

**Welcome to the 22<sup>nd</sup> Annual Retreat**  
of the  
**International Graduate Programme**  
**Molecular Biology and Medicine of the Lung**



**Rauischholzhausen, Germany**  
**June 24-26, 2026**



**WEDNESDAY, 24.06.2026**

**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*

**CARLA F KIM**

Harvard Medical School, Boston, MA, U.S.A.

“Lung organoids: Windows to mechanisms of lung injury repair, lung disease and cancer”

**10:45 - 11:30**

**Student Presentations – Block A**

**LUNG PROGENITOR CELLS AND REGENERATION**

**11:30 -13:00**

**Room check-in, followed by lunch**

**13:00 - 14:00**

**IRINA PETRACHE**

National Jewish Health, Denver, CO, U.S.A.

“Pulmonary microvascular contributions to emphysema pathogenesis”

**14:00 - 15:00**

**Student Presentations – Block B**

**LUNG AGING**

**15:00 - 17:00**

Poster session, with coffee and snacks

**17:00 – 18:00**

*The Nobel Evening Lecture*

**MARTIN CHALFIE**

*Recipient of the 2008 Nobel Prize in Chemistry*

Columbia University, New York, NY, U.S.A.

“The continuing need for useless knowledge”

**18:00 - end**

Dinner and open bar

**THURSDAY, 25.06.2026**

**07:30 - 09:00**

Breakfast

**09:00 - 10:00**

**KARA GOSS**

UT Southwestern Medical Center, Dallas, TX, U.S.A.

“Unraveling the lifespan cardiopulmonary impacts of arrested development after extreme preterm birth”

**10:00 - 11:15**

**Student Presentations - Block C**

**PULMONARY HYPERTENSION AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE**

**11:15 - 11:30**

Coffee and snacks

**11:30 - 12:15**

**Student Presentations – Block D**

**LUNG INFLAMMATION AND MACROPHAGE PLASTICITY**

**12:15 - 13:30**

Lunch

**13:30 - 15:30**

Group photograph (all *Annual Retreat* participants) followed by coffee pick-up, leading to the “Meet-the-Professor” sessions

**15:30 - 16:30**

**BERNARD MARI**

Université Côte d'Azur, Sophia Antipolis, FRANCE

“Decoding lung fibrosis complexity with transcriptomic approaches”

**16:30 - 17:30**

**Student Presentations – Block E**

**PULMONARY FIBROSIS**

**17:30 - 18:00**

Coffee and snacks

**18:00 - 19:00**

*The Nobel Evening Lecture*

**CRAIG MELLO**

*Recipient of the 2006 Nobel Prize in Physiology or Medicine*

UMass Chan Medical School, Worcester, MA, U.S.A.

“RNAi: A molecular spark in an information inferno”

**19:00 - end**

Dinner, open bar, and entertainment

**FRIDAY, 26.06.2026**

**07:30 - 09:00**

Breakfast

**09:00 - 10:00**

*The Industry Lecture*

**JOHN MORSE**

SCIREQ - an emka TECHNOLOGIES company, Montréal, QC, CANADA

“Making lung models matter: Tools to integrate in vitro and in vivo physiology”

**10:00 - 10:45**

**Student Presentations - Block F**

**LUNG IMAGING AND AIRWAY EPITHELIAL CELLS**

**10:45 - 11:15**

Coffee and snacks

**11:15 - 12:15**

Presentation of MBML coursework certificates and poster prizes

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

**12:15 - 14:00**

**Room check-out and lunch**

**14:00**

Bus Departure from Rauschholzhausen to Giessen

Meeting Point: Parking Lot of the Castle (13:50)

## A) LUNG PROGENITOR CELLS AND REGENERATION

Wednesday, June 24<sup>th</sup>, at 10:45

Chairs: Dana Cojocaru and Daniel Kalina

10:45 - 11:00: Gowtham Boosarpu (PI: Bernd Schmeck & Mareike Lehmann)

“Epithelial inflammaging and epigenetic imprinting limit lung regeneration across the lifespan”

11:00 - 11:15: Ashutosh Tripathy (PI: Ana Pardo-Saganta)

“Understanding the AT1 cell in lung homeostasis, injury and repair”

11:15 - 11:30: Utku Cem Yilmaz (PI: Nico Lachmann, DZL BREATH Campus Hannover)

“Synthetically rewired macrophages to foster lung regeneration post-virus-induced tissue damage”

## B) LUNG AGING

Wednesday, June 24<sup>th</sup>, at 14:00

Chairs: Jamal Nabhanizadeh and Maïke Elisabeth Schneider

14:00 - 14:15: Hanieh Anari Beigidloo (PI: Soni Savai Pullamsetti)

“Age-associated Y chromosome loss drives inflammatory remodeling in chronic lung disease”

14:15 - 14:30: Amine Chahin (PI: Mareike Lehmann)

“The heterogeneity of cellular lung aging as a therapeutic target – On the way to lung regeneration”

14:30 - 14:45: Efthymios Fousekis-Papakonstantinou (PI: Mareike Lehmann)

“Aging-induced extracellular vesicles from lung cells carry a specific SASP”

14:45 - 15:00: Afaq Mushtaq (PI: Christina Malainou & Susanne Herold)

“Age-associated epithelial–mesenchymal crosstalk alteration impairs post-influenza lung regeneration”

## C) PULMONARY HYPERTENSION AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Thursday, June 25<sup>th</sup>, at 10:00

Chairs: Zahra Moazezi Tehrankhah and Danielle Fomferra

10:00 - 10:15: Sandipan Jash (PI: Natascha Sommer)

"Dissecting the role of NDUFA4L2 in pulmonary artery smooth muscle cells exposed to chronic hypoxia and pulmonary hypertension"

10:15 - 10:30: Alexandr Melnikov (PI: Wolfgang Kübler, DZL-Associated Site Charité Berlin)

"The role of the primary cilium in pulmonary arterial hypertension"

10:30 - 10:45: Derrick Opoku (PI: Norbert Weissmann & Marija Gredic)

"E-cigarettes in COPD: Solution or second hit in dual use and after smoking cessation?"

10:45 - 11:00: Elias Primerano (PI: Theodore Kapellos, DZL CPC-M Campus Munich)

"Single-cell transcriptomic profiling reveals aberrant myeloid phenotypes in severe COPD"

11:00 - 11:15: Henrike Treis (PI: Norbert Weissmann & Stefan Hadzic)

"Impaired antioxidant defense increases susceptibility to pathological pulmonary vascular remodeling upon COPD-relevant exposure"

## D) LUNG INFLAMMATION AND MACROPHAGE PLASTICITY

Thursday, June 25<sup>th</sup>, at 11:30

Chairs: Amine Chahin and Aysan Ezaddoustdar

11:30 - 11:45: Isabell Valerie Burhorst (PI: Bernd Schmeck & Anna Lena Jung)

"Extracellular vesicles as potential biomarkers in pneumogenic ARDS"

11:45 - 12:00: Victoria Kehinde Ogungbemi-Alt (PI: Ulrich Matt & Susanne Herold)

"Controlling plasticity of alveolar macrophages for cell-based therapy in lung injury"

12:00 - 12:15: Zahra Moazezi Tehrankhah (PI: Ulrich Matt)

"Establishing defined cell culture conditions for human alveolar macrophages derived from monocytes and iPSCs to study environmental factors"

## E) PULMONARY FIBROSIS

Thursday, June 25<sup>th</sup>, at 16:30

Chairs: Sana Hachem and Afaq Mushtaq

16:30 - 16:45: Daniel Kalina (PI: Malgorzata Wygrecka)

“Time-resolved global proteomics identifies stage specific fibrotic programs in the bleomycin model”

16:45 - 17:00: Kevin Merchant (PI: Gerald Burgstaller, *DZL CPC-M Campus Munich*)

“AI-driven discovery and multiomic characterization of novel antifibrotic compounds”

17:00 - 17:15: Jamal Nabhanizadeh (PI: Rajkumar Savai & Norbert Weissmann)

“Spatial mapping of environmental niche in lung cancer associated fibrosis”

17:15 - 17:30: Laura-Marie Twardowski (PI: Mareike Lehmann)

“Extracellular vesicle-mediated interorgan communication in idiopathic pulmonary fibrosis”

## F) LUNG IMAGING AND AIRWAY EPITHELIAL CELLS

Friday, June 26<sup>th</sup>, at 10:00

Chairs: Gamze Çiğdem Gelincik and Sandipan Jash

10:00 - 10:15: Claudia Benke (PI: Mark O. Wielpütz, *DZL TLRC Campus Heidelberg*)

“Clinical-dose synchrotron phase-contrast CT reveals pulmonary microstructure with near-histological resolution”

10:15 - 10:30: Aysan Ezaddoustdar (PI: Malgorzata Wygrecka)

“Epiregulin promotes expansion of aberrant airway epithelial cells, driving epithelial–mesenchymal miscommunication in lung fibrosis”

10:30 - 10:45: Katharina Koethke (PI: Jan Heyckendorf, *DZL ARCN Campus Kiel*)

“Establishment of a patient-derived airway organoid model to study inflammatory mechanisms in obstructive lung diseases”

## **Speaker Introductions and Speaker Session Chairs**

**MARTIN CHALFIE** by Ashutosh Tripathy

**KARA GOSS** by Laura-Marie Twardowski

**CARLA F KIM** by Marieke Böcker

**BERNARD MARI** by Sukanya Bhat

**CRAIG MELLO** by Lois Fletcher-Wheeler

**JOHN MORSE** by Henrike Treis

**IRINA PETRACHE** by Johanna Kohlhaas

## Poster Presentations

Students: Please hang posters during lunch (11:30-13:00) prior to the poster session.

Poster board number	Presenter (Wednesday, 24 <sup>th</sup> June 2026, 15:00-17:00)
1	<b>Sukanya Bhat</b> (PI: Elie El Agha) “Investigating the mode of action of repair-supportive mesenchymal cells in airway regeneration”
2	<b>Marieke Böcker</b> (PI: Rajkumar Savai) “Spatial metabolic landscapes in lung tumorigenesis”
3	<b>Dana Cojocaru</b> (PI: Norbert Weissmann / Stefan Hadzic) “Pulmonary vascular mural cells shape the distal alveolar niche in COPD”
4	<b>Lois Fletcher-Wheeler</b> (PI: Mareike Lehmann) “Metabolic regulation of lung aging and fibrosis”
5	<b>Danielle Fomferra</b> (PI: Stefan Hadzic) “Impact of oxidative/nitrosative stress modulation on Acta2+ cell-mediated remodeling and regeneration in COPD”
6	<b>Gamze Çiğdem Gelincik</b> (PI: Ana Pardo-Saganta) “Stem-immune interactions in the lung: A conversation promoting lung health and contributing to tissue regeneration”
7	<b>Sana Hachem</b> (PI: Miguel A. Alejandro Alcázar) “Investigating the interplay between the lungs and the skeletal muscle system in COPD-induced mice models and the role of exercise in managing the disease”
8	<b>Fatemeh Kheirollahzadeh</b> (PI: Istvan Vadasz / Martin Diener) “Effects of acute hypercapnia on protein translation and the underlying signaling pathways in alveolar epithelial cells”
9	<b>Johanna Kohlhaas</b> (PI: Susanne Herold) “Establishment of a tuberculosis granuloma model in human lung organoids as a tool to study the role of macrophages in the progression from latent to active disease”
10	<b>Chudamani Nuguri</b> (PI: Norbert Weissmann / Stefan Hadzic) “Airway-to-alveolar repair mechanisms during chronic cigarette smoke-induced lung injury”
11	<b>Maduwuike Okpara</b> (PI: Katrin Laakmann / Bernd Schmeck) “Sepsis-induced macrophage-endothelial interaction: Bacterial extracellular vesicles as modulators of RNase1”
12	<b>Maike Elisabeth Schneider</b> (PI: Susanne Rohrbach / Christoph Rummel) “Cell type-specific effect of Siah2 on the development of right heart failure”
13	<b>Zixiong Shen</b> (PI: Stefan Hadzic) “Aberrant activation of CEACAM6 in AT2 cells reshapes the lung milieu and increases susceptibility to COPD development”
14	<b>Muhammad Faizan Tariq</b> (PI: Susanne Herold / Benjamin Lamp) “Phenotyping of human iPSC-derived lung organoids at single cell resolution and in spatial context”
15	<b>Sardharganesh Hukumathi Venkata</b> (PI: Norbert Weissmann / Natascha Sommer) “The role of mitochondrial cytochrome c oxidase subunit 4 isoform 2 in a hyperoxia-induced mouse model of bronchopulmonary dysplasia”
16	<b>Weiwei Yang</b> (PI: Saverio Bellusci) “Temporal niches of alveolar regeneration after PNX: Regulation of Axin2+ AT2 cell fate by Sca1+ mesenchymal cells via WNT/FGF signaling”
17	<b>Jan Luca Zimmermann</b> (PI: Susanne Rohrbach / Reinhard Dammann) “Functional and molecular characterisation of a cardiomyocyte-specific Penk knockout mouse”

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