Monday, June 3, 2024 -- Evening

5:00-7:00 PM  Evening Registration   Gant Conference Center

Tuesday, June 4, 2024 – Morning

8:00-8:20 AM  Welcome/Introduction   Elizabeth Redente, Ph.D., Chair
               David Schwartz, M.D., Co-Chair

8:20-8:30 AM  The Thomas L. Petty Aspen Lung Conference: A Historical Perspective
           Dennis E. Doherty, M.D., FCCP
               Professor of Medicine/University of Kentucky
               Secretary/Treasurer, National Lung Health Education Program

Theme 1/Session 1:  Common Thread of ILA Relationship to Established Lung Fibrosis

Moderators--

8:30-9:05 AM  THOMAS L. PETTY LECTURE
            “WHAT CAN WE LEARN FROM ILAs AND DISEASE DIAGNOSIS AND PROGRESSION?”
            Fernando J. Martinez, M.D., M.S.
               Chief, Division of Pulmonary and Critical Care Medicine
               Bruce Webster Professor of Medicine
               Joan and Sanford I. Weill Department of Medicine
               Weill Cornell Medicine in New York
               New York, New York

9:05-9:30 AM  Discussion

9:30-9:45 AM  GENOME-WIDE ASSOCIATION STUDY OF IDIOPATHIC PULMONARY FIBROSIS AMONG ASIAN ANCESTRIES.  Anna L. Peljto1*, Deepa Puthevedu1, Haruhiko Furusawa2, Jonathan Cardwell1, Masaki Hirose3, Yoshikazu Inoue3, Dong Soon Kim4, Yasunari Miyazaki2, Ken Ohta5, Shin Ohta6, Tsukasa Okamoto2, Jong Sun Park7, Moo Suk Park8, Jin Woo Song9, Ivana V. Yang1, Tasha E. Fingerlin9, David A. Schwartz1, 1University of Colorado Anschutz Medical Campus, Aurora, CO; 2Tokyo Medical and Dental University, Tokyo, Japan; 3NHO Kinki Chuo Chest Medical Center, Osaka, Japan; 4Asan Medical Center, University of Ulsan, Seoul, Republic of Korea; 5National Hospital Organization Tokyo National Hospital, Tokyo, Japan; 6Showa University, Tokyo, Japan; 7Seoul National University College of Medicine, Seoul National University Bundang Hospital, Seongnam, Republic of Korea; 8Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea; 9National Jewish Health, Denver, CO.

9:45-10:00 AM  CELL SPECIFIC MOLECULAR PROFILING OF SCLERODERMA ASSOCIATED INTERSTITIAL LUNG DISEASE SUBTYPES.  Monica Yang1*, Fred Deiter2, Emily Flynn1, Jessica Neely3, Seoyeon Lee2, John Greenland6, Marina Sirota4, Paul Wolters2, 1Division of Rheumatology, Department of Medicine, University of California, San Francisco; 2Division of Pulmonary, Critical Care, Allergy and Sleep Medicine, Department of Medicine, University of California San Francisco; 3Division of Pediatric Rheumatology, Department of Pediatrics, University of California, San Francisco; 4Baakar Computational Health Sciences Institute, University of California, San Francisco.

10:00-10:30 AM  .....Coffee Break  MEET THE PROFESSOR SESSION (by Registration table)
               (Refreshments for conference participants only)
Tuesday, June 4, 2024 -- Morning

**Theme 2: Exploring the Dynamic Cellular and Structural Biology of Lung Fibrosis**

**Session 2: Biological Interface and Interaction in Interstitial Lung Disease**

**Moderators:**

10:30-11:05 AM  
PARKER B. FRANCIS LECTURESHIP  
**“DEVELOPMENT OF LUNG FIBROSIS: HOW CELLS SIGNAL, CHANGE AND EMERGE”**  
Harold A. Chapman, M.D.  
Professor of Medicine  
Department of Pulmonary and Critical Care Medicine  
University of California San Francisco  
San Francisco, California

11:05-11:30 AM  Discussion

11:30-11:45 AM  
**ELUCIDATING THE FUNCTIONAL ROLE OF FIBROBLAST PROLIFERATION IN LUNG FIBROSIS VIA MURINE MODELS AND PRECISION-CUT HUMAN LUNG SLICES.**  
Christopher Molina*, Dean Sheppard, Department of Pulmonary and Critical Care Medicine, University of California San Francisco, CA.

11:45-12:00 Noon  
**ROLE OF GATA6 IN ALVEOLAR FIBROBLAST FUNCTION.**  
J. Green, M.G. Ushakumary, C. Na, Anna-Karina Perl*, Division of Pulmonary Biology, Cincinnati Children’s Hospital; Department of Pediatrics, Univ. of Cincinnati College of Medicine, Cincinnati, OH.

12:00-1:30 PM  ......Lunch  (*lunch not provided by conference*)
Tuesday, June 4, 2024 -- Afternoon

Session 3: Biological Interface and Interaction in Interstitial Lung Disease – Re-Building the Matrix

Moderators--

1:30-2:05 PM  STATE OF THE ART
Kristi S. Anseth, Ph.D.
University of Colorado at Boulder, Boulder, Colorado
“The Development of Biomaterials to Serve as Synthetic Extracellular Matrix (ECM) to Rebuild the Lung”

2:05-2:30 PM  Discussion

2:30-2:45 PM  TRPV4 IS A KEY MECHANOSensor IN MACROPHAGES THAT DRIVES MYOFIBROBLAST DIFFERENTIATION THROUGH THE SECRETION OF ACTIVE TGF-β. Rachel G. Scheraga1,2*, L.M. Grove2, S. Abraham2, B.D. Southern1,2, A. Reinhardt2, E.M. Orsini1, M.A. Olman1,2, 1Departments of Pulmonary and Critical Care and 2Inflammation and Immunity, Cleveland Clinic, Cleveland, OH.

2:45-3:00 PM  PIEZO2 IS AN IMPORTANT MECHANO-RECEPTOR IN PULMONARY FIBROSIS. Margaret A.T. Freeberg*, S.V. Camus, T.H. Thatcher, P.J. Sime Department of Internal Medicine, Virginia Commonwealth University, Richmond, VA.

3:00-3:30 PM  .....Break (Refreshments for conference participants only)

Session 4: Biological Interface and Interaction in Interstitial Lung Disease – Re-Building the Endothelium

Moderators--

3:30-4:05 PM  STATE OF THE ART
Tatiana V. Kalin, M.D., Ph.D.
Phoenix Children’s Center for Cancer and Blood Disorders
University of Arizona College of Medicine – Phoenix, Arizona
“Regeneration of the Vascular Niche During Fibrosis Repair”

4:05-4:30 PM  Discussion

4:30-4:45 PM  THE ROLE OF ENDOTHELIAL MECHANOTRANSDUCTION IN PULMONARY FIBROSIS. Patricia Brazee*, Shatruhan Raiput, Ilyas Sugal, Trong Nguyen, Katharine Ference, Rachel Knipe, Division of Pulmonary and Critical Care Medicine, Center for Immunology and Inflammatory Diseases, Massachusetts General Hospital, Boston, MA.

4:45-5:00 PM  VASCULAR BED TRANSCRIPTIONAL ACTIVATION CHARACTERIZES RAPID PROGRESSORS IN IDIOPATHIC PULMONARY FIBROSIS. Sari Ezgi1*, N.S. Sharma2,3, K. Patel1, S. Shankar4, M.G. Gastanadu5, D. Moncada Giraldo6, Y. Soto-Vazquez5, D. Stacks1, L. Hecker7, K. Dsouza1, M. Banday2, E. O’Neill6, P. Benson1, G. Payne5,8, A. Gaggar5,8, C. Margaroli1, 1Department of Pathology, University of Alabama at Birmingham, Birmingham, Alabama; 2Department of Medicine, Brigham and Women’s Hospital, Boston, Massachusetts; 3West Roxbury VA Medical Center, Boston, Massachusetts; 4Department of Medicine, University of South Florida, Tampa, Florida; 5Department of Medicine, University of Alabama at Birmingham, Birmingham, Alabama; 6Department of Pediatrics, Emory University, Atlanta, Georgia; 7Department of Medicine, Emory University, Atlanta, Georgia; 8Birmingham VA Medical Center, Birmingham, Alabama.

5:00-7:00 PM  POSTER VIEWING (Refreshments for conference participants only)
Wednesday, June 5, 2024 -- Morning

Session 5: Biological Interface and Interaction in Interstitial Lung Disease – Re-Building Stem Cell Niches

Moderators--

8:00-8:35 AM  ROGER S. MITCHELL LECTURE  
“REGENERATION OF THE STEM CELL NICHE TO DRIVE REPAIR”
Xin Sun, Ph.D.
Professor of Pediatrics
Department of Cell and Development Biology
School of Biological Sciences
University of California San Diego
San Diego, California

8:35-9:00 AM  Discussion

9:00-9:15 AM  TYPE 2 INNATE IMMUNITY PROMOTES THE DEVELOPMENT OF PULMONARY FIBROSIS IN HERMANSKY-PUDLAK SYNDROME. Parand Sorkhdini¹, Kiran Klubock-Shukla¹, Dongqin Yang¹, Alina Xiaoyu Yang¹, Carmelissa Norbrun¹, Wendy J. Introne², Bernadette R. Gochuico², Yang Zhou¹*.¹Department of Molecular Microbiology and Immunology, Brown University, Providence, R.I. ²Medical Genetics Branch, National Human Genome Research Institute, Bethesda, Maryland.

9:15-9:30 AM  MOVEMENT OF EPITHELIAL CELLS IS ASSOCIATED WITH THE EXTENT OF LUNG FIBROSIS IN IDIOPATHIC PULMONARY FIBROSIS (IPF) Andrey Krivoy¹*, Evgenia Dobrinskikh¹, Seyedeh Zahra Fotook Kiaei¹, Ian Stancil¹², Janna Brancato¹, Ivana V. Yang¹, David A. Schwartz¹, ¹Division of Pulmonary Sciences and Critical Care Medicine; University of Colorado, Denver, CO; ²Division of Pulmonary and Critical Care Medicine, Stanford University, Palo Alto, CA.

9:30-10:00 AM  ......Coffee Break  MEET THE PROFESSOR SESSION (by Registration table)  
(Refreshments for conference participants only)
Wednesday, June 5, 2024 -- Morning

**Theme 3: Diagnostic Challenges and Novel Approaches – The Road to Understanding Interstitial Lung Abnormalities, UIPs and Disease Progression**

**Session 6: AI Integration to Enhance Early Detection Using Integrated Omics**

**Moderators--**

10:00-10:35 AM **STATE OF THE ART**
Casey S. Greene, Ph.D.
University of Colorado School of Medicine, Aurora, Colorado
“The Integration of Omics Data to Model and Understand the Biology of ILDs”

10:35-11:00 AM **Discussion**

11:00-11:15 AM **SKIN TRANSCRIPTOMICS ARE ASSOCIATED WITH LUNG FUNCTION IMPAIRMENT AND DISTINCT CELL TYPE ENRICHMENT IN SYSTEMIC SCLEROSIS-RELATED LUNG DISEASE.** Jana Zielonka*, Ningshan Li, Zuoheng Wang, Xiting Yan, Jose L. Gomez, Yale University School of Medicine, Division of Pulmonary, Critical Care & Sleep Medicine, New Haven, CT.

11:15-11:30 AM **LRP1 DEFICIENCY CHANGES LIPID METABOLISM AND AGGRAVATES LUNG FIBROSIS.** F. Schramm1, L. Wujak2, S. Hadzic3, K. Rubio4, T.O. Eichmann5, W. Sattler5, S. Günther6, J. Wilhelm1,7, I. Alexopoulos1,7, B. Kojonazarov3, G. Barreto4, Malgorzata Wygrecka1,7*, 1Center for Infections and Genomics of the Lung, German Center for Lung Research, Justus Liebig University, Giessen, Germany; 2MedComms Warsaw, Warsaw, Poland; 3Excellence-Cluster Cardio-Pulmonary Institute, Justus Liebig University, Giessen, Germany; 4Université de Lorraine, Nancy, France. 5Medizinische Universität Graz, Graz, Austria; 6German Centre for Cardiovascular Research, Bad Nauheim, Germany; 7Institute for Lung Health, Justus Liebig University, Giessen, Germany.

12:00-3:00 PM **Picnic – T Lazy 7 - The Ranch (for conference participants and their family)**
Thursday, June 6, 2024 -- Morning

Session 7: Common Threads to Usual Interstitial Pneumonitis: Tying it All Together

Moderators--

8:00-8:35 AM  MARVIN I. SCHWARZ LECTURE
“ROLE OF TRANSITIONAL EPITHELIAL CELLS IN LUNG REGENERATION AND FIBROSIS”
Rachel L. Zemans, M.D.
Henry Sewall Research Professor of Pulmonary and Critical Care Medicine
Professor of Internal Medicine and Cellular & Molecular Biology
University of Michigan
Ann Arbor, Michigan

8:35-9:00 AM  Discussion

9:00-9:15 AM  HOW SHOULD PATIENTS WITH PROGRESSIVE PULMONARY FIBROSIS BE IDENTIFIED? CONSENSUS FINDINGS FROM A MODIFIED DELPHI STUDY. Athol U Wells1,2,8 Simon LF Walsh,2 Ayodeji Adegunsoye,3 Vincent Cottin,4 Sonye Danoff,5 Anand Devaraj,12 Kevin R Flaherty,6 Peter M George,1,2 Martin Kolb,7 Yasuhiro Kondoh,8 Andrew G Nicholson,1 Sara Tomassetti,9 Elizabeth R Volkmann,10 Kevin K Brown11, 1Royal Brompton and Harefield Hospitals, London, UK; 2National Heart and Lung Institute, Imperial College London, London, UK; 3University of Chicago, Chicago; 4National Reference Center for Rare Pulmonary Diseases, Louis Pradel Hospital, Claude Bernard University Lyon 1, Lyon, France; 5Johns Hopkins Medicine, Baltimore; 6University of Michigan, Ann Arbor; 7McMaster University and St. Joseph’s Healthcare, Hamilton, Canada; 8Tosei General Hospital, Aichi, Japan; 9Florence University, Florence, Italy; 10University of California, David Geffen School of Medicine, Los Angeles; 11National Jewish Health, Denver.

9:15-9:30 AM  LUNG MICROENVIRONMENT LABEL-FREE QUANTITATIVE PROTEOMICS IDENTIFIES DISTINCT ENDOPHENOTYPES IN IDIOPATHIC PULMONARY FIBROSIS.
L. T. Ngo1, M. Rekowski2, D. Koestler3, I. Azeem1, A. Harrison1, M.K. Demoruelle4, J. Boomer5, B.R. England6, P. Woters6, P. Molyneux7, M. Castro1, J.S. Lee8, J.J. Solomon9, K. Koromuma10, M.P. Washburn2, Scott M. Matson1*, 1Division of Pulmonary, Critical Care and Sleep Medicine, University of Kansas School of Medicine; 2Department of Cancer Biology, KUMC; 3Department of Biostatistics KUMC; 4Division of Rheumatology, University of Colorado; 5Division of Rheumatology & Immunology, University of Nebraska Medical Center; 6Division of Pulmonary and Critical Care Medicine, UCSF; 7National Heart and Lung Institute, Imperial College London; 8Division of Pulmonary Sciences and Critical Care Medicine, University of Colorado; 9National Jewish Health Hospital; 10Department of Respiratory, Sapporo Medical University School of Medicine, Sapporo, Japan.

9:30-10:00 AM  MEET THE PROFESSOR SESSION (by Registration table)
(Refreshments for conference participants only)
Thursday, June 6, 2024 -- Morning

Session 8: Non-Invasive Molecular Imaging and Quantifying Lung Fibrosis

Moderators:

10:00-10:35 AM  STATE OF THE ART
Sydney B. Montesi, M.D.
Massachusetts General Research Institute, Harvard Medical School, Boston, Massachusetts
“Harnessing the Power of Early Detection Through Molecular Imaging by PET/CT and PET/MRI”

10:35-11:00 AM  Discussion

11:00-11:15 AM  QUANTIFYING AND EVALUATING TGFβ1 NON-INVASIVELY USING THE NOVEL $^{89}$Zr DFO-TGFβRII PET IMAGING. Yujun Zhang$^{1,2,*}$, Jessy Deshane$^{3}$, Tejaswini Kulkarni$^{3}$, Benjamin Larimer$^{1,4}$, $^{1}$Graduate Biomedical Sciences, The University of Alabama at Birmingham, AL; $^{2}$Department of Radiology, The University of Alabama at Birmingham, AL; $^{3}$Division of Pulmonary, Allergy and Critical Care Medicine, The University of Alabama at Birmingham, AL; $^{4}$O’Neal Cancer Center, AL.

11:15-11:30 AM  DATA-DRIVEN TEXTURAL ANALYSIS (DTA) FIBROSIS SCORES FROM BASELINE TO 1-YEAR HRCT PREDICT SUBSEQUENT DISEASE PROGRESSION. Matthew Koslow$^{1,*}$, J.J. Swigris$^{1}$, D. Baraghoshi$^{3}$, M. Strand$^{3}$, J. Solomon$^{1}$, E. Fernandez Perez$^{1}$, Z.X. Yunt$^{1}$, R. Keith$^{1}$, M.P. Mohning$^{1}$, T.J. Huie$^{1}$, K.K. Brown$^{1}$, D.A. Lynch$^{2}$, S.M. Humphries$^{2}$, $^{1}$Center for Interstitial Lung Disease, Division of Pulmonary, Critical Care and Sleep Medicine; National Jewish Health, Denver, CO, $^{2}$Department of Radiology, National Jewish Health, Denver, CO, $^{3}$Division of Biostatistics and Bioinformatics, National Jewish Health, Denver CO.

11:30-1:30 PM  ......Lunch (lunch not provided by conference)
Thursday, June 6, 2024 -- Afternoon

**Theme 4: Transformational Interventions for Lung Fibrosis**

**Session 9: Regenerative Capacity and Scar Removal in the Lungs**

**Moderators:**

1:30-2:05 PM  **STATE OF THE ART**
Kamran Atabai, M.D.
University of California San Francisco, San Francisco, California
“Age-Dependent Regulation of Cell-Mediated Collagen Turnover”

2:05-2:30 PM  **Discussion**

2:30-2:45 PM  **DEXTROMETHORPHAN INHIBITS SECRETION OF PRO-FIBROTIC CARGOES ELICITING AN ANTI-FIBROTIC RESPONSE IN IN-VIVO, EX-VIVO AND IN-VITRO MODELS OF PULMONARY FIBROSIS.  **Muzamil M Khan**¹², Joanna Zukowska¹, Juan Jung¹, George Galea¹, Nadine Tuechler¹, Aliaksandr Halavaty³, Beate Neumann¹, Thomas Muley², Hauke Winter², Julia Duerr³, Marcus A Mall³, Ernesto de la Cueva¹, Mikhail Savitski¹, Rainer Pepperkok¹², ¹Cell Biology and Biophysics Unit, European Molecular Biology Laboratory, Heidelberg, Germany; ²Translational Lung Research Center Heidelberg, German Center for Lung Research (DZL), Heidelberg, Germany; ³Department of Pediatric Respiratory Medicine, Immunology and Critical Care Medicine, Charité-Universitätsmedizin Berlin, Germany.

2:45-3:00 PM  **COLLAGEN PROLYL-3-HYDROXYLASE 1 IS INCREASED IN IDIOPATHIC PULMONARY FIBROSIS AND CONTROLS COLLAGEN QUALITY AND COMPOSITION.  **Claudia A. Staab-Weijnitz¹*, Juliane Merl-Pham², Vivek Saroshi³, Rachel Z. Blumhagen⁴, Leonhard Binzenhöfer¹, Karolina Pijadina¹, Marleen Stremlau¹, Elisabeth Hennen¹, Natalia Cabeza-Boeddinghaus¹, Ceylan Onursal¹, Jürgen Behr⁵, Anne Hilgendorff⁶, Hans Peter Büchner⁶, David A. Schwartz⁷, Ivana Yang⁷, Naftali Kaminski⁸, Stefanie M. Hauck¹, Oliver Eickelberg¹, Roberto Vanacore⁹, Trayambak Basak¹, ¹Comprehensive Pneumology Center, Institute of Lung Health and Immunity, Helmholtz Munich, Germany; ²Metabolomics and Proteomics Core, Helmholtz Munich, Germany; ³School of Biosciences and Bioengineering (SBB), Indian Institute of Technology (IIT), Mandi, Mandi, India; ⁴Center for Genes, Environment and Health, National Jewish Health, Denver, CO; ⁵University Hospital of the LMU, Munich, Germany; ⁶Department of Biochemistry and Molecular Biology, Oregon Health & Science University, Portland, OR; ⁷Department of Medicine, University of Colorado Anschutz Medical Campus, Aurora, CO; ⁸Pulmonary, Critical Care and Sleep Medicine, Yale School of Medicine, New Haven, CT; ⁹Division of Nephrology and Hypertension, Department of Medicine, Vanderbilt University Medical Center, Nashville, TN.

3:00-3:30 PM  ......Break (Refreshments for conference participants only)
Thursday, June 6, 2024 -- Afternoon

Session 10: Regenerative Capacity and Scar Removal in the Lung

Moderators--

3:30-4:05 PM THOMAS A. NEFF LECTURE
“CELLULAR SENSING AND REMODELING OF THE LUNG MATRIX ENVIRONMENT”
Daniel J. Tschumperlin, Ph.D.
Professor and Vice Chair
Department of Physiology and Biomedical Engineering
Mayo Clinic
Rochester, Minnesota

4:05-4:30 PM Discussion

4:30-4:45 PM MECHANOSENSORY PRIMARY CILIA REWIRE LUNG FIBROBLAST METABOLISM TO PROMOTE FIBROSIS. G.S. Ozcebe#, C.S. Trempus#, B. Papas\textsuperscript{1}, J.L. Li\textsuperscript{1}, M. Prates Mori\textsuperscript{1}, R. Snyder\textsuperscript{1}, R. Vancini\textsuperscript{1}, J. Watts\textsuperscript{1}, J. Santos\textsuperscript{1}, C.M. Hogaboam\textsuperscript{2}, D.A. Schwartz\textsuperscript{3}, A. Mora\textsuperscript{4}, M. Rojas\textsuperscript{4}, Stavros Garantziotis\textsuperscript{1*}, \textsuperscript{1}National Institute of Environmental Health Sciences; \textsuperscript{2}Cedars Sinai Medical Center; \textsuperscript{3}University of Colorado; \textsuperscript{4}Ohio State University. \#equal contribution as first authors

4:45-5:00 PM RECOGNITION OF CELL DEATH METABOLICALLY PRIMES LUNG FIBROBLASTS FOR COLLAGEN SYNTHESIS AND PROLIFERATION. Hope Chatwin, Shannon McManus, Elizabeth Redente, Alexandra McCubbrey\textsuperscript{*}, Department of Medicine, National Jewish Health, Denver CO.

5:00-7:00 PM POSTER VIEWING (Refreshments for conference participants only)
Friday, June 7, 2024 -- Morning

Session 11: Pharmacologic Targets Lead to Cures

Moderators:

8:00-8:35 AM

REUBEN M. CHERNIACK LECTURE

“LESSONS FROM CF: GENETIC TARGETING FOR SUCCESSFUL PHARMACOLOGIC INTERVENTION AND PARALLELS TO ILD DRUG DEVELOPMENT”

Paul A. Negulescu, Ph.D.
Senior Vice President, Research
Vertex Pharmaceuticals, Incorporated
San Diego, California

8:35-9:00 AM

Discussion

9:00-9:15 AM

ELEVATED SINE OCULIS HOMEBOX HOMOLOG 1 (SIX1) IN FIBROTIC LUNG DISEASES, A POTENTIAL TARGET FOR GENE SILENCING? Cory Wilson¹, Sarah Shin², Scott Collum², Nancy Wareing³, Howard J Huang⁴, Bindu Akkanti⁵; Bela Patel⁵, Harry Karmouty-Quintana²,⁵.*¹
¹Department of Internal Medicine, University of Iowa; Iowa City, Iowa; ²Department of Biochemistry and Molecular Biology, UTHealth, Houston, TX; ³Department of Internal Medicine, Emory University, Atlanta, GA; ⁴Department of Pulmonary Critical Care, Houston Methodist, Houston TX; ⁵Divisions of Critical Care, Pulmonary and Sleep Medicine, Department of Internal Medicine, UTHealth, Houston, TX.

9:15-9:30 AM

SYNERGISTIC EFFECTS OF NINTEDANIB AND ABT-199 ON FIBROBLAST APOPTOSIS.
Joseph Cooley¹*, J. Wilson², N. Javkhlan², D. A. Schwartz¹, D. W. Riches², E. F. Redente², ¹Pulmonary and Critical Care, National Jewish Health, Denver, CO; ²Pediatrics, National Jewish Health, Denver, CO, United States; ³Dept of Med, Univ of Colorado, Aurora, CO.

9:30-10:00 AM

Coffee Break (Refreshments for conference participants only)
Friday, June 7, 2027 – Morning

Session 12: Cures Tissue Repair Through Rebuilding the Lung

Moderators:

10:00-10:35 AM  GILES F. FILLEY LECTURE
“THE FUTURE OF LUNG REGENERATION AND TRANSPLANTATION”
Thomas Petersen, M.D., Ph.D.
Vice President, Regenerative Medicine
United Therapeutics
Durham, North Carolina

10:35-11:00 AM  Discussion

11:00-11:15 AM  MUC5B SUPPRESSES ALVEOLAR REGENERATION.  Yan Hu1*, Naoko Liu1, James Needell1, Melanie Königshoff2, Christopher Evans1, 1Division of Pulmonary Sciences and Critical Care Medicine, University of Colorado School of Medicine, Aurora, CO, 2Division of Pulmonary, Allergy, and Critical Care Medicine; Department of Medicine, University of Pittsburgh, Pittsburgh, PA.

11:15-11:30 AM  LUNG CELL TRANSPLANTATION FOR PULMONARY FIBROSIS.  Irit Milman Krentsis1*, Yangxi Zheng1, Christa Blagdon1, Sarah Y. Shin1, Sandeep K. Yadav1, Esther Bachar Lustig1, Chava Rosen1,2, Eli Shezen1, Einav Shoshan1, Burton F. Dickey1, Harry Karmouty-Quintana1, Yair Reisner1, 1Department of Stem Cell Transplantation and Cell Therapy, MD Anderson Cancer Center, Houston, TX; 2Department of Neonatology, Children’s Hospital, Sheba Medical Center, Tal Hashomer, Israel; 3Department of Internal Medicine, The University of Texas Health Science Center, Houston, TX; 4Department of Pulmonary Medicine, MD Anderson Cancer Center, Houston, TX.

11:30-12:30 PM  CONFERENCE SUMMARY
Patricia J. Sime, M.D.
Chair, Department of Internal Medicine
William Branch Porter Professor of Medicine
Division of Pulmonary Diseases and Critical Care Medicine
Virginia Commonwealth University
Richmond, Virginia

12:30-1:00 PM  Discussion and Adjourn
POSTER VIEWING
Tuesday, June 4, 2024
5:00-7:00 PM

POSTERS

ALDEHYDE DEHYDROGENASE 2 MITIGATES LUNG FIBROSIS AFTER INJURY. Yael Aschner\(^1\),* Elisabeth Murphy\(^2\), Kelly A Correll\(^2\), Keriann Beke\(^2\), Paul R Reynolds\(^2\), Gregory P Downey\(^1,2\), \(^1\)Dept of Medicine, University of Colorado Anschutz Medical Campus, Aurora, CO. \(^2\)Dept of Academic Affairs, National Jewish Health, Denver, CO.

DEVELOPMENT OF NOVEL TECHNOLOGY FOR THE VISUALIZATION AND QUANTITATION OF MICROVASCULAR PROGENITOR DRIVEN ADAPTIVE ANGIGENESIS DURING CHRONIC LUNG DISEASE. Hannah Thorndyke\(^1\),* Evan Lundberg\(^1\), Maggie Dawson\(^1\), Edwin Ortiz Gaxon\(^2\), Emma Mason\(^1\), Eszter Vladar\(^3\), David Coronado Escobar\(^4\), and Susan Majka\(^1,3\). \(^1\)Department of Medicine, Division of Pulmonary & Critical Care Medicine, National Jewish Health, Denver CO; \(^2\)Cell Biology, Stem Cells & Development Graduate Program, University of Colorado Anschutz Medical Campus; \(^3\)Department of Medicine, Division of Pulmonary & Critical Care Medicine, University of Colorado Anschutz Medical Campus; \(^4\)Onimagin Technologies SCA, Cordoba, Spain.

PGK1 MEDIATES DEFICIENT PYRUVATE UTILIZATION AND BIOENERGETIC COMPROMISE IN LUNG FIBROBLASTS IN AGE-RELATED LUNG FIBROSIS. Pilar Londono, Emily Turner, Gavriel Roda, Christopher M. Evans and Sunad Rangarajan*, Division of Pulmonary Sciences and Critical Care, University of Colorado Anschutz Medical Campus, Aurora, CO.

LONG NON-CODING RNA IN IPF: REGULATORY PLAYERS IN LUNG FIBROSIS. Aileen C. Button\(^1\),* I. V. Yang\(^1\), D. A. Schwartz\(^1\). \(^1\)Department of Medicine, University of Colorado, Aurora, CO.

TARGETING A NOVEL TRPV4-P13K\(\gamma\) INTERACTION BLOCKS FIBROGENIC MYOFIBROBLAST DIFFERENTIATION. Lisa M. Grove\(^1\), M.L. Mohan\(^2\), K.D. Singh\(^2\), S. Abraham\(^1\), A. Reinhardt\(^1\), H. Mao\(^1\), R.G. Scheraga\(^1,3\), B.D. Southern\(^1,3\), S.V. Naga Prasad\(^2\), S.S. Karnik\(^2\), and Mitch A. Olman\(^1,3\).* \(^1\)Departments of Inflammation and Immunity and \(^2\)Cardiovascular and Metabolic Sciences of Lerner Research Institute and \(^3\)Respiratory Institute, Cleveland Clinic, Cleveland, Ohio.

CELL-CELL AND CELL-MATRIX INTERACTIONS IN BIOENGINEERED 3D MODELS OF LUNG FIBROSIS. Rachel Blomberg\(^1\),* Mikala C. Mueller\(^1\), David W.H. Riches\(^2,3,4,5\), and Chelsea M. Magin\(^1,3,6\). \(^1\)Department of Bioengineering, University of Colorado Denver | Anschutz, \(^2\)Program in Cell Biology, Department of Pediatrics, National Jewish Health, \(^3\)Division of Pulmonary Sciences and Critical Care Medicine, Department of Medicine, University of Colorado Anschutz, \(^4\)Department of Research, Veterans Affairs Eastern Colorado Health Care System, \(^5\)Department of Immunology and Microbiology, University of Colorado Anschutz, \(^6\)Department of Pediatrics, University of Colorado Anschutz, Aurora, CO.

ENGINEERING TUNABLE STIFFNESS HYDROGELS TO MODEL FIBROTIC ALVEOLAR TRANSITIONAL CELLS AND STUDY HUMAN PULMONARY FIBROSIS. Alicia E. Tanneberger\(^1\),* Rachel Blomberg\(^1\), Amy L. Ryan\(^2\), Chelsea M. Magin\(^1,3,4\). \(^1\)Department of Bioengineering, University of Colorado Denver Anschutz; \(^2\)Department of Anatomy and Cell Biology, Carver College of Medicine, University of Iowa, Iowa City, IA; \(^3\)Department of Pediatrics, University of Colorado, Anschutz Medical Campus, Aurora, CO; \(^4\)Division of Pulmonary Sciences & Critical Care Medicine, Department of Medicine, University of Colorado, Anschutz Medical Campus, Aurora, CO.

DEFINING THE EFFECT OF PDGFRa LUNG FIBROBLASTS ON ALVEOLAR EPITHELIAL CELLS USING TRANSCRIPTOMIC PROFILING. Carol S. Trempus*, Brian N. Papas, Erica Scappini, Charles J. Tucker, Deloris Sutton, and Stavros Garantziotis, 1Immunity, Inflammation, and Disease Laboratory, NIEHS, Research Triangle Park, NC; 2Biostatistics & Computational Biology Branch, NIEHS, Research Triangle Park, NC; 3Signal Transduction Branch, NIEHS, Research Triangle Park, NC; 4Comparative & Molecular Pathogenesis Branch, NIEHS, Research Triangle Park, NC.

SOX9 UPREGULATION IN THE PATHOGENESIS OF SEVERE FIBROTIC LUNG DISEASE. Priyanka Singh*, P. R. Gajjala, H. H. Ediga, V. Sontake, C. P. Vemulapalli, P.K. Patel, H. Miyazaki, D. Popov, S. Alisher, S. K. Huang, M. S. Walters, and S. K. Madala, 1Division of Pulmonary, Critical Care and Sleep Medicine, University of Cincinnati, Cincinnati, OH; 2Gordian Biotechnology, South San Francisco; 3Division of Pulmonary and Critical Care Medicine, University of Michigan Medical School, Ann Arbor; 4Department of Medicine, Section of Pulmonary, Critical Care and Sleep Medicine, University of Oklahoma Health Sciences Center, Oklahoma.

CELL COMPETITION DRIVES BRONCHIOLIZATION AND PULMONARY FIBROSIS. Rachel Warren, Kylie Klinkhammer, Handeng Lyu, Changfu Yao, Barry Stripp and Stijn P. De Langhe*, 1Department of Medicine, Division of Pulmonary and Critical Medicine, Mayo Clinic, Rochester, MN; 2Women’s Guild Lung Institute, Department of Medicine, Cedars-Sinai Medical Center, Los Angeles, CA.

GENETIC LOCUS ASSOCIATED WITH BLEOMYCIN INDUCED LUNG INJURY IN MICE. Yingping Wang*, Corinne Hennessy, Kristina Hatakka, Stephen Humphries, Evgenia Dobrinskikh, David Clouthier†, Ivana V. Yang†, David A. Schwartz†, 1Department of Medicine, University of Colorado School of Medicine, Aurora, Colorado; 2Department of Radiology, National Jewish Health, Denver, Colorado; 3Department of Craniofacial Biology, University of Colorado School of Medicine, Aurora, Colorado. †Authors contributed equally.

‘SILICOSARCOIDOSIS’: IMPORTANCE OF SILICA IN GRANULOMATOUS LUNG FIBROSIS. Jeremy T. Hua*, Carlyne D. Cool, Einat Fireman Klein, Lukas J. Lee, Lauren M. Zell-Baran, Robert A. Cohen, Richard Kraus, Charles Van Hook, Cecile S. Rose, 1Division of Environmental and Occupational Health Sciences, National Jewish Health, CO; 2Department of Pathology and 3Department of Medicine, University of Colorado, CO; 4Pulmonary Division, Lady Davis Carmel Medical Center, Faculty of Medicine Technion Institute of Technology, Haifa, Israel; 5Tao-Yuan General Hospital, Taiwan; 6Environmental and Occupational Health Sciences, School of Public Health, University of Illinois Chicago, IL.

ROLE OF αTAT1 IN THE MECHANOBIOLOGY OF LUNG FIBROSIS. Ingo Ganzleben*, Alyce Segal1,3, Benjamin D. Medoff1,2,3, 1Division of Pulmonary and Critical Care Medicine – Massachusetts General Hospital; 2Center for Immunology and Inflammatory Diseases – Massachusetts General Hospital; 3Harvard Medical School, Boston, Massachusetts.

APOPTOTIC RESISTENCE IN COLLAGEN1A1-EXPRESSING FIBROBLASTS DRIVES SILICA-INDUCED PULMONARY FIBROSIS. Daniel G. Foster*, N. Javkhlan, J. Wilson, B. L. Edelman, D. W. H. Riches, E. F. Redente; Pediatrics, National Jewish Health, Denver, CO.
ENDOTHELIAL S1PR1 SUPPORTS ALVEOLAR EPITHELIAL REPAIR. Patricia L. Brazee*, K.G. Ference, A. Pickering, T.G. Kooistra, T. Hla, B.D. Medoff, R.S. Knipe, Massachusetts General Hospital, Division of Pulmonary and Critical Care Medicine, Boston, MA; Harvard Medical School, Department of Biomedical Informatics; Boston Children’s Hospital, Department of Surgery, Boston, MA.

SPATIAL AND TRANSCRIPTIONAL FEATURES IN IDIOPATHIC PULMONARY FIBROSIS (IPF) ASSOCIATED WITH THE MUC5B PROMOTER VARIANT. Rachel Z. Blumhagen*, Jonathan S. Kurche, Carlyne D. Cool, David Heinz, David A. Schwartz, Ivana V. Yang, Center for Genes, Environment and Health, National Jewish Health, Rocky Mountain Regional Veteran’s Administration Medical Center, Division of Pulmonary Sciences and Critical Care Medicine, University of Colorado Anschutz Medical Campus, Department of Pathology, University of Colorado Anschutz Medical Campus, Pathology Laboratory, National Jewish Health, Department of Biomedical Informatics, University of Colorado Anschutz Medical Campus authors contributed equally

REDOX HETEROGENEITY IN FIBROBLASTS DURING FIBROSIS PROGRESSION. Patrick A. Link*, Jeffrey A. Meridew, Nunzia Caporarello, Ashley Y. Gao, Victor Peters, Mauricio Rojas, Daniel J. Tschumperlin, Department of Physiology and Biomedical Engineering, Mayo Clinic, Rochester, MN; Department of Medicine, Loyola University, Chicago, IL; Department of Internal Medicine, Ohio State University, Columbus, OH.

SIGLEC5 KNOCKOUT MICE ARE PROTECTED FROM DEVELOPMENT OF LUNG FIBROSIS. Marika Orlov*, Naoko Liu, Kenny Ngo, James Needell, Fan Jia, Brian Vestal, Rachel Blumhagen, Jazalle McClendon, William Janssen, and Christopher Evans, Division of Pulmonary Science and Critical Care Medicine, University of Colorado, Aurora, CO; Center for Genes, Environment and Health, National Jewish Health, Denver, CO; Department of Medicine, National Jewish Health, Denver, CO.

UPREGULATION OF MARCKS ACTIVITY IN MACROPHAGE REPROGRAMMING AND ITS POTENTIAL AS A THERAPEUTIC TARGET IN PULMONARY FIBROSIS. Ching-Hsien Chen*, So-Yi Chang, Wen-Hsien Chang, Angela Linderholm, David C. Yang, Ssu-Wei Hsu, Reen Wu, Division of Pulmonary, Critical Care, and Sleep Medicine, Department of Internal Medicine, University of California Davis, Davis, CA.
POSTER VIEWING
Thursday, June 6, 2024
5:00-7:00 PM

POSTERS

BOOKMARKING DYSPNEA IN FIBROTIC INTERSTITIAL LUNG DISEASE. Jeff Swigris*, Kerri Aronson, Michelle Kam, National Jewish Health, Center for Interstitial Lung Disease, Denver, CO.

WNT SIGNALING IN PULMONARY MICROVASCULAR PROGENITOR CELLS (MVPC) DRIVES ADAPTIVE ANGIogenesis DURING FIBROSIS AND REGULATES REPAIR OF THE ALVEOLAR-CAPILLARY UNIT. Emma C Mason*, Benjamin R. Schneider1, Maggie Dawson1, Evan Lundberg1, David Cingel1, Peter Kim1, Kevin Kim1, Edwin Ortiz Gaxon1, Hannah Thorndyke1, Elizabeth Redente2, Patrick Geraghty3, M. Mark Taketo4 and Susan M Majka1, 5, 1 Department of Medicine, National Jewish Health, Denver, CO; 2Division of Cell Biology and Department of Pediatrics, National Jewish Health, Denver, CO; 3State University of New York, Downstate Health Science University, Brooklyn, New York; 4Kyoto University, Sakyō, Kyoto, Japan; 5Gates Center for Regenerative Medicine & Stem Cell Biology, University of Colorado, Aurora, CO.

PATIENT’S VIEWS ON THE ASSESSMENT OF INTERSTITIAL LUNG DISEASE-RELATED DYSPNEA. Joseph B. Pryor*, Dolly Kervitsky2, Jeffrey J. Swigris3, 1Division of Pulmonary and Critical Care, University of Colorado, Denver, CO; 2PFWarriors, 3Center for Interstitial Lung Disease, National Jewish health, Denver, CO.

INTERSTITIAL LUNG DISEASE EDUCATION IN PULMONARY FELLOWSHIP: SUPPORTING PATIENTS THROUGH THEIR ILLNESS JOURNEY. Samantha King1*, Anna Neumeier1,2; Bridget Graney1,2; Tristan Huie1,3, 1Department of Medicine, University of Colorado School of Medicine, Aurora, CO; 2Department of Medicine, Denver Health Medical Center, Denver, CO; 3Department of Medicine, National Jewish Health, Denver, CO.

CIRCULATING BIOMARKERS IN CHILDREN AND ADOLESCENTS WITH FIBROSING INTERSTITIAL LUNG DISEASE (ILD). Robin Deterding1*, Kevin K. Brown2, Steven Cunningham3, Emily M. DeBoer4, Matthias Griese4, Nicolaus Schwerk5, Lisa R. Young6, Carina Ittrich7, Thomas Schlange7, Martina Gahlemann8, David Warburton9, 1Section of Pediatric Pulmonary and Sleep Medicine, Department of Pediatrics, University of Colorado Denver, Denver, CO and The Children’s Hospital Colorado, Aurora, CO; 2Department of Medicine, National Jewish Health, Denver, CO; 3Centre for Inflammation Research, University of Edinburgh, Edinburgh, United Kingdom; 4Hauner Children’s Hospital Ludwig Maximilians University, German Center for Lung Research (DZL), Munich Germany; 5Clinic for Pediatric Pulmonology, Allergology and Neonatology, Hannover Medical School, Hannover, Germany; 6Division of Pulmonary and Sleep Medicine, The Children’s Hospital of Philadelphia, Philadelphia, PA; 7Boehringer Ingelheim Pharma GmbH & Co. KG, Biberach an der Riss, Germany; 8Boehringer Ingelheim (Schweiz) GmbH, Basel Switzerland; 9Children’s Hospital Los Angeles, Los Angeles, CA and Keck School of Medicine, University of Southern California, Los Angeles, CA.

MUC5B PROMOTER VARIANT IS ASSOCIATED WITH A UNIQUE PROTEIN SIGNATURE IN EARLY LUNG FIBROSIS. Jeremy A. Herrera1*, Mark Maslanka2, Rachel Blumhagen1, Janna Brancato1, Jonathan Huber1, Carlyne Cool1, Kirk C. Hansen2, Ivana V. Yang1, David A. Schwartz1, 1Division of Pulmonary Sciences and Critical Care Medicine; 2Department of Biochemistry and Molecular Genetics; University of Colorado Denver.
WILMS TUMOR 1 IMPAIRS FIBROBLAST CLEARANCE IN SEVERE FIBROTIC LUNG DISEASE. Harshavardhana H. Ediga*, C. P. Venulapalli1, V. Sontake3, H. Miyazaki3, D Popov3, P.K. Patel1, S. Paranthaman1, S. K. Huang2 and S. K. Madala1, 1Division of Pulmonary, Critical Care and Sleep Medicine, Department of Internal Medicine, University of Cincinnati, Cincinnati, OH; 2Division of Pulmonary and Critical Care Medicine, University of Michigan Medical School, Ann Arbor; 3Gordian Biotechnology, South San Francisco, CA.

NON-TYPICAL LUNG FIBROSIS: IMAGING PREDICTS SURVIVAL. David A Lynch*, Stephen M Humphries, Department of Radiology, National Jewish Health, Denver, CO.

SPUTUM LEVELS OF EXTRACELLULAR DNA ARE INCREASED IN RHEUMATOID ARTHRITIS-ASSOCIATED INTERSTITIAL LUNG DISEASE. M. Kristen Demoruelle1*, Melissa Griffith1, Timothy M. Wilson2, Marie L. Feser1, Kevin D. Deane1, Stephen Humphries3, Joshua J. Solomon4, 1University of Colorado Denver, Division of Rheumatology, Aurora, CO; 2Thomas Jefferson University, Division of Rheumatology, Philadelphia, PA; 3National Jewish Health, Department of Radiology, Denver, CO; 4National Jewish Health, Division of Pulmonary, Critical Care and Sleep Medicine, Denver, CO.

PCSK6 AND RESPIRATORY-RELATED OUTCOMES IN PATIENTS WITH PULMONARY FIBROSIS ENROLLED IN THE PULMONARY FIBROSIS FOUNDATION PATIENT REGISTRY. Kristin N. Berger1*, Will Whalen1, Will Simmons1, John S. Kim2, Imre Noth2, Justin M. Oldham1, Anna J. Podolanczuk1, 1Department of Medicine at 1Weill Cornell Medicine, New York, NY; 2University of Virginia, Charlottesville; 3University of Michigan, Ann Arbor, MI.

CT FINDINGS ASSOCIATED WITH MYOSITIS RELATED INTERSTITIAL DISEASE. Joseph B Pryor1*, Joshua Solomon2, Jeffrey Swigris2, Rebecca Keith2, Tami Bang3, Andrea Fuentealba3, David A Lynch3, Liudmila Kastsonian4, Zulma Yun2, 1Division of Pulmonary and Critical Care, University of Colorado, Denver, CO; 2Center for Interstitial Lung Disease, National Jewish Health, Denver, CO; 3Department of Radiology, National Jewish Health, Denver, CO; 4Division of Rheumatology, National Jewish Health, Denver, CO.

EFFICACY OF ENSIFENTRINE, A DUAL PDE3/PDE4 INHIBITOR, IN THE RAT MODEL OF BLEOMYCIN INDUCED PULMONARY FIBROSIS. Margot MacDonald-Berko*, Verona Pharma plc, NC; Joanne Kilgour, Regulatory Science Associates, Inverkip, UK; Tara Rheault, Verona Pharma plc, NC. Lab work was completed at Labcorp Early Development Laboratories Ltd, UK.

RECRUITED MACROPHAGES PRODUCE COAGULATION FACTOR XIII-A WHICH ENHANCES COLLAGEN DEPOSITION AFTER BLEOMYCIN. Peter Moore*, Raleigh Garner, Emily King, Shannon Hott, Katrina Kopf, William Janssen, Alexandra McCubbrey. Departments of Medicine, University of Colorado Anschutz, Aurora, CO and National Jewish Health, Denver, CO.

UNIQUE PHOSPHOPROTEINS TRIGGER SENESCENCE IN RADIATION-INDUCED PULMONARY FIBROSIS (RIPF). Sadiya Bi Shaikh1*, Eric Hernady2, Brian Marples2 and Irfan Rahman1, 1Department of Environmental Medicine, University of Rochester Medical Center, Rochester, NY; 2Department of Radiation Oncology, University of Rochester Medical Center, Rochester, NY.

LUNG TRANSPLANT OUTCOMES FOR PATIENTS WITH CONNECTIVE TISSUE DISEASE-RELATED INTERSTITIAL LUNG DISEASE. Sarah L. Khan1*, Samuel J. Minkove2, Kevin J. Psoter3, Sonye K. Danoff1, Pali D. Shah1, 1Division of Pulmonary and Critical Care Medicine, Johns Hopkins University School of Medicine, Baltimore, MD; 2Pulmonary Care and Sleep Medicine, St. Joseph’s Medical Center, Towson, MD; 3Division of General Pediatrics and Adolescent Medicine, Johns Hopkins University School of Medicine, Baltimore, MD.
APPLICATION OF IN VIVO ORGANELAR IMMUNOPURIFICATION TO REVEAL MECHANISMS UNDERLYING GENETIC INTERSTITIAL LUNG DISEASE. **David Ziehr¹,²,³*, Jason Yang¹, Jack Bush¹, Raghu Chivukula¹,²,³, ¹Center for Genomic Medicine, Massachusetts General Hospital; ²Division of Pulmonary and Critical Care Medicine, Massachusetts General Hospital; ³Harvard Medical School, Boston, MA.

THE IPF-ASSOCIATED GENETIC VARIANT rs12417955 RESIDES IN A NOVEL 3' REGULATORY REGION FOR MUC5B THAT Responds TO AIRWAY EPITHELIAL DIFFERENTIATION SIGNALS AND ENVIRONMENTAL CUES. **Sarah K. Sasse¹*, Arnav Gupta¹,², Anna Peljo², Rachel Blumhagen¹, Fabienne Gally¹, Evgenia Dobrinskikh², Michael R. Weaver¹, Robin D. Dowell¹,³,⁴, Ivana V. Yang², David A. Schwartz² and Anthony N. Gerber¹,², ¹Department of Medicine, National Jewish Health, Denver, CO; ²Department of Medicine, University of Colorado, Aurora, CO; ³BioFrontiers Institute, ⁴Molecular, Cellular and Developmental Biology, ⁵Computer Science, University of Colorado, Boulder, CO.

AUTOMATED CLASSIFICATION OF USUAL INTERSTITIAL PNEUMONIA ON COMPUTED TOMOGRAPHY IS ASSOCIATED WITH PROGRESSION OF INTERSTITIAL LUNG ABNORMALITIES IN THE COPDGENE STUDY. **Stephen Humphries¹*, Devlin Thieke¹, Samuel Ash², Hiroto Hatabu³, Gary M. Hunninghake⁴, David Lynch¹, ¹Department of Radiology, National Jewish Health, Denver, CO; ²Critical Care, South Shore Hospital, South Weymouth, MA; ³Department of Radiology and ⁴Department of Pulmonary and Critical Care Medicine, Brigham and Women’s Hospital, Harvard Medical School, Boston, MA.

CLINICAL AND GENETIC BIOMARKERS OF PULMONARY FIBROSIS AMONG GULLAH SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS. **Robert Campbell, Jr.* – NHLBI PRIDE AGOLD Scholar, Julius Nyalwidhe, Leroy T. Canoles Jr. Cancer Research Center, Eastern Virginia Medical School, Norfolk, VA; Christopher Gignoux, Colorado Center for Personalized Medicine, University of Colorado - Anschutz Medical Campus, Aurora, CO.

FUNCTIONALIZING HUMAN DECM FOR INCORPORATION INTO 3D PULMONARY FIBROSIS MODELS. **Haley Noelle¹*, Mikala C. Mueller¹, Dena H. Essmaeil², Rachel Blomberg¹, Chelsea M. Magin¹,³,⁴, ¹Department of Bioengineering, University of Colorado, Denver | Anschutz Medical Campus; ²Department of Biology, University of Colorado, Denver; ³Department of Pediatrics, University of Colorado Anschutz Medical Campus; ⁴Division of Pulmonary Sciences & Critical Care Medicine, Department of Medicine, University of Colorado, Anschutz Medical Campus, Aurora, CO.