

Welcome to the 17th Annual Retreat
of the
International Graduate Programme
Molecular Biology and Medicine of the Lung



Rauischholzhausen, Germany
July 3-5, 2019



WEDNESDAY, 03.07.2019

Up to 09:30

Arrival at Rauschholzhausen Castle, Registration

09:30 - 09:45

Welcome and Introduction: Rory E. Morty and Werner Seeger

09:45 - 10:45

The Opening Lecture

SEBASTIAN BONNET

Université Laval, Québec, Canada

“PARP-1 and BRD4 inhibitors: preclinical to clinical adventure”

10:45 - 12:00

Student Presentations – Block A

HYPOXIA AND PULMONARY HYPERTENSION

12:00 -13:30

Room check-in, followed by lunch

13:30 - 14:30

NATHAN W. BARTLETT

University of Newcastle, Newcastle, Australia

“Airway epithelial innate immunity and viral exacerbations of respiratory disease”

14:30 - 15:45

Student Presentations – Block B

CHRONIC OBSTRUCTIVE PULMONARY DISEASE

15:45 - 17:15

Poster session, with coffee and snacks

17:15 - 18:15

Student Presentations – Block C

VIRAL PNEUMONIA

18:15 - 19:15

The Global Health Lecture

SYLVIE C. BRIAND

Director: Infectious Hazards Management

World Health Organization, Geneva, Switzerland

“How to get prepared for the next pandemic?”

19:30 – end

Dinner, and open bar

THURSDAY, 04.07.2019

07:30 - 09:00

Breakfast

09:00 - 10:00

ANKIT BHARAT

Northwestern University, Chicago, U.S.A.

“Complementary roles of monocytes in mediating lung ischemia-reperfusion injury”

10:00 - 11:15

Student Presentations - Block D

TRANSPLANTATION AND INFLAMMATION

11:15 - 11:45

Coffee and snacks

11:45 - 12:45

Student Presentations - Block E

LUNG DEVELOPMENT AND BRONCHOPULMONARY DYSPLASIA

12:45 - 13:45

The Nobel Lecture in Physiology or Medicine

MARIO R. CAPECCHI

University of Utah, Salt Lake City, U.S.A.

Recipient of the *Nobel Prize in Physiology or Medicine* in 2007

“Causative Role for Defective Microglia in OCD-Spectrum disorders”

13:45 - 14:45

Lunch

14:45 - 15:00

... followed by coffee pick-up, leading into the ...

15:00 – 16:30

“Meet-the-Professor” sessions

(Between 16:00 and 16:15, please close the sessions and migrate to the front steps of the Castle)

16:30 - 16:45

Group photograph (all *Annual Retreat* participants)

16:45 - 17:30

Student Presentations – Block F

MODELS AND IMAGING

17:30 - 18:30

The Editor’s Lecture on Publishing in Respiratory Medicine

EMMA GRAINGER

Editor-in-Chief, *The Lancet Respiratory Medicine*

“Journal publishing: an Editor’s insight”

18:30 – end

Dinner, open bar, and entertainment

FRIDAY, 05.07.2019

07:30 - 09:00

Breakfast

09:00 - 10:00

The Editor's Lecture on Translational Lung Research

GISLI JENKINS

Joint Editor-in-Chief, *Thorax*

University of Nottingham, Nottingham, United Kingdom

“IPF: How to try and cure the incurable?”

10:00 - 10:45

Student Presentations – Block G

IDIOPATHIC PULMONARY FIBROSIS

10:45 - 11:30

Coffee and snacks, and room check-out

(Students: please check out of rooms during this coffee break)

11:30 - 12:30

ANTON VONK NOORDEGRAAF

Amsterdam University Medical Centre, Amsterdam, The Netherlands

“The right ventricle and its load: lessons from the clinic”

12:30 - 13:30

Student Presentations – Block H

RIGHT HEART FAILURE AND ATHEROSCLEROSIS

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

15:00

Bus Departure from Rauschholzhausen to Giessen

Meeting Point: Parking Lot of the Castle (14:50)

A) HYPOXIA AND PULMONARY HYPERTENSION

Wednesday, July 3rd, at 10:45

Chairs: Edibe Avcı and Zeki İlker Kanbağlı

10:30 - 10:45: Nabham Rai (PI: Ralph T. Schermuly)

“Role of peptidyl-prolyl cis-trans isomerase NIMA-interacting 1 (PIN1) in pulmonary hypertension”

10:45 - 11:00: Beate Schlüter (PI: Ralph T. Schermuly)

“The role of ErbB3 in the development of pulmonary arterial hypertension”

11:00 - 11:15: Julia Schäffer (PI: Norbert Weißmann)

“The therapeutic potential of resolvin E1 in pulmonary hypertension induced by hypoxia”

11:15 - 11:30: Xuran Chu (PI: Saverio Bellusci)

“Origin and fate of smooth muscle cells during pulmonary vascular remodelling and reverse remodelling”

11:30 - 11:45: Anika Nolte (PI: Norbert Weißmann)

“The role of mitochondrial cytochrome C oxidase subunit 4 isoform 2 (Cox4i2) in acute pulmonary oxygen sensing”

B) CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Wednesday, July 3rd, at 14:30

Chairs: Alisa Agné and Siavash Mansouri

14:30 - 14:45: Marija Gredić (PI: Norbert Weißmann)

“The role of myeloid cell type-specific inducible nitric oxide synthase in chronic obstructive pulmonary disease”

14:45 - 15:00: Zeki İlker Kanbağlı (PI: Norbert Weißmann)

“CRISPR/Cas9 gene editing as a new treatment approach for cigarette smoke-induced pulmonary hypertension and emphysema”

15:00 - 15:15: Vitalii Poberezhets (National Pirogov Memorial Medical University, Vinnytsya, Ukraine)*

“Role of tailored physical training in pulmonary rehabilitation of COPD patients with sarcopenia”

15:15 - 15:30: Cheng-Yu Wu (PI: Norbert Weißmann)

“Investigation of nitric oxide synthase 2 in different cell-types of the lung and NOS2-related signalling pathways in COPD”

15:30 - 15:45: Martin Wolff (PI: Susanne Krauss-Etschmann; DZL ARCN campus Borstel)*

“A murine model to study the influence of viral infections in smokers to develop COPD”

*Visiting external student/fellow.

C) VIRAL PNEUMONIA

Wednesday, July 3rd, at 17:15

Chairs: Theresa Schäfer and Julian Better

17:15 - 17:30: [Giorgios \(Akis\) Panagiotidis](#) (PI: Friedemann Weber/Stefan Bauer)

“Profiling anti-influenza activities of the pathogen recognition receptor RIG-I: novel targets for antiviral intervention strategies”

17:30 - 17:45: [Andrés Alberro-Brage](#) (PI: István Vadász)

“Role and regulation of alveolar protein clearance in influenza virus-induced lung injury”

17:45 - 18:00: [Miša Gunjak](#) (PI: Rory E. Morty)

“The contribution of respiratory viruses to arrested post-natal lung development”

18:00 - 18:15: [Margarida Barroso](#) (PI: Susanne Herold)

“Mesenchymal stem cell plasticity and therapeutic programming in acute lung injury”

D) TRANSPLANTATION AND INFLAMMATION

Thursday, July 4th, at 10:00

Chairs: Miša Gunjak and Stefanie M. Herbel

10:00 - 10:15: [Alisa Agné](#) (PI: Veronika Grau)

“ α_1 -antitrypsin - a modulator of ATP-induced IL-1 β release”

10:15 - 10:30: [Harshavardhan Janga](#) (PI: Bernd Schmeck & Leon Schulte)

“Investigating the role of *Lucat1* lncRNA in innate immunity of the lung”

10:30 - 10:45: [Joschke Hey](#) (PI: Christoph Plass, *DZL TLRC-H campus* Heidelberg)*

“Airway macrophages from mice with mucociliary clearance deficiency show a dysregulated epigenome”

10:45 - 11:00: [Siavash Mansouri](#) (PI: Rajkumar Savai)

“DNA methylation profile in tumor-associated macrophages in lung cancer”

11:00 - 11:15: [Jannik Ruwisch](#) (PI: Lars Knudsen, *DZL Campus BREATH* Hannover)*

“Metabolic reprogramming in alveolar macrophages precedes fibrotic lung remodelling in SP-C deficient mice”

*Visiting external student/fellow.

E) LUNG DEVELOPMENT AND BRONCHOPULMONARY DYSPLASIA

Thursday, July 4th, at 11:45

Chairs: Solmaz Khaghani and Francisco Casado

11:45 - 12:00: [Maroua Ghouli](#) (PI: Christos Samakovlis)

“Characterisation of candidate regulators of secretory cell maturation in the airway epithelium”

12:00 - 12:15: [Despina Myti](#) (PI: Rory E. Morty)

“The role of miR 15 precursor family in normal and aberrant post-natal lung development”

12:15 - 12:30: [Arun Kumar Reddy Lingampally](#) (PI: Saverio Bellusci)

“Characterization of Tg(Etv4-GFP) and Etv5RFP reporter lines in the context of fibroblast growth factor 10 signalling during mouse embryonic lung development”

12:30 - 12:45: [Thijs Lilien](#) (University Medical Center Amsterdam, Amsterdam, The Netherlands)*

“Hyperoxemia and patient outcomes in invasively ventilated children in the PICU”

*Visiting external student/fellow.

F) MODELS AND IMAGING

Thursday, July 4th, at 16:45

Chairs: Margarida Barroso and Giorgios (Akis) Panagiotidis

16:45 - 17:00: [Willi Wagner](#) (PI: Hans-Ulrich Kauczor; DZL TLRC-H campus Heidelberg)*

“Imaging mesopolysaccharides: the extracellular surface layer of the visceral pleura”

17:00 - 17:15: [Sara Taghizadeh](#) (PI: Saverio Bellusci)

“Characterization of the alveolar stromal niche-AT2 interaction: use of the alveolosphere model”

17:15 - 17:30: [David Pérez Bravo](#) (PI: Katrin Ahlbrecht)

“Establishment of an *in vitro* model to target alveolarization”

*Visiting external student/fellow.

G) IDIOPATHIC PULMONARY FIBROSIS

Friday, July 5th, at 10:00

Chairs: Ruth Dartsch and Vidya Sagar Kesireddy

10:00 - 10:15: [Jessica Knöll](#) (PI: Andres Günther & Poornima Mahavadi)

“Understanding the endoplasmic reticulum: mitochondrial crosstalk in the alveolar epithelium in lung fibrosis”

10:15 - 10:30: [Jennifer Arndt](#) (PI: Andreas Günther)

“Autophagy in lung fibrosis - exploring the mitophagy pathways”

10:30 - 10:45: [Vidya Sagar Kesireddy](#) (PI: Andreas Günther and Poornima Mahavadi)

“Susceptibility of microtubule-associated protein 1 light chain 3 β knockout mice to lung injury and fibrosis”

H) RIGHT HEART FAILURE AND ATHEROSCLEROSIS

Friday, July 5th, at 12:30

Chairs: Julia Schäffer and Beate Schlüter

12:30 - 12:45: [Leili Jafari](#) (PI: Christian Hamm & Holger Nef)

“Selective biomarkers of right heart hypertrophy and failure”

12:45 - 13:00: [Fabienne Knapp](#) (PI: Susanne Rohrbach)

“Comparative analyses of left and right ventricular adaptations to pressure overload in rats”

13:00 - 13:15: [Neslihan Sevinç](#) (PI: Muhammed Aslam & Martin Diener)

“Differential role of Rac1 activation during atherosclerotic inflammation on endothelial barrier function”

13:15 - 13:30: [Nicole Molenda](#) (PI: Susanne Rohrbach)

“Impact of Siah2 on the development of *cor pulmonale*”

Speaker Introductions and Speaker Session Chairs

SEBASTIAN BONNET by Daniel G. Bermes

NATHAN W. BARTLETT by Marija Gredić

SYLVIA C. BRIAND by Margarida Barroso

ANKIT BHARAT by Siavash Mansouri

MARIO R. CAPECCHI by Cheng-Yu Wu

EMMA GRAINGER by Giorgios (Akis) Panagiotidis

GISLI JENKINS by Jessica Knöll

ANTON VONK NOORDEGRAAF by Nabham Rai

Poster Presentations

Students: Please hang posters during lunch (12:00-13:30) prior to the poster session.

Poster board number	Presenter (Wednesday, 3 rd July, 2019: 15:45-17:15)
1	Edibe Avci (PI: Soni Pullamsetti)
2	Daniel G. Bermes (PI: Ralph T. Schermuly)
3	Julian Better (PI: Susanne Herold)
4	Francisco Casado (PI: Rory E. Morty)
5	Ruth Dartsch (PI: Andreas Günther & Roxana Wasnick)
6	Siddartha Doswada (PI: Norbert Weißmann)
7	Stefanie M. Herbel (PI: Bernd Schmeck & Wilhelm Bertrams)
8	Solmaz Khagani (PI: Katrin Ahlbrecht)
9	Björn Klabunde (PI: Bernd Schmeck)
10	Theresa Schäfer (PI: Susanne Herold)