



PVRI 2025 Rio Annual Congress

29 January - 1 February 2025

Embracing Heterogeneity

Windsor Convention & Expo Centre, R. Martinho de Mesquita, 129 - Barra da Tijuca Rio de Janeiro - RJ, 20031-204



Programme overview

Pre-congress satellite meetings, Windsor Oceanico, 2nd Floor, Oceania

Wednesday, 29 January

- 08:00–16:00 Innovative Drug Development Initiative (IDDI) Meeting, [Oceania IX](#)
- 08:00–16:00 Infection in Pulmonary Vascular Disease (iPVD) Consortium Meeting, [Oceania X](#)
- 08:00–12:00 Paediatric & Congenital Heart Disease Task Force Meeting, [Oceania II](#)
- 12:30–18:00 PAH-ICON: International Consortium for Genetic Studies in PAH Meeting, [Oceania II](#)
- 13:30–17:40 Imaging Task Force Meeting, [Oceania III](#)
- 16:00–18:00 High Altitude Task Force Meeting, [Oceania X](#)
- 16:00–18:00 PVRI Board Meeting, [Oceania VIII](#)

Scientific programme, Windsor Oceanico, 3rd Floor, Asia

Thursday, 30 January: Heterogeneity in the presentation of PH

- 08:00–11:05 Session 1: Establishing the framework for the classification and diagnosis of PH worldwide
- 11:05–13:00 Buffet lunch [Windsor Oceanico, 2nd Floor, Oceania VI to X](#)
- 11:05–13:00 Career Catalyst Luncheon (bookable), [Windsor Barra, 2nd Floor, Alhambra & El Pardo](#)
- 13:00–16:00 Session 2: Risk stratification and treatment in the new era of PH therapeutics
- 16:00–18:00 Poster presentations
- 18:00–20:00 Welcome Drinks Reception (open to all), [Windsor Barra, 2nd Floor, Alhambra & El Pardo](#)

Friday, 31 January: Heterogeneity in the pathobiology of PH

- 08:00–11:10 Session 3: Vascular heterogeneity in chronic lung disease
- 11:10–13:00 Buffet lunch [Windsor Oceanico, 2nd Floor, Oceania VI to X](#)
- 11:10–13:00 Women in PH Luncheon (bookable), [Windsor Barra, 2nd Floor, Alhambra & El Pardo](#)
- 13:00–16:30 Session 4: Heterogeneity in PH and the heart
- 16:30–18:00 Poster presentations
- 19:00–23:59 Gala Dinner & Awards Presentation (bookable), [Windsor Barra, Ground Floor, Louvre](#)

Saturday, 1 February: Learning from heterogeneity to improve outcomes in PH

- 08:00–11:00 Session 5: The individual exposome and its contribution to PH heterogeneity
- 11:00–12:45 Buffet lunch [Windsor Oceanico, 2nd Floor, Oceania VI to X](#)
- 11:00–12:00 Hot topics from PVRI GoDeep (bookable), [Windsor Oceanico, 3rd Floor, Asia](#)
- 12:00–12:45 Pulmonary Circulation Meeting (closed), [Windsor Oceanico, 2nd Floor, Oceania VIII](#)
- 12:45–13:45 Session 6: Quantifying therapeutic responses
- 13:45–14:15 Refreshment break
- 14:15–16:15 Session 7: Leveraging disease heterogeneity in clinical trial design

Innovative Drug Development Initiative (IDDI)

Session 1: Introduction

- 08:00-08:05 Welcome
Karen Osborn
- 08:05-08:20 PVRI IDDI Introduction and organisational changes
Luke Howard, Peter Fernandes, Sandeep Sahay & Sylvia Nikkho

Session 2: New Modalities & Technologies in RHF & PH

Co-chairs: *Peter Fernandes, Luke Howard*

- 08:20-09:00 **Recent advances with inhalation of drugs in PH**
Introduction, Nick Hill
Panel: Discussion & debate on what we have learnt and what is still unknown
- 09:00-09:20 **New Modalities & Technology update**
Novel Devices in the treatment of PH
Marc Pritzker & John Scandurra
- 09:20-09:50 **GoDeep**
GoDeep as a resource for in silico studies with a short scenario run-through
Werner Seeger & Steve Niederer
- 09:50-10:20 **Advancements in the use of Digital Health Technology in drug development**
Introduction, Jennifer Goldsack
Panel: Discussion & debate on the clinical, economic and patient-centric value of digital endpoints in clinical drug development

10:20-10:40 Break

Session 3: Real World Evidence / Real World Data

Co-chairs: *Kellie Morland, Jason Weatherald*

- 10:40-10:50 Real World Data Delphi to establish core data for global PH Registries
Sandeep Sahay
- 10:50-11:05 Scoping review
Sarah Cohen
- 11:05-11:15 Group discussion

Session 4: Patient Engagement & Empowerment

- 11:15-11:35 Understanding the patient perspective to advance care
Matt Granato

Session 5: Access to Care

- 11:35-11:55 Access to Care Workstream achievement and plan
Vijay Balasubramanian, Sandeep Sahay
- 11:55-12:05 Group discussion

Session 6: Challenges of Clinical Trial Design, Conduct & Endpoints

Co-chair: *CQ Deng*

- 12:05-12:15 Presentation on the Workstream paper “Clinical trial design, end-points, and emerging therapies in PAH”, (Weatherald 2024, ERJ) & the key discussions that led to its development
Jason Weatherald
- 12:15-12:22 Clinical trial endpoints
Eszter Tóth
- 12:22-12:30 Insights on clinical trial design from the perspective of industry
CQ Deng
- 12:30-12:35 Group discussion

12:35-13:35 Lunch break

Session 7: Lung Transplantation in PH

Chair: *Reda Girgis*

- 13:35-13:50 Anaesthetic Management of PAH
Andrea Miltiades
- 13:50-14:05 VA ECMO in PAH
Lara Schaheen
- 14:05-14:15 Group discussion

Session 8: Paediatric Clinical Trial Design & Endpoints

Co-chairs: *Steve Abman, Sylvia Nikkho*

Theme: Heterogeneity in Paediatric PH

- 14:15-14:25 Introduction
Steven Abman
- 14:25-14:35 Enhancement of drug development in paediatric PAH – extrapolation from available adult data
Sylvia Nikkho - remote
- 14:35-14:45 Challenges of drug development in bronchopulmonary dysplasia
Steven Abman & Bernard Thebaud- remote
- 14:45-14:55 Group discussion

Session 9: PH Group III

Co-chairs: *Steve Nathan, Sylvia Nikkho*

- 14:55-15:05 Past, present, & future of PVD in COPD
Gabor Kovacs
- 15:05-15:15 Imaging in PH and chronic lung disease
Shelsey Johnson
- 15:15-15:25 Group discussion
- 15:25-16:00 Wrap up and final comments

**Wednesday
29 January**

Windsor Oceanico,
2nd Floor, Oceania IX



Infection in Pulmonary Vascular Disease (iPVD) Consortium Task Force

08:00–08:05 Welcome and opening remarks
Navneet Dhillon

Session 1: Current updates on infection associated PVDs

Co-chairs: Navneet Dhillon, Suellen Darc Oliveira

08:05–08:25 Pulmonary vascular complications of tuberculosis: PH and beyond
Brian Allwood

08:25–08:45 Update on multiple co-morbidities and PVD
Peter Nyasulu

08:45–09:05 Update on HIV and PVD
Ana Olga Mocumbi

09:05–09:25 Mechanistic overlap between inflammatory pathways relevant to PH and COVID-19
Stephen Chan

09:25–09:45 Pathobiology of inflammatory immune cells in schistosoma induced PH
Claudia Mickael

09:45–10:05 Fungal infections induced PH
Alexandre Fabro

10:05–10:30 Break

Session 2: Schistosomiasis associated PVD in Latin America

Co-chairs: Ghazwan Butrous, Vinicio de Jesus Perez

10:30–10:50 Overview of Sch-PAH: case-based presentation of the disease spectrum
Angela Bandeira

10:50–11:10 Clinical and epidemiological aspects of Sch-PAH in Bahia
Camila Loureiro

11:10–11:30 Clinical and epidemiological aspects of Sch-PAH in Minas Gerais
Ricardo Correa

11:30–11:50 Clinical presentation of hepatoesplenic schistosomiasis in Brazil
Roberto José Carvalho

11:50–12:10 Advances in schistosomiasis basic research: insights from Brazil
Katia Oliveira

12:10–12:30 Insights from NIH schistosomiasis PAH multicenter study
Rudolf Oliveira

12:30–13:30 Lunch break

Panel discussions on schistosomiasis

13:30–14:00 Panel 1: Current challenges in diagnosing schistosomiasis, including biomarker availability and diagnostic tools

Chair: Brian Graham

Panel: Angela Bandeira, Camila Rezende, Camila Loureiro

14:00–14:30 Panel 2: Epidemiological and preventive aspects of schistosomiasis in Brazil, including current status, future perspectives, and impact on PH development

Chair: Ricardo Correa

Panel: Miriam Tendler, Roberto José Carvalho, Rudolf Oliveira, Angela Bandeira

14:30–15:00 Break

Session 3: Second hit phenomenon in infection associated PVDs

Co-chairs: Rudolf Oliviera, Brian Graham

15:00–15:20 Air pollution, climate change, infection and PH
Mona Lichtblau

15:20–15:40 Emerging insights into HIV- and methamphetamine-driven PAH: From mechanisms to management
Prangthip Charoenpong

15:40–16:00 Microbiome and schistosomiasis
Suellen Darc Oliveira

Poster viewing and discussion will take place during refreshment breaks.

Wednesday
29 January

Windsor Oceanico,
2nd Floor, Oceania X



Paediatric & Congenital Heart Disease Task Force

Opportunities for involvement with the Paediatric Task Force

08:00-08:03 Introduction and overview. Future directions for the Paediatric Task Force
Maria Jesus Del Cerro

Ongoing activities and new opportunities at PVRI

Chair: Maria Jesus Del Cerro

08:03-08:15 PVRI Pulmonary Hypertension Global Patient Survey (PH GPS)
Shahin Moledina

08:15-08:23 PVRI Innovative Drug Development Initiative (IDDI)
Steven Abman

08:23-08:30 PVRI GoDeep Registry
Megan Griffiths, Anne Hilgendorff

08:30-08:40 Discussion
All

Collaboration among international registries

Co-chairs: Shahin Modelina, Rolf Berger

08:40-08:55 Collaboration between registries: Let's make it real
Mary Mullen, Shahin Moledina, Maria Jesus Del Cerro, Rolf Berger

08:55-09:10 What adaptations are needed? Do we need rules?
Maria Jesus Del Cerro, Megan Griffiths

09:10-09:40 Discussion
All

I have a research project I want to share

09:40-09:50 Genetics of PH study
Eric Austin

09:50-10:00 Ongoing research: Genetic variants in pediatric PH across different registries & countries
Rolf Berger

10:00-10:10 Ongoing research: Boston Children's Hospital
Mary Mullen

10:10-10:20 Ongoing research in PAH in complex congenital heart disease in Mexico
Humberto Garcia-Aguilar

10:20-10:35 Break

Wednesday
29 January

Windsor Oceanico,
2nd Floor, Oceania II

7th World Symposium summary

Co-chairs: Rolf Berger, Mary Mullen

10:35-10:45 Major recommendations & rationale
Dunbar Ivy

10:45-10:50 Neonatal PH: Disease phenotypes & next steps
Steven Abman

10:50-11:30 Discussion
All

I have a clinical case I want to discuss

Chair: Usha Krishnan

11:30-12:00 Two cases to be presented



Imaging Task Force

International imaging datasets, analysis methods & clinical impact

13:30-13:40

Introduction
tbc

Session 1: International PH imaging data

Chair: Khodr Tello

- 13:40-13:55
- PVRI Imaging Task Force: updates and future endeavours
Andy Swift, Rebecca Vanderpool
- 13:55-14:10
- Integration of imaging into the GoDeep registry: challenges and opportunities
Khodr Tello
- 14:10-14:25
- Imaging practice in PH experience in South America (TBC)
- 14:25-14:50
- Open discussion on integration of imaging into PVRI GoDeep
All
 - > Summary of the session
 - > Focused discussion on integration of data and opportunities
 - > What data to integrate
 - > How to collect, anonymise and store data
 - > Database access and management
 - > Opportunities for large scale analysis and large outcome studies

14:50-15:10

Break

Session 2: Current & novel imaging approaches to improve diagnosis & phenotyping

Co-chairs: Raul San Jose Estepar, Sandeep Sahay

- 15:10-15:25
- CT Imaging approaches for phenotyping of patients with PH
Lilian Meijboom
- 15:25-15:40
- Developments in CT imaging for pulmonary vessels
Farbod Rahaghi
- 15:40-16:00
- 4D Flow in PH: better insights into PH hemodynamics
Mohammed Elbaz, Ben Freed
- 16:00-16:15
- Questions & roundtable discussion
All

16:15-16:30

Break

Wednesday

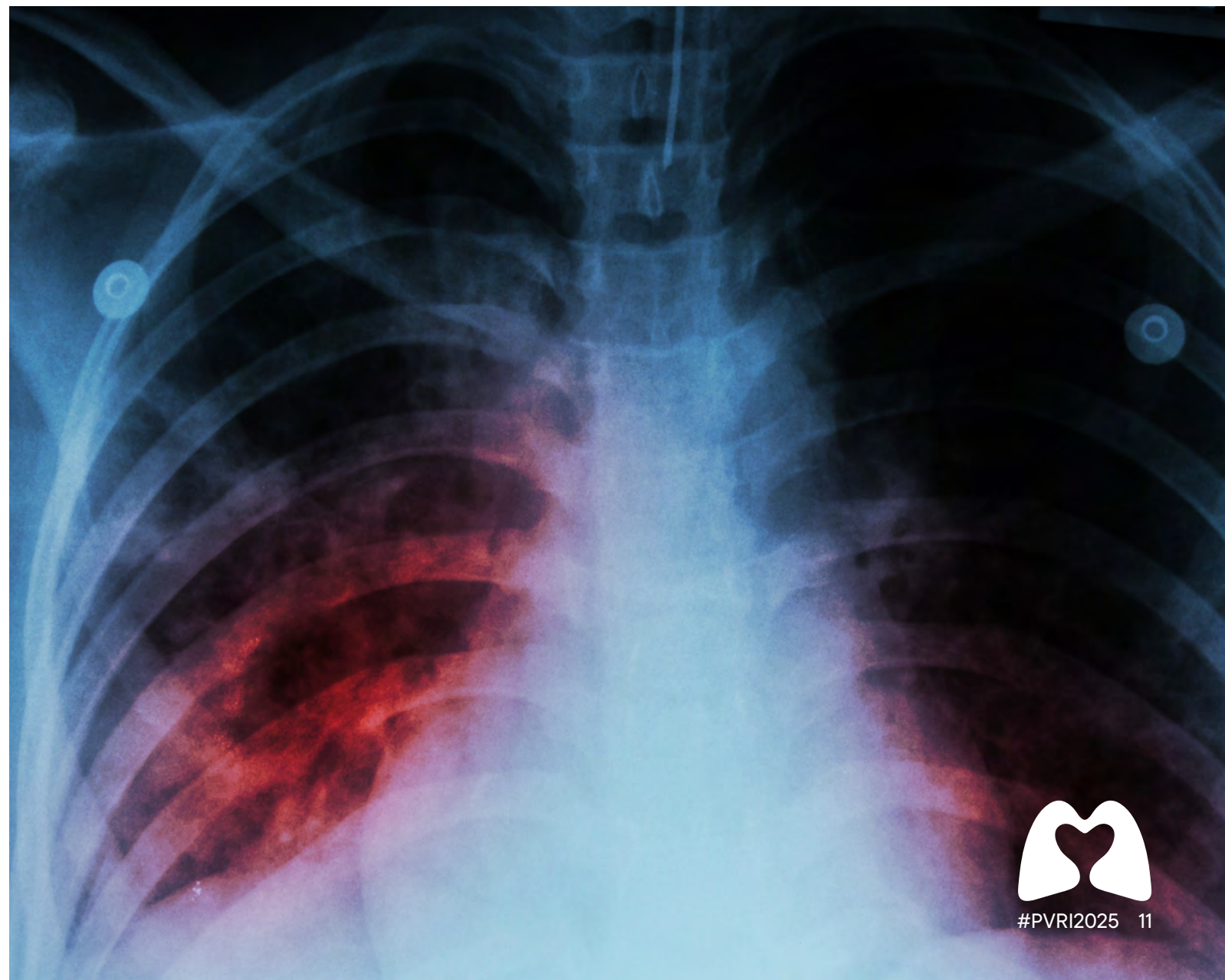
29 January

Windsor Oceanico,
2nd Floor, Oceania III

Session 3: Using microCT & computational/AI approaches to improve our understanding of PVD

Chair: Rebecca Vanderpool

- 16:30-16:45
- Synchrotron-based phase-contrast microcomputed tomography (micro-CT) in pulmonary vascular phenotypes
Karin Tran-Lundmark
- 16:45-17:00
- Emerging computational approaches in imaging for PH
Pietro Nardelli
- 17:00-17:15
- Clinical applications of AI
Andy Swift
- 17:15-17:30
- Questions and roundtable discussion
All
- 17:30-17:40
- Closing remarks
Rebecca Vanderpool



PAH-ICON: International Consortium for Genetic Studies in PAH

12:30-12:40 Welcome
Micheala Aldred, Stefan Gräf

Invited presentations & panel discussions
Each talk includes 10 minutes of discussion time

12:40-13:20 Keynote: Rare disease landscape in Brazil and Latin America
Roberto Giugliani

13:20-14:00 Update from ClinGen PAH gene and variant expert panel
Carrie Welch

14:00-14:40 Update from the TBX4Life initiative
Eric Austin

14:40-14:50 Break

Abstract presentations

14:50-15:10 Late onset pulmonary veno-occlusive disease associated with rare heterozygous variants of KDR and EIF2AK4
Vasile Foris

15:10-15:30 Functional characterization of novel KV1.5 variants in PAH
Andrea Olschewski

15:30-15:50 Spatial profiling identifies localised changes in gene expression in pulmonary vascular remodeling in the sugen hypoxia rat model
James Klinger

15:50-16:10 Pathogenic PAH gene variants linked to pulmonary vascular pruning in non-hispanic white COPD gene participants
Vasile Foris

16:10-16:30 Smaller right ventricular volumes correlate with elevated afterload in unaffected carriers of a pathogenic BMPR2 variant
Eszter Tóth

16:30-16:45 Break

Building future PH cohorts

- 16:45- 18:00
- > Examples and experiences from around the globe
 - > PVRI GoDeep's future perspective
 - > Core data set: Standardisation & harmonisation of phenotypes
 - > Leveraging image data
 - > Resources, federation & analysis strategies
 - > Global ethics & governance

Wednesday
29 January

Windsor Oceanico,
2nd Floor, Oceania II

High-Altitude Task Force

Wednesday
29 January
Windsor Oceanico,
2nd Floor, Oceania X

Challenges to the pulmonary circulation & beyond at high altitude

Co-chairs: Aastha Mishra, Silvia Ulrich

Each talk includes 10 minutes of discussion time

16:00-16:30 Birth at high altitude – immediate challenges & life-long consequences
Alexandra Heath

16:30-17:00 The role of the endothelium in acute & chronic pulmonary vascular adaptation to hypoxia
Wolfgang Kübler

17:00-17:30 Patients diagnosed with pulmonary vascular disease (PAH/CTEPH) at high altitude
Silvia Ulrich

17:30-18:00 Lowlanders with COPD going to altitude – implication for the right heart & the pulmonary vasculature
Mona Lichtblau

18:00-18:30 High Altitude Task Force meeting



Scientific programme speakers



Steven Abman
University of Colorado



Vineet Agrawal
Vanderbilt University
Medical Center



Rolf Berger
University Medical
Center Groningen



Sasha Prisco
University of Minnesota



Farbod (Nick) Rahaghi
Brigham and Women's
Hospital / Harvard
Medical School



Soni Savai-Pullamsetti
Max Planck Institute



Prashant Bobhate
Kokilaben Dhirubai
Ambani Hospital



Evan Brittain
Vanderbilt University
Medical Center



Stephen Chan
University of Pittsburgh
School of Medicine



Sandeep Sahay
Houston Methodist
Hospital



Catherine Simpson
Johns Hopkins
University



Natascha Sommer
University of Giessen &
Marburg Lung Center



Vinicio de Jesus Perez
Stanford University



Kara Goss
UT Southwestern
Medical Center



Anna Hemnes
Vanderbilt University
Medical Center



Rogerio Souza
University of Sao Paulo
Medical School



Edda Spiekerkoetter
Stanford University



Charlotte Summers
University of
Cambridge



Rachel Hopper
Lucile Packard
Children's Hospital/
Stanford University
School of Medicine



Dunbar Ivy
Children's Hospital
Colorado/University
of Colorado School of
Medicine



Maria Jesus Del Cerro
Hospital Universitario
Ramón y Cajal



Andrew Swift
University of Sheffield



Caio Tavares
Imperial College
London



Khodr Tello
University Hospital
Giessen



Gabor Kovacs
Medical University of
Graz



Wolfgang Kübler
Charité -
Universitätsmedizin
Berlin



Grazyna Kwapiszewska
Medical University
Graz & Institute of Lung
Health



Mark Toshner
University of
Cambridge



Eszter Tóth
Amsterdam University
Medical Centers



Karin Tran-Lundmark
Skane University
Hospital & Lund
University



Tim Lahm
National Jewish Health



Charly Lai
Indiana University
School of Medicine



Allan Lawrie
Imperial College
London



Rubin Tuder
University of Colorado
Anschutz Medical
Campus



Silvia Ulrich
University Hospital
Zurich



Rebecca Vanderpool
The Ohio State
University



Mona Lichtblau
University Hospital
Zürich



Susan Majka
National Jewish
Health - University Of
Colorado



Bradley Maron
University of Maryland



Nidhy Varghese
Texas Children's
Hospital



Frances Varian
University of Sheffield



Corey Ventetuolo
Brown University



Hiromi Matsubara
Okayama Medical
Center



Valentina Mercurio
Federio II University



Shahin Moledina
Great Ormond Street
Hospital



Sofia Villar
University of
Cambridge



Jason Weatherald
University of Alberta



Martin Wilkins
Imperial College
London



Steven Niederer
Imperial College
London



Rudolf Oliveira
Federal University of
Sao Paulo



Ioana Preston
Lahey Clinic



Roham Zamanian
Stanford University



Nayeli Zayas
Instituto Nacional de
Cardiologia Ignacio
Chavez

SESSION 1: Establishing the framework for the classification & diagnosis of PH worldwide

Moderators: Katarina Zeder, Lindsay Forbes, Sonja Bartolome

- 08:00-08:05 PVRI President's welcome
Anna Hemnes
- 08:05-08:20 PH care in Brazil
Rogerio Souza
- 08:20-08:35 Classification & diagnosis of PH: Updates from the 7th WSPH
Gabor Kovacs
- 08:35-08:50 Omics-based & data-driven approaches to early disease diagnosis
Catherine Simpson
- 08:50-08:57 **The prevalence of PH in sickle cell disease in sub-Saharan Africa: A systematic review & meta-analysis**
Eric Robbins
- 08:57-09:12 CIPHER & CIPHER-MRI studies for early diagnosis of PH
Ioana Preston
- 09:12-09:27 Advanced medical imaging & AI in PH diagnosis & classification
Andy Swift

09:27-09:57 **Refreshment break**

Moderators: Tatiana Kudryashova, Tim Lahm, Gabor Kovacs

- 09:57-10:12 Cardiopulmonary exercise testing in the diagnosis & phenotyping of PH patients
Khodr Tello
- 10:12-10:27 Classification & diagnosis of paediatric PH: Updates from the 7th WSPH
Dunbar Ivy
- 10:27-10:35 **Global treatment disparities within high- and middle-high income PH centers: A cluster analysis by the PVRI IDDI Access to Care Workstream**
Franz Rischard
- 10:35-10:50 CTEPH & CTED approach to early diagnosis & treatment
Mark Toshner
- 10:50-11:05 How pre-clinical models can be used to improve clinical phenotyping & early diagnosis
Vineet Agrawal

11:05-13:00 **Lunch break**, Windsor Oceanico, 2nd Floor, Oceania VI to X
11:05-13:00 **Career Catalyst Luncheon**, Windsor Barra, 2nd Floor, Alhambra & El Pardo
Hosts: Jason Weatherald, Laura Oppgaard, Katarina Zeder and Navneet Singh

SESSION 2: Risk stratification & treatment in the new era of PH therapeutics

Moderators: Pilar Escribano Subias, Sue Gue, Sandeep Sahay

- 13:00-13:15 Developments in risk stratification scores in PH
Valentina Mercurio
- 13:15-13:30 RV phenotyping in PH risk stratification & treatment
Tim Lahm
- 13:30-13:45 The impact of novel therapeutics on the treatment algorithm of PH
Sandeep Sahay
- 13:45-13:52 **A monoclonal antibody targeting the ZIP12 transporter attenuates severe experimental PAH**
Stephanie Hopley
- 13:52-14:07 Surgical Interventions, mechanical support, & transplant in end-stage PH
Nayeli Zayas

14:07-14:37 **Refreshment break**

Moderators: Corey Ventetuolo, Athiththan Yogeswaran, Horst Olschewski

- 14:37-14:52 Approach to the treatment of Group 1 PH patients with co-morbidities
Anna Hemnes
- 14:52-15:07 Risk stratification & treatment of paediatric PH
Rolf Berger
- 15:07-15:15 Preclinical models support the synergistic potential of serralutinib & sotatercept in treating PAH
Ravikumar Sitapara
- 15:15-15:30 Medical & surgical management of CTED & CTEPH
Hiromi Matsubara
- 15:30-16:00 Panel discussion: Realities & challenges of applying PH guidelines for diagnosis & treatment in LMIC
Facilitators: Vinicio de Jesus Perez, Werner Seeger, Ana Mocumbi, Gerald Maarman, Mauricio Orozco Levi

16:00-18:00 **Poster presentations**

18:00-19:30 **Drinks Reception**, Windsor Barra, 2nd Floor, Alhambra & El Pardo

**Thursday
30 January**
Windsor Oceanico,
3rd Floor, Asia



SESSION 3: Vascular heterogeneity in chronic lung disease

Moderators: Grazyna Kwapiszewska, Shelsey Johnson, Susan Majka

- 08:00-08:05 Introduction
Grazyna Kwapiszewska
- 08:05-08:20 Clinical aspects of PH heterogeneity in chronic lung disease: Same as PAH or different?
Corey Ventetuolo
- 08:20-08:35 Translational investigations of PH in fibrotic lung disease models
Susan Majka

08:35-08:42 **RUPERT SWIFT AWARD LECTURE:** Cluster analysis identifies computed tomography imaging-based phenotypes of PH associated with COPD-PH
Shelsey Johnson

- 08:42-08:50 Endotyping PH in COPD: possible role of systemic & lung iron status
Horst Olschewski
- 08:50-09:05 Translational investigations of PH in COPD disease models
Natascha Sommer
- 09:05-09:20 Panel discussion: Comparison of vascular changes in CLD & PAH

09:20-09:50 Refreshment break

Moderators: Mona Lichtblau, Raúl San José Estépar, Soni Savai Pullamsetti

- 09:50-09:55 Introduction
Mona Lichtblau
- 09:55-10:10 Vasculature in CLD: Imaging insights
Farbod (Nick) Rahaghi
- 10:10-10:25 Pulmonary vascular heterogeneity: Insights from contemporary pathological approaches
Rubin Tudor
- 10:25-10:33 Elevated vascular hyaluronan as a therapeutic target in PH associated with lung fibrosis
Harry Karmouty Quintana

10:33-10:40 **BUTROUS FOUNDATION YOUNG INVESTIGATOR AWARD LECTURE:** Impact of IRG1/Itaconate axis on cardiopulmonary phenotype: linking bone marrow dynamics to inter-organ communication
Golnaz Hesami

- 10:40-10:55 Vascular changes in paediatric chronic lung disease
Steven Abman
- 10:55-11:10 Panel discussion: Should we target vascular changes in chronic lung disease?

11:10-13:00 Lunch break, Windsor Oceanico, 2nd Floor, Oceania VI to X

11:10-13:00 **Women in PH Luncheon**, Windsor Barra, 2nd Floor, Alhambra & El Pardo
Host: Anna Hemnes Speakers: Jill Maron, Karin Tran-Lundmark, Ana Olga Mocumbi

SESSION 4: Heterogeneity in PH and the heart

Moderators: Nidhy Varghese, Gaurav Choudhary, Rebecca Vanderpool

- 13:00-13:05 Introduction
Nidhy Varghese
- 13:05-13:20 How do HFrEF & HFpEF affect the pulmonary vasculature & how can we model it?
Charly Lai
- 13:20-13:35 Congenital heart disease & the pulmonary vasculature
Shahin Moledina
- 13:35-13:42 PH is highly prevalent in rheumatic heart disease in sub-Saharan Africa: a systematic review & meta-analysis
Katarina Zeder
- 13:42-13:57 Animal models of heart disease PH
Wolfgang Kübler
- 13:57-14:05 17 β -Estradiol enhances right ventricle angiogenesis & endothelial cell fatty acid oxidation in PAH in a carnitine palmitoyltransferase 1-dependent manner
Simon Bousseau
- 14:05-14:20 Effect of pre and post-tricuspid shunts on the pulmonary vasculature
Rachel Hopper

14:20-14:50 Refreshment break

Moderators: Eszter Tóth, Evan Brittain, Philipp Douschan

- 14:50-14:55 Introduction
Eszter Tóth
- 14:55-15:10 How can we study the right ventricle to develop novel therapies?
Edda Spiekerkoetter
- 15:10-15:17 The role of SMYD2/RUNX2 axis in right ventricular hypertrophy & failure
Vandna Sapehia
- 15:17-15:32 Advances in imaging RV function in humans & animal models with PH
Rebecca Vanderpool
- 15:32-15:40 Effects of Dapagliflozin on PH in a rat pulmonary vein banding (PVB) model
Leonhard Blumrich
- 15:40-15:55 Cellular heterogeneity in RV dysfunction
Soni Savai-Pullamsetti
- 15:55-16:10 Managing RV dysfunction in resource-limited settings
Prashant Bobhate
- 16:10-16:30 Panel discussion: Barriers & opportunities for RV-targeted diagnostics & therapeutics

16:30-18:00 Poster presentations

19:00-23:59 Gala Dinner & Award Presentations, Windsor Barra, Ground Floor, Louvre

**Friday
31 January**
Windsor Oceanico,
3rd Floor, Asia



SESSION 5: The individual exposome & its contribution to PH heterogeneity

Moderators: Lan Zhao, Navneet Dhillon, Harry Karmouty Quintana

- 08:00-08:15 Drug exposures and PH
Vinicio de Jesus Perez
- 08:15-08:30 Infectious exposures & pulmonary vascular disease
Rudolf Oliveira
- 08:30-08:45 High altitude exposure and PH
Silvia Ulrich
- 08:45-09:00 Early life exposures and pulmonary vascular disease
Kara Goss
- 09:00-09:15 The Microbiome in PH
Sasha Prisco

09:15-09:45 Refreshment break

Moderators: Flavia Navarro, Luke Howard, Rudolf Oliveira

- 09:45-10:00 Less considered exposures that contribute to PH
Stephen Chan
- 10:00-10:07 Novel potential connection between lung microbiome dysbiosis & P2X7R/c-IAP2-regulated endothelial survival in schistosomiasis-associated PH
Suellen Darc Oliveira
- 10:07-10:22 Real world activity and exercise perception in PH patients - MyHeart Counts
Allan Lawrie
- 10:22-10:37 Insights from All of Us/EHR
Evan Brittain
- 10:37-10:45 Early recruitment & alternative activation of macrophages initiate pathophysiological changes in pulmonary vasculature upon smoke exposure
Vinita Sharma
- 10:45-11:00 Exposome as a modifiable factor for PH management
Bradley Maron

11:00-12:45 Lunch break, Windsor Oceanico, 2nd Floor, Oceania VI to X

11:00-12:00 Hot topics from PVRI GoDeep

Chairs: Martin Wilkins, Paul Hassoun, Werner Seeger

- Overview of the GoDeep meta-registry Werner Seeger
- Risk scores beyond group 1 PH – baseline and follow-up Athiththan Yogeswaran
- Survival outcomes and Impact of targeted PAH therapy in PoPH Arun Jose
- PAH-targeted therapies in group 3 PH – PDE5 inhibitor therapy associated with improved survival Khodr Tello
- Male survival disadvantage in PH: independent of etiology, age, disease severity, comorbidities and treatment, but race-dependent Evan Brittain

SESSION 6: Quantifying therapeutic responses

Moderators: Patricia Thistlethwaite, Andy Sweatt, Steeve Provencher

- 12:45-13:00 How should we define disease modification?
Roham Zamanian
- 13:00-13:15 Developing imaging surrogates of vascular histology to quantify reverse remodeling
Karin Tran-Lundmark
- 13:15-13:23 CT-based discrimination of CTEPH using deep learning clot vessel radiomics & machine learning
Pietro Nardelli
- 13:23-13:30 Novel insights from functional respiratory imaging (FRI) analysis in phase 2 INS1009-211 study: Treprostinil palmitil inhalation powder (TPIP) impact on pulmonary vasculature in patients with PH-ILD
Colin Church

13:30-13:45 A joint talk with PVRI and PHA USA
Patient reported outcomes
Frances Varian



13:45-14:15 Refreshment break

SESSION 7: Leveraging disease heterogeneity in clinical trial design

Moderators: Jane Leopold, Navneet Singh, Roham Zamanian

- 14:15-14:30 What is a platform trial?
Charlotte Summers
- 14:30-14:45 Global perspective & digital trials
Caio Tavares
- 14:45-15:00 Update in paediatric clinical trials
Maria Jesus Del Cerro

Dragon's Den / Shark Tank

Dragons/Sharks: Sonja Bartolome, Ardeshir Ghofrani, Charlotte Summers, Paul Corris

- 15:00-15:05 Dragon Den introduction Martin Wilkins
- 15:05-15:20 Real-time RV pressure tracking for smarter clinical trial decision-making Khodr Tello
- 15:20-15:35 Stratosphere Bayesian trial for BMPR2 mutation carriers Sofia Villar
- 15:35-15:50 CRAVE: Canadian Right ventricular Adaptive platform trial Jason Weatherald
- 15:50-16:00 Summary Martin Wilkins

- 16:00-16:15 Building and testing a personal digital twin for PH
Steve Niederer



CME Credits



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