

**Welcome to the 18<sup>th</sup> Annual Retreat**  
of the  
**International Graduate Programme**  
**Molecular Biology and Medicine of the Lung**



**Rauischholzhausen, Germany**  
**October 11-13, 2022**



**TUESDAY, 11.10.2022**

**Up to 09:30**

Arrival at Rauschholzhausen Castle, Registration

**09:30 - 09:45**

Welcome and Introduction: Elie El Agha and Werner Seeger

**09:45 - 10:45**

*The Opening Lecture*

**STEPHEN Y. CHAN**

University of Pittsburgh, Pittsburgh, PA, U.S.A.

“Pathogenic mechanisms that underlie genetic and metabolomic associations in pulmonary hypertension”

**10:45 - 11:45**

**Student Presentations – Block A**

**PULMONARY HYPERTENSION AND RIGHT HEART FAILURE**

**11:45 -13:30**

Room check-in, followed by lunch

**13:30 - 14:30**

**VERA P. KRYMSKAYA**

University of Pennsylvania, Philadelphia, PA, U.S.A.

“From rare to common: Role of mTOR signaling in epithelial-mesenchymal crosstalk in the lung”

**14:30 - 15:30**

**Student Presentations – Block B**

**LUNG DEVELOPMENT AND BRONCHOPULMONARY DYSPLASIA**

**15:30 - 17:30**

Poster session, with coffee and snacks

**17:30 - 18:30**

*The Nobel Lecture*

**TOMAS R. LINDAHL**

The Francis Crick Institute, London, United Kingdom

Recipient of the *Nobel Prize in Chemistry* in 2015

“DNA instability and repair, relation to aging and possible alternative life forms”

**18:30 – end**

Dinner and open bar

## **WEDNESDAY, 12.10.2022**

**07:30 - 09:00**

Breakfast

**09:00 - 10:00**

*The European Respiratory Society Lecture*

**ANITA K. SIMONDS**

Royal Brompton Hospital (Guy's & St Thomas's NHS Foundation Trust)

“Lessons on ventilatory support from COVID-19, and European Respiratory Society pandemic initiatives”

**10:00 - 10:45**

**Student Presentations - Block C**

**ACUTE RESPIRATORY DISTRESS SYNDROME**

**10:45 - 11:00**

Group photograph (all *Annual Retreat* participants)

**11:00 - 11:30**

Coffee and snacks

**11:30 - 12:30**

**VICTOR J. THANNICKAL**

Tulane University School of Medicine, New Orleans, LA, U.S.A.

“Lung fibrosis – Time for a paradigm shift?”

**12:30 - 13:30**

**Student Presentations - Block D**

**LUNG INFLAMMATION AND IMMUNOMODULATION**

**13:30 - 14:30**

Lunch

**14:30 - 14:45**

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

**14:45 – 16:15**

“Meet-the-Professor” sessions

**16:15 - 17:15**

**SEYED J. MOGHADDAM**

The University of Texas MD Anderson Cancer Center, Houston, TX, U.S.A.

“Modulating inflammatory lung microenvironment for prevention and treatment of Kras mutant lung adenocarcinoma”

**17:15 – end**

Dinner, open bar and entertainment

## **THURSDAY, 13.10.2022**

**07:30 - 09:00**

Breakfast and room check-out

**09:00 - 10:00**

**ENID R. NEPTUNE**

Johns Hopkins Bayview Medical Center, Baltimore, MD, U.S.A.

“The role of angiotensin signaling in lung repair and regeneration”

**10:00 - 11:30**

**Student Presentations – Block E**

**CHRONIC OBSTRUCTIVE PULMONARY DISEASE, AIRWAY DISEASE AND AGING**

**11:30 - 12:15**

Coffee and snacks

**12:15 - 13:15**

*The Editor's Lecture*

**MELISSA NORTON**

Senior Editor, *Science Translational Medicine*, London, United Kingdom

“How to get published in Science Translational Medicine”

**13:15 - 13:30**

Presentation of MBML coursework certificates

Formal closing of the Retreat: Elie El Agha and Werner Seeger

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

**Lunch**

**15:00**

Bus Departure from Rauischholzhausen to Giessen

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

## **A) PULMONARY HYPERTENSION AND RIGHT HEART FAILURE**

**Tuesday, October 11<sup>th</sup>, at 10:45**

**Chairs: Philipp Friedrich Arndt and Zahraa Msheik**

10:45 - 11:00: [Daniel G. Bermes](#) (PI: Ralph T. Schermuly & Henning Gall)

“Lactate and lactate transporters in pulmonary hypertension”

11:00 - 11:15: [Golnaz Hesami](#) (PI: Soni Savai Pullamsetti)

“IRG1/Itaconate axis as an immuno-metabolic regulator of pulmonary hypertension”

11:15 - 11:30: [Merle Antonia Wiegand](#) (PI: Henning Gall & Manuel Richter)

“The right atrium: Underestimated in clinical relevance? - Right atrium function assessment in pulmonary hypertension”

11:30 - 11:45: [Athiththan Yogeswaran](#) (PI: Henning Gall & Ardeschir Ghofrani)

“Risk stratification in pulmonary hypertension”

## **B) LUNG DEVELOPMENT AND BRONCHOPULMONARY DYSPLASIA**

**Tuesday, October 11<sup>th</sup>, at 14:30**

**Chairs: Ali Khadim and Mohammad Amin Mahjoub**

14:30 - 14:45: [Francisco Casado](#) (PI: Rory E. Morty)

“Regulation of ECM metabolism by miR-29c during lung alveolarization”

14:45 - 15:00: [Reshma Jamal](#) (PI: Rory E. Morty)

“Unfolding the in vitro isolated lung model in murine lung alveolarization”

15:00 - 15:15: [Solmaz Khaghani](#) (PI: Rory E. Morty & Katrin Ahlbrecht)

“Exploring the adipocyte differentiation-related protein (ADRP) cell lineage during murine alveolarization”

15:15 - 15:30: [Laura von Schledorn](#) (PI: Ruth Olmer, *DZL BREATH Campus* Hannover)

“Development of an in vitro disease model for primary ciliary dyskinesia (PCD) utilizing patient-specific human induced pluripotent stem cells”

## C) ACUTE RESPIRATORY DISTRESS SYNDROME

Wednesday, October 12<sup>th</sup>, at 10:00

Chairs: Anna-Lena Ament and Georgios Kiliaris

10:00 - 10:15: [Julian Better](#) (PI: Susanne Herold)

“Neutrophil efferocytosis reprograms mitochondrial metabolism to switch alveolar macrophages to a pro-resolution phenotype at the expense of bacterial control”

10:15 - 10:30: [Öznur Aktay Çetin](#) (PI: Rajkumar Savai)

“Specific signals from Influenza infection induce tumor cell killing by orchestrating macrophage phenotype”

10:30 - 10:45: [Theresa Schäfer](#) (PI: Susanne Herold)

“Impact of GM-CSF on lung epithelial cell injury and repair in severe influenza virus pneumonia”

## D) LUNG INFLAMMATION AND IMMUNOMODULATION

Wednesday, October 12<sup>th</sup>, at 12:30

Chairs: Joshua Ayoson and Mohammad Estiri

12:30 - 12:45: [Mohammad Rashedul Alam](#) (PI: Eveline Baumgart-Vogt & Stefan Arnhold)

“Role of peroxisomes in type II alveolar epithelial cells (AECII) and surfactant metabolism in the lung”

12:45 - 13:00: [Stefanie Muriel Herbel](#) (PI: Bernd Schmeck & Wilhelm Goswin Bertrams)

“Screening for eukaryotic motifs in Legionella pneumophila reveals Smh1 as bacterial deacetylase of host histones”

13:00 - 13:15: [Björn Klabunde](#) (PI: Bernd Schmeck)

“NAD metabolism is a key modulator of Streptococcus pneumoniae infections of lung epithelial cells”

13:15 - 13:30: [Sarah Richtmann](#) (PI: Marc Schneider, *DZL TLRC Campus Heidelberg*)

“Glycodelin: Immunomodulator in pregnancy and lung cancer”

**E) CHRONIC OBSTRUCTIVE PULMONARY DISEASE, AIRWAY DISEASE AND AGING**

**Thursday, October 13<sup>th</sup>, at 10:00**

**Chairs: Vidya Lakshmi and Edma Loku**

10:00 - 10:15: [Edibe Avci](#) (PI: Soni Savai Pullamsetti)

“The role of HDAC9 in inflammation and premature aging of the lung”

10:15 - 10:30: [Siddartha Doswada](#) (PI: Norbert Weissmann)

“Cell-specific Noxo1 deletion in a mouse model of cigarette smoke-induced emphysema and pulmonary hypertension”

10:30 - 10:45: [Birte Ehrhardt](#) (PI: Susanne Krauss-Etschmann, *DZL ARCN Campus Borstel*)

“The interaction of asthma risk genes with cigarette smoke and their influence on airway morphology and signaling pathways in *Drosophila melanogaster*”

10:45 - 11:00: [Sarah Miethe](#) (PI: Holger Garn & Daniel P. Potaczek)

“Reduced expression of co-inhibitory receptors on lung CD4<sup>+</sup> T cells in obese house dust mite-exposed C57BL/6 mice”

11:00 - 11:15: [Rafael Castillo Negrete](#) (PI: Peter Jedlicka)

“The role of TGFB1 in 3S-HS biosynthesis in Alzheimer’s disease related tauopathy”

11:15 - 11:30: [Maria Camila Melo Narváez](#) (PI: Mareike Lehmann, *DZL CPC-M Campus Munich*)

“Lung aging in the dish”



## Speaker Introductions and Speaker Session Chairs

**STEPHEN CHAN** by Athiththan Yogeswaran

**VERA KRYMSKAYA** by Eleni Bouloukou

**TOMAS LINDAHL** by Daniel G. Bermes

**SEYED JAVAD MOGHADDAM** by Spyridoula Barmpoutsis

**ENID ROSE NEPTUNE** by Siddhartha Doswada

**ANITA SIMONDS** by Esmeralda Vásquez Pacheco

**MELISSA NORTON** by Daniel Zedler

**VICTOR THANNICKAL** by Ruth Dartsch

## Poster Presentations

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

Poster board number	Presenter (Tuesday, 11 <sup>th</sup> October 2022: 15:30-17:30)
1	<b>Anna-Lena Ament</b> (PI: Susanne Herold)
2	<b>Philipp Friedrich Arndt</b> (PI: Rajkumar Savai)
3	<b>Joshua Ayoson</b> (PI: Rajkumar Savai)
4	<b>Spyridoula Barmpoutsis</b> (PI: Rajkumar Savai)
5	<b>Eleni Bouloukou</b> (PI: Christos Samakovlis)
6	<b>Mohammad Estiri</b> (PI: Susanne Herold)
7	<b>Ali Khadim</b> (PI: Elie El Agha)
8	<b>Georgios Kiliaris</b> (PI: Elie El Agha)
9	<b>Vidya Lakshmi</b> (PI: Norbert Weissmann & Natascha Sommer)
10	<b>Edma Loku</b> (PI: Norbert Weissmann)
11	<b>Mohammad Amin Mahjoub</b> (PI: Miguel A. Alejandro Alcázar)
12	<b>Khaled Abdulrahim Talal Mahmoud</b> (PI: Eveline Baumgart-Vogt)
13	<b>Zahraa Msheik</b> (PI: Soni Savai Pullamsetti)
14	<b>Afshin Noori</b> (PI: Saverio Bellusci)
15	<b>Samuel Olapoju</b> (PI: Soni Savai Pullamsetti)
16	<b>Esmeralda Vásquez Pacheco</b> (PI: Saverio Bellusci)
17	<b>Vinita Sharma</b> (PI: Norbert Weissmann)
18	<b>Sailun Wang</b> (PI: Ralph T. Schermuly & Baktybek Kojonazarov)
19	<b>Daniel Zedler</b> (PI: Manuel Richter & Khodr Tello)