12th PVRI Annual World Congress on Pulmonary Vascular Disease

Hotel // Mandarin Orchard Hotel · Singapore

Welcome to Singapore
Sunday 21 January 2018

PVRI Board of Directors Meeting
Chair: PVRI President Paul Corris UNIVERSITY OF NEWCASTLE, UK
10:00 - 17:00

PVRI Preclinical & Molecular Science
Chairs: Sebastien Bonnet Laval University, Canada; Duncan Stewart Ottawa Hospital, Canada & Soni Pullamsetti Institute for Heart & Lung Research, Germany
Methodological rigour in pre-clinical pulmonary studies
09:00 - 17:00

PVRI Imaging
Chairs: Andrew Peacock UNIVERSITY OF GLASGOW, UK & David Kiely UNIVERSITY OF SHEFFIELD, UK
Imaging and pulmonary hypertension
10:00 - 13:00
12th PVRI Annual World Congress
on Pulmonary Vascular Disease

Monday 22 January 2018

**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 MEDICAL RESEARCH, USA & Hong Gu BEIJING ANZHEN HOSPITAL, CAPITAL MEDICAL UNIVERSITY, CHINA

**Genes and pulmonary hypertension**
08:00 - 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 // Micheala Aldred DEPARTMENT OF MEDICINE, 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 MEDICAL RESEARCH, USA

5 poster presentations (1 minute each) 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 cocktail reception.

**BREAK**
10:00 - 10:30
Plenary 2
Chairs: Paul Yu Brigham and Women’s Hospital, USA & Stuart Cook Duke National University, Singapore & Stefano Ghio University of Pavia, Italy

The myocardium 10:30 - 12:30

PROFESSOR STUART RICH LECTURE: Genotype-phenotype studies in the heart // Stuart Cook Duke 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 Dezfulian University of Pittsburgh Medical Centre, USA

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LUNCH 12:30 - 13:30

Pulmonary Circulation editorial meeting 12:30 - 13:30

Plenary 3
Chair: Bradley Maron Brigham & Women’s Hospital, USA

"Towards a molecular classification of PH". The American Heart Association Partnership with PVRI 13:30 - 15:30

Comorbidity-driven taxonomy of paediatric pulmonary hypertension // Mei-Sing Ong Harvard Medical School; Harvard 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 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.
Organisers of the poster session: 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 19:00 - 21:00
Chair: Sheila Glennis Haworth University College London, UK

END OF DAY ONE SCIENTIFIC SESSIONS
Tuesday 23 January 2018

**Plenary 4**

**Chairs:** Kurt Stenmark UNIVERSITY OF COLORADO DENVER SCHOOL OF MEDICINE, USA,  
Edda Spiekerkoetter STANFORD SCHOOL OF MEDICINE, USA

**What’s hot BASIC**

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| The role of Hif2-a in pulmonary vascular remodelling and heart failure  
// YouYang Zhao UNIVERSITY OF ILLINOIS, USA |
| Using lineage tracing and deep tissue imaging to understand neointima 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 // Sebastien Bonnet LAVAL UNIVERSITY, CANADA |

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**BREAK**

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**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**

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<td>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)</td>
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**Case 1**

**Presenter:** Gérald Simonneau HÔPITAUX UNIVERSITAIRES PARIS-SUD, FRANCE

**Case 2**

**Presenter:** Reda Giris 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**

5 poster presentations (1 minute each) 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 later in the day.
PVRI Digital Clinic // Colin Church UNIVERSITY OF GLASGOW, UK & Martin Johnson UNIVERSITY OF GLASGOW, UK 12:00 - 12:30

LUNCH 12:30 - 13:30

Asia-Pacific meeting open to all delegates
A joint session with the Asia Pacific Cardiovascular Society
// James Yip NATIONAL UNIVERSITY HEART CENTRE, SINGAPORE 13:30 - 17:30

Difficult cases in pulmonary hypertension symposium // Sponsored by Bayer Singapore 13:00 - 17:00

Theme 1: Mix and match
Closure of congenital defects with PAH
// Joseph Vettukattil SPECTRUM HEALTH, 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 // Andrea Low SINGAPORE GENERAL HOSPITAL, SINGAPORE
PAH vs pulmonary venous hypertension
// James Yip NATIONAL UNIVERSITY HEART CENTRE
Discussant // Tan Ju Lee NATIONAL HEART CENTRE, SINGAPORE

BREAK 15:00 - 15:30

Theme 2: Difficult problems
Pregnancy and PAH
// Geetha Kandavello INSTITUT JANTUNG NEGARA, MALAYSIA
Discussant // Tan Ju Lee 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 GADJA MAOD, INDONESIA
Discussant // Lim Soo Teik NATIONAL HEART CENTRE, SINGAPORE

PVRI Pharma Task Force Working Group meeting 18:00 - 20:00
Initiative 1: Clinical Trial Designs, Endpoints & Biomarkers
Chairs: Peter Fernandes BELLERophon, USA, Sylvia Nikkho BAYER, GERMANY & Lawrence Zisman PULMOKINE, USA

PVRI Paediatric Task Force meeting 17:00 - 21:00
Chairs: Maria Jesus del Cerro RAMÓN Y CAJA UNIVERSITY HOSPITAL, SPAIN, Shahin Moledina GREAT ORMOND STREET HOSPITAL, UK, & Steven Abman UNIVERSITY OF COLORADO DENVER SCHOOL OF MEDICINE, USA

END OF DAY TWO SCIENTIFIC SESSIONS
**Wednesday 24 January 2018**

**Plenary 6**
**Chairs:** Ardeschir Ghofrani, University of Giessen, Germany, Nick Kim, University of California, San Diego, USA & Gérald Simonneau, Hôpitaux Universitaires Paris-Sud, France

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<td><strong>Chronic thromboembolic pulmonary hypertension (CTEPH)</strong></td>
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<tr>
<td>10:00 - 10:30</td>
<td><strong>Break</strong></td>
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<tr>
<td>10:30 - 11:30</td>
<td><strong>Personalised medicine</strong></td>
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<td>11:45 - 13:45</td>
<td><strong>Lunchtime posters session</strong></td>
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<td>12:30 - 13:30</td>
<td><strong>PVRI Pharma Task Force ’Meet &amp; Greet Open-house’</strong></td>
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<td>12:45 - 14:00</td>
<td><strong>LUNCH</strong></td>
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**Chronic thromboembolic pulmonary hypertension (CTEPH)**

- **Diagnosis:** What are the advantages and limitations of each imaging modality?
  // Kim Kerr, University of California, San Diego, USA
- **PEA:** Who are poor candidates for pulmonary endarterectomy?
  // Andrea D'Armin, University of Pavia, Italy
- **Medical Therapy:** Time for combination therapy or multi-modality approach?
  // Marion Delcroix, UZ Leuven, Belgium
- **BPA:** What are the complications and how are they avoided/managed?
  // Hiromi Matsumara, National Hospital Organisation, Japan

1 poster presentation (1 minute) will follow the talks. The presenter will introduce their novel work from 1 slide. There will be no questions at this time, but interested parties can discuss the poster with the presenter later in the day.

**Plenary 7**
**Chair:** Stuart Rich, Northwestern University, USA
**Panel:** Paul Corris, University of Newcastle, UK, Peter Fernandes, Bellerophon Therapeutics, USA, Declan Doogan, Biohaven Pharmaceuticals, USA, & patient representative

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**PVRI Pharma Task Force ’Meet & Greet Open-house’**

**LUNCH**
Plenary 8
Chairs: Martin Wilkins IMPERIAL COLLEGE LONDON, UK, Anna Hennes VANDERBILT UNIVERSITY, USA & Mark Richards NATIONAL UNIVERSITY OF SINGAPORE, UNIVERSITY OF OTAGO, NEW ZEALAND

Biomarkers and clinical trial endpoints 14:00 - 15:30
Experience with high throughput proteomics to identify biomarkers in inform clinical trial design // Sarah Grant NOVARTIS, USA
Challenges using the metabolome to inform pulmonary hypertension // Chris Rhodes IMPERIAL COLLEGE LONDON, UK
Defining drug targets using Mendelian randomisation // Dan Swerdlow GENOMICS PLC, UK
What you need to do to qualify a biomarker as useful to inform clinical trial // Krishna Prasad MHRA, UK

BREAK 15:30 - 16:00

Plenary 9
Chairs: Luke Howard IMPERIAL COLLEGE LONDON, UK & Harry Karmouty-Quintana UTHEALTH-MCGOVERN MEDICAL SCHOOL, HOUSTON, USA

Talks from 1 slide 16:00 - 17:00
Speakers present a new concept or address a big idea from 1 slide presentation (5 minutes) followed by a 10 minute discussion.
ACTRIIA-Fc rebalances BMP and Activin/TGF-B signalling to attenuate experimental pulmonary hypertension // Paul Yu BRIGHAM AND WOMEN’S HOSPITAL, USA

END OF DAY THREE SCIENTIFIC SESSIONS

PVRI GALA DINNER (all welcome, including partners & guests) 20:00 onwards
Buy your ticket at the reception desk
Thursday 25 January 2018

Plenary 10
Chairs: Magdi Yacoub IMPERIAL COLLEGE LONDON, UK, Sheila Glennis Haworth UNIVERSITY COLLEGE LONDON, UK & Qadar Pasha INSTITUTE OF GENOMICS AND INTERGRATIVE BIOLOGY, INDIA

Asia-Pacific issues 08:00 - 09:30

PROFESSOR GHAZWAN BUTROUS PLENARY LECTURE:
Pulmonary hypertension as a global problem in 2018
// David Wood PRESIDENT OF THE WORLD HEART FOUNDATION, IMPERIAL COLLEGE LONDON, UK

Global responses to prevent and control cardiovascular disease
// To be confirmed

What to expect from the World Pulmonary Hypertension meeting in Nice 2018
// Gérard Simonneau HÔPITAUX UNIVERSITAIRES PARIS-SUD, FRANCE

BREAK 09:30 - 10:00

Plenary 11
Chairs: Paul Hassoun JOHNS HOPKINS SCHOOL OF MEDICINE, USA & Christophe Guignabert UNIVERSITE PARIS-SUD / UNIVERSITE PARIS-SACLAY, FRANCE

Immunity and inflammation 10:00 - 12:00

Pathology of PAH // Brian Graham UNIVERSITY OF COLORADO DENVER SCHOOL OF MEDICINE, USA

Inflammation in preclinical models and humans
// Christophe Guignabert UNIVERSITE PARIS-SUD / UNIVERSITE PARIS-SACLAY, FRANCE

Trial of Tocilizumab for PAH - The clinical trial network // Mark Toshner UNIVERSITY OF CAMBRIDGE, UK

END OF MEETING

Afternoon travel