

Welcome to the 13th Annual Retreat
of the
International Graduate Programme
Molecular Biology and Medicine of the Lung



Rauischholzhausen, Germany
June 23–25, 2015



TUESDAY, 23.06.2015

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

GREGORY P. DOWNEY (National Jewish Health, Denver, U.S.A.)

“Tyrosine phosphatase control of TGF- β responsiveness:
basic mechanisms and clinical implications”

10:45 - 12:00

Student Presentations – Block A

ACUTE LUNG INJURY

12:00 -13:30

Lunch

13:30 - 14:30

The Editor’s Lecture

JADWIGA A. WĘDZICHA (Imperial College, London, United Kingdom)

Editor-in-Chief, the *American Journal of Respiratory and Critical Care Medicine*
“Mechanisms and prevention of COPD exacerbations”

14:30 - 15:30

Student Presentations – Block B

CHRONIC OBSTRUCTIVE PULMONARY DISEASE

15:30 - 15:45

Group photograph

15:45 - 17:15

Poster session, with coffee and snacks

17:15 - 18:15

Student Presentations – Block C

PULMONARY FIBROSIS AND REGULATION OF INFLAMMATION

18:15 - 19:15

The President’s Lecture

JØRGEN VESTBO (University of Manchester, Manchester, United Kingdom)

President-Elect, *European Respiratory Society*

“The natural history of COPD – why is it so difficult?”

19:15 - end

Dinner and open bar

WEDNESDAY, 24.06.2015

07:30 - 09:00

Breakfast

09:00 - 10:00

BRIGID L. HOGAN (Duke University, Durham, U.S.A.)

“Stem cells in the adult lung and their role in repair and regeneration”

10:00 - 11:00

Student Presentations - Block D

LUNG DEVELOPMENT I: ALVEOLARIZATION AND BRONCHOPULMONARY DYSPLASIA

11:00 - 11:30

Coffee and snacks

11:30 - 12:30

Student Presentations – Block E

LUNG DEVELOPMENT II: ALVEOLARIZATION AND BRONCHOPULMONARY DYSPLASIA

12:45 - 14:00

Lunch

14:00 - 15:00

The Nobel Lecture

OLIVER SMITHIES (University of North Carolina, Chapel Hill, U.S.A.)

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

“Where do ideas come from?”

15:00 - 16:30

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

16:45 - 18:00

Student Presentations – Block F

PULMONARY VASCULAR DISEASE

18:00 - 19:00

The Global Health Lecture

DAVID NABARRO (Office of the Secretary-General, United Nations Organisation, New York, U.S.A.)

United Nations Special Envoy on Ebola

“Popular movements for health: whole of society responses to communicable diseases”

19:00 - end

Dinner and Drinks

THURSDAY, 25.06.2015

07:30 - 09:00

Breakfast

09:00 - 10:00

NOBUYO MAEDA (University of North Carolina, Chapel Hill, U.S.A.)
“Genetic risk factors for atherosclerosis: Looking through mouse genetics”

10:00 - 11:00

Student Presentations – Block G
VASCULAR AND AIRWAY PHYSIOLOGY

11:00 - 11:30

Coffee and snacks

11:30 - 12:30

CHRISTOPHER M. WATERS (University of Tennessee Health Science Center, Memphis, U.S.A.)
“Mechanical and biochemical signaling in hyperoxia and ventilator-induced lung injury”

12:30 - 13:45

Student Presentations – Block H
LUNG MODELS, INFLAMMATION AND LUNG CANCER

13:45 - 14:00

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

14:00 - 14:45

Lunch

15:00

Bus Departure from Rauschholzhausen to Giessen
Meeting Point: Parking Lot of the Castle 14:45

A) ACUTE LUNG INJURY

Tuesday, June 23rd, at 10:45

Chairs: Ivana Mižiková and José Alberto Rodríguez-Castillo

10:45 - 11:00: [Luciana Mazzocchi](#) (PI: István Vadász)

“TGF- β /GSK-3 β -mediated downregulation of megalin impairs alveolar epithelial protein clearance”

11:00 - 11:15: [Lina Jankauskaite](#) (PI: Susanne Herold & Jürgen Lohmeyer)

“Therapeutic potential of murine bone marrow derived mesenchymal stem cells in influenza virus-induced pneumonia”

11:15 - 11:30: [Ana Ivonne Vázquez Armendariz](#) (PI: Susanne Herold & Jürgen Lohmeyer)

“Role of GM-CSF in stem cell-mediated repair after influenza virus pneumonia”

11:30 - 11:45: [Paulina Gwoździńska](#) (PI: István Vadász)

“Hypercapnia impairs ENaC cell surface stability by polyubiquitination and subsequent endocytosis in the alveolar epithelium”

11:45 - 12:00: [Christina Herkt](#) (PI: Bernd Schmeck)

“Small RNAs in the host-pathogen dynamics during *Legionella* infection of human macrophages”

B) CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Tuesday, June 23rd, at 14:30

Chairs: Gayathri Viswanathan and Mario Böhm

14:30 - 14:45: [Mariola Bednorz](#) (PI: Norbert Weißmann)

“ROS signalling in the pathogenesis of cigarette smoke-induced pulmonary hypertension and emphysema”

14:45 - 15:00: [Natalia El-Merhie](#) (PI: Eveline Baumgart-Vogt)

“The Role of Peroxisomes in COPD”

15:00 - 15:15: [Jie Jia](#) (PI: Önder Yildirim, *DZL Munich Campus*)

“Cigarette smoke exposure enhances obstructive bronchitis development in mice”

15:15 - 15:30: [Elsa Tadele Elala](#) (PI: Norbert Weißmann)

Potential effects of electronic cigarette on alveolar and vascular lung structure: Risk assessment and long-term health effects”

C) PULMONARY FIBROSIS AND REGULATION OF INFLAMMATION

Tuesday, June 23rd, at 17:15

Chairs: Diogo da Silva and Elsa Tadele Elala

17:15 - 17:30: [Shalini Venkatesan](#) (PI: Andreas Günther)

“Mitochondrial autophagy in the development of amiodarone-induced pulmonary fibrosis”

17:30 - 17:45: [Irina Shalashova](#) (PI: Andreas Günther)

“The role of ER stress in AECII apoptosis”

17:45 - 18:00: [Dominik Leitz](#) (PI: Marcus Mall, *DZL Heidelberg Campus*)

“Conditional deletion of the ubiquitin ligase Nedd4-2 from lung epithelia results in diffuse parenchymal lung disease in mice”

18:00 - 18:15: [Robin Siebers](#) (PI: Veronika Grau)

“ α_1 -Antitrypsin inhibits ATP-induced IL-1 β release from human monocytes”

D) LUNG DEVELOPMENT I: ALVEOLARIZATION AND BRONCHOPULMONARY DYSPLASIA

Wednesday, June 24th, at 10:00

Chairs: Stephanie Dobersch and Addi Josua Romero Olmedo

10:00 - 10:15: [Ivana Mižíková](#) (PI: Rory E. Morty)

“Collagen and elastin cross-linking is altered during aberrant late lung development associated with hyperoxia”

10:15 - 10:30: [Aglaiia Ntokou](#) (PI: Katrin Ahlbrecht and Rory E. Morty)

“Characterization and targeting of pulmonary fibroblast subtypes during lung development”

10:30 - 10:45: [Jordi Ruiz Camp](#) (PI: Rory E. Morty)

“The role of the microRNA-34 family in normal and aberrant late lung development and experimental bronchopulmonary dysplasia”

10:45 - 11:00: [Karla María Rubio Nava](#) (PI: Guillermo Barreto)

“Functional characterization of nuclear Mirlet7d with chromatin remodellers”

E) LUNG DEVELOPMENT II: ALVEOLARIZATION AND BRONCHOPULMONARY DYSPLASIA

Wednesday, June 24th, at 11:30

Chairs: Vahid Kheirollahi and Jordi Ruiz Camp

11:30 - 11:45: [Amit Shrestha](#) (PI: Saverio Bellusci)

“Role of miR-142 in lung development and disease”

11:45 - 12:00: [Claudio Nardiello](#) (PI: Rory E. Morty)

“The role of miR-135b in late lung development”

12:00 - 12:15: [Daphne Mous](#) (PI: Dick Tibboel, Erasmus Medical Centre, Rotterdam, Holland)

“Putative improvement of pulmonary vascular defects after prenatal treatment of congenital diaphragmatic hernia”

12:15 - 12:30: [Diogo da Silva](#) (PI: Rory E. Morty)

“Evaluating the role of miR-29c in late lung development”

F) PULMONARY VASCULAR DISEASE

Wednesday, June 24th, at 16:45

Chairs: Natalia El-Merhie and Vitalii Kryvenko

16:45 - 17:00: [Mario Böhm](#) (PI: Ralph T. Schermuly)

“Effects of iNOS ablation on pressure overload-induced right ventricular dysfunction and remodelling”

17:00 - 17:15: [Dijana Iloska](#) (PI: Soni Pullamsetti)

“Characterization of distal vascular remodeling in CTEPH”

17:15 - 17:30: [Gayathri Viswanathan](#) (PI: Ralph T. Schermuly)

“Identification and characterization of candidate GPCRs in pulmonary arterial hypertension”

17:30 - 17:45: [Aleksandar Petrović](#) (PI: Ralph T. Schermuly)

“Role of carbonic anhydrases in hypoxia and non-hypoxia induced pulmonary hypertension”

17:45 - 18:00: [Jan Niklas Schneider](#) (PI: Ralph T. Schermuly)

“Membrane-bound carbonic anhydrases 9 and 12 in pulmonary vascular and parenchymal remodelling: the discovery of novel pathological players?”

G) VASCULAR AND AIRWAY PHYSIOLOGY

Thursday, June 25th, at 10:00

Chairs: Chanil Valasarajan and Dijana Iloska

10:00 - 10:15: [Balram Neupane](#) (PI: Ralph T. Schermuly)

“Obesity as an important modulator in the pathobiology of pulmonary hypertension?”

10:15 - 10:30: [Changwu Lu](#) (PI: Ralph T. Schermuly)

“Pirfenidone: a new candidate for pulmonary arterial hypertension?”

10:30 - 10:45: [Kaori Oshima](#) (PI: Masahiko Oka & Ivan McMurtry, College of Medicine, University of South Alabama, Mobile, U.S.A.)

“Longitudinal complexity and dynamics of occlusive lesions in experimental PAH”

10:45 - 11:00: [Maryam Keshavarz](#) (PI: Wolfgang Kummer)

“Caveolins, cavins and bronchoconstriction”

H) LUNG MODELS, INFLAMMATION AND LUNG CANCER

Thursday, June 25th, at 12:30

Chairs: David Brunn and Irina Shalashova

12:30 - 12:45: [Simon Becker](#) (PI: Matthias Ochs and Christian Mühlfeld; DZL Hannover Campus)

“Evaluating acellular *versus* cellular perfusate composition in prolonged *ex vivo* lung perfusion”

12:45 - 13:00: [Martin Reichert](#) (PI: Veronika Grau)

“B cells and immunoglobulins in experimental chronic lung allograft dysfunction”

13:00 - 13:15: [Addi Josua Romero Olmedo](#) (PI: Guillermo Barreto)

“Development of an alveolar type II cell directed nucleic acid delivery system for the treatment of lung cancer”

13:15 - 13:30: [Mira Yasemin Gökyildirim](#) (PI: Katja Hattar)

“Lipopolysaccharides induce radiotherapy resistance in non-small cell lung cancer cell lines”

13:30 - 13:45: [Poonam Sarode](#) (PI: Rajkumar Savai)

“Reprogramming of tumour associated macrophages by modulating Wnt/ β -catenin signalling in lung cancer”

Speaker Introductions

GREGORY P. DOWNEY by Shalini Venkatesan

JADWIGA A. WĘDZICHA by Anita Golec

JØRGEN VESTBO by Jan Niklas Schneider

BRIGID L. HOGAN by Elie El Agha

OLIVER SMITHIES by Ivana Mižíková

DAVID NABARRO by Mario Böhm

NOBUYO MAEDA by Mariola Bednorz

CHRISTOPHER M. WATERS by Ana Ivonne Vázquez Armendariz

Poster Presentations:

Poster board number	Presenter (Tuesday, 23 rd June, 2015)
1	İpek Vartürk
2	Alireza Saraji
3	Claudia Fernanda García Castro
4	Vitalii Kryvenko
5	Eistine Boateng
6	David Brunn
7	Stephanie Dobersch
8	José Alberto Rodríguez-Castillo
9	Agnieszka Pozarska,
10	Argen Mamazhakypov
11	Chanil Valasarajan
12	Vahid Kheirollahi
13	David Surate
14	Anca Amati

Meet-The-Professor assignments (Wednesday, 24th June 2015, at 15h00)

GREGORY P. DOWNEY	BRIGID L. HOGAN	OLIVER SMITHIES
Agnieszka Pozarska*	Ana Vázquez Armendariz	Christina Herkt
Paulina Gwoździńska*	Aglaia Ntokou	Changwu Lu
Eistine Boateng	Vahid Kheirollahi*	Claudia Fernanda García Castro
Jan Niklas Schneider	Chanil Valasarajan	Mira Gökyildirim
Lina Jankauskaite	José Alberto Rodríguez-Castillo	Shalini Venkatesan*
Karla Rubio	İpek Vartürk	Stephanie Dobersch
Irina Shalashova	Jordi Ruiz Camp*	Natalia El-Merhie
Anca Laura Amati	Simon Becker	David Brunn
Jan Johannsen	Alena Moiseenko	Luciana Mazzocchi*
		Philipp Jung
		Christopher Strahle
DAVID NABARRO and DANIELLE KOSTER	NOBUYO MAEDA	CHRISTOPHER M. WATERS
Gayathri Viswanathan	Daphne Mous	Maryam Keshavarz
David Surate Solaligue	Balram Neupane	Elsa Tadele*
Mariola Bednorz*	Aleksandar Petrovic*	Argen Mamazhakypov
Ivana Mizikova*	Poonam Sarode	Philipp Arndt
Mario Böhm	Amit Shrestha	Claudio Nardiello*
Vitalii Kryvenko	Alireza Saraji*	Addi Josua Romero Olmedo
Robin Siebers	Dijana Iloska	Jie Jia
Diogo da Silva	Kaori Oshima	Dominik Leitz
Julia Schrader		Cho-Ming Chao

***Designated coordinators:** please identify a place to meet, and “round up” your group after *The Nobel Lecture*, ensure they pick up coffee and cake, and then meet as a group as soon as possible. It is recommended that one coordinator collects the Professor, and the other coordinator gathers the student participants.