

Welcome to the 16th Annual Retreat
of the
International Graduate Programme
Molecular Biology and Medicine of the Lung



Rauischholzhausen, Germany
July 4-6, 2018



WEDNESDAY, 04.07.2018

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

MAYA KUMAR (Stanford University, Stanford, U.S.A.)

“Single-cell approaches to understanding pulmonary artery remodelling”

10:30 - 11:45

Student Presentations – Block A

VASCULAR REMODELLING IN PULMONARY HYPERTENSION AND COPD

11:45 - 13:15

Lunch (Room check-in is now possible)

13:15 - 14:15

Student Presentations – Block B

PULMONARY HYPERTENSION

14:15 - 15:00

The Ethics in Science and Medicine Lecture

MONSIGNOR RENZO PEGORARO

Chancellor of the *Pontifical Academy for Life* (Rome, Italy)

“Ethical considerations related to human genome editing”

15:00 - 15:15

Group photographs

15:15 - 16:30

Poster session, with coffee and snacks

16:30 - 17:15

The President's Lecture

MINA GAGA (Athens Chest Hospital, Athens, Greece)

President of the *European Respiratory Society*

“Science and medicine: The changing landscape”

17:15 - 18:15

Student Presentations – Block C

AIRWAYS AND AIRWAY DISEASE

18:15 - 18:30

“Breather”

18:30 – 19:30

The Nobel Lecture

JOHN B. GURDON (Cambridge University, Cambridge, United Kingdom)

Recipient of the *Nobel Prize in Physiology or Medicine* in 2012

“Past, present, and prospects for cell replacement”

19:30 – end

Dinner and Drinks

THURSDAY, 05.07.2018

07:30 - 09:00

Breakfast

09:00 - 09:45

NAN TANG (National Institute of Biological Sciences, Beijing, China)
“The driving force of alveolar development and regeneration”

09:45 - 10:45

Student Presentations - Block D

LUNG DEVELOPMENT AND BRONCHOPULMONARY DYSPLASIA

10:45 - 11:15

Coffee and snacks

11:15 – 12:30

“Meet-the-Professor” sessions

12:30 - 13:30

Lunch

13:30 – 13:45

Invited speaker group photograph

13:45 - 14:30

CAROLYN S. CALFEE (University of California at San Francisco, San Francisco, U.S.A.)
“Precision medicine in ARDS: Where are we now, and where are we going?”

14:30 - 15:30

Student Presentations – Block E

VIRAL PNEUMONIA

15:30 - 16:00

Coffee and snacks

16:00 - 17:00

Student Presentations – Block F

LUNG INFLAMMATION

17:00 - 18:00

The Global Health Lecture

JOANNE LIU

International President of *Médecins Sans Frontières* (Geneva, Switzerland)
“Doctors without Borders”

18:30 – end

Dinner and Drinks

FRIDAY, 06.07.2018

08:00 - 09:30

Breakfast

09:30 - 10:15

The Editor's Lecture

MARTIN KOLB

Chief Editor: *The European Respiratory Journal*

“Current controversies in lung fibrosis: Splitting *versus* lumping”

10:15 - 11:15

Student Presentations – Block G

IDIOPATHIC PULMONARY FIBROSIS

11:15 - 12:00

Coffee and snacks, and room check-out
(Please check out of rooms during this coffee break)

12:00 - 12:45

Student Presentations – Block H

BACTERIAL INFECTIONS OF THE RESPIRATORY TRACT

12:45 - 13:15

MARTIN KOLB

Chief Editor: *The European Respiratory Journal*

“How to make me like your paper”

13:15 - 13:30

Presentation of MBML coursework certificates
Formal closing of the Retreat: Rory E. Morty and Werner Seeger

13:30 - 15:00 (open-ended)

Lunch

15:00

Bus Departure from Rauschholzhausen to Giessen
Meeting Point: Parking Lot of the Castle (14:50)

A) VASCULAR REMODELLING IN PULMONARY HYPERTENSION AND COPD

Wednesday, July 4th, at 10:30

Chairs: Nabham Rai and Leili Jafari

10:30 - 10:45: [Marija Gredić](#) (PI: Norbert Weißmann)

“Myeloid cell type-specific iNOS in the pathogenesis of COPD-associated PH”

10:45 - 11:00: [Zeki İlker Kanbağlı](#) (PI: Norbert Weißmann)

“Targeting inducible nitric oxide synthase as a new treatment approach for cigarette smoke-induced pulmonary hypertension and emphysema”

11:00 - 11:15: [Stefan Hadžić](#) (PI: Norbert Weißmann)

“The role of FGF10 in COPD and PH”

11:15 - 11:30: [Nasim Alebrahimdehkordi](#) (PI: Norbert Weißmann)

“Essential factors involved in the mitochondrial oxygen sensing mechanism in response to alveolar hypoxia”

11:30 - 11:45: [Cheng-Yu Wu](#) (PI: Norbert Weißmann)

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

B) PULMONARY HYPERTENSION

Wednesday, July 4th, at 13:15

Chairs: Neslihan Sevinç and Beate Schlüter

13:15 - 13:30: [Nabham Rai](#) (PI: Ralph T. Schermuly)

“Role of peptidylprolyl cis/trans isomerase, NIMA interacting 1 (PIN1) in pulmonary hypertension”

13:30 - 13:45: [Nicole Krause](#) (PI: Norbert Weismann)

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

13:45 - 14:00: [Yerabolu Naga Dinesh Reddy](#) (PI: Ralph T. Schermuly)

“Jak2-Stat3 signalling in PAH”

14:00 - 14:15: [Philipp Douschan](#) (PI: Horst Olschewski, Medical University of Graz, Graz, Austria)*

“Clinical relevance of mild changes in pulmonary haemodynamics”

*Visiting external student/fellow.

C) AIRWAYS AND AIRWAY DISEASE

Wednesday, July 4th, at 17:15

Chairs: Cheng-Yu Wu and Christina Malainou

17:15 - 17:30: [Sander van Riet](#) (PI: Pieter S. Hiemstra, Leiden University Medical Centre, Leiden, The Netherlands)*

“*In vitro* modelling of alveolar repair using alveolar epithelial cells derived from human induced pluripotent stem cells”

17:30 - 17:45: [Karolina Neumann](#) (PI: Christina Wagner, DZL ARCN Campus Borstel)

“Transgenerational effects of parental smoking on airway development and function in *Drosophila melanogaster*”

17:45 - 18:00: [Maroua Ghouli](#) (PI: Christos Samakovlis)

“An elaborate perspective on airway epithelial cells regulation”

18:00 - 18:15: [Tankut G. Güney](#) (PI: Ian M. Adcock, Imperial College London, London, United Kingdom)*

“3D model of COPD from primary human bronchial epithelial cells”

*Visiting external student/fellow.

D) LUNG DEVELOPMENT AND BRONCHOPULMONARY DYSPLASIA

Thursday, July 5th, at 09:45

Chairs: Ettore Lignelli and Miša Gunjak

09:45 - 10:00: [Francesco Palumbo](#) (PI: Rory E. Morty)

“The role of FoxO transcription factors in normal and aberrant lung alveolarisation”

10:00 - 10:15: [Sara Taghizadeh](#) (PI: Saverio Bellusci)

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

10:15 - 10:30: [Despoina Myti](#) (PI: Rory E. Morty)

“The role of miR-15 family in normal and aberrant postnatal lung development”

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

“Analysing alveolarization using an *in vitro* approach”

E) VIRAL PNEUMONIA

Thursday, July 5th, at 14:30

Chairs: Giorgios (Akis) Panagiotidis and Ludmila Sperling

14:30 - 14:45: [Christina Malainou](#) (PI: Susanne Herold)

“Strategies to prevent influenza-induced loss of the alveolar macrophage pool and improve host defence against secondary infection”

14:45 - 15:00: [Andrés Alberro-Braga](#) (PI: István Vadász)

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

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

“Novel strategies for therapeutic programming and delivery of mesenchymal stem cells to improve outcome of influenza virus-induced lung injury”

15:15 - 15:30: [Constanze Merz](#) (PI: Patrick Zardo, DZL BREATH Campus Hannover)

“Feasibility of *in vivo* and *ex vivo* chemotherapy in a model of ovine pulmonary adenomatosis”

F) LUNG INFLAMMATION

Thursday, July 5th, at 16:00

Chairs: Siavash Mansouri and Margarida Barroso

16:00 - 16:15: [Katrin Bedenbender](#) (PI: Bernd Schmeck)

“Inflammation-mediated deacetylation of the *RNASE1* promoter via HDAC2”

16:15 - 16:30: [Miša Gunjak](#) (PI: Rory E. Morty)

“Macrophages mediate aberrant lung alveolarization”

16:30 - 16:45: [Alisa Agné](#) (PI: Veronika Grau)

“Controlling trauma-associated IL-1 β release with alpha1-antitrypsin”

16:45 - 17:00: [Ettore Lignelli](#) (PI: Rory E. Morty)

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

G) IDIOPATHIC PULMONARY FIBROSIS

Friday, July 6th, at 10:15

Chairs: Jessica Knöll and Yerabolu Naga Dinesh Reddy

10:15 - 10:30: [Johannes Nowak](#) (PI: Silke Meiners, DZL Campus CPC-M Munich)

“Role of the immunoproteasome in non-immune cells”

10:30 - 10:45: [Jennifer Schnieder](#) (PI: Małgorzata Wygrecka)

“LRP1: A master regulator of the contractile activity of myofibroblasts”

10:45 - 11:00: [Jennifer Grodtke](#) (PI: Andreas Günther and Poornima Mahavadi)

“Autophagy in lung fibrosis: Exploring the mitophagy pathways”

11:00 - 11:15: [Matteo Guerra](#) (PI: Carsten Schultz, DZL Campus TLRC Heidelberg, and the European Molecular Biology Laboratory, Heidelberg)

“Protease activity reporters detect lung inflammation by microscopy and flow cytometry”

H) BACTERIAL INFECTIONS OF THE RESPIRATORY TRACT

Friday, July 6th, at 12:00

Chairs: Andrés Alberro-Braga and Katrin Bedenbender

12:00 - 12:15: [Stephan Ringshandl](#) (PI: Bernd Schmeck)

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

12:15 - 12:30: [Alexander Perniß](#) (PI: Wolfgang Kummer)

“Pathogen recognition by tracheal solitary chemosensory cells and *Bordetella pseudohinzii* as a novel murine pathogen”

12:30 - 12:45: [Marina Aznaourova](#) (PI: Bernd Schmeck)

“Long non-coding RNA MAIL1 controls TSL-induced NFκB signalling in *Legionella pneumophila* infected human macrophages”

Speaker Introductions and Speaker Session Chairs

MAYA KUMAR by Nabham Rai

MONSIGNOR RENZO PEGORARO by Katrin Bedenbender

MINA GAGA by Cheng-Yu Wu

JOHN B. GURDON by Marija Gredić

NAN TANG by Stefan Hadžić

CAROLYN CALFEE by Giorgios (Akis) Panagiotidis

JOANNE LIU by Francesco Palumbo

MARTIN KOLB by Jessica Knöll (twice)

Poster Presentations

Poster board number	Presenter (Wednesday, 4 th July, 2017: 15.00-16:30)
1	Xuran Chu (PI: Saverio Bellusci)
2	Sophie Feddersen (PI: Rory E. Morty)
3	Leili Jafari (PI: Holger Nef/Christian Hamm)
4	Fabienne Knapp (PI: Susanne Rohrbach/Joachim Roth)
5	Jessica Knöll (PI: Andreas Günther/Poornima Mahavadi)
6	Arun Kumar Reddy Lingampally (PI: Saverio Bellusci)
7	Siavash Mansouri (PI: Rajkumar Savai)
8	Nicole Molenda (PI: Susanne Rohrbach)
9	Anika Nolte (PI: Norbert Weißmann)
10	Giorgios (Akis) Panagiotidis (PI: Friedemann Weber/Stefan Bauer)
11	Julia Schäffer (PI: Norbert Weißmann)
12	Beate Schlüter (PI: Ralph T. Schermuly)
13	Neslihan Sevinç (PI: Muhammad Aslam/Martin Diener)
14	Ludmila Sperling (PI: Susanne Herold)

Students: Please hang posters during lunch (11:45-13:15) prior to the poster session.