are Not Necessary for the Standard Management of Patients with Sickle Cell Disease, K. Smith-Whitley, MD
- **10:28** PRO: Routine Visits to the CF Clinics Should Be Reduced Due to the Increased Risk of Infection, C. Wainwright, MBBS, MD
- **10:45** CON: Routine Visits to the CF Clinics Should Be Reduced Due to the Increased Risk of Infection, G.S. Sawicki, MPH, MD

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**D10 GROWING UP WITH CHRONIC PULMONARY DISEASE: CHALLENGES IN THE TRANSITION FROM PEDIATRIC TO ADULT FOCUSED HEALTH CARE**

9:15 a.m. – 11:15 a.m.  
*San Diego Convention Center, Room 33 A-C (Upper Level)*  
Chairing: E. Crowley, MD, D. Li, MD, G.S. Sawicki, MPH, MD

- **9:15** Health Care Transition in the United States: Current State of Affairs, G.S. Sawicki, MPH, MD
- **9:35** Lost in Transition: Growing Older with Cystic Fibrosis, C. Kvam, JD, MPP
9:50 Providing Care for a Changing Cystic Fibrosis Population: A Model for Health Care Transition, E. Crowley, MD

10:10 Challenges in Pediatric to Adult Transition in Neuromuscular Disease, J.P. Brown, MD, PhD

10:30 The Adolescent with Chronic Pulmonary Disease: Developmental and Psychosocial Challenges for Self-Management and Transition, J. Butcher, PhD

10:50 A Better Workforce for Transitional Care: Training Issues, S.E. Kirkby, MD

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D11 BATTLING BURNOUT: OVERCOMING THE BIGGEST THREAT TO HEALTH CARE QUALITY AND SAFETY

9:15 a.m. – 11:15 a.m.
San Diego Convention Center, Room 1 A-B (Upper Level)
Chairing: S. Rinne, MD, PhD, S.M. Kassutto, MD, R. Adamson, MBBS

9:15 The Root of the Matter: Understanding the Historical Context of Burnout in Health Care, S. Rinne, MD, PhD


9:45 Physicians in Critical Condition: Burnout Among Pulmonary and Critical Care Physicians, M. Moss, MD

10:05 Fallout on the Front: How Burnout Affects Nurses, D.K. Costa, PhD, RN


10:45 Be Mindful of the Burn: Preventing Burnout Through Mindfulness, M. Mealer, PhD

11:05 Panel Discussion: Battling Burnout Solutions

WEDNESDAY MID-DAY, MAY 23 11:45 A.M. – 1:15 P.M.

WS7 DELIVERING PULMONARY REHABILITATION ACROSS THE SPECTRUM OF CARE FROM HOSPITAL TO COMMUNITY

11:45 a.m. – 1:15 p.m.
San Diego Convention Center, Room 9 (Upper Level)
Registration Fee: $75. Attendance is limited. Pre-registration is required.
Chairing: E.P. Riesenfeld, MD, R.H. Crouch, DPT, MS, PT

11:45 Pulmonary Rehabilitation, R.H. Crouch, DPT, MS, PT

12:00 Pittsburgh Readmission Efforts, B.W. Carlin, MD

12:10 Multiple Resources in a Rural Health Care Network, E.P. Riesenfeld, MD

12:20 Outpatient Resources Including VNA and PT and Finances, K. Hyden, MSN, MEd, APN-BC, ACHPN

12:35 Inpatient Rehabilitation, R.S. Novitch, MD

12:45 Early Rehabilitation in the ICU, C.T. Hough, MD, MSc
WS8  SHOULD THIS STUDY CHANGE MY PRACTICE? SKILLS FOR ADEPT APPRAISAL OF CRITICAL CARE LITERATURE
11:45 a.m. – 1:15 p.m.
San Diego Convention Center, Room 10 (Upper Level)
Registration Fee: $75. Attendance is limited. Pre-registration is required.
Chairing: E.A. Vail, MD, L.K. Vande Vusse, MD, MSc, R.S. Wiener, MD, MPH

11:45  Principles of Appraising Clinical Research, E.A. Vail, MD, MSc
11:55  Common Challenges with Clinical Trials and Meta-Analyses, D.C. Scales, MD, PhD
12:15  Common Challenges in Interpreting Observational Studies, A.J. Walkey, MD, MSc
12:35  Practice with Literature Appraisal Tools, M.J. Lanspa, MD, MSCR
1:05  To the Bedside: Pitfalls in Applying Clinical Research to Our Patients, T.J. Iwashyna, MD, PhD

CC5  PULMONARY CLINICAL CORE CURRICULUM I
11:45 a.m. – 1:15 p.m.
San Diego Convention Center, Room 15 A-B (Mezzanine Level)
Chairing: J.L. Cho, MD

11:45  Manifestations and Diagnosis of Connective Tissue Disease-Associated Interstitial Lung Disease, J. Solomon, MD
12:15  Diagnosis and Management of Interstitial Lung Disease-Associated Pulmonary Hypertension, K.A. Smith, MD
12:45  Inherited Diffuse Parenchymal Lung Diseases, J.J. Swigris, DO, MS

WEDNESDAY AFTERNOON, MAY 23
1:30 P.M. – 3:30 P.M.

CC6  PULMONARY CLINICAL CORE CURRICULUM II
1:30 p.m. – 3:30 p.m.
San Diego Convention Center, Room 15 A-B (Mezzanine Level)
Chairing: G.W. Garrison, MD

1:30  Pulmonary Complications of Neuromuscular Disease, G.T. Bosslet, MD, MA
2:00  Lung Transplant for Interstitial Lung Disease: Allocation, Preparation, and Outcomes, D. Sayah, MD, PhD
2:30  Occupational and Environmental Lung Disease: Pneumoconioses and Inhaled Toxins, M.B. Rice, MD, MPH
3:00  Drug-Induced Lung Disease: Chemotherapeutic and Non-Chemotherapeutic Agents, S. Montesi, MD

D82  INTERVENTIONAL APPROACHES TO THE TREATMENT OF OBSTRUCTIVE LUNG DISEASES
1:30 p.m. – 3:30 p.m.
San Diego Convention Center, Ballroom 20 B-C (Upper Level)
Chairing: G.J. Criner, MD, F.J.F. Herth, MD, D. Slebos, PhD, MD, P. Shah, MD

1:30  Introduction to Obstructive Lung Diseases Amenable to Bronchoscopic Intervention, G.J. Criner, MD
1:45  Technical Aspects of Bronchoscopic Interventions to Treat Obstructive Lung Diseases, F.J.F. Herth, MD
2:00 Bronchial Thermoplasty for Treatment of Severe Asthma, D. Gompelmann, MD
2:15 Use of Cryotherapy in Chronic Bronchitis, P. Shah, MD
2:30 Targeted Lung Denervation in Irreversible Airways Obstruction, D. Slebos, PhD, MD
2:45 Lung Reduction in Advanced Emphysema, F.C. Sciurba, MD
3:00 Dynamic Tracheobronchial Collapse, K. Klooster, RN
3:15 Central Airways Obstruction, M. Weir, MBChB

D83 CLINICAL TRIAL DESIGN IN IPF
1:30 p.m. – 3:30 p.m.
San Diego Convention Center, Ballroom 20 D (Upper Level)
Chairing: M. Porteous, MD, MSCE, H.R. Collard, MD, K. Anstrom, PhD
1:30 Feels, Function, Survives: Are Clinically Meaningful Endpoints Feasible in IPF Clinical Trials? L. Richeldi, MD, PhD
1:55 Surrogate Endpoints in IPF: Are They Ready for Prime Time? B. Karimi-Shah, MD
2:20 Future of Imaging in IPF for Inclusion and Outcome Assessment, M. Porteous, MD, MSCE
2:45 Novel IPF Trial Design in the Era of Anti-Fibrotic Therapy, K. Anstrom, PhD
3:10 Improving Efficiencies in Clinical Trial Conduct, P.J. Smith, PhD, MD

D84 CRITICAL ILLNESS AND THE AGING BRAIN: DEMENTIA AND DELIRIUM IN THE ICU
1:30 p.m. – 3:30 p.m.
San Diego Convention Center, Ballroom 20 A (Upper Level)
Chairing: N.E. Brummel, MD, MSci, C.A. Austin, MD, M. Kho, PT, PhD
1:30 How Critical Illness Changed My Brain: A Patient’s Perspective, H. Felt
1:50 Dementia on the (ICU) Doorstep, R.L. Owens, MD
2:10 Clarifying the Confusion: Detecting Delirium During Dementia, A. Slooter, MD, PhD
2:30 Silence is Not Golden: Communicating with Cognitively Impaired Patients in the ICU, J. Tate, PhD, RN
2:50 This Is Your Brain on Exercise, S. Berney, PhD, PT
3:10 Critical Illness Brain Injury: Pathways from Delirium to Dementia, N.E. Brummel, MD, MSCI

D86 INTERDISCIPLINARY TEAMS: OPTIMIZING CARE IN ADULT AND PEDIATRIC PULMONARY AND CRITICAL CARE
1:30 p.m. – 3:30 p.m.
Marriott Marquis San Diego Marina, Room 14 A-B (Mezzanine Level)
Chairing: A. Volerman, MD, N. Thakur, MD, MPH, M.B. Happ, PhD
1:30 Introduction, A. Volerman, MD
1:33 The Evidence For Team-Based Care in Pulmonary And Critical Care Medicine, D.M. Donesky, PhD, ANP-BC
1:45 Incorporating Communication Facilitators in Critical Care, J.R. Curtis, MD, MPH
2:00 Integrating Former Patients on the Team to Improve Outcomes for ICU Survivors, K.J. Haines, PhD, PT
2:15 Maximizing the Role of Respiratory Therapists to Deliver COPD Care in Clinic, G. Atkins, BSc(Hons), MBChB, MRCP, H. Pelchat, RT
2:30 Utilizing Patient Advocates to Facilitate Adult Asthma Care in Real World Practice, A.J. Apter, MA, MD, MSc
2:45 Expanding Care Coordination to Outside the Health Care System, N. Thakur, MD, MPH
3:00 Integrating Lay Health Workers for Pediatric Asthma in Community Settings, A. Volerman, MD
3:15 Summary and Panel Discussion, M.B. Happ, PhD

D88 PERSONALIZED PREVENTION OF LUNG DISEASE
1:30 p.m. – 3:30 p.m.
San Diego Convention Center, Room 3 (Upper Level)
Chairing: C. Carlsten, MD, MPH, E. Brigham, MD, MHS, T.D. LeVan, PhD
1:30 Patient’s Perspective, D. Matlach, DMin
1:35 What Does Personalized Prevention of Lung Disease Really Mean? C. Carlsten, MD, MPH
1:50 Targeting Early Origins of Chronic Lung Disease: A Personalized Approach, E. Melen, PhD, MD
2:10 Personalizing Prevention of COPD, R.G. Barr, MD, DrPH
2:30 Biomarkers to Guide Personalized Prevention of Lung Disease, S. Guerra, MD, PhD
2:50 Modifiable Factors That May Affect Susceptibility to Exposures: a Look at Diet and Obesity, N.N. Hansel, MD, MPH
3:10 Epigenetic Plasticity and Primary Prevention of Lung Disease, D.L. DeMeo, MD

D89 LONG-TERM COMPLICATIONS AFTER RESPIRATORY INFECTIONS AND SEPSIS
1:30 p.m. – 3:30 p.m.
Marriott Marquis San Diego Marina, Grand Ballroom 8-9 (North Tower, Lobby Level)
Chairing: M. Mortensen, MD, MSc, N.C. Dean, MD
1:30 Long-Term Outcomes After Pneumonia and Sepsis: It’s Not Over Until It’s Over! E.M. Mortensen, MD, MSc
1:55 Cardiac Complications After Respiratory Infections, J.D. Chalmers, MD, PhD
2:15 Chronic Lung Disease After Respiratory Infections, C. Dela Cruz, MD, PhD
2:40 Complications of Bronchiectasis, M.L. Metersky, MD
3:00 Predictors of Long-Term Outcomes for Patients with Pneumonia and Sepsis, S. Yende, MD

D90 DIVERSITY ACROSS THE CRITICAL CARE SPECTRUM FROM PATIENTS TO CLINICIANS TO LEADERS: WHY IT MATTERS
1:30 p.m. – 3:30 p.m.
San Diego Convention Center, Room 33 A-C (Upper Level)
Chairing: T.S. Valley, MD, MSc, H.B. Gershengorn, MD, M. Hua, MD, MSci
1:30 Cross-Cultural Comparisons: Using International Critical Care Practices to Understand Differences in Patient Care, S. Murthy, MD
1:46 Interventions to Reduce Disparities in Critical Care: Lessons from Payment and Delivery System Reform, M. Chin, MD, MPH
2:04  Breaking the Mold: Diversifying the Emerging Critical Care Workforce, M.B. Lane-Fall, MD, MSHP

2:20  Why It Matters: Strategies to Maintain a Pipeline of Diverse Intensivists, B. Cryer, MD

2:38  An Evolving Workforce for the Evolving Needs of Critically Ill Children, C.L. Riley, MD, MPP, MHS

2:54  Learning From the Past and Moving Towards the Future: Gender Parity in Academic Medicine, S. Mehta, MD

3:10  Panel Discussion, H.B. Gershengorn, MD
General Sessions/Business Meetings

Saturday, May 19  
4:30 p.m. – 5:30 p.m.

OPENING CEREMONY
San Diego Convention Center
Hall H (Ground Level)

The American Thoracic Society welcomes you to attend the Opening Ceremony for the 2018 International Conference. The Ceremony features the distinguished physician, educator, and medical scientist, Darrell G. Kirch, MD, president and chief executive officer of the Association of American Medical Colleges. Dr. Kirch speaks and publishes on the need for transformation in the nation’s health care system and how academic medicine can lead change across medical education, biomedical research, and patient care.

The ATS will also present 3 Respiratory Health Awards: Public Service Award, World Lung Health Award and Jo Rae Wright Award for Outstanding Science.

Sunday, May 20  
4:30 p.m. – 5:45 p.m.

AMBERSON LECTURE
San Diego Convention Center
Hall H (Ground Level)

The Amberson Lecturer is an individual with a career of major lifetime contributions to clinical or basic pulmonary research and/or clinical practice. The Lecture is given in honor of James Burns Amberson, an international authority on chest disease and tuberculosis. Scott T. Weiss, MD, MS is the 2018 Amberson Lecturer and will speak on “Network Methods to Prevent Asthma”.

ASSEMBLY MEMBERSHIP MEETINGS
The Membership Meetings of the Assemblies on Behavioral Science and Health Services Research and Pediatrics are held on Sunday evening.

BEHAVIORAL SCIENCE AND HEALTH SERVICES RESEARCH
6:30 – 8:30 p.m.
Manchester Grand Hyatt San Diego
Seaport Ballroom F (Second Level, Seaport Tower)
Chairing: Christopher H. Goss, MD, MSc

PEDIATRICS
5:00 – 7:00 p.m.
Manchester Grand Hyatt San Diego
Harbor Ballroom A-C (Second Level, Harbor Tower)
Chairing: S.D. Davis, MD
Monday, May 21 4:30 – 7 p.m.

The Membership Meetings of the other twelve Assemblies are held on Monday evening.

ALLERGY, IMMUNOLOGY AND INFLAMMATION
Manchester Grand Hyatt San Diego
Harbor Ballroom G-I (Second Level, Harbor Tower)
Chairing: B.B. Moore, PhD

CLINICAL PROBLEMS
Manchester Grand Hyatt San Diego
Grand Hall B (Lobby Level)
Chairing: S. Sethi, MD

CRITICAL CARE
Manchester Grand Hyatt San Diego
Grand Hall A (Lobby Level)
Chairing: J.P. Kress, MD

ENVIRONMENTAL, OCCUPATIONAL, AND POPULATION HEALTH
Manchester Grand Hyatt San Diego
Coronado Ballroom D-E (Fourth Level)
Chairing: H.M. Kipen, MD, MPH

NURSING
Manchester Grand Hyatt San Diego
Coronado Ballroom A-B (Fourth Level)
Chairing: E.G. Collins, PhD

PULMONARY CIRCULATION
Manchester Grand Hyatt San Diego
Grand Hall C (Lobby Level)
Chairing: K.A. Fagan, MD

PULMONARY INFECTIONS AND TUBERCULOSIS
Manchester Grand Hyatt San Diego
Seaport Ballroom E (Second Level, Seaport Tower)
Chairing: K.P. Fennelly, MD, MPH

PULMONARY REHABILITATION
Manchester Grand Hyatt San Diego
Seaport Ballroom A-B (Second Level, Seaport Tower)
Chairing: R. Casaburi, MD, PhD
RESPIRATORY CELL AND MOLECULAR BIOLOGY
Manchester Grand Hyatt San Diego
Harbor Ballroom A-C (Second Level, Harbor Tower)
Chairing: I. Petrache, MD

RESPIRATORY STRUCTURE AND FUNCTION
Manchester Grand Hyatt San Diego
Grand Hall D (Lobby Level)
Chairing: B. Camoretti-Mercado, PhD

SLEEP AND RESPIRATORY NEUROBIOLOGY
Manchester Grand Hyatt San Diego
Seaport Ballroom G-H (Second Level, Seaport Tower)
Chairing: S.R. Patel, MD

THORACIC ONCOLOGY
Manchester Grand Hyatt San Diego
Seaport Ballroom D (Second Level, Seaport Tower)
Chairing: M.P. Rivera, MD

Tuesday, May 22 11:45 a.m. – 1:15 p.m.

PLENARY SESSION
San Diego Convention Center
Room 6 A (Upper Level)

The Plenary Session features a panel discussion on the topic “Providing Health Care During Natural Disasters”. The Plenary Session will also feature the introduction of the ATS slate of officers for 2018-2019 and the presentation of 3 Respiratory Health Awards: Outstanding Clinician Award, Outstanding Educator Award, and the Research Innovation and Translation Achievement Award.
Highlights for Clinicians