Welcome to the 6th Annual Retreat

of the

International Graduate Program "Molecular Biology and Medicine of the Lung" (MBML)



Rauischholzhausen, July 28-30, 2008

MONDAY, 28.07.2008

Up to 10:00

Arrival at the Castle of Rauischholzhausen, Registration

10:00 - 11:00

Welcome and Introduction: Oliver Eickelberg, Rory Morty
Opening Lecture: MBML Retreat 2008

SADIS MATALON (University of Alabama, Birmingham, USA) "Nitric oxide regulation of CFTR structure and function"

11:00 - 12:00 Student Presentations:

PULMONARY VASCULAR DISEASE

12:00 -13:30

Lunch

13:30 - 15:00

Invited Speakers

LELAND DOBBS (University of California San Francisco, USA) "The great big alveolar type I cell: the elephant in the room"

TERRY TETLEY (Imperial College, London, UK) "Comparative role of the alveolar epithelium in pulmonary inflammation"

<u>15:00 - 15:30</u>

Coffee Break

<u>15:30 - 17:00</u>

Student Presentations

LUNG INJURY AND INFLAMMATION

<u>17:15 - 18:15</u>

PARTNER LABORATORY PRESENTATIONS I

<u>18:30 - 20:30</u>

Buffet Dinner

After 20:30

Drinks, Chat

TUESDAY, 29.07.2008

<u>07:30 - 09:00</u>

Breakfast

<u>09:00 - 10:00</u>

Student Presentations

THE LUNG EPITHELIUM

10:00 - 10:30

Coffee Break

10:30 - 12:00

Invited Speakers

NAFTALI KAMINSKI (University of Pittsburgh Medical Center, Pittsburgh, USA) "Are microRNAs involved in lung fibrosis?"

IAN ADCOCK (Imperial College, London, UK) "Epigenetics and gene regulation in the lung"

12:00 - 13:30

Lunch

13:30 - 14:45

Student Presentations

VASCULAR AND INTERSTITIAL REMODELLING

14:45 - 15:00

Coffee Break

<u>15:00 - 17:00</u>

Photo-shoot

Meet-the-Professor-Sessions (MBML students, see announcements)

17:00 - 18:30: Evening Lectures
BEST OF MBML

18:30 - 19:00: MBML Awards and Certificates

19:00 - till you drop!

Buffet Dinner and Social Program

WEDNESDAY, 30.07.2008

<u>07:30 - 09:00</u>

Breakfast

<u>09:00 - 10:30</u>

Invited Speakers

BRUCE PITT (University of Pittsburgh, Pittsburgh, USA) "Nitric oxide and zinc homeostasis in pulmonary endothelium"

CHRISTIAN TAUBE (University of Mainz, Mainz, Germany) "Regulation of inflammation in allergic airway disease"

<u>10:30 - 11:00</u>

Coffee Break

<u>11:00 - 12:00</u>

PARTNER LABORATORY PRESENTATIONS II

<u>12:00 - 12:15</u>

Formal closing of the Retreat

Oliver Eickelberg and Rory Morty

12:30 - 14:00

Lunch

14:30

Bus Departure from Rauischholzhausen to Giessen Meeting Point: Parking Lot of the Castle 14:15

A) PULMONARY VASCULAR DISEASE

Monday, July 28, at 11:00h

Chairs: Mike Althaus, Mona Saffarzadeh

11:00 - 11:15: Teodora Cornitescu (PI: Ralph T. Schermuly)

"Tyrosine kinase as target for treatment of experimental pulmonary hypertension"

11:15 - 11:30: Oleg Pak (PI: Norbert Weissmann)

"Hypoxia regulated subcellular ROS production"

11:30 - 11:45: Djuro Kosanovic (PI: Ralph T. Schermuly)

"The Rho-kinase signalling and experimental models of pulmonary arterial hypertension"

11:45 - 12:00: Kirsten Szelepusa (PI: Robert Voswinkel)

"Circulating fibrocytes in pathogenesis and therapy of pulmonary hypertension – role of kinase receptors"

B) LUNG INJURY AND INFLAMMATION

Monday, July 28, at 15:30h

Chairs: Michael Seimetz, Yasmin Buchäckert

15:30 - 15:45: Benjamin Löh (PI: Andreas Günther)

"Aerosolized recombinant human lysozyme in mouse-models of pneumonia"

<u>15:45 - 16:00:</u> Zbigniew Zasłona (PI: Jürgen Lohmeyer)

"Defining the role of proteinases in the biology of lung dendritic cells"

16:00 - 16:15: Mona Saffarzadeh (PI: Mirko Steinmüller and Klaus T. Preissner)

"The role of neutrophil extracellular trap (NET) in lung injury"

16:15 - 16:30: Paweł Turowski (PI: Rory E. Morty)

"Molecular mechanisms of ventilator-induced multi-organ failure"

<u>16:30 - 16:45:</u> Zbigniew Mikulski (PI: Wolfgang Kummer)

"Serotonin-induced intracellular calcium mobilization in mouse alveolar macrophages"

<u>16:45 - 17:00:</u> Katrin Högner (PI: Susanne Herold and Stephan Pleschka)

"Inflammatory signaling pathways as targets for the inhibition of viral replication and lung damage during influenza virus pneumonia"

C) PARTNER LABORATORY PRESENTATIONS I

Monday, July 28, at 17:15h

Chairs: Zbigniew Zasłona, Kirsten Szelepusa

17:15 - 17:30: Ferdinando Giacco (PI: Michael Brownlee)

"The Hyperglycemic Memory"

Albert Einstein College of Medicine, New York

<u>17:30 - 17:45:</u> Shaneeza Salim (PI: Robert Foronjy)

"Redox regulation of cigarette-smoke induced lung inflammation" Columbia University, New York

17:45 - 18:00: Iris Toedt-Pingel (PI: Alfin Vicencio)

"Molecular and genetic mechanisms of fungal induced lung disease"

Albert Einstein College of Medicine, New York

18:00 - 18:15: Polina Golovatch (PI: Jeanine d'Armiento)

"Role for Cathepsin K in emphysema in smoke-exposed guinea pigs" Columbia University, New York

D) THE LUNG EPITHELIUM

Tuesday, July 29, at 09:00h

Chairs: Benjamin Löh, Ewa Jablonska

09:00 - 09:15: Mike Althaus (PI: Rory E. Morty)

"Carbon monoxide modulates the activity of lung amiloride-sensitive epithelial sodium channels"

09:15 - 09:30: Yasmin Buchäckert (PI: István Vadász)

"Effects of alveolar recruitment maneuvers on epithelial barrier integrity in rabbit lungs"

09:30 - 09:45: Martin Hühn (PI: Andreas Günther)

"Differential gene regulation in the murine alveolar epithelium *in vitro* and *in vivo* by overexpression of the ER-stress sensor molecules ATF4, ATF6α (N-terminal Domain) and XBP1 (spliced)"

09:45 - 10:00: Diya Hasan (PI: Jörg Hänze)

"Hypoxia inducible factor dependent regulation of glycolysis and its effect on proliferation and tumor progression"

E) VASCULAR AND INTERSTITIAL REMODELING

Tuesday, July 29, at 13:30h

Chairs: Teodora Cornitescu, Paweł Turowski

13:30 - 13:45: Sven Becker (PI: Robert Voswinkel)

"Differentiation and integration of murine ES cell derived EC and SMC into pulmonary vascular tissues in experimental models of PH"

13:45 - 14:00: Wiebke Bielenberg (PI: Daniel Sedding)

"miRNA-dependent regulation of smooth muscle cell function"

14:00 - 14:15: Ewa Jablonska (PI: Klaus T. Preissner and Malgorzata Wygrecka)

"Role of Factor XII in the pathogenesis of lung fibrosis"

14:15 - 14:30: Michael Seimetz (PI: Norbert Weissmann)

"NADPH oxidases in COPD – Do they play a key role?"

14:30 - 14:45: Jinzi Li (PI: Oliver Eickelberg)

"The transcription factor Snail in epithelial to mesenchymal transition of lung cells"

F) PARTNER LABORATORY PRESENTATIONS II

Wednesday, July 30, at 11:00h

Chairs: Wiebke Bielenberg, Đjuro Kosanovic

11:00 - 11:15: Rainer Kiefmann (PI: Jahar Bhattacharya)

"Red blood cells induce hypoxic lung inflammation"

Columbia University, New York

11:15 - 11:30: Yvonne Dempsie (PI: Mandy McLean)

"The effects of gender on the development of pulmonary arterial hypertension in mice overexpressing the serotonin transporter"

University of Glasgow, UK

11:30 - 11:45: Julia Hoffmann (PI: Wolfgang Kübler)

"Mast cells contribute to pulmonary hypertension and lung vascular remodeling in left heart disease"

Charité - Universitätsmedizin Berlin, Germany

11:45 - 12:00: Laurence Dewachter (PI: Robert Naeije and Saadia Eddahibi)

"Bone morphogenetic protein signaling in familial versus idiopathic pulmonary hypertension" Erasme University Hospital, Brussels and Université Paris, France

SPEAKER INTRODUCTION SCHEDULE

28.07.2008	10:15; S. Matalon	(Katrin Högner)
28.07.2008	13:30; L. Dobbs	(Zbigniew Zasłona)
28.07.2008	14:15; T. Tetley	(Mike Althaus)
29.07.2008	10:30; N. Kaminski	(Oleg Pak)
29.07.2008	11:15; I. Adcock	(Zbigniew Mikulski)
30.07.2008	09:00; B. Pitt	(Benjamin Löh)
30.07.2008	09:45: C. Taube	(Kirsten Szelepusa)

ENJOY IT!

Invited speakers:

Ian M Adcock, PhD

Professor of Respiratory Cell and Molecular Biology National Heart and Lung Institute Imperial College London

London, UK

Email: ian.adcock@imperial.ac.uk

Leland Dobbs, MD

Professor of Medicine and Pediatrics, Adj. University of California San Francisco Box 1245 San Francisco, CA, USA

Email: Leland.Dobbs@ucsf.edu

Naftali Kaminski, MD

Associate Professor of Medicine, Pathology and Human Genetics Director, Dorothy P. & Richard P. Simmons Center for Interstitial Lung Disease Director, Lung Translational Genomics Center Department of Pulmonary, Allergy and Critical Care Medicine University of Pittsburgh Medical Center Pittsburgh, PA 15261

Email: kaminskin@upmc.edu

Sadis Matalon, PhD

Sadis Matalon, PhD Alice McNeal Professor of Anesthesiology The University of Alabama at Birmingham 1530 Third Avenue South Birmingham, AL, USA Email: sadis@uab.edu

Bruce R. Pitt, PhD

Professor and Chairman Department of Environmental Occupational Health University of Pittsburgh Graduate School Public Health Pittsburgh, PA, USA Email: brucep@pitt.edu

Christian Taube, MD

Assistant Professor of Medicine Department of Hematology, Oncology and Pneumology University Hospital Mainz Mainz, Germany

Email: taube@3-med.klinik.uni-mainz.de

Terry Tetley, PhD CBiol FIBiol

Professor of Lung Cell Biology Section of Airways Disease National Heart & Lung Institute Imperial College London London, UK

Email: t.tetley@imperial.ac.uk