

Welcome to the 22nd 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 - 17:45

Student Presentations – Block E

PULMONARY FIBROSIS

17:45 - 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 24th, 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 24th, 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 25th, 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 25th, 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 25th, 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: [Thi Thanh Huyen Phan](#) (*Guest speaker, Medical University of Graz, Graz, Austria*)

“Lung regeneration is fueled by lipid catabolism”

17:30 - 17:45: [Laura-Marie Twardowski](#) (PI: Mareike Lehmann)

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

F) LUNG IMAGING AND AIRWAY EPITHELIAL CELLS

Friday, June 26th, 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 th June 2026, 15:00-17:00)
1	Sukanya Bhat (PI: Elie El Agha) “Investigating the mode of action of repair-supportive mesenchymal cells in airway regeneration”
2	Marieke Böcker (PI: Rajkumar Savai) “Spatial metabolic landscapes in lung tumorigenesis”
3	Dana Cojocaru (PI: Norbert Weissmann / Stefan Hadzic) “Pulmonary vascular mural cells shape the distal alveolar niche in COPD”
4	Lois Fletcher-Wheeler (PI: Mareike Lehmann) “Metabolic regulation of lung aging and fibrosis”
5	Danielle Fomferra (PI: Stefan Hadzic) “Impact of oxidative/nitrosative stress modulation on Acta2+ cell-mediated remodeling and regeneration in COPD”
6	Gamze Çiğdem Gelincik (PI: Ana Pardo-Saganta) “Stem-immune interactions in the lung: A conversation promoting lung health and contributing to tissue regeneration”
7	Sana Hachem (PI: Miguel A. Alejandro Alcázar) “KRT8+ transitional cell accumulation links maternal obesity to impaired alveolar regeneration and smoke susceptibility”
8	Fatemeh Kheirollahzadeh (PI: Istvan Vadasz / Martin Diener) “Effects of acute hypercapnia on protein translation and the underlying signaling pathways in alveolar epithelial cells”
9	Johanna Kohlhaas (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	Chudamani Nuguri (PI: Norbert Weissmann / Stefan Hadzic) “Airway-to-alveolar repair mechanisms during chronic cigarette smoke-induced lung injury”
11	Maduwuike Okpara (PI: Katrin Laakmann / Bernd Schmeck) “Sepsis-induced macrophage-endothelial interaction: Bacterial extracellular vesicles as modulators of RNase1”
12	Maike Elisabeth Schneider (PI: Susanne Rohrbach / Christoph Rummel) “Cell type-specific effect of Siah2 on the development of right heart failure”
13	Zixiong Shen (PI: Stefan Hadzic) “Aberrant activation of CEACAM6 in AT2 cells reshapes the lung milieu and increases susceptibility to COPD development”
14	Muhammad Faizan Tariq (PI: Susanne Herold / Benjamin Lamp) “Phenotyping of human iPSC-derived lung organoids at single cell resolution and in spatial context”
15	Sardharganesh Hukumathi Venkata (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	Weiwei Yang (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	Jan Luca Zimmermann (PI: Susanne Rohrbach / Reinhard Dammann) “Functional and molecular characterisation of a cardiomyocyte-specific Penk knockout mouse”

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