

**Welcome to the 15<sup>th</sup> Annual Retreat**  
of the  
**International Graduate Programme**  
**Molecular Biology and Medicine of the Lung**



**Rauischholzhausen, Germany**  
**July 12-14, 2017**



**WEDNESDAY, 12.07.2017**

**Up to 09:30**

Arrival at Rauschholzhausen Castle, Registration

**09:30 - 09:45**

Welcome and Introduction: Rory E. Morty and Werner Seeger

**09:45 - 10:30**

*The Opening Lecture*

**XIN SUN** (University of California at San Diego, San Diego, U.S.A.)  
“Driving alveologenesis: crest or net”

**10:30 - 11:45**

**Student Presentations – Block A**

**LUNG DEVELOPMENT AND BRONCHOPULMONARY DYSPLASIA**

**11:45 - 13:30**

**Lunch** (Room check-in is now possible)

**13:30 - 14:45**

**Student Presentations – Block B**

**HYPOXIA AND CARDIAC CONSEQUENCES OF PULMONARY VASCULAR DISEASE**

**14:45 - 16:30**

Poster session, with coffee and snacks

**16:30 - 16:45**

Group photograph

**16:45 - 17:30**

**ANNA R. HEMNES** (Vanderbilt University, Nashville, U.S.A.)  
“Using Omics to understand and treat pulmonary hypertension”

**17:30 - 18:30**

**Student Presentations – Block C**

**PULMONARY VASCULAR DISEASE**

**18:30 - 18:45**

“Breather”

**18:45 - 19:45**

*The Ethics in Science and Medicine Lecture*

**MONSIGNOR TOMASZ TRAFNY**

Director of the Science and Faith Department

Pontifical Council for Culture, Vatican City

“Anthropological and cultural implications of cellular research”

**20:00 - end**

Dinner and open bar

**THURSDAY, 13.07.2017**

**07:30 - 08:45**

Breakfast

**08:45 - 09:30**

**JAY KOLLS** (Tulane University, New Orleans, U.S.A.)  
“T-cell control of mucosal immunity in the lung”

**09:30 - 10:30**

**Student Presentations - Block D**  
**INFLAMMATORY EVENTS IN LUNG DISEASE**

**10:30 - 11:00**

Coffee and snacks

**11:00 - 11:45**

*The President's Lecture*  
**GUY JOOS** (University of Ghent, Belgium)  
President of the *European Respiratory Society*  
“Targeting the inflammatory cascade in severe asthma”

**11:45 - 13:00**

**Student Presentations – Block E**  
**AIRWAY ASPECTS OF LUNG DISEASE**

**13:00 - 14:30**

Lunch

**14:30 - 15:15**

*The Global Health Lecture*  
**DANIEL B. JERNIGAN**, Captain, US Public Health Service  
Director of the Influenza Division, National Center for Immunization and Respiratory Diseases  
Centers for Disease Control and Prevention, Atlanta, U.S.A.  
“Emerging influenza viruses: people, poultry, pigs, and pandemics”

**15:15 - 16:15**

**Student Presentations – Block F**  
**INFLUENZA AND ACUTE LUNG INJURY**

**16:15 - 18:00**

“Meet-the-Professor” sessions, with coffee and snacks

**18:00 - 19:00**

*The Nobel Lecture*  
**MARIO R. CAPECCHI** (University of Utah, Salt Lake City, U.S.A.)  
Recipient of the *Nobel Prize in Physiology and Medicine* in 2007  
“A causal role for defective microglia in OCD-spectrum disorders”

**19:15 – end**

Dinner and Drinks

**FRIDAY, 14.07.2017**

**07:30 - 09:00**

Breakfast

**09:00 - 09:45**

*The Editor's Lecture*

**FIONA GODLEE**

Editor-in-Chief: *The British Medical Journal*

“Why you shouldn't believe what you read in medical journals”

**09:45 - 11:00**

**Student Presentations – Block G**

**CHROMATIN REMODELLING AND EPIGENETICS**

**11:00 - 11:30**

Coffee and snacks

(Please check-out of rooms during this coffee break)

**11:30 - 12:15**

**JESÚS PÉREZ GIL** (Universidad Complutense Madrid, Madrid, Spain)

“Refocusing the pulmonary surfactant paradigm: a multichannel organism/environment interface defining respiratory physiology, pathology, and therapies”

**12:15 - 13:30**

**Student Presentations – Block H**

**PULMONARY FIBROSIS**

**13:30 - 13:45**

Presentation of MBML coursework certificates

Formal closing of the Retreat: Rory E. Morty and Werner Seeger

**13:45 - 15:00 (open-ended)**

**Lunch**

**15:30**

Bus Departure from Rauschholzhausen to Giessen

Meeting Point: Parking Lot of the Castle 15:25

## A) LUNG DEVELOPMENT AND BRONCHOPULMONARY DYSPLASIA

Wednesday, July 12<sup>th</sup>, at 10:30

Chairs: Miša Gunjak and Vahid Kheirollahi

10:30 - 10:45: [David E. Surate Solaligue](#) (PI: Rory E. Morty)

“A role for the miR-29 family in normal and aberrant lung alveolarization?”

10:45 - 11:00: [Agnieszka Pożarska](#) (PI: Rory E. Morty)

“The accessory type III transforming growth factor- $\beta$  receptor in post-natal lung alveolarisation”

11:00 - 11:15: [Preston Anderson](#) (PI: John F. Engelhardt, University of Iowa, U.S.A.)\*

“Myoepithelial cells are multipotent facultative stem cells for the airway”

11:15 - 11:30: [Francesco Palumbo](#) (PI: Rory E. Morty)

“The role of forkhead box O transcription factors in normal and aberrant late lung development”

11:30 - 11:45: [José Alberto Rodríguez Castillo](#) (PI: Katrin Ahlbrecht)

“Characterization of transcription factor 21-positive cells during neo-alveolarization”

\*Visiting external student/fellow.

## B) HYPOXIA AND CARDIAC CONSEQUENCES OF PULMONARY VASCULAR DISEASE

Wednesday, July 12<sup>th</sup>, at 13:30

Chairs: Marija Gredić and Stefan Hadžić

13:30 - 13:45: [Mario Böhm](#) (PI: Edda Spiekerkoetter, Stanford University, U.S.A.)\*

“Reduced BMP signalling facilitates right ventricular heart failure in pulmonary arterial hypertension”

13:45 - 14:00: [Argen Mamazhakypov](#) (PI: Ardeschir Ghofrani)

“The role of osteopontin in pressure overload-induced right ventricular remodelling”

14:00 - 14:15: [Alireza Saraji](#) (PI: Norbert Weißmann)

“The role of mitophagy in pulmonary hypertension”

14:15 - 14:30: [Nicole Krause](#) (PI: Norbert Weißmann)

“Role of cytochrome P450-derived eicosanoids in sustained hypoxic pulmonary vasoconstriction”

14:30 - 14:45: [Nasim Alebrahimdehkordi](#) (PI: Norbert Weißmann)

“Essential factors involved in the mitochondrial oxygen sensing mechanism”

\*Visiting external student/fellow.

### C) PULMONARY VASCULAR DISEASE

Wednesday, July 12<sup>th</sup>, at 17:30

Chairs: Nabham Rai and Nicole Krause

17:30 - 17:45: [Stefan Hadžić](#) (PI: Norbert Weißmann)

“The role of FGF10 signalling in the pathogenesis of COPD and PH”

17:45 - 18:00: [İpek Vartürk](#) (PI: Norbert Weißmann)

“SPARC regulates pulmonary arterial smooth muscle cell function in pulmonary hypertension”

18:00 - 18:15: [Chanil Valasarajan](#) (PI: Soni Pullamsetti)

“Inhibition of ADORA1 and PDE10A as a combination therapy for pulmonary arterial hypertension”

18:15 - 18:30: [Yerabolu Naga Dinesh Reddy](#) (PI: Ralph T. Schermuly)

“Receptor tyrosine kinase signalling driving “pseudomalignant” lung vascular remodelling – therapeutic exploitation”

### D) INFLAMMATORY EVENTS IN LUNG DISEASE

Thursday, July 13<sup>th</sup>, at 09:30

Chairs: Christina Malainou and Tobias Mawassii

09:30 - 09:45: [David Brunn](#) (PI: Rajkumar Savai)

“The role of interferon regulatory factor 9 in lung cancer progression and metastasis”

09:45 - 10:00: [Anca Amati](#) (PI: Veronika Grau)

“Chemokines (CCL3, CLL4, CLL5) inhibit ATP-induced release of IL-1 $\beta$  by monocytic cells”

10:00 - 10:15: [Berenice Rath](#) (PI: Danny Jonigk, *DZL BREATH Campus*)

“Inflammation and fibrogenesis in early lesions of chronic lung allograft dysfunction”

10:15 - 10:30: [Ettore Lignelli](#) (PI: Rory E. Morty)

“Role of interleukin-10 in normal and aberrant late lung development”

## E) AIRWAY ASPECTS OF LUNG DISEASE

Thursday, July 13<sup>th</sup>, at 11:45

Chairs: Alisa Agné and Vitalii Kryvenko

11:45 - 12:00: [Meghan E. Rebuli](#) (PI: Ilona Jaspers, University of North Carolina, U.S.A.)\*  
“Innate immune host defence response to tobacco products in the nasal mucosa”

12:00 - 12:15: [Draginja Kovačević](#) (PI: Susanne Krauss-Etschmann, DZL ARCN Campus)  
“The influence of cigarette smoke on the lung microbiota and its interaction with the bronchial epithelium”

12:15 - 12:30: [Rebecca Bodenstein-Sgró](#) (PI: of Michael Wegmann, DZL ARCN Campus)  
“Influenza virus-induced asthma exacerbation – establishment of a mouse model”

12:30 - 12:45: [Alexander Perniß](#) (PI: Wolfgang Kummer)  
“Pathogen recognition by taste receptors and coupling to mucocilliary clearance”

12:45 - 13:00: [Claudia Fernanda García Castro](#) (PI: Norbert Weißmann)  
“The role of mitochondria in biological ageing of the lung and in COPD”

\*Recipient of the **Best Paper MBML Travel Scholarship** of the *American Physiological Society*.

## F) INFLUENZA AND ACUTE LUNG INJURY

Thursday, July 13<sup>th</sup>, at 15:15

Chairs: Andrés Alberro and Margarida Barroso

15:15 - 15:30: [Vitalii Kryvenko](#) (PI: István Vadász)  
“Elevated CO<sub>2</sub> levels impair translation by activating the integrated stress response”

15:30 - 15:45: [James Lambert](#) (PI: Sadis Matalon, University of Alabama at Birmingham, U.S.A.)\*  
“Mechanisms and treatment of halogen inhalation-induced pulmonary and systemic injuries in pregnant mice”

15:45 - 16:00: [Karthik Suresh](#) (PI: Larissa Shimoda, John’s Hopkins University, Baltimore, U.S.A.)\*\*  
“ROS-induced Ca<sup>2+</sup> influx and microvascular endothelial dysfunction in acute lung injury”

16:00 - 16:15: [Christina Malainou](#) (PI: Susanne Herold/Jürgen Lohmeyer)  
“Fate and reprogramming of alveolar macrophages in influenza virus pneumonia: impact on host defence, tissue injury, and regeneration”

\*Visiting external student/fellow.

\*\*Recipient of the **Best Paper MBML Travel Scholarship** of the *American Physiological Society*.

## G) CHROMATIN REMODELLING AND EPIGENETICS

Friday, July 14<sup>th</sup>, at 09:45

Chairs: Agnieszka Pożarska and Chanil Valasarajan

09:45 - 10:00: [Katrin Bedenbender](#) (PI: Bernd Schmeck)

“RNase1 regulation in endothelial cells via chromatin modifications”

10:00 - 10:15: [Stephan Ringshandl](#) (PI: Bernd Schmeck)

“High-throughput screening of human microRNAs influencing *Legionella pneumophila* infection”

10:15 - 10:30: [Stephanie Dobersch](#) (PI: Guillermo Barreto)

“HMGA2 substitutes H2B and mediates H2AX deposition in the first nucleosome downstream of transcriptional start-sites”

10:30 - 10:45: [Harshavardhan Janga](#) (PI: Bernd Schmeck)

“Dual guide RNA-mediated deletion of H3K4me3 sites confers silencing of lincRNA and microRNA genes

10:45 - 11:00: [Marina Aznaourova](#) (PI: Bernd Schmeck)

“Identification and characterisation of novel long non-coding RNAs in immune-challenged and *Legionella pneumophila*-infected human macrophages”

## H) PULMONARY FIBROSIS

Friday, June 14<sup>th</sup>, at 12:15

Chairs: David Brunn and Dinesh Reddy Yerabolu

12:15 - 12:30: [Flavia R. Greiffo](#) (PI: Oliver Eickelberg; DZL CPC Campus)

“Circulating non-classical monocytes show impaired function in interstitial lung diseases”

12:30 - 12:45: [Jennifer Schnieder](#) (PI: Małgorzata Wygrecka)

“LRP1 suppressed differentiation of the contractile myofibroblast phenotype in idiopathic pulmonary fibrosis”

12:45 - 13:00: [Sagar Kasireddy Vidya](#) (PI: Andreas Günther)

“Dissecting the involvement of the autophagy marker protein MAP1LC3B in the development of lung fibrosis”

13:00 - 13:15: [Vahid Kheirollahi](#) (PI: Saverio Bellusci)

“The anti-diabetic drug metformin imposes anti-fibrotic effects by controlling fibroblast plasticity”

13:15 - 13:30: [Eistine Boateng](#) (PI: Eveline Baumgart-Vogt)

“Role of peroxisomes in pulmonary fibrosis”



## Speaker Introductions and Speaker Session Chairs

**XIN SUN** by José Alberto Rodríguez Castillo

**ANNA R. HEMNES** by Chanil Valasarajan

**MONSIGNOR TOMASZ TRAFFNY** by Marija Gredić

**JAY KOLLS** by Margarida Barroso

**GUY JOOS** by Christina Malainou

**DANIEL R JERNIGAN** by Katrin Bedenbender

**MARIO R. CAPECCHI** by Cheng-Yu Wu

**FIONA GODLEE** by David Surate Solaligue

**JESÚS PÉREZ GIL** by Vitalii Kryvenko

## Poster Presentations

Poster board number	Presenter (Wednesday, 12 <sup>th</sup> July, 2017: 14.45-16:30)
1	<b>Alisa Agné</b> (PI: Veronika Grau)
2	<b>Andrés Alberro</b> (PI: István Vadász)
3	<b>Jennifer Grodtke</b> (PI: Andreas Günther)
4	<b>Margarida Barroso</b> (PI: Susanne Herold and Jürgen Lohmeyer)
5	<b>Nadja Batora</b> (PI: Hans-Ulrich Kauczor, <i>DZL TLRC Campus</i> )
6	<b>Maroua Ghouli</b> (PI: Christos Samakovlis)
7	<b>Marija Gredić</b> (PI: Norbert Weißmann)
8	<b>Miša Gunjak</b> (PI: Rory E. Morty)
9	<b>Tuong-Van Hoang</b> (PI: Rory E. Morty)
10	<b>Zeki İlker Kanbağlı</b> (PI: Norbert Weißmann)
11	<b>Tobias Nadir Mawassii</b> (PI: Małgorzata Wygrecka)
12	<b>Despoina Myti</b> (PI: Rory E. Morty)
13	<b>Akis Panagiotidis</b> (PI: Friedemann Weber)
14	<b>David Pérez Bravo</b> (PI: Katrin Ahlbrecht)
15	<b>Nabham Rai</b> (PI: Ralph T. Schermuly)
16	<b>Sara Taghizadeh</b> (PI: Saverio Bellusci)
17	<b>Cheng-Yu Wu</b> (PI: Norbert Weißmann)

Students: Please hang posters during lunch (11:45-13:30) prior to the poster session.