



2025 GROVER CONFERENCE
on Vascular Aging and Regeneration in Pulmonary Hypertension
September 3-7, 2025

COURSE SCHEDULE

Wednesday, September 3, 2025

- 12:00 pm Arrivals**
- 6:00 pm Welcome Reception and Dinner**
Harry Karmouty-Quintana, PhD
Grazyna Kwapiszewska, PhD
Vladimir Kalinichenko, MD, PhD, University of Arizona
- 7:00 pm Keynote Address: Vascular Aging in Pulmonary Hypertension: Emerging Therapies and New Frontiers**
Stephen Y Chan MD, PhD University of Pittsburgh

Thursday, September 4, 2025 – Morning Sessions

Session I: Vascular Cells Throughout the Human Lifespan
Moderator: Andrew Bryant, MD (University of Florida)
& TBD (Early Career Professional)

7:00-8:00 am Breakfast

- 8:05 am Welcome and Introduction**
Harry Karmouty-Quintana, PhD, UTHealth Houston
Grazyna Kwapiszewska, PhD, Medical University of Graz
Vladimir Kalinichenko, MD, PhD, University of Arizona
- 8:15 am Terry Wagner Memorial Lecture: Impact of age on Endothelial Heterogeneity in the Pulmonary Vasculature**
Troy Stevens, PhD. Univ. South Alabama School of Medicine.
- 8:45 am Abstract Presentation**
- 9:00 am Endothelial Cells in Lung Development**
Krithika Lingappan MD, University of Pennsylvania
- 9:30 am Novel Insights into Endothelial Turnover and Repair in PAH**
Wolfgang Kubler, MD, Professor, Institute of Physiology – Charité, Berlin
- 10:00 am The Aging Endothelial Cell in Lung Disease**
Giovanni Ligresti, PhD, Boston University

- 10:30 am Break (15 min)**
- 10:45 am Transcriptional regulation of lung endothelial cells in vascular aging and lung fibrosis.**
Tanya Kalin, MD, PhD, College of Medicine, Phoenix, University of Arizona
- 11:15 am Targeting the senescent endothelium, a question of timing?**
Duncan Stewart MD. Professor, Ottawa Heart Institute, Canada
- 11:45 am Regional Differences in the Distal and Proximal Pulmonary Artery, implications for the aging vasculature**
Lavannya Pandit, MD, PhD., Baylor College of Medicine
- 12:30 pm Lunch**

Thursday, September 4, 2025 - Optional Lunch & Learn - 1:30 – 2:30 PM - Registration Required

Career Development 1: How to keep Reviewer 2 Engaged, Tips for Grant Writing

Moderators: Vladimir Kalinichenko, MD, PhD (University of Arizona), Corey Ventetuolo MD (Brown University) and Elena Goncharova, PhD (University of California, Davies)

Thursday, September 4, 2025 – Afternoon Sessions

Session II: Endothelial Dynamics in Health, Disease and Regeneration

**Moderators: James Klinger MD (Brown University)
& TBD (Early-Career Professional)**

- 3:00 pm Endothelial Fates in Health and Disease**
Terren Niethame PhD, National Cancer Institute, Bethesda, MD
- 3:30 pm Pulmonary Hypertension in Pediatric Patients, advanced aging?**
Enid Neptune MD, Johns Hopkins Medicine
- 4:00 pm Endothelial Cell Aging and Lung Regeneration**
Youyang Zhao PhD, Northwestern University Feinberg School of Medicine, Chicago, IL
- 4:30 pm Break (15 min)**
- 4:45 pm Estelle B. Grover Memorial Lecture: Aging impacts the Heterogeneity of Adult Pulmonary Vascular Progenitors & Angiogenesis in CLD**
Susan Majka, PhD, National Jewish Health, Denver, Colorado
- 5:15 pm Targeting Endothelial Transcription Factors in Neonatal Pulmonary Hypertension**
Vladimir Kalinichenko, MD, PhD, Professor, University of Arizona
- 5:45 pm Abstract Presentation: TBD**
- 6:15 pm Abstract Presentation: TBD**
- 6:30 pm Dinner**

Friday, September 5, 2025 – Morning Sessions	
Session III: Pulmonary Hypertension in Aging-Related Lung Diseases: Moderators: Ke Yuan, PhD (Harvard University) & TBD (Early-Career Professional)	

7:00-8:00 am Breakfast

- 8:05 am John T. Reeves Memorial Lecture: Oxidative Stress, Mitochondrial Dysregulation, and the Challenge of Vascular Aging**
Norbert F Voelkel, MD Frije, University Medical Center, Amsterdam Netherlands
- 8:35 am Sponsored Talk: TBD**
- 9:05 am Age-Associated Challenges in Pulmonary Veno-Occlusive Disease**
Akiko Hata, PhD, University of California San Francisco
- 9:35 am Mechanisms of Right Heart Failure in Pulmonary Hypertension Secondary to Chronic Lung Disease**
Soban Umar MD, PhD University of California, Los Angeles
- 10:05 am Abstract Presentation**
- 10:20 am Break (15 min)**
- 10:35 am Breakdown of the Endothelial Barrier Impacts the Development of Fibrosis**
Rachel Knipe MD, Harvard Medical School
- 11:05 am Abstract Presentation**
- 11:20 am The Extracellular Matrix in Group 3 Pulmonary Hypertension: Mechanisms and Implications**
Yang Zhou, PhD, Brown University
- 12:30 pm Lunch**

Friday, September 5, 2025 - Optional Session: - 1:30-2:30 PM Registration Required	
Career Development 2: From preclinical results to patients, navigating drug development in PH Moderators: TBD	

Friday, September 5, 2025 – Afternoon Sessions	
Session IV: Intercellular Crosstalk in Vascular Aging Moderators: Xinchun Pi (Baylor College of Medicine) & TBD (Early-Career Professional)	

3:00 pm Endothelial and Smooth Muscle Interface in Lung Vascular Aging

Vinicio de Jesus Perez MD, Stanford University

- 3:30 pm** **Smooth muscle cell in vascular remodeling in SSc-PAH**
Markella Ponticos, MD Associate Professor, University College London
- 4:00 pm** **The aging vasculature in Systemic Sclerosis, implications for PH and ILD**
Elizabeth Volkman MD, University of California
- 4:30 am** **Break (15 min)**
- 4:45 pm** **Defining a Multipotent Vascular & Epithelial Progenitor in Adult Lungs**
Yair Reisner PhD, MD Anderson Cancer Center, Houston, TX
- 5:15 pm** **Robyn J. Barst Memorial Lecture: The Aging Pulmonary Vasculature: Intersection of Inflammation and Injury**
Sharon Rounds, MD, Brown University
- 5:45 pm** **Sex and Age Differences in the Right Ventricle, Additional Hurdles to Overcome?**
Su Gu, MD, University of Colorado, Anschutz Medical Campus
- 6:30 pm** **Dinner**

Saturday, September 6, 2025 – Morning Sessions

**Session V: Aging and Chromatin Remodeling:
Moderators: William Oldham, MD, PhD (Harvard Medical
School) & TBD (Early-Career Professional)**

7:00-8:00 am Breakfast

- 8:05 am** **Aging and Genetic Susceptibility in PAH: Targeting the BMP/TGF- β Pathway for Therapeutic Innovation**
Christophe Guignabert, PhD ; INSERM, Universite Paris-Saclay, France
- 8:35 am** **Abstract Presentation**
- 8:50 am** **RNA editing, a driver of pulmonary hypertension**
Ke Yuan, PhD Boston Children's Hospital and Harvard Medical School
- 9:20 am** **Aging Myeloid Cells as Modulators of Vascular Remodeling in Pulmonary Hypertension**
James D West, PhD
- 9:50 am** **Abstract Presentation**
- 10:05 am** **Break (15 min)**
- 10:20 am** **Physiologic and Pathologic changes in chromatin remodeling in vascular cells – mimicry of aging?**
Soni Savai Pullamsetti, PhD, Max Planck Institute for Heart and Lung Research, Germany
- 10:50 am** **A question of age: Chromatin Remodeling in PAH**

Lahouria Hadri PhD, Icahn School of Medicine at Mount Sinai

11:20 am Abstract Presentation

11:45 am Time Matters: Circadian Regulation of Vascular Aging and PH Progression
Andrew Bryant, MD, University of Florida, FL

12:30 pm Lunch

Saturday, September 6, 2025 – Afternoon Sessions

Session VI: Mechanics, Biophysics and Energetics:
Moderators: Zhiyu Dai, PhD (Washington University Medical Center)
& TBD (Early Career Professional)

3:00 pm The impact of aging on pulmonary vascular biomechanics
Noami Chessler, PhD, University of Irvine.

3:30 pm mTOR Signaling and Smooth Muscle Cell Senescence in Pulmonary Vascular Aging
Elena Goncharova, PhD, University of California, Davis

4:00 pm Energetic Stress and Vascular Remodeling in Aging-Associated Pulmonary Hypertension
Brian Graham, MD, PhD University of California, San Francisco

4:30 pm Break (10 min)

4:40 pm How Mechanical Forces in the RV Impact Resident Endothelial cells
Andrea Frump PhD, Indiana University

5:10 pm Creating Hydrogels for the Vascular Adventitia
Chelsea Magin, PhD, University of Colorado, Denver, CO

5:45 pm Nano-printing to improve drug delivery to treat Pulmonary Hypertension
TBD, Liquidia

6:30 pm Dinner

7:30 pm Evening Poster Session – Vinicio de Jesus Perez MD, Stanford University

Sunday, September 7, 2025 – Morning Sessions

Session VII: Emerging Therapeutics and Translational Science
Moderators: Brian Graham, MD, PhD and TBD (Early Career Professional)

7:00-8 am Breakfast

8:05 am Estrogen Signaling and Metabolic Modulation as Therapeutic Targets in Pulmonary Hypertension and Aging
Tim Lahm, MD, National Jewish Health, Denver, CO

- 8:35 am Abstract Presentation**
- 8:50 am DHEA as an anti-aging Pill in Pulmonary Arterial Hypertension: Potential Therapeutic Frontier**
Corey E Ventetuolo, MD, Brown University
- 9:20 am Targeting Endosomal Dysfunction and Endothelial Senescence: RAB7 Activation as a Novel Therapeutic Strategy for Pulmonary Hypertension**
Laszlo Farkas, MD, The Ohio State University, Columbus, OH
- 9:50 am Abstract Presentation**
- 10:05 am Break (10 min)**
- 10:15 am Aging, Algorithms, and Arteries: Using Technology to Predict and Track Pulmonary Hypertension**
Allan Lawrie, PhD, Imperial College London
- 10:45 am Closing Summary**
Sharon Rounds, MD, Brown University
Troy Stevens, PhD, Univ South Alabama