LungMAP at ATS 2019

On the following pages are presentations and posters by our members. We hope this helps guide you to opportunities to connect with other members of LungMAP while attending ATS.

We’re looking forward to seeing many of you at this year’s ATS conference!

Two special LungMAP events May 21 & May 22

May 21, 2:15—4:15 PM
[C86] LUNGMAP-ING CELL LINEAGES IN HUMAN DEVELOPMENT AND DISEASE
Trinity Ballroom 4/8 (Level 3), Omni Dallas Downtown

May 22, 12:15—1:15 PM
[L26] THE MOLECULAR ATLAS OF LUNG DEVELOPMENT (LUNGMAP)
Room D220/227 (Level 2), KBHCCD
Friday May 17

8:00 a.m. - 4:00 p.m. [PG3] POST GRADUATE COURSE
A RESEARCHER’S GUIDE TO INTEGRATING THE PULMONARY ‘OMICVERSE’
8:20 Harnessing the Power of RNA-seq to Study Lung Disease
LungMAP Member: Sina A. Gharib, MD
Session Info: Room D170/D172 (Level 1), KBHCCD

8:00 a.m. - 4:00 p.m. [PG6] POST GRADUATE COURSE
INTERSTITIAL LUNG DISEASE: CURRENT TRENDS IN DIAGNOSIS AND MANAGEMENT
9:30 Genetics of Interstitial Lung Disease: IPF and Beyond, What to Tell Your Patients and Their Family Members
LungMAP Member: Naftali Kaminski, MD
Session Info: Room C140/C142 (Level 1), KBHCCD
Saturday May 18

8:00 a.m. - 4:00 p.m. [PG20] POST GRADUATE COURSE
OPTIMIZING MANAGEMENT OF THE PATIENT WITH SEVERE BRONCHOPULMONARY DYSPLASIA
9:20 Advanced Imaging Modalities in the Assessment of BPD
**LungMAP Member:** Jason C. Woods, PhD
**Session Info:** Room C146 (Level 1), KBHCCD

8:00 a.m. - 4:00 p.m. [PG22] POST GRADUATE COURSE
HIGH-CONTENT SINGLE-CELL TECHNIQUES TO STUDY LUNG IN HEALTH AND DISEASE
11:10 Single Cell Proteomics in the Lung
**LungMAP Member:** Charles Ansong, PhD
**Session Info:** Room D166 (Level 1), KBHCCD
9:15 a.m. - 11:15 a.m. [A16] MINI SYMPOSIUM
CHEMICAL THREATS AND INJURY: MECHANISMS AND TREATMENT
11:00 A1023—Exposure of Neonatal Mice to Bromine Gas Inhibits Lung Development: Heme Antagonist to the Rescue
LungMAP Member: Namasiyavayam Ambalavanan, MD
Session Info: Dallas Ballroom G (Level 3), Omni Dallas Downtown

9:15 a.m. - 11:15 a.m. [A17] MINI SYMPOSIUM
VIRAL INFECTION IN EARLY CHILDHOOD
11:00 A1027—Attenuation of Respiratory Syncytial Virus (RSV) Burden by MMP-9 Inhibition Via a Small Molecule Inhibitor
LungMAP Member: Namasiyavayam Ambalavanan, MD
Session Info: Ballroom A Two (Level 2), KBHCCD

9:15 a.m. - 11:15 a.m. [A19] MINI SYMPOSIUM
LESS IDIOPATHIC: STRUCTURAL AND FUNCTIONAL ABNORMALITIES IN IPF
10:00 A1045—Role of Terra on Telomeric and Mitochondrial Functions in IPF Pathogenesis
LungMAP Member: Naftali Kaminski, MD
Session Info: Room D220/D227 (Level 2), KBHCCD

9:15 a.m. - 11:15 a.m. [A29] POSTER DISCUSSION SESSION
EMERGING CONCEPTS IN LUNG FIBROSIS
LungMAP Member: James S. Hagood, MD—Moderator
Session Info: Ballroom D Four (Level 3), KBHCCD

9:15 a.m. - 11:15 a.m. [A29] POSTER DISCUSSION SESSION
EMERGING CONCEPTS IN LUNG FIBROSIS
A1228/704—Repurposing an Opioid Receptor Antagonist as a Treatment for Idiopathic Pulmonary Fibrosis
LungMAP Member: Anil Jegga, DVM, MRes
Session Info: Ballroom D Four (Level 3), KBHCCD

9:15 a.m. - 11:15 a.m. [A29] POSTER DISCUSSION SESSION
EMERGING CONCEPTS IN LUNG FIBROSIS
A1232/708—Enhanced Anti-Fibrotic Efficacy of Thy-1-Sorted Mesenchymal Stem Cell-Derived Extracellular Vesicles
LungMAP Member: James S. Hagood, MD
Session Info: Ballroom D Four (Level 3), KBHCCD

11:15 a.m. - 1:00 p.m. [A45] THEMATIC POSTER SESSION
CRITICAL CARE: OF MICE AND MEN—INSIGHTS FROM EXPERIMENTAL AND ANIMAL MODELS IN ARDS AND SEPSIS
A1706/P128—VEGF-121 Therapy Mitigates Halogen Inhalation-Induced Injury in Pregnant Mice
LungMAP Member: Namasiyavayam, Ambalavanan, MD
Session Info: Area A (Hall F, Level 2), KBHCCD
**Sunday May 19**

9:15 a.m. - 11:15 a.m. [A53] THEMATIC POSTER SESSION  
**CLINICAL STUDIES IN NEONATAL AND PEDIATRIC LUNG DISEASE AND CYSTIC FIBROSIS**  
11:15 A1872/PS71—Length of Stay and Readmission Frequency for Infants with Bronchopulmonary Dysplasia and Tracheomalacia  
**LungMAP Member:** Jason C. Woods, PhD  
**Session Info:** Area D (Hall F, Level 2), KBHCCD

11:15 a.m.—1:00 p.m. [A60] THEMATIC POSTER SESSION  
**LUNG INJURY, SEPSIS, AND ARDS**  
11:15 A2084/P269—Dimethyl Fumarate Potently Inhibits Thioredoxin Reductase 1 and Enhances Nrf2 Dependent Responses in Murine Club Cells  
**LungMAP Member:** Namasivayam Ambalavanan, MD  
**Session Info:** Area C (Hall F, Level 2), KBHCCD

12:15 p.m.—1:15 p.m. [L5] OUTSIDE ORGANIZATION SESSION  
**RESULTS FROM NHLBI-FUNDED GENOMIC RESEARCH IN ALPHA-1 ANTITRYPSIN DEFICIENCY AND SARCOIDOSIS (GRADS) PROGRAM**  
12:15 Bal Transcriptome in Sarcoidosis  
**LungMAP Member:** Naftali Kaminski, MD  
**Session Info:** Room D167/ D174 (Level 1), KBHCCD

12:15 p.m.—1:15 p.m. [L8] OUTSIDE ORGANIZATION SESSION  
**MOLECULAR IMAGING OF THE LUNG (PHASE 2)**  
**LungMAP Member:** Sara Lin, PhD - Chair  
**Session Info:** Room D221/D225/D226 (Level 2), KBHCCD

2:15 P.M.—4:15 p.m. [A101] RAPID: RAPID ABSTRACT POSTER DISCUSSION SESSION  
**TRANSLATIONAL STUDIES IN ILD, IPF AND SARCARCOSIS**  
2:15 A2430/S518—Matrix Metalloproteinase-12 is Critical for Granuloma Formation in a Murine Model of Sarcoidosis  
**LungMAP Member:** Sina A. Gharib, MD  
**Session Info:** Room D222-D224 (Level 2), KBHCCD

2:15 P.M.—4:15 p.m. [A101] RAPID: RAPID ABSTRACT POSTER DISCUSSION SESSION  
**TRANSLATIONAL STUDIES IN ILD, IPF AND SARCARCOSIS**  
2:15 A7342/S23—The Prognostic Value of Monocyte Count in Idiopathic Pulmonary Fibrosis: A Multi-Omic Cohort Study  
**LungMAP Member:** Naftali Kaminski, MD  
**Session Info:** Room D222-D224 (Level 2), KBHCCD
Sunday May 19

2:15 P.M.—4:15 P.M. [A107] RAPiD: RAPID ABSTRACT POSTER DISCUSSION SESSION
ENGINEERED AND REMODELED MATRIX COMPARTMENTS
2:15 A2550/607—Single Cell RNA Sequencing of Human Lung Explants Identifies the Cell-Specific Contributions of Extracellular Matrix-Related Gene Expression
LungMAP Member: Naftali Kaminski, MD
Session Info: Ballroom D Three (Level 3), KBHCCD

2:15 P.M.—4:15 P.M. [A108] POSTER DISCUSSION SESSION
PATHOPHYSIOLOGY IN DIFFUSE PARENCHYMAL LUNG DISEASES
2:15 A2568/707—Hyperpolarized $^{129}$Xe Diffuse MRI in Cystic Fibrosis Lung Disease: Evidence for Pathological Alveolar Enlargement
LungMAP Member: Jason C. Woods, PhD
Session Info: Ballroom D Four (Level 3), KBHCCD
Monday May 20

BORN TOO SOON: THE EFFECTS OF PREMATURITY ON THE NEONATAL/DEVELPING LUNG
10:10 Neonatal Immunology: T-Cell CD31 Expression is a Biomarker for BPD
LungMAP Member: Gloria S. Pryhuber, MD
Session Info: Dallas Ballroom A-C (Level 3), Omni Dallas Downtown

50 YEARS OF PROGRESS IN PULMONARY SCIENCE
9:58 A2568/707—Respiratory Distress Syndrome
LungMAP Member: Jeffrey A. Whitsett, MD
Session Info: Room D221/D225/D226 (Level 2), KBHCCD

50 YEARS OF PROGRESS IN PULMONARY SCIENCE
10:18 Video Presentation: Lung Development
LungMAP Member: Denise Al Alam, PhD, MS
Session Info: Room D221/D225/D226 (Level 2), KBHCCD

LATE BREAKING CLINICAL TRIALS
10:00 A7355—Targeted Bronchial Thermoplasty Guided by 129Xe MRI
LungMAP Member: Jason C. Woods, PhD
Session Info: Room D167/D174 (Level 1), KBHCCD

2:15 P.M.—4:15 P.M. [B94] MINI SYMPOSIUM
BEST OF PEDIATRICS
3:00 A4005—Lung Density and Disease Severity of Neonatal Bronchopulmonary Dysplasia: Objective Quantification via Ultrashort Echo-Time MRI and Comparison to Reader Scoring
LungMAP Member: Jason C. Woods, PhD
Session Info: Room Dallas Ballroom G (Level 3), Omni Dallas Downtown

2:15 P.M.—4:15 P.M. [B94] MINI SYMPOSIUM
BEST OF PEDIATRICS
3:30 A4007—Neutrophil Exosomes as Pathogenic Entities in Bronchopulmonary Dysplasia
LungMAP Member: Namasivayam Ambalavanan, MD
Session Info: Dallas Ballroom G (Level 3), Omni Dallas Downtown

2:15 P.M.—4:15 P.M. [B95] MINI SYMPOSIUM
CELLULAR AND MOLECULAR LANDSCAPE OF THE LUNG
LungMAP Member: Thomas J. Mariani, PhD—Moderator
Session Info: Room D221/D225/D226 (Level 2), KBHCCD

2:15 P.M.—4:15 P.M. [B95] MINI SYMPOSIUM
CELLULAR AND MOLECULAR LANDSCAPE OF THE LUNG
2:30 A4010—Characterization of Neonatal Lung Cells Through Single Cell Genome Sequencing
LungMAP Members: Ravi Misra, PhD, Jennifer Dutra, Jeanne Holden-Wiltse, PhD, Jeffrey A. Whitsett, MD, John Ashton, PhD, Yan Xu, PhD, Gloria S. Pryhuber, MD, Thomas J. Mariani, PhD
Session Info: Room D221/D225/D226 (Level 2), KBHCCD
Monday May 20

2:15 P.M.—4:15 P.M. [B95] MINI SYMPOSIUM
CELLULAR AND MOLECULAR LANDSCAPE OF THE LUNG
2:45 A4011—Dynamic Single-Cell Chromatin Landscapes of Alveolar Type 1 Cell Populations in the Developing Lung
LungMAP Member: James S. Hagood, MD
Session Info: Room D221/D225/D226 (Level 2), KBHCCD

2:15 P.M.—4:15 P.M. [B95] MINI SYMPOSIUM
CELLULAR AND MOLECULAR LANDSCAPE OF THE LUNG
3:15 A4013—The Secondary Crest Myofibroblast PDGFRa Controls Multiple Signaling Networks Involved in Elastogensis During Postnatal Alveolar Formation
LungMAP Member: Gloria S. Pryhuber, MD
Session Info: Room D221/D225/D226 (Level 2), KBHCCD

2:15 P.M.—4:15 P.M. [B96] MINI SYMPOSIUM
COMPLEX CELL BEHAVIORS IN PULMONARY FIBROSIS
2:15 A4017—Whole Lung Single Cell RNAseq Reveals a Unique IPF-Specific Epithelial Cell Population
LungMAP Members: Farida Ahangari, PhD, Naftali Kaminski, MD
Session Info: Room D220/D227 (Level 2), KBHCCD

2:15 P.M.—4:15 P.M. [B96] MINI SYMPOSIUM
COMPLEX CELL BEHAVIORS IN PULMONARY FIBROSIS
2:30 A4018—Archetype Analysis Reveals Distinct Disease-Specific Archetypes of Fibroblast and Myofibroblast Co-Occurring Within the IPF Lung
LungMAP Members: Farida Ahangari, Naftali Kaminski, MD
Session Info: Room D220/D227 (Level 2), KBHCCD

2:15 P.M.—4:15 P.M. [B96] MINI SYMPOSIUM
COMPLEX CELL BEHAVIORS IN PULMONARY FIBROSIS
2:45 A4019—Beneficial Interstitial Matrix Fibroblasts Are Lost with Age, a New Perspective on Idiopathic Pulmonary Fibrosis
LungMAP Members: Anne-Karina Perl, PhD, John Snowball, Yan Xu, PhD
Session Info: Room D220/D227 (Level 2), KBHCCD

2:15 P.M.—4:15 P.M. [B103] RAPiD: RAPID ABSTRACT POSTER DISCUSSION SESSION
ILD: THERAPY
2:15 A4093/115—Evaluating the Role of Support Group Participation on Palliative Care Referral and Mortality in Idiopathic Pulmonary Fibrosis
LungMAP Member: Naftali Kaminski, MD
Session Info: Room C140/C142 (Level 1), KBHCCD

2:15 P.M.—4:15 P.M. [B107] RAPiD: RAPID ABSTRACT POSTER DISCUSSION SESSION
EFFECTS OF E-CIGARETTES AND THEIR COMPONENTS ON RESPIRATORY DYSFUNCTION, INFLAMMATION, AND REPAIR
2:15 A4177/709—Airway Epithelial Progenitor Cell Dysfunction After Flavoring-Induced Vapor Exposure
LungMAP Member: Thomas J. Mariani, PhD
Session Info: Room Ballroom D Four (Level 3), KBHCCD
Monday May 20

2:15 P.M.—4:15 P.M. [B109] RAPiD: RAPID ABSTRACT POSTER DISCUSSION SESSION
WHAT’S NEW WITH CLINICAL LUNG INFECTIONS AND PNEUMONIA?
2:15 A4213/405—Viral Pneumonia Is an Independent Risk Factor for Pulmonary Fibrosis:
Results of Large-Scale Longitudinal Population-Level Data
**LungMAP Member:** Naftali Kaminski, MD
**Session Info:** Arena (Level 2), KBHCCD
**Tuesday May 21**

9:15 a.m. - 11:15 a.m. [C18] MINI SYMPOSIUM
**RARE LUNG DISEASES**
11:00 A4282—Osteogenesis and Osteolysis in Pulmonary Alveolar Microlithiasis
**LungMAP Member:** Jason C. Woods, PhD
**Session Info:** Room D220/D227 (Level 2), KBHCCD

9:15 a.m. - 11:15 a.m. [C22] POSTER DISCUSSION SESSION
**ILD: DIAGNOSIS**
9:15 A4318/111—Peripheral Blood Gene Expression Profiling in the Multicenter IPF-PRO Registry Cohort
**LungMAP Member:** Scott M. Palmer, MD, MHS
**Session Info:** Room C140/C142 (Level 1), KBHCCD

9:15 a.m. - 11:15 a.m. [C22] POSTER DISCUSSION SESSION
**ILD: DIAGNOSIS**
9:15 A4325/118—Peripheral Blood Proteomic Profiling to Distinguish Disease Biomarkers in the Multicenter IPF-PRO Registry Cohort
**LungMAP Member:** Scott M. Palmer, MD, MHS
**Session Info:** Room C140/C142 (Level 1), KBHCCD

9:15 a.m. - 11:15 a.m. [C25] POSTER DISCUSSION SESSION
**CLINICAL AND TRANSLATIONAL STUDIES IN RARE LUNG DISEASE**
9:15 A4372/902—Airway and Airspace Morphometry in Human Pediatric Lung by UltraHRCT and Thick Section Fluorescence Microscopy
**LungMAP Members:** Gloria S. Pryhuber, MD, Jennifer Dutra, Jeanne Holden-Wiltse, PhD, Ravi Misra, PhD, Thomas J. Mariani, PhD
**Session Info:** Trinity Ballroom 1-3 (Level 3), Omni Dallas Downtown

9:15 a.m. - 11:15 a.m. [C25] POSTER DISCUSSION SESSION
**CLINICAL AND TRANSLATIONAL STUDIES IN RARE LUNG DISEASE**
9:15 A4373/903—Pediatric Hematopoietic Stem Cell Transplant Patients’ Six-Minute Walk Test Distance Declines at Day 100 but returns to Baseline by 1-Year Post Transplant
**LungMAP Member:** Jason C. Woods, PhD
**Session Info:** Trinity Ballroom 1-3 (Level 3), Omni Dallas Downtown

9:15 a.m. - 11:15 a.m. [C25] POSTER DISCUSSION SESSION
**CLINICAL AND TRANSLATIONAL STUDIES IN RARE LUNG DISEASE**
9:15 A4374/904—A Novel Interstitial Lung Disease Associated with Systemic Juvenile Idiopathic Arthritis: Characteristics and Risk Factors
**LungMAP Members:** Jason C. Woods, PhD, Kathryn A. Wikenheiser-Brokamp, MD, PhD
**Session Info:** Trinity Ballroom 1-3 (Level 3), Omni Dallas Downtown

9:15 a.m. - 11:15 a.m. [C25] POSTER DISCUSSION SESSION
**CLINICAL AND TRANSLATIONAL STUDIES IN RARE LUNG DISEASE**
9:15 A4385/915—129Xe MRI and Six Minute Walk Test Correlations in Pediatric Patients After Hematopoietic Stem-Cell Transplantation
**LungMAP Member:** Jason C. Woods, PhD
**Session Info:** Trinity Ballroom 1-3 (Level 3), Omni Dallas Downtown
LungMAP at ATS 2019

Tuesday May 21

9:15 a.m. - 11:15 a.m. [C25] POSTER DISCUSSION SESSION
CLINICAL AND TRANSLATIONAL STUDIES IN RARE LUNG DISEASE
9:15 A4386/916—Longitudinal Hyperpolarized $^{129}$Xe MRI Detects Stabilization and Reversibility of Early Lung Ventilation Abnormalities in Pediatric HSCT
LungMAP Member: Jason C. Woods, PhD
Session Info: Trinity Ballroom 1-3 (Level 3), Omni Dallas Downtown

9:15 a.m. - 11:15 a.m. [C28] RAPiD: RADID ABSTRACT POSTER DISCUSSION SESSION
PATHWAYS OF LUNG MORPHOGENESIS
9:15 A4437/607—Conserved Role of High CO2 in Regulating Gene Expression of Wnt Signaling Pathway
LungMAP Member: Naftali Kaminski, MD
Session Info: Ballroom D Three (Level 3), KBHCCD

11:15 a.m.—1:00 p.m. [C58] THEMATIC POSTER SESSION
MECHANISMS OF PULMONARY FIBROSIS
11:15 A5247/P288—Macrophage Programs in BAL and Lung Parenchyma of the Healthy and in IPF Patients
LungMAP Member: Naftali Kaminski, MD
Session Info: Area C (Hall F, Level 2), KBHCCD

11:15 a.m.—1:00 p.m. [C59] THEMATIC POSTER SESSION
GENETIC AND EPigenetic MECHANISMS IN PULMONARY FIBROSIS
11:15 A5262/P307—Alveolar and Fibroblast Foci Specific Genome-Wide Gene Expression Profiling Identifies Common Dysregulated Expression of CREB1, a Regulator Across Cell Types, in IPF
LungMAP Member: Naftali Kaminski, MD
Session Info: Area C (Hall F, Level 2), KBHCCD
Tuesday May 21

11:15 a.m.—1:00 p.m. [C60] THEMATIC POSTER SESSION
VASCULAR BIOLOGY IN LUNG DISEASE
11:15 A5300/P349—Multi-Transcriptome-Based Network Analysis to Identify Novel Genes and Candidate Small Molecules for Pulmonary Arterial Hypertension
LungMAP Member: Anil Jegga, DVM, MRes
Session Info: Area C (Hall F, Level 2), KBHCCD

11:15 a.m.—1:00 p.m. [C61] THEMATIC POSTER SESSION
LUNG DEVELOPMENT, BPD, AND STEM CELLS
LungMAP Member: Denise Al Alam, PhD, MS—Lead Facilitator
Session Info: Area E (Hall F, Level 2), KBHCCD

11:15 a.m.—1:00 p.m. [C64] THEMATIC POSTER SESSION
PULMONARY FIBROSIS MODELS AND MECHANISTIC INSIGHTS
11:15 A5414/P423—Pirfenidone Therapy Attenuates Lung Function Decline in a Mouse Model of TGFβ Induced Pulmonary Fibrosis
LungMAP Member: Anil Jegga, DVM, MRes
Session Info: Area C (Hall F, Level 2), KBHCCD

11:15 a.m.—1:00 p.m. [C65] THEMATIC POSTER SESSION
DIFFUSE PARENCHYMAL LUNG DISEASES: BASIC AND CLINICAL STUDIES
11:15 A5427/P947—Assessment of Microstructural Changes in Lung Parenchyma of Adolescent Idiopathic Scoliosis Patients Using Proton MRI and Hyperpolarized 3He MRI
LungMAP Member: Jason C. Woods, PhD
Session Info: Area G (Hall F, Level 2), KBHCCD

11:15 a.m.—1:00 p.m. [C68] THEMATIC POSTER SESSION
SLEEP DISORDER
11:15 A5467/P1200—Quantitative Relationship Between Upper Airway Dynamics and Respiratory Support Modes in Neonates with Ultrashort Echo-Time MRI
LungMAP Members: Jason C. Woods, PhD
Session Info: Area K (Hall F, Level 2), KBHCCD

11:15 a.m.—1:00 p.m. [C70] THEMATIC POSTER SESSION
NEONATAL AND PEDIATRIC LUNG DISEASE
11:15 A5487/P791—Quantitative Analysis of Work of Breathing in Neonates with Bronchopulmonary Dysplasia Using Computational Fluid Dynamics
LungMAP Members: Jason C. Woods, PhD
Session Info: Area E (Hall F, Level 2), KBHCCD
Tuesday May 21

2:15 p.m.—4:15 p.m. [C86] SCIENTIFIC SYMPOSIUM
LUNGMAP-ING CELL LINEAGES IN HUMAN DEVELOPMENT AND DISEASE
LungMAP Members: Chairing—Denise Al Alam, PhD, MS, Thomas J. Mariani, PhD, Anne-Karina T. Perl, PhD, Namavigayam Ambalavanan, MD
Session Info: Trinity Ballroom 4/8 (Level 3), Omni Dallas Downtown

2:15 p.m.—4:15 p.m. [C86] SCIENTIFIC SYMPOSIUM
LUNGMAP-ING CELL LINEAGES IN HUMAN DEVELOPMENT AND DISEASE
2:15 Human Development and Congenital Lung Abnormalities
LungMAP Member: Gail Deutsch, MD
Session Info: Trinity Ballroom 4/8 (Level 3), Omni Dallas Downtown

2:15 p.m.—4:15 p.m. [C86] SCIENTIFIC SYMPOSIUM
LUNGMAP-ING CELL LINEAGES IN HUMAN DEVELOPMENT AND DISEASE
2:40 Epigenetic Regulation of Cell Lineages in Human Lung Development
LungMAP Member: James S. Hagood, MD
Session Info: Trinity Ballroom 4/8 (Level 3), Omni Dallas Downtown

2:15 p.m.—4:15 p.m. [C86] SCIENTIFIC SYMPOSIUM
LUNGMAP-ING CELL LINEAGES IN HUMAN DEVELOPMENT AND DISEASE
3:05 Transcriptomic Lineage Mapping of the Developing Human Lung
LungMAP Member: Minzhe Guo, PhD
Session Info: Trinity Ballroom 4/8 (Level 3), Omni Dallas Downtown

2:15 p.m.—4:15 p.m. [C86] SCIENTIFIC SYMPOSIUM
LUNGMAP-ING CELL LINEAGES IN HUMAN DEVELOPMENT AND DISEASE
3:25 Multi-Omic Characterization of the Lung During Development
LungMAP Member: Charles Ansong, PhD
Session Info: Trinity Ballroom 4/8 (Level 3), Omni Dallas Downtown

2:15 p.m.—4:15 p.m. [C86] SCIENTIFIC SYMPOSIUM
LUNGMAP-ING CELL LINEAGES IN HUMAN DEVELOPMENT AND DISEASE
3:50 Immune Cell Development in Children, Measured in Lung, Spleen and Blood
LungMAP Member: Gloria S. Pryhuber, MD
Session Info: Trinity Ballroom 4/8 (Level 3), Omni Dallas Downtown

2:15 p.m.—4:15 p.m. [C99] MINI SYMPOSIUM
SRN: CARIDIOMETABOLIC CONSEQUENCES OF SLEEP DISORDERED BREATHING AND THE ROLE OF CPAP THERAPY
3:00 A5604—Lower Oxygen Saturation During Sleep is Associated with Reduced Expressions of CD1D and RAB20 That is Potentially Reversed in CPAP Therapy
LungMAP Member: Sina A. Gharib, MD
Session Info: Room D167/D174 (Level 1), KBHCCD

2:15 p.m.—4:15 p.m. [C101] POSTER DISCUSSION SESSION
NON-IDIOPATHIC INTERSTITIAL PNEUMONIA NATURAL HISTORY AND PROGNOSIS AND ILD THERAPY
2:15 A5622/115—Treatment Patterns in Patients with Idiopathic Pulmonary Fibrosis (IPF): Data from the IPF-PRO Registry
LungMAP Member: Scott M. Palmer, MD, MHS
Session Info: Room C140/C142 (Level 1), KBHCCD
Wednesday May 22

9:15 a.m.—11:15 a.m. [D12] MINI SYMPOSIUM
ILD: DIAGNOSIS AND PROGNOSIS
9:30 A5838—Association of Circulating Proteins with Disease Specific Measures in the Multicenter IPF-PRO Registry Cohort
LungMAP Member: Scott M. Palmer, MD, MHS
Session Info: Room C155-C156 (Level 1), KBHCCD

9:15 a.m.—11:15 a.m. [D18] MINI SYMPOSIUM
BEST OF NOVEL TECHNOLOGIES AND METHODOLOGIES
LungMAP Member: Jason C. Woods, PhD—Moderator
Session Info: Room D167/D174 (Level 1), KBHCCD

9:15 a.m.—11:15 a.m. [D21] RAPiD: RAPID ABSTRACT POSTER DISCUSSION SESSION
HOST RESPONSE TO LUNG INFECTIONS
9:15 A5898/301—Insufficiency in Airway Interferon Activation Defines Clinically Severe Infant RSV Infection
LungMAP Members: Jeanne Holden-Wiltse, PhD, Thomas J. Mariani, PhD
Session Info: Ballroom A Four (Level 2), KBHCCD

9:15 a.m.—11:15 a.m. [D27] RAPiD: RAPID ABSTRACT POSTER DISCUSSION SESSION
MECHANISTIC INSIGHTS INTO BRONCHOPULMONARY DYSPLASIA
9:15 A6030/901—S1P/S1P1 and STAT3 Signaling Axis Promotes Hypoxia-Induced Lysyl Oxidase in Lung Epithelium Leading to Bronchopulmonary Dysplasia
LungMAP Member: Gloria S. Pryhuber, MD
Session Info: Trinity Ballroom 1-3 (Level 3), Omni Dallas Downtown

9:15 a.m.—11:15 a.m. [D27] RAPiD: RAPID ABSTRACT POSTER DISCUSSION SESSION
MECHANISTIC INSIGHTS INTO BRONCHOPULMONARY DYSPLASIA
9:15 A6032/903—Airway Microbial Dysbiosis Induced Neutrophilic Inflammation Leads to Bronchopulmonary Dysplasia-Like Phenotype in Mice
LungMAP Member: Namasivayam Ambalavanan, MD
Session Info: Trinity Ballroom 1-3 (Level 3), Omni Dallas Downtown

9:15 a.m.—11:15 a.m. [D27] RAPiD: RAPID ABSTRACT POSTER DISCUSSION SESSION
MECHANISTIC INSIGHTS INTO BRONCHOPULMONARY DYSPLASIA
9:15 A6034/905—Adiponectin Ameliorates Hyperoxia-Induced Lung Epithelial Dysfunction and Promotes Angiogenesis in Neonatal Mice
LungMAP Member: Gloria S. Pryhuber, MD
Session Info: Trinity Ballroom 1-3 (Level 3), Omni Dallas Downtown

9:15 a.m.—11:15 a.m. [D27] RAPiD: RAPID ABSTRACT POSTER DISCUSSION SESSION
MECHANISTIC INSIGHTS INTO BRONCHOPULMONARY DYSPLASIA
9:15 A6040/911—Transcriptional Characterization of Human Lung Cells Identifies Novel Markers of Mesenchymal Lineages
LungMAP Members: Soula Danopoulos, PhD, Thomas J. Mariani, PhD, Denise Al Alam, PhD, MS
Session Info: Trinity Ballroom 1-3 (Level 3), Omni Dallas Downtown
Wednesday May 22

9:15 a.m.—11:15 a.m. [D27] RAPiD: RAPID ABSTRACT POSTER DISCUSSION SESSION MECHANISTIC INSIGHTS INTO BRONCHOPULMONARY DYSPLASIA
9:15 A6045/916—Identifying Sex-Dependent Changes in CD4+ T Cell Phenotype and Plasma Cytokine Levels from Infants Exposed to the In Utero Inflammatory Conditions of Clinical Chorioamnionitis
**LungMAP Members:** Ravi Misra, PhD, Gloria S. Pryhuber, MD
**Session Info:** Trinity Ballroom 1-3 (Level 3), Omni Dallas Downtown

9:15 a.m.—11:15 a.m. [D27] RAPiD: RAPID ABSTRACT POSTER DISCUSSION SESSION MECHANISTIC INSIGHTS INTO BRONCHOPULMONARY DYSPLASIA
9:15 A6046/917—Fetal Lung Development in Rhesus Macaques Using Quantitative Diffusion MRI and Histological Biomarkers
**LungMAP Member:** Jason C. Woods, PhD
**Session Info:** Trinity Ballroom 1-3 (Level 3), Omni Dallas Downtown

9:15 a.m.—11:15 a.m. [D29] POSTER DISCUSSION SESSION LUNG MULTI-OMICS TO MECHANISM
9:15 A6073/503—Cross Species scRNAseq Systems Biology Analysis of Cell-Cell Signaling in Lung
**LungMAP Member:** Naftali Kaminski, MD
**Session Info:** Room D222-D224 (Level 2), KBHCCD

9:15 a.m.—11:15 a.m. [D29] POSTER DISCUSSION SESSION LUNG MULTI-OMICS TO MECHANISM
9:15 A6074/504—Unsupervised and Supervised Analysis to Identify Novel Candidate Genes and Therapeutics for Idiopathic Pulmonary Fibrosis
**LungMAP Member:** Anil Jegga, DVM, MRes
**Session Info:** Room D222-D224 (Level 2), KBHCCD

9:15 a.m.—11:15 a.m. [D29] POSTER DISCUSSION SESSION LUNG MULTI-OMICS TO MECHANISM
9:15 A6076/506—A Novel Interface for Sharing the Human Cell IPF Atlas
**LungMAP Member:** Naftali Kaminski, MD
**Session Info:** Room D222-D224 (Level 2), KBHCCD

9:15 a.m.—11:15 a.m. [D29] POSTER DISCUSSION SESSION LUNG MULTI-OMICS TO MECHANISM
9:15 A7463/524—Integration of Transcriptomic and Proteomic Data Identifies Biological Functions in Lung Cell Populations
**LungMAP Members:** Yina Du, PhD, Geremy Clair, PhD, Denise Al Alam PhD, MS, Soula Danopoulos, PhD, David Warburton, MD, Joseph Kitzmiller, Ravi Misra, PhD, Thomas J. Mariani, PhD, Gloria S. Pryhuber, MD, Jeffrey A. Whitsett, MD, Charles Ansong, PhD, Yan Xu, PhD
**Session Info:** Room D222-D224 (Level 2), KBHCCD
Wednesday May 22

9:15 a.m.—11:15 a.m. [D30] POSTER DISCUSSION SESSION
ASTHMA: WHAT’S NEW IN ASSESSMENT AND TREATMENT?
9:15  A6102/610—Ventilation Defect Percent from Hyperpolarized Helium-3 MRI is Predictive of Asthma Exacerbation Severity
LungMAP Member: Jason C. Woods, PhD
Session Info: Ballroom D Three (Level 3), KBHCCD

12:15 p.m.—1:15 p.m. [L26] OUTSIDE ORGANIZATION SESSION
THE MOLECULAR ATLAS OF LUNG DEVELOPMENT (LUNGMAP)
LungMAP Members: Robert Clark, PhD, Sara Lin, PhD—Chairs
Session Info: Room D220/D227 (Level 2), KBHCCD

12:15 p.m.—1:15 p.m. [L26] OUTSIDE ORGANIZATION SESSION
THE MOLECULAR ATLAS OF LUNG DEVELOPMENT (LUNGMAP)
12:15  LungMAP.net: A Public Online Resource for Lung Development Research and Education
LungMAP Member: Robert Clark, PhD
Session Info: Room D220/D227 (Level 2), KBHCCD

12:15 p.m.—1:15 p.m. [L26] OUTSIDE ORGANIZATION SESSION
THE MOLECULAR ATLAS OF LUNG DEVELOPMENT (LUNGMAP)
12:25  Adaptation of Pulmonary Cells to Air Breathing at Birth at Single Cell Level
LungMAP Member: Jeffrey A. Whitsett, MD
Session Info: Room D220/D227 (Level 2), KBHCCD

12:15 p.m.—1:15 p.m. [L26] OUTSIDE ORGANIZATION SESSION
THE MOLECULAR ATLAS OF LUNG DEVELOPMENT (LUNGMAP)
12:35  A Multi Scale View of Lung Alveolar and Airway Development from Anatomy to Cells to Molecules
LungMAP Member: David Warburton, MD, ATSF
Session Info: Room D220/D227 (Level 2), KBHCCD

12:15 p.m.—1:15 p.m. [L26] OUTSIDE ORGANIZATION SESSION
THE MOLECULAR ATLAS OF LUNG DEVELOPMENT (LUNGMAP)
12:45  Epigenetics in Normal Lung Development
LungMAP Member: James S. Hagood, MD
Session Info: Room D220/D227 (Level 2), KBHCCD

12:15 p.m.—1:15 p.m. [L26] OUTSIDE ORGANIZATION SESSION
THE MOLECULAR ATLAS OF LUNG DEVELOPMENT (LUNGMAP)
12:55  Multi-Scale Omics and Imaging Characterization of the Lung During Development on Behalf of PNNL/TACC Team
LungMAP Member: Geremy Clair, PhD
Session Info: Room D220/D227 (Level 2), KBHCCD

12:15 p.m.—1:15 p.m. [L26] OUTSIDE ORGANIZATION SESSION
THE MOLECULAR ATLAS OF LUNG DEVELOPMENT (LUNGMAP)
1:05  Sharing the BRINDL LungMAP Biorepository
LungMAP Member: Gloria S. Pryhuber
Session Info: Room D220/D227 (Level 2), KBHCCD
**Wednesday May 22**

1:30 p.m.—3:30 p.m. [D98] MINI SYMPOSIUM
**NEW MECHANISMS OF ACUTE LUNG INJURY**
2:30 A7069—Pink1 Mediates the Protective Effects of Thyroid Hormone T3 in Hyperoxia-Induced Lung Injury
**LungMAP Member:** Naftali Kaminski, MD
**Session Info:** Ballroom D Two (Level 3), KBHCCD

1:30 p.m.—3:30 p.m. [D107] POSTER DISCUSSION SESSION
**MITOCHONDRIA AND ER STRESS IN HOMEOSTASIS AND REPAIR**
1:30 A7222/608—Profibrotic Effects of Mir-33—Role of Autophagy and Mitochondrial Homeostasis in Macrophages and Therapeutic Implications
**LungMAP Members:** Farida Ahangari, PhD, Naftali Kaminski, MD
**Session Info:** Ballroom D Three (Level 3), KBHCCD

1:30 p.m.—3:30 p.m. [D109] RAPiD: RAPID ABSTRACT POSTER DISCUSSION SESSION
**SRN: OUTCOMES AND IMPACT OF SLEEP AND RESPIRATORY DISORDERS**
1:30 A7259/901—Shared Genetic Architecture Between Sleep and Blood Pressure Traits in Humans
**LungMAP Member:** Sina A. Gharib, MD
**Session Info:** Trinity Ballroom 1-3 (Level 3), Omni Dallas Downtown