



# Disparities Across the Spectrum of Pulmonary Vascular Disease (PVD)

Virtual Workshop // October 22-23, 2024

## DAY ONE:

October 22, 2024 | 10:00 am – 5:30 pm EDT

- 10:00 am **Welcome and Self-Introduction of Workshop Speakers**  
Lei Xiao, MD, PhD, *Program Director, Lung Vascular Biology Program, NHLBI/NIH*
- 10:05 am **Opening Remarks from the NHLBI/DLD Leadership**  
Gustavo Matute-Bello, MD, *Deputy Director, Division of Lung Diseases, NHLBI/NIH*
- 10:15 am **Workshop Goals and Future Objectives**  
Franz Rischard, DO, *Director of the Pulmonary Hypertension Program for the Division of Pulmonary, Critical Care, and Sleep Medicine, Professor of Medicine University of Arizona*

## Session 1: The Interaction Between Race, Ethnicity and PVD

- 10:30 am **How Disparities Associated with Race and Ethnicity are Accentuated Among Patients with PVD and Other Rare Diseases**  
Khushboo Goel, MD, *Assistant Professor of Medicine, Cedars-Sinai Medical Center*
- 10:55 am **Discussion**
- 11:00 am **The Convergence of Disparities and PVD Phenotypes among Black and African American, Asians, Pacific Islanders, and Native Americans, and Hispanic Individuals**  
Rodolfo Estrada, MD, *Director, Pulmonary Hypertension Program, Assistant Professor of Medicine, University of Texas Health San Antonio*
- 11:25 am **Discussion**
- 11:30 am **Interventions to Address Disparities Associated with Race and Ethnicity and Pathways to Implementation**  
Sandeep Sahay, MD, *Associate Professor of Medicine, Weill Cornell Medical College, Houston Methodist Hospital*

11:55 am **Discussion**

12:00 pm **Lunch**

## Session 2: Sex and Gender Differences Among Patients with PVD

1:00 pm **The Intersectionality Between Sex, Gender and PVD**

Heather M Strah, MD, *Associate Professor of Medicine, University of Nebraska Medical Center*

1:25 pm **Discussion**

1:30 pm **Sex Differences among Different WSPH Groups: Implications for Diagnosis, Treatment and Clinical Outcomes**

Mansoureh Eghbali, PhD, *Professor of Anesthesiology, University of California Los Angeles*

1:55 pm **Discussion**

2:00 pm **Interventions and Implementation to Remediate Sex-based Differences in PVD**

Corey E Ventetuolo, MD, MS, FAHA, *Associate Professor of Medicine; Health Services, Policy and Practice, Inaugural Director, Center for Advanced Lung Care, Brown University*

2:25 pm **Discussion**

3:00 pm **Break**

## Session 3: Social Disparities and PVD-1

3:15 pm **The Relationship Between Social Determinants of Health (Education, Income, Household) and PVD**

Roberto J. Bernardo MD, MS, ATSF, *Assistant Professor of Medicine, Indiana University School of Medicine*

3:40 pm **Discussion**

3:45 pm **Social Disparities, Mental Health, Recreational Drug Use and PVD**

Vinicio de Jesus Perez MD, FCCP, FAHA, ATSF, *Associate Dean of MD Admissions, Stanford School of Medicine; Professor of Medicine with Tenure (PACCM), Stanford University*

- 4:10 pm **Discussion**
- 4:15 pm **PVD and Social Disparities Among Unhoused and Veteran Groups**  
Evan Brittain, MD, MSc, *Associate Professor of Medicine, Vanderbilt University*
- 4:40 pm **Discussion**
- 4:45 pm **Social Determinants of Health Screening and Referrals: What Do We Know?**  
Rachel Gold, PhD, MPH, *Senior Investigator, KPCHR; Lead Research Scientist and Program Director, Implementation Science Program, OCHIN, Inc*
- 5:10 pm **Discussion**
- 5:30 pm **Adjourn for Day 1**

## **DAY TWO:**

October 23, 2024 | 10:00 am – 5:40 pm EDT

### **Session 4: Social Disparities and PVD-2: Climate, Pollution, Plastics**

- 10:00 am **The Role of Climate Change and Heat Exposure in PVD**  
Bradley A. Maron, MD, FAHA, *Senior Associate Dean for Precision Medicine; University of Maryland School of Medicine, Baltimore, MD; Executive Co-Director, University of Maryland-Institute for Health Computing, Bethesda, MD*
- 10:25 am **Discussion**
- 10:30 am **Air Pollution, Social Determinants of Health, and Pulmonary Hypertension Outcomes in the PVDOMICS Cohort**  
Chris Lim, PhD, *Assistant Professor, Department of Community, Environment and Policy; Zuckerman College of Public Health, University of Arizona, Tucson, AZ*
- 10:55 am **Discussion**
- 11:00 am **Intervention and Implementation in Climate and Pollution in PVD**  
Stephen Mathai, MD, MHS, *Associate Professor of Medicine, Johns Hopkins University*

11:25 am **Discussion**

### Session 5: Do Disparities Affect Omics Profiling?

11:30 am **The Effects of Social Disparities on Multiomics Profiling in PVD and Related Diseases (i.e., Heart Failure, COPD)**

Ankit Desai, MD, *Professor of Medicine, Indiana University*

11:55 am **Discussion**

12:00 pm **The Importance of Ancestry for Genomics Discovery in PVD and Other Related Diseases**

Victor E. Ortega, MD, PhD, *Professor of Medicine, Division of Pulmonary Medicine, Mayo Clinic*

12:25 pm **Discussion**

12:30 pm **Allostatic Load as a Biomarker of Disparity in PVD and Other Rare Diseases**

Jason E. Glenn, PhD, *Associate Professor, History and Philosophy of Medicine, University of Kansas Medical Center*

12:55 pm **Discussion**

1:00 pm **Lunch**

### Session 6: Lessons Learned from PVDOMICS

1:30 pm **Self-Reported Racial and Ethnic Differences Among Participants in PVDOMICS**

Franz Rischard, DO, *Professor of Medicine, University of Arizona*

1:55 pm **Discussion**

2:00 pm **Sex-Based Differences**

Anna Hemnes, MD, *Professor of Clinical Medicine, Vanderbilt University*

2:25 pm **Discussion**

2:30 pm **The Relationship Between Social Disparities and PVD in PVDOMICS**  
Jane Leopold, MD, FACC, FAHA, FSCAI, *Director of the Women's Interventional Cardiology Health Initiative, Brigham and Women's Hospital; Associate Professor of Medicine, Brigham and Women's Hospital*

2:55 pm **Discussion**

3:00 pm **The Burden of PVD Associated with Aging and Mixed Phenotypes.**  
Evelyn M. Horn, MD, *Director, Perkin HF Center, Professor of Clinical Medicine, Weill Cornell Medical College*

3:25 pm **Discussion**

3:30 pm **Break**

### **Session 7: Gaps and Future Directions of Disparities Research in PVD: From Identification to Implementation**

3:40 pm **Discussion**  
Franz Rischard, DO; Jane A. Leopold, MD, FACC, FAHA, FSCAI; and Lei Xiao, MD, PhD

- Current gaps and proposal ideas for disparities findings in PVD research.
- Proposal ideas, gaps, and recommendations brought by the audience vetted through discussion by a panel of experts.
- Intervention and implementation for disparities research in PVD

#### **Workshop Summary and Discussion: Goals, Gaps, Consensus, and Future**

- A list of the current major gaps, pressing questions to be addressed, and prioritized research directions in the immediate future (i.e., next 5 years) in the field of social disparities research in PVD.
- The publication of a paper in a high-impact journal summarizing the workshop to address the urgent gaps in social disparities in PVD.
- A consensus on strategies that will help provide references on integrating new discoveries in social disparities and research into clinical care and implementation science.
- Strategic visioning on future implementation of clinical care strategies to address social disparities and PVD via interventions that address disparities.

**Invited PVD & Social Disparities Experts as Workshop Discussants:**

- Steven M. Kawut, MD, MS, *Professor of Clinical Medicine, Weill Cornell Medical College*
- Karim El-Kersh, MD, *Professor of Medicine, University of Arizona, College of Medicine-Phoenix*
- Wayne Tsuang, MD, PhD, MHS, *Associate Professor of Medicine, Cleveland Clinic Lerner College of Medicine of Case Western Reserve University*
- Samar Farha, MD, *Assistant Professor of Medicine, Cleveland Clinic Lerner College of Medicine of Case Western Reserve University*
- Nils P. Nickel, MD, *Assistant Professor of Medicine, Texas Tech University Health Sciences Center - El Paso*
- Jean Elwing, MD, *Professor of Clinical, UC Health*

5:40 pm

**Adjourn**