

# **Pulmonary Circulation Assembly**

**Where we stand**

March 2009

## PC Assembly Goals

- Improve collaboration between clinical investigators and basic scientists
- Further enhance our conferences:
  - ATS International Conference
  - Grover Conference (biennial)
  - Joint ERS/(ATS) Conference (biennial)

# Membership and Focus

- 603 primary members (up 68)
- 2286 primary and secondary members (up 181)
- Areas of Interest:
  - Pulmonary hypertension
  - Pulmonary thromboembolism
  - Pulmonary edema
  - Pulmonary vascular physiology
  - Cellular biology of the pulmonary vascular wall
  - Genetics of pulmonary vascular disease

# PC Assembly Leadership

- Assembly Chair: Jahar Bhattacharya
- Incoming Assembly Chair: Mark N. Gillespie
- Planning Comm Chair: Troy Stevens
- Program Comm Chair: Paul M. Hassoun
- Nominating Comm. Chair: J. T. Sylvester
- Webmaster: outgoing - Kaushik Parthasarathi  
incoming – Diego Alvarez
- Grover Conference Chair(s): under consideration

# The Grover Conference

- A scientific meeting held every 2 years at the Lost Valley Ranch in Deckers, Colorado
- Focused on some aspect of the pulmonary circulation
- Typically jointly sponsored by ATS, AHA, NIH, and industry
- Currently in the process of determining the topic for the 2010 conference

# Grover Conference 2008

**Chairs: Jeremy P. T. Ward & Jason  
X-J Yuan**

- 4-day conference on the role of membrane receptors, ion channels, and transporters and their role(s) in the development of pulmonary vascular disease.
- The goal was to focus discussion on how this knowledge may lead to novel interventions in lung dysplasia, pulmonary edema, lung injury (ARDS), and pulmonary and systemic hypertension.

# Grover Conference 2008

## Learning Objectives

1. cell biology, expression and signal transduction mechanisms of key receptors, channels and transporters
2. regulation of pulmonary vascular function through modulation of channel function and expression
3. interrelationships between receptors, channels and transporters in pulmonary vascular disease
4. Specific receptors, signaling pathways as therapeutic targets

# Grover Conference 2008

## Five sessions:

1. Ion Channels in the Pulmonary Vasculature
2. Pathogenic Role of Ion Channels in Pulmonary Vascular Disease
3. Receptors and Transporters: Role in Pulmonary Arterial Hypertension, Cell Growth, HPV and Apoptosis
4. Structure, Function, and Modulation of Membrane Channels, Transporters, and receptors in the Pulmonary Vasculature
5. Targeting Ion Channels and Membrane Receptors in Developing Novel Therapeutic Approaches for Pulmonary Vascular Disease

# Grover Conference 2008

- Lectures:

John T. Reeves memorial lecture – Nicholas Morrell

Terry Wagner memorial lecture – Ivan McMurtry

Estelle Grover memorial lecture – Margaret MacLean

- 2008 Young Investigator award:

Navdeep S. Chandel

Larrissa A. Shimoda

# PC Assembly Projects

Three projects were approved by the ATS international conference program review committee

- Todd Bull - Assessment of thromboembolic disease during pregnancy
- Troy Stevens - Angiogenesis in the post-natal pulmonary circulation: Fact or fiction?
- Elizabeth Klings - Diagnosis and treatment of pulmonary hypertension of sickle cell disease

## PC Journal Club

- Run by PC Web Director, Kaushik Parthasarathi and Leadership Committee member, Konstantin Birukov
- Six JCs were organized:
  - The role of stem cells in lung injury (Diego Alvarez)
  - Rho-kinase inhibitors in neonatal pulmonary hypertension (Eva Grayck)
  - COX-2 in pulmonary hypertension (Sina Gharib)
  - MAPKs in ventilator-induced lung injury (Holger Mueller and Bernd Schmeck)
  - Pluripotent stem cells in lung (Diego Alvarez)
  - Diagnosis of Pulmonary embolism (Victor Tapson)

## PC Journal Club

Monthly discussion topics areas are:

Pulmonary Hypertension/Vascular Remodeling  
(R. Zamanian, Stanford)

Endothelial Permeability/Pulmonary Edema (S. Dudek, University of Chicago)

Leukocyte Adhesion/Migration (W. Altemeier, University of Washington)

Thromboembolic Disease (V. F. Tapson, Duke)

Hypoxic Vasoconstriction (S. Gharib, University of Washington)

Pulmonary Circulation: Development/Pediatric Disease (E. Nozik Grayck, UCHSC, Denver)

# PC Assembly Abstract Topics

- pulmonary vascular diseases in hemoglobinopathies (e.g., sickle cell disease),
- potential novel therapies targeting signaling pathways in pulmonary vascular remodeling
- right ventricular response to exercise in pulmonary hypertension.
- pulmonary vascular disease and function
- cell fate and apoptosis
- endothelial permeability
- molecular mechanisms
- translational approaches
- genetics

# PC Assembly Program at ATS 2009

The PC Assembly is sponsoring

- two Postgraduate courses
- two evening Postgraduate seminars
- three sunrise seminars
- two Meet the Professor seminars
- twenty-six scientific sessions (including three scientific symposia, five mini-symposia, six poster discussions, and twelve thematic poster sessions)

## **Special thanks to**

the leadership committee for innovative and critical input during the monthly conference calls

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