WELCOME TO SINGAPORE

12th PVRI Annual World Congress on Pulmonary Vascular Disease

Date // 21 - 25 January 2018
It is with tremendous pleasure that I welcome you to Singapore, a hub of South East Asia, well known for its unsurpassed energy and rapid growth in many fields including technology, science, education, and health.

Last year the PVRI decision to meet in Miami, USA, was essentially to consolidate and further enhance the activities of the North American Task Force. This year, we gather again over 10,000 miles away from Miami, in South East Asia, with the goal to engage with our Asian colleagues and energise our South East Asia Task Force.

We are indebted to Martin Wilkins, Ardi Ghofrani and Lan Zhao for what promises to be a truly amazing programme. There will be ample time to strengthen our Regional Task Force activities and provide a boost for other developing endeavours.

A particular thanks to our super event organiser, Andrea Rich, and our energetic staff for their invaluable work in taking care of the logistics of the Congress and Gala Dinner.

This meeting will see me formally hand over the reins to my successor Paul Hassoun and I wish him great success in this role.

It has been a fantastic two years and I have enjoyed the privilege of being your President enormously.

Welcome to our Annual Congress in Singapore which brings our members together from all over the world. We were particularly keen to meet in South East Asia and support the Regional Task Force’s efforts in establishing new members of the PVRI and stimulate improved recognition and treatment of PH. Tremendous thanks are due to Martin Wilkins, Ardi Ghofrani and Lan Zhao for the outstanding meeting they have organised for us. This Congress carries all the hallmarks of what is best about the PVRI and is sure to generate a high standard of discussion and debate. Grateful thanks are due once again to Andrea Rich, our Events Manager, and all our UK staff team for their invaluable work in taking care of the logistics of the Congress and Gala Dinner.

We hope you enjoy our Annual Congress in Singapore which brings our members together from all over the world.

Professor Paul A Corris MD
President 2016/17, Newcastle, UK
Pulmonary Vascular Research Institute PVRI

Professor Paul Hassoun MD
President 2018/19, Johns Hopkins School of Medicine, USA

The Mandarin Orchard Hotel, Singapore
“Talks were very good from international authorities.”
Andrew Peacock, Golden Jubilee National Hospital, UK
Welcome to Singapore 2018

It is our pleasure to welcome you all to the PVRI 12th Annual World Congress.

We have a great programme and engaged an enthusiastic faculty of speakers who want to stimulate discussion and debate.

That is the hallmark of this meeting and we encourage you all to lose your inhibitions and immerse yourself to the full.

To paraphrase Carl Sagan “There is no such thing as a dumb question”.

So we invite you to ask, learn and enjoy!

Our Scientific Leaders

Scientific Leaders
• Martin Wilkins
• Ardeschir Ghofrani
• Lan Zhao

Abstract Review Panel
• Ralph Scheinmylv
• Allan Laerlie
• Adrian Hobbs
• Brian Graham

Honouring Pioneers in the Field in our Named Lectures at this Year’s Congress...

Dr Stuart Rich
Dr Stuart Rich is a cardiologist and Director of the Northern Heart Programme and Pulmonary Vascular Disease Programme at the Pulmonary Care Education Institute and a Professor of Medicine at the Northwestern University Feinberg School of Medicine. He is one of the world’s most recognised experts on pulmonary vascular disease. For more than three decades he has dedicated his research and clinical efforts to finding better solutions for pulmonary hypertension. He is a founding member of the PVRI.

Professor Sheila Glennis Haworth CBE
Professor Haworth has had an interesting and fascinating career, which has taken her into three overlapping phases: a clinical academic, founder of the UK Pulmonary Hypertension Service for Children, and a leading player in the PVRI.

She was Head of Cardio-Respiratory Science at the Nuffield Foundation in London. She is now Professor Emeritus at University College London.

Professor Ghazwan Butrous
Professor Ghazwan Butrous was awarded the chair of Carbohydrate Science at the University of Kent, UK, in 2006. He is head of the founding members and is President Emeritus of the PVRI.

Professor Ghazwan Butrous graduated from the Baghdad Medical College in 1976. From 1980 to 1990 he worked in London, where he was a fellow and lecturer at the Institute of Cardiology at St Bartholomew’s Hospital Medical School and St George’s Hospital Medical School. He was director of the Cardiac Electrophysiology Laboratory at St George’s from 1985 to 1990.

Selected recent five publications
2. Circulation 2015 131: 582-590
5. Circulation 2012 126:1680-1690

Martin Wilkins
Head of the Department of Medicine, Imperial College London.

Dr Martin Wilkins is a physician-scientist with a background in clinical pharmacology and toxicology. He has spent the past 25 years investigating the molecular pathology of pulmonary hypertension with a view to identifying novel drug targets and better ways of monitoring the disease.

He has published widely on the cyclic GMP signalling pathway and circulating biomarkers. More recently he has investigated the role of iron homeostasis and zinc transport in pulmonary vascular disease.

His research is supported by the British Heart Foundation, Medical Research Council, the Wellcome Trust and the National Institute of Health Research.

Aydercheh Ghofrani
Head of the Pulmonary Hypertension Division, Germany.

Professor Aydercheh Ghofrani MD is Professor of Pulmonary Vascular Research at Justus Liebig University, Giessen, Germany and Head of the Pulmonary Hypertension Division at the University Hospital in Giessen.

In addition he is Director of Pneumology as well as Medical Executive Director at the Kordhoff Clinic in Bad Neuenahr, Germany and past-time Professor for Pulmonary Vascular Medicine at Imperial College London.

He leads a translational research group on development of new therapeutics for cardiopulmonary vascular disease and is member of the steering committee of the Excellence Cluster Cardio-Pulmonary System and one of the founding members of the Pulmonary Vascular Research Institute. He has participated in the development of several therapeutics for chronic lung diseases and pulmonary hypertension, including prostacyclins, phosphodiesterase inhibitors, endothelin receptor antagonists, tyrosine kinase inhibitors and stimulators of the soluble guanylate cyclase. Professor Ghofrani has received four awards for investigations in pulmonary vascular disease.

Lan Zhao
Professor of Experimental Medicine, Director of Biological Imaging Centre, Imperial College London.

Research interests
Employing innovative experimental approaches, Professor Zhao leads a research programme dedicated at identifying novel drug targets for pulmonary hypertension and developing biomarkers for assessing response to therapy.

Selected recent five publications
2. Circulation 2015 131: 582-590
5. Circulation 2012 126:1680-1690
“The mix of clinical and basic scientists worked very well, the quality of the presentations was outstanding with only a few timing issues on the first day. The number of delegates at the meeting (300) is just about right to stimulate discussion without feeling overwhelmed.”

Andrew Cowburn, University of Cambridge, UK

MiAMi 2017
Pre-Meeting Task Forces

Sunday 21 January 2018

10:00 - 17:00 Held in // Room 802
PVRI Board of Directors Meeting
Chair: Paul Corris, PVRI President 2016/17
Official handover to Paul Hassoun, PVRI President 2018/19
JOHNS HOPKINS SCHOOL OF MEDICINE, USA

UNiVERSiTY OF NEWCASTLE, UK

09:00 - 17:00 Held in // Mandarin Ballroom 1
PVRI Pre-clinical & Molecular Science Task Force Meeting
Chairs: Sébastien Bonnet, LAVAL UNIVERSITY, CANADA
Duncan Stewart, OTTAWA HOSPITAL, CANADA
Soni Pullamsetti, iNSTiTUTE FOR HEART & LUNG RESEARCH, GERMANY
Methodological rigour in pre-clinical pulmonary studies

10:00 - 13:00 Held in // Mandarin Ballroom 2
PVRI Imaging Task Force Meeting
Chairs: Andrew Peacock, UNiVERSiTY OF GLASGOW, UK
David Kiely, UNiVERSiTY OF SHEFFiELD, UK
Imaging and pulmonary hypertension

Breakfast
07:00 - 08:00
Welcome
08:00 - 08:10

Plenary 1
Chairs: Nick Morrell, UNIVERSITY OF CAMBRiDGE, UK, Mohamed Ahmed, COHEN CHILDREN'S HOSPITAL, NEW YORK, FEiNSTEiN iNSTiTUTE FOR MEDiCiNAL RESEARCH, USA, Hong Gu, BEiJiNG ANzHEN HOSPiTAL, CAPiTAL MEDiCAL UNiVERSiTY, CHiNA
Genes and pulmonary hypertension

PROFESSOR SHEILA GLENNIS HAWORTH LECTURE: The genetics of pulmonary arterial hypertension // Nick Morrell, UNIVERSITY OF CAMBRiDGE, UK

• New genetic findings in pulmonary arterial hypertension // Christina Eichstaedt, UNIVERSITY OF HEiDELBERG, GERMANY
• Genetics of pulmonary arterial hypertension - from bench towards bedside // Michele Alldred, DEPARTMENT OF MEDiCiNE, THE iNDiANA UNiVERSiTY, USA
• DNA sequencing of neonates with chronic lung disease with and without pulmonary hypertension // Mohamed Ahmed, COHEN CHILDREN'S HOSPITAL, NEW YORK, FEiNSTEiN iNSTiTUTE FOR MEDiCiNAL RESEARCH, USA

1 minute poster presentations will follow the talks. Presenters will introduce their novel work from 1 slide. There will be no questions at this time, but interested parties can discuss the posters with the presenters during the allocated poster session slots.

BREAK
10:00 - 10:30

Plenary 2
Chairs: Paul Yu, BRiGHAM AND WOMEN'S HOSPITAL, USA, & Stuart Cook, D他认为NATIONAL UNIVERSITY, SINGAPORE, & Stefano Ghio, UNIVERSITY OF PINA, ITALY
The myocardium

PROFESSOR STUART RICH LECTURE: Genotype-phenotype studies in the heart // Stuart Cook, D他认为NATIONAL UNIVERSITY, SINGAPORE

• Epigenetics of Heart Failure // Roger Foo, NATIONAL UNIVERSITY HEART CENTRE, SINGAPORE
• LMNA cardiomyopathy // Colin Stewart, iNSTiTUTE OF MEDiCAL BiOLOGy, SINGAPORE
• Developing a cardiopulmonary resuscitation strategy for the right ventricle // Cameron DeFusari, UNIVERSITY OF PITTSBURG MEDiCAL CENTRAL, USA

1 minute poster presentations will follow the talks. Presenters will introduce their novel work from 1 slide. There will be no questions at this time, but interested parties can discuss the posters with the presenters during the allocated poster session slots.

LUNCH
12:30 - 13:30

Scientific Meeting Monday 22 January Morning Session // Lecture Programme (07:00-13:30) Held in // Mandarin Ballroom 2

Event Time

Breakfast 07:00 - 08:00
Welcome 08:00 - 08:10

Plenary 1 08:10 - 10:00

PROFESSOR SHEILA GLENNIS HAWORTH LECTURE: The genetics of pulmonary arterial hypertension // Nick Morrell, UNIVERSITY OF CAMBRiDGE, UK

• New genetic findings in pulmonary arterial hypertension // Christina Eichstaedt, UNIVERSITY OF HEiDELBERG, GERMANY
• Genetics of pulmonary arterial hypertension - from bench towards bedside // Michele Alldred, DEPARTMENT OF MEDiCiNE, THE iNDiANA UNiVERSiTY, USA
• DNA sequencing of neonates with chronic lung disease with and without pulmonary hypertension // Mohamed Ahmed, COHEN CHILDREN'S HOSPITAL, NEW YORK, FEiNSTEiN iNSTiTUTE FOR MEDiCiNAL RESEARCH, USA

1 minute poster presentations will follow the talks. Presenters will introduce their novel work from 1 slide. There will be no questions at this time, but interested parties can discuss the posters with the presenters during the allocated poster session slots.

BREAK 10:00 - 10:30

Plenary 2 10:30 - 12:30

PROFESSOR STUART RICH LECTURE: Genotype-phenotype studies in the heart // Stuart Cook, D他认为NATIONAL UNIVERSITY, SINGAPORE

• Epigenetics of Heart Failure // Roger Foo, NATIONAL UNIVERSITY HEART CENTRE, SINGAPORE
• LMNA cardiomyopathy // Colin Stewart, iNSTiTUTE OF MEDiCAL BiOLOGy, SINGAPORE
• Developing a cardiopulmonary resuscitation strategy for the right ventricle // Cameron DeFusari, UNIVERSITY OF PITTSBURG MEDiCAL CENTRAL, USA

1 minute poster presentations will follow the talks. Presenters will introduce their novel work from 1 slide. There will be no questions at this time, but interested parties can discuss the posters with the presenters during the allocated poster session slots.

LUNCH 12:30 - 13:30

Pulmonary Circulation Editorial Meeting Held in // Mandarin Ballroom 3

Monday 22 January 2018
Overall sessions were high level with remarkable contributions of all participants. Besides, we had the opportunity of getting together and discussing critical issues of science and upcoming activities with so many colleagues.

Antonio Augusto Lopes, Brazil
MIAMI 2017

Plenary 3
Chairs: Bradley Maron (BRIGHAM & WOMEN’S HOSPITAL, USA) & Allan Lawrie (UNIVERSITY OF SHEFFIELD, UK)

- Comorbidity-driven taxonomy of pediatric pulmonary hypertension
  Mei-Sing Ong (HAVARD MEDICAL SCHOOL; HAVARD PILGRIM CARE INSTITUTE, USA)

- Network medicine to phenotype exercise limitation: beyond cluster analyses
  Bradley Maron (BRIGHAM & WOMEN’S HOSPITAL, USA)

- PVDOMICS
  Jane Leopold (PARTNERS HEALTHCARE, BOSTON, USA)

- Using biology to phenotype pulmonary hypertension
  Evan Brittain (VANDERBILT UNIVERSITY, USA)

BREAK
15:30 - 16:00

PVRI Annual General Meeting
16:00 - 17:00

Welcome & networking reception, incorporating CLINICAL and BASIC poster sessions
Held in // Mandarin Ballroom 1
17:30 - 20:00

- Attendees mingle with posters over drinks and snacks. Presenters stand by their posters between 18:30 - 19:30 and are prepared to discuss their work.

- Moderators: Ralph Schermuly (JUSTUS LIEBIG UNIVERSITY GIESSEN, GERMANY), Adrian Hobbs (WILLIAM HARVEY RESEARCH INSTITUTE, UK) & Norbert Weissmann (JUSTUS LIEBIG UNIVERSITY GIESSEN, GERMANY)

Regional Task Force Leaders Meeting
Held in // Room 802
19:00 - 21:00

Chair: Sheila Glennis Haworth CBE, UNIVERSITY COLLEGE LONDON, UK

END OF DAY ONE SCIENTIFIC SESSIONS
Very good meeting. Excellent site and organisation, logistic etc. Great job of organising committee. Thank you very much.

Alejandro Londoño, Clinica CardioVID, Columbia, South America MIAMI 2017

The Miami conference was one of the best.

Rajamma Mathew, New York Medical College, USA MIAMI 2017

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**Scientific Meeting Tuesday 23 January Morning Session // Lecture Programme (07:00-13:30)**

**Event** | **Time**
---|---
Breakfast | 07:00 - 08:00

**Plenary 4**  
**Chairs:** Kurt Stemmark, University of Colorado Denver School of Medicine, USA; Edda Spielenkötter, Stanford School of Medicine, USA  
**What’s hot BASIC**  
- The role of HIF-2α in pulmonary vascular remodelling and heart failure // YouYang Zhao, University of Illinois, USA  
- Using lineage tracing and deep tissue imaging to understand neonatal formation in PAH // Maya Kumar, Stanford University, USA  
- Local and systemic consequences of pulmonary glycocalyx degradation // Eric Schmidt, University of Colorado Denver School of Medicine, USA  
- Cellular stress pathways in PAH // Sébastien Bonnet, Laval University, Canada

1 minute poster presentations will follow the talks. Presenters will introduce their novel work from 1 slide. There will be no questions at this time, but interested parties can discuss the posters with the presenters during the allocated poster session slots.

**BREAK** | 10:00 - 10:30

**Plenary 5**  
**Chairs:** James Yip, National University Heart Centre, Singapore; Hsu Chih Hsin, National Taiwan University, Taiwan  
**Panel:** Comprises all discussants from case presentations

**CLINICAL case round table**  
**Presenters:** Presenters are expected to identify an anonymised case which can be presented based on up to 3 slides. The case should clearly highlight a challenging diagnostic or management issue. (25 minutes per case)

- **Case 1** Presenter // Gérald Simonneau, Hôpitaux Universitaires Paris-Sud, France  
- **Case 2** Presenter // Rinda Cough, Michigan State University College of Human Medicine, USA  
- **Case 3** Presenter // Werner Seeger, Justus Liebig University Gießen, Germany  
- **Case 4** Presenter // Ardeschir Ghofrani, Justus Liebig University Gießen, Germany

One minute poster session  
1 minute poster presentations will follow the talks. Presenters will introduce their novel work from 1 slide. There will be no questions at this time, but interested parties can discuss the posters with the presenters during the allocated poster session slots.

**PVRI Digital Clinic** // Colin Church, University of Glasgow, UK; Martin Johnson, University of Glasgow, UK

**LUNCH** | 12:00 - 13:30
Overall great conference. Tons of good learning and great opportunities to network with people with similar passion.

Ping Xiong, Queen’s University, USA

MIAMI 2017

The ambiance was great. Great accessibility to the experienced researchers.

Michiel Alexander de Raaf, CYCS President, Netherlands

MIAMI 2017

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**Scientific Meeting Tuesday 23 January Afternoon Session // Lecture Programme (13:30-21:00)**

**Event**

**Asia-Pacific Meeting open to all delegates**

A joint session with the Asia-Pacific Cardiovascular Society // James Yip, NATIONAL UNIVERSITY HEART CENTRE, SINGAPORE

**Difficult cases in pulmonary hypertension symposium // Sponsored by Bayer Singapore**

**Theme 1: Mix and match**

- Closure of congenital defects with PAH // Joseph Vettukattil // SPECTRUM HEATH, HELEN DEVOS CHILDREN’S HOSPITAL, USA
  Discussant // Edgar Tay, NATIONAL UNIVERSITY HEART CENTRE, SINGAPORE

- CTD-PAH or CTD-ILD // Ivandito Kuntjoro // NATIONAL UNIVERSITY HEART CENTRE, SINGAPORE
  Discussant // Andrina Low, SINGAPORE GENERAL HOSPITAL, SINGAPORE

- PAH vs pulmonary venous hypertension // James Yip, NATIONAL UNIVERSITY HEART CENTRE
  Discussant // Ju Le Tan, NATIONAL HEART CENTRE, SINGAPORE

**Theme 2: Difficult problems**

- Pregnancy and PAH // Geetha Kandavello // INSTITUT JANTUNG NEGARA, MALAYSIA
  Discussant // Ju Le Tan, NATIONAL HEART CENTRE, SINGAPORE

- PAH in NYHA 4 (ICU Care) // Hsu Chih Hsin // NATIONAL CHENG KUNG UNIVERSITY HOSPITAL, TAINAN, TAIWAN
  Discussant // Phua Ghee Chee, SINGAPORE GENERAL HOSPITAL, SINGAPORE

- PAH with Chest Pain // Dyah Wulan Anggrahini // UNIVERSITY GADJAH MADA, INDONESIA
  Discussant // Lim Soo Telk, NATIONAL HEART CENTRE, SINGAPORE

**PVRI Pharma Task Force Working Group Meeting**

Held in // Room 802

Initiators: C. Clinical Trial Designs, Empiricists & Slalomers

Chair: Peter Fernandes, BELLEROPHON, USA, Sylvia Nikkho, BAYER, GERMANY, & Lawrence Zisman, PULMOKINE, USA

**PVRI Paediatric & Congenital Heart Disease Task Force Meeting**

Held in // Mandarin Ballroom 1

Chair: Maria Jesus del Cerro, RAMON Y CAJAL UNIVERSITY HOSPITAL, SPAIN, Shahin Moledina, GREAT ORMOND STREET HOSPITAL, UK, & Steven Abman, UNIVERSITY OF COLORADO DENVER SCHOOL OF MEDICINE, USA

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**BREAK**

15:00 - 15:30

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**END OF DAY TWO SCIENTIFIC SESSIONS**
### Scientific Meeting \textbf{Wednesday 24 January Morning Session} // Lecture Programme (07:00-14:00)

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
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<tbody>
<tr>
<td>Breakfast</td>
<td>07:00 - 08:00</td>
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<tr>
<td><strong>Plenary 6</strong></td>
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<tr>
<td>Chairs: Ardeschir Ghofrani \textit{Justus Liebig University Gießen, Germany}, Nick Kim \textit{University of California, San Diego, USA}, &amp; Gérard Simonneau \textit{Hôpitaux Universitaires Paris-Sud, France}</td>
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<tr>
<td><strong>Chronic thromboembolic pulmonary hypertension (CTEPH)</strong></td>
<td>08:00 - 10:00</td>
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<tr>
<td>• Diagnostics: What are the advantages and limitations of each imaging modality? // Kim Kerr \textit{University of California, San Diego, USA}</td>
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<td>• PEA: Who are poor candidates for pulmonary endarterectomy? // Andrea D’Armini \textit{University of Pavia, Italy}</td>
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<tr>
<td>• Medical Therapy: Time for combination therapy or multi-modality approach? // Marion Detefs \textit{UZ Leuven, Belgium}</td>
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<td>• BPA: What are the complications and how are they avoided/managed? // Hiromi Matsubara \textit{National Hospital Organisation, Japan}</td>
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<tr>
<td>1 minute poster presentations will follow the talks. Presenters will introduce their novel work from 1 slide. There will be no questions at this time, but interested parties can discuss the posters with the presenters during the allocated poster session slots.</td>
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<tr>
<td><strong>BREAK</strong></td>
<td>10:00 - 10:30</td>
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<tr>
<td><strong>Plenary 7</strong></td>
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<tr>
<td>Chair: Stuart Rich \textit{Northwestern University, USA}</td>
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<tr>
<td>Panel: Paul Corris \textit{University of Newcastle, UK}, Peter Fernandes \textit{Bellerophon Therapeutics, USA}, Declan Doogan \textit{Biogen, Pharmaceuticals, USA}, &amp; patient representative</td>
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<tr>
<td><strong>Personalised medicine</strong></td>
<td>10:30 - 11:30</td>
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<tr>
<td>Interactive discussion with audience exploring the need for, and place of, personalised medicine in the management of pulmonary hypertension.</td>
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<tr>
<td>1 minute poster presentations will follow the talks. Presenters will introduce their novel work from 1 slide. There will be no questions at this time, but interested parties can discuss the posters with the presenters during the allocated poster session slots.</td>
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<tr>
<td><strong>Lunchtime poster session</strong></td>
<td>Held in // Mandarin Ballroom 1</td>
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<tr>
<td>Moderators: Allan Lawrie \textit{University of Sheffield, UK}, Brian Graham \textit{University of Colorado Denver School of Medicine, USA}, Werner Seeger \textit{Justus Liebig University Gießen, Germany}, Ju Le Tan \textit{Department of Cardiology, National Heart Centre, Singapore}, &amp; Ghaithan Butrous \textit{PVRI President Emeritus}</td>
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<tr>
<td><strong>PVRI Pharma Task Force ‘Meet &amp; Greet Open-house’</strong></td>
<td>Held in // Mandarin Ballroom 2</td>
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<td>12:30 - 13:30</td>
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<tr>
<td><strong>LUNCH</strong></td>
<td>12:45 - 14:00</td>
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</table>
Thank you for organising a great meeting.

Anastasiia Rudkovskaia, Yale New Haven Health, USA

MIAMI 2017

Wonderful presentations.
Rana Torabi, Indiana University Northwest, USA
MIAMI 2017

Scientific Meeting Wednesday 24 January Afternoon Session // Lecture Programme (14:00-17:00) Held in // Mandarin Ballroom 2

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
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<tbody>
<tr>
<td><strong>Plenary 8</strong></td>
<td><strong>14:00 - 15:30</strong></td>
</tr>
<tr>
<td>Chairs: Martin Wilkins, IMPERIAL COLLEGE LONDON, UK, Anna Hemnes, VANDEERBILT UNIVERSITY, USA &amp; Mark Richards, NATIONAL UNIVERSITY OF SINGAPORE, UNIVERSITY OF OTAGO, NEW ZEALAND</td>
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<tr>
<td><strong>Biomarkers and clinical trial endpoints</strong></td>
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<tr>
<td>• Experience with high throughput proteomics to identify biomarkers in inform clinical trial design // Sarah Grant, NOVARTIS, USA</td>
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<td>• Challenges using the metabolome to inform pulmonary hypertension // Chris Rhodes, IMPERIAL COLLEGE LONDON, UK</td>
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<td>• Defining drug targets using Mendelian randomisation // Dan Sword, GENOMICS PLC, UK</td>
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<td>• What you need to do to qualify a biomarker as useful to inform clinical trial // Krishna Prasad, MHRA, UK</td>
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<tr>
<td><strong>BREAK</strong></td>
<td><strong>15:30 - 16:00</strong></td>
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<tr>
<td><strong>Plenary 9</strong></td>
<td><strong>16:00 - 17:00</strong></td>
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<tr>
<td>Chairs: Luke Howard, IMPERIAL COLLEGE LONDON, UK &amp; Harry Karmouty-Quintana, UTHEALTH MD/GEHEN MEDICAL SCHOOL, HOUSTON, USA</td>
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<tr>
<td><strong>Talks from 1 slide</strong></td>
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<tr>
<td>Speakers present a new concept or address a big idea from 1 slide presentation (5 minutes) followed by a 10-minute discussion.</td>
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<tr>
<td>• ACTRIIA-Fc rebalances BMP and Activin/TGF-B signalling to attenuate experimental pulmonary hypertension // Paul Yu, BRIGHAM AND WOMEN’S HOSPITAL, USA</td>
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<tr>
<td>• Endothelium-protective effects of exosomal KLF2-induced micro RNAs: implications for treatment of pulmonary hypertension // Beata Wojciak-Stothard, IMPERIAL COLLEGE, LONDON, UK</td>
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<tr>
<td>• NMDA-type glutamate receptor activation promotes vascular remodeling and pulmonary arterial hypertension // Sylvia Cohen-Kaminsky, UNIVERSITÉ PARIS SUD, FRANCE</td>
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**END OF DAY THREE SCIENTIFIC SESSIONS**

**PVRI GALA DINNER (All welcome, including partners & guests)**
Buy your ticket at the Reception Desk
Held in // Imperial Ballroom

**20:00 onwards**
Overall a very good meeting and well fed.

Ravi Kumar,
Chief Scientific Officer,
Acceleron Pharma, USA
MIAMI 2017

Thank you very much!
Ana Maria Thomaz,
Brazil
MIAMI 2017

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**Scientific Meeting Thursday 25 January Morning Session // Lecture Programme (07:00-12:00)**

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<thead>
<tr>
<th>Event</th>
<th>Time</th>
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<tbody>
<tr>
<td>Breakfast</td>
<td>07:00 - 08:00</td>
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<tr>
<td><strong>Plenary 10</strong>&lt;br&gt;Chair: Magdi Yacoub IMPERIAL COLLEGE LONDON, UK &amp; Sheila Glennis Haworth CBE UNIVERSITY COLLEGE LONDON, UK</td>
<td>08:00 - 09:30</td>
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<tr>
<td>Global issues</td>
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<tr>
<td><strong>PROFESSOR GHAZWAN BUTROUS PLENARY LECTURE:</strong>&lt;br&gt;Pulmonary hypertension in lung disease // Werner Seeger JUSTUS LIEBIG UNIVERSITY GIESSEN, GERMANY</td>
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<tr>
<td>• Pulmonary hypertension in Tibet // Lan Zhao IMPERIAL COLLEGE LONDON, UK</td>
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<tr>
<td>• What to expect from the World Pulmonary Hypertension meeting in Nice 2018 // Gerald Simonneau HÔPITAUX UNIVERSITAIRES PARIS-SUD, FRANCE</td>
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<tr>
<td><strong>BREAK</strong></td>
<td>09:30 - 10:00</td>
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<tr>
<td><strong>Plenary 11</strong>&lt;br&gt;Chair: Paul Hassoun JOHNS HOPKINS SCHOOL OF MEDICINE, USA &amp; Christophe Guignabert UNIVERSITE PARIS SUD / UNIVERSITE PARIS-SACLAY, FRANCE</td>
<td>10:00 - 12:00</td>
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<tr>
<td>Immunity and inflammation</td>
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<tr>
<td>• Role of inflammation in pulmonary hypertension // Brian Graham UNIVERSITY OF COLORADO DENVER SCHOOL OF MEDICINE, USA</td>
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<tr>
<td>• Inflammation in pre-clinical models and humans // Christophe Guignabert UNIVERSITE PARIS SUD / UNIVERSITE PARIS-SACLAY, FRANCE</td>
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<tr>
<td>• Trial of Tocilizumab for PAH - The UK Clinical Trial Network // Paul Corris UNIVERSITY OF NEWCASTLE, UK</td>
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<tr>
<td><strong>END OF MEETING</strong></td>
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**Afternoon travel**
"It was a great meeting in a wonderful location. I loved the gala so much and enjoyed hearing about all the achievements of our community. I look forward to interacting more with the PVRI in the future."

Charlie Hindmarch, Queen’s Cardiopulmonary Unit (QCPU), USA

MIAMI 2017

Welcome to our Gala Dinner...

...where science starts with a hello.

Meet The Mentors

Gala Dinner 2018

Please join us at the Gala Dinner on Wednesday 24 January 2018 at 20:00. This will be held in the Imperial Ballroom at the Mandarin Orchard Hotel, Singapore. Tickets are available at the Reception Desk.
"My congratulations on a wonderful meeting/conference."
Eric Austin, Children’s Hospital at Vanderbilt, USA
MIAMI 2017

Celebrating the achievements of our members...

During the Gala Dinner, President Paul Hassoun will present the following PVRI Annual Awards:
• The Lifetime Achievement Award 2017
• Achievement Awards 2017
• Certificates of Excellence 2017

The winners of the two Best Clinical Abstracts and the two Best Basic Abstracts will be announced, as well as the winner of the Butrous Foundation Young Investigator Award.

We congratulate all of our winners and are extremely proud of their achievements this year.

Butrous Foundation Young Investigator Award

The Butrous Foundation Young Investigator Award is presented to a young investigator at the annual PVRI World Congress.

The Butrous Foundation is a private foundation established in 2006, which aims to motivate young people to pursue scientific careers by enhancing scientific creativity and communication skills. It also provides a platform for young people all over the world to participate in scientific advancements and to encourage them to express their ideas freely and creatively.

The Award provides $500 to one young investigator and an additional $500 to publish their research in Pulmonary Circulation, subject to the normal peer-review process.

For further information and to find the criteria for eligibility, please visit the website: www.butrousfoundation.com
We are thrilled to have been able to award these grants and the field of pulmonary arterial hypertension.

The two winners are:

Katharine Clapham from Yale University for her proposal entitled: Novel Mechanisms of EndoMT in Pulmonary Arterial Hypertension.

This proposal will test the hypothesis that pulmonary arterial hypertension (PAH) is driven in part by the transformation of endothelial cells to mesenchymal cells (EndoMT) in response to mutation of a specific component of the bone morphogenetic protein signaling component BMPR2 (ALK3). Dr. Clapham proposes to use mice deficient in BMPR1A and genetically manipulated cells to test her hypothesis. Ultimately, the findings, and the specific role of BMPRIA in the development of PAH, will be tested using endothelial cells obtained from patients with PAH.

Dr. Clapham is a Postdoctoral Fellow in the Department of Cardiology at Brigham and Women’s Hospital Harvard Medical School. Her mentor, Dr. Bradley Maron is an Assistant Professor of Medicine at Harvard Medical School. His mentor, Dr. Hyung Chun, is Associate Professor of Medicine at Harvard Medical School.

Bradley Wertheim from Brigham and Women’s Hospital Harvarnd Medical School for his proposal entitled: Mechanisms of Disease Inception in Pulmonary Arterial Hypertension.

This proposal will test the hypothesis that a pre-fibrotic protein, NEDD9, contributes to early vascular lesion formation by altering right ventricular pulmonary vascular coupling in advanced pulmonary arterial hypertension (PAH). Dr. Wertheim will be using an animal model of severe PAH (the sugen hypoxia rat) as well as pulmonary artery endothelial cells using systems biology, the investigator will determine pathways that regulate NEDD9 and targets involved in the process of NEDD-9 dependent collagen synthesis.

Dr. Wertheim is a Postdoctoral in the Division of Cardiology at the Brigham and Women’s Hospital Harvard Medical School. His mentor, Dr. Bradley Maron is an Assistant Professor of Medicine at Harvard Medical School. His mentor, Dr. Hyung Chun, is Associate Professor of Medicine at Harvard Medical School.

We are pleased to announce the awardees.

The winners are:

Katharine Clapham, from Yale University for her proposal entitled: Novel Mechanisms of EndoMT in Pulmonary Arterial Hypertension.

Bradley Wertheim from Brigham and Women’s Hospital, Harvard Medical School for his proposal entitled: Mechanisms of Disease Inception in Pulmonary Arterial Hypertension.

Pulmonary arterial hypertension (PAH) is a devastating disease characterized by a progressive increase in arterial blood pressure in the lungs, endothelial cell (EC) dysfunction, and aberrant proliferation of pulmonary arterial smooth muscle cells (PASMC) contributing to a progressive obliteration of the precapillary vessels that leads to increased pulmonary arterial pressures and ultimately right heart failure and death.

Although our understanding of the signaling perturbations in the disease pathogenesis has advanced, the transduction of these findings has been limited, as reflected on the limited number of drug targets currently utilized in the clinical setting. A key signaling paradigm that has been demonstrated to be critical in both the clinical context and experimental models is that mediated by Bone Morpho-Espondin-4 (VEGFR3) and BMPRIA in the lungs. The VEGFR3-BMPRIA association as a key signalling mechanism of BMPRIA has been implicated in the development of PAH.

Dr. Wertheim is a Postdoctoral Fellow in the Department of Cardiology at the Brigham and Women’s Hospital Harvard Medical School. His mentor, Dr. Hyung Chun, is Associate Professor of Medicine and Pathology at Yale School of Medicine.

We are thrilled to have been able to award these grants and would like to congratulate all winners.

Stephanie Barwick
Chief Executive Officer, Canterbury, UK

Grants for BMPR2 Research Support

We are pleased to announce the awardees of the PVRI BMPR2 Research Grants supported by the Dinosaur Trust.

The winners are:

Katharine Clapham, from Yale University for her proposal entitled: Novel Mechanisms of EndoMT in Pulmonary Arterial Hypertension.

Bradley Wertheim from Brigham and Women’s Hospital, Harvard Medical School for his proposal entitled: Mechanisms of Disease Inception in Pulmonary Arterial Hypertension.

Pulmonary arterial hypertension is a rare disease with the hallmark of vascul remodeling of the pulmonary arterioles.

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Our Speakers, Chairs & Contributors continued...

Christophe Guignabert
- Université Paris-Sud / Université Paris-Saclay, France

Adrian Hobbs
- William Harvey Research Institute, UK

Harry Karimny-Quintana
- UCL Eastman Dental School, Eastman, UK

Paul Hienne
- Johns Hopkins School of Medicine, USA

Luke Howard
- Imperial College London, UK

Kim Kerr
- University of California, San Diego, USA

Sholla-Gaynor Haworth CBE
- University College, London, UK

Martin Johnson
- University of Glasgow, UK

Nick Khiu
- University of California, San Diego, USA

Anna Hemnes
- Vanderbilt University, USA

Geetha Kandavello
- Institute of Formulation, Malaysia

Moea Kamar
- Nanyang University, USA

Invandita Kuntjoro
- National University Heart Centre, Singapore

Bradley Moran
- Brightwaters Women’s Hospital, USA

Mei-Sing Ong
- Harvard Medical School; Harvard Pilgrim Care Institute, USA

Bradley Maron
- Brigham & Women’s Hospital, USA

Allan Lawrie
- University of Sheffield, UK

Hiromi Matsubara
- National Hospital Organisation, Japan

Andrea Low
- SingHealth General Hospital, Singapore

Nick Morrell
- University of Cambridge, UK

Andrea Rice
- Imperial College London, UK

Maya Kumar
- Stanford University, USA

Krishna Prasad
- MIBA, UK

Sylvia Nithiko
- Bayer, Germany

Stuart Rich
- Northwestern University, USA
Our Speakers, Chairs & Contributors continued...

Mark Richards
• National University of Singapore; University of Otago, New Zealand

Gérard Simonneau
• Hôpitaux Universitaires Paris-Sud, France

Ralph Schermuly
• Justus Liebig University Giessen, Germany

Edda Speckerhoerner
• Stanford School of Medicine, USA

Ju Le Tan
• National Heart Centre, Singapore

Eric Schmidt
• University of Colorado Denver School of Medicine, USA

Kurt Steinmark
• University of Colorado Denver School of Medicine, USA

Edgar Tay
• National University Heart Centre, Singapore

Werner Seeger
• Justus Liebig University Giessen, Germany

Collin Stewart
• Institute of Medical Biology, Singapore

Lisa Soo Tek
• National Heart Centre, Singapore

Mark Toshner
• University of Cambridge, UK

Magdi Yacoub
• Imperial College London, UK

Joseph Vettukattil
• Spectrum Health, Helen DeVos Children’s Hospital, USA

James Yip
• National Heart Centre, Singapore

Norbert Wiedemann
• Justus Liebig University Giessen, Germany

Beata Wojcik-Stothard
• Imperial College, London, UK

Youyang Zhao
• University of Illinois, USA

Beata Wojcik-Stothard
• Imperial College, London, UK

Paul Yu
• Brigham and Women’s Hospital, USA

Youyang Zhao
• University of Illinois, USA
We are proud to launch the first phase of our e-learning course on PVD - the PVRI Digital Clinic. This is the result of months of hard work and research into how best to deliver an e-learning tool and make it relevant to PH clinicians anywhere in the world.

The course is based on real patient cases from anonymised data and brings all the latest research together to make it relevant in the clinic environment.

The course is supplemented with relevant learning materials to encourage the user to expand their knowledge on PVD.

We feel this is the closest the market has to offer to shadowing a real PH clinician. We would like to express our gratitude to GSK for their support and sponsorship.

Global collaboration and research makes...

...everything possible.

Our Digital Clinic E-Learning Course
The official journal of the PVRI, *Pulmonary Circulation* is a leading forum for communication in the fields of pulmonary circulation and pulmonary vascular disease. With a focus on translational science, the journal connects researchers and physicians in all parts of the world. An Open Access journal, articles are freely available to read immediately on publication. The journal’s goal is to increase survival rates and develop new therapeutic approaches for pulmonary hypertension and other pulmonary vascular diseases.

The Editors welcome article submissions including clinical and basic research in humans and animals, randomised controlled trials, intervention studies, and outcome studies. Articles published in *Pulmonary Circulation* will make a major impact not only on future research but also on improvement of health outcomes in our field.

**Why publish in *Pulmonary Circulation***?
- Fast turnaround times.
- Articles posted online within 48 hours of acceptance and deposited in PubMed.
- 20-day target from submission to first decision.
- Immediate dissemination of articles to 6,000 PVRI members and affiliates, the global population of leading scientists and physicians studying the pulmonary circulation and pulmonary vascular disease.
- Article-level metrics for real-time updates on when your article has been read, cited or shared.
- Articles published Open Access allowing immediate access to all readers.
- Impact factor 2.178.

Call for Article Submissions

PVRI’s 5th Annual Drug Discovery & Development Symposium in Washington DC

**Date** 9-10 July / Washington 2018

**Hotel** / The Westin Georgetown - Washington DC

**Co-Chairs:**
- Stuart Rich
- John Newman

**Editors in Chief:**
- Jason X.-J. Yuan MD, Tucson, USA
- Nicholas W. Morrell MD, Cambridge, UK

**Deputy Editor:**
- Kurt R. Stenmark MD, Denver, USA
- Irene Lang MD, Vienna, Austria

**Hotel**
- The Westin Georgetown, Washington DC
Our Belief

Why do we exist?
We exist to facilitate collaboration between the world’s leading pulmonary vascular professionals to push the boundaries of what’s possible in medicine.

Our values
We value integrity and independence. Strengthening collaboration and friendships that exist within the organisation maintains this connection as we grow.

Our thinking
Our members actively inspire each other. Adhering to our values and celebrating our community will always be essential to our progress.

Our members
Our members range from actively participating post-doctoral students to the world’s leading scientists and clinicians. This holistic perspective is unique to us as an organisation and one we are most proud of.

What does collaboration mean to us?
Collaboration is the recognition of trust in each other’s knowledge, skills and commitment to our community.

Through global collaboration, we make today’s work tomorrow’s possibility.
Today’s work, tomorrow’s possibility...