Welcome to the 11th Annual Retreat

of the

International Graduate Programme Molecular Biology and Medicine of the Lung



Rauischholzhausen, Germany June 26-28, 2013





WEDNESDAY, 26.06.2013

Up to 09:30

Arrival at Rauischholzhausen Castle, Registration

09:30 - 09:45

Welcome and Introduction: Rory E. Morty and Werner Seeger

09:45 - 10:45

TROY STEVENS (University of South Alabama, Mobile, U.S.A.) "Pseudomonas aeruginosa Infection: A Tauopathy of the Lung"

10:45 - 12:00

Student Presentations:

PULMONARY HYPERTENSION

12:00 -13:30 Lunch

13:30 - 14:30

NORMAN THAGARD (formerly NASA; now Jacksonville, U.S.A.) "One Astronaut's Experience in Space and How He Got There"

14:30 - 15:30 Student Presentations LUNG CANCER

15:30 - 17:00

Poster session, with coffee and snacks

17:00 - 18:00 Student Presentations LUNG DEVELOPMENT

18:00 - 19:00

The Nobel Lecture

by **WERNER ARBER** (University of Basel, Basel, Switzerland) "Looking Back and Forth to the Roots and the Future of Genomics"

19:00 - end

Dinner and open bar

THURSDAY, 27.06.2013

<u>07:30 - 09:00</u>

Breakfast

09:00 - 10:00

MICHAEL MATTHAY (University of California, San Francisco, U.S.A.) "Mesenchymal Stromal (Stem) Cells: Biology and Potential Therapeutic Value for ARDS"

<u> 10:00 - 11:00</u>

Student Presentations:

ACUTE LUNG INJURY

11:00

Group photograph

11:15 - 13:00

"Meet-the-Professor" sessions, with coffee and snacks

<u>13:00 - 14:00</u>

Lunch

14:00 - 15:00

ERIC WHITE (University of Michigan, Ann Arbor, U.S.A.) "The Extracellular Matrix in Lung Fibrosis: More than just an Endpoint"

15:00 - 16:00

Student Presentations

LUNG FIBROSIS

<u>16:00 - 16:30</u>

Coffee and snacks

16:30 - 17:30

Student Presentations

LUNG PARENCHYMA

17:30 - 19:00

ROBERTO CANESSA & LAURA SURRACO DE CANESSA (Montevideo, Uruguay)

"The Triumph of Human Spirit"

19:00 - end

Dinner and Drinks

FRIDAY, 28.06.2013

<u>07:30 - 09:00</u>

Breakfast

09:00 - 10:00

LAURA DADA (Northwestern University, Chicago, U.S.A.) "Role of the E3-ligase HOIL-1L in Acute Lung Injury"

<u>10:00 - 11:00</u>

Student Presentations:

STEM CELLS AND CELL PLASTICITY IN THE LUNG

11:00 - 11:30

Coffee and snacks

<u>11:30 - 12:30</u>

LESTER KOBZIK (Harvard School of Public Health, Boston, U.S.A.) "Learning from Influenza: Immunomodulators & the Honeymoon Period of Resistance"

<u>12:30 - 13:30</u>

Student Presentations:

MICRO RNAs IN THE LUNG

13:30 - 14:00

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

14:00 - 15:00

Lunch

15:00

Bus Departure from Rauischholzhausen to Giessen Meeting Point: Parking Lot of the Castle 15:00

A) PULMONARY HYPERTENSION

Wednesday, June 26th, at 10:45

Chairs: Gayathri Viswanathan and Jan Schneider

10:45 - 11:00: Elisabetta Gamen (PI: Soni Pullamsetti)

"Characterization of the biological role of class IIa HDACs in pulmonary hypertension"

11:00 - 11:15: Anuar Kalymbetov (PI: Ralph T. Schermuly)

"Role of JAK/STAT signalling in pulmonary arterial hypertension"

11:15 - 11:30: Monika Malczyk (PI: Norbert Weissmann)

"The role of transient receptor potential channels in chronic hypoxia in mice"

11:30 - 11:45: Azadeh Esfandiary (PI: Norbert Weissmann)

"Role of mitochondria in right heart hypertrophy"

<u>11:45 - 12:00:</u> Prakash Chelladurai (PI: Soni Pullamsetti)

"Deregulation of Class I histone deacetylases in human pulmonary arterial hypertension"

B) LUNG CANCER

Wednesday, June 26th, at 14:30

Chairs: Alina Asafova and Saket Ahuja

14:30 - 14:45: Nefertiti El Nikhely (PI: Rajkumar Savai)

"Role of NFkB/IKK2 in the pathogenesis of lung cancer"

14:45 - 15:00: Mirka Didiasova (PI: Małgorzata Wygrecka & Klaus Preissner)

"Ca²⁺ dependent transport of enolase-1 to the cell surface: Impact on tumour cell invasion"

15:00 - 15:15: Sajo Kaduthanam (PI: Ruprecht Kuner & Holger Sültman, DZL Heidelberg Campus)

"Circulating miRNAs as prognostic markers in operable lung adenocarcinoma patients"

15:15 - 15:30: Andrea Glasauer (PI: Navdeep Chandel, Northwestern University)

"Superoxide dismutase 1 inhibition reduces oncogenic Kras-induced lung cancer"

C) LUNG DEVELOPMENT

Wednesday, June 26th, at 17:00

Chairs: Ivana Mižíková and Elpidoforos Sakkas

<u>17:00 - 17:15</u>: Alicia Madurga Hernández (PI: Rory E. Morty)

"The role of hydrogen sulfide in normal and aberrant late lung development"

17:15 - 17:30: Alena Moiseenko (PI: Saverio Bellusci)

"Role of Wnt signaling in smooth muscle cells during development and disease"

17:30 - 17:45: Tatyana Likhoshvay (PI: Rory E. Morty)

"Dissecting TGF-β signalling in lung development and disease: generation of a key tool"

17:45 - 18:00: Cho-Ming Chao (PI: Saverio Bellusci)

"The role of FGF-10 in lung development and disease"

D) ACUTE LUNG INJURY

Thursday, June 27th, at 10:00

Chairs: Luciana Mazzocchi and Marco Schlappkohl

10:00 - 10:15: Nieves Gabrielli (PI: István Vadász)

"Ubiquitination-driven down-regulation of the cell adhesion molecule Na,K-ATPase β -subunit by hypercapnia in alveolar epithelial cells"

10:15 - 10:30: Jennifer Quantius (PIs: Susanne Herold & Jürgen Lohmeyer)

"Influenza virus infection impairs FGFR2b-dependent epithelial regeneration from a distal airway progenitor pool"

<u>10:30 - 10:45:</u> Anja Buchbinder (PI: Konstantin Mayer)

"VEGF-mediated modulation of LPS-induced lung injury"

10:45 - 11:00: Balachandar Selvakumar (PIs: Susanne Herold & Jürgen Lohmeyer)

"Mechanisms of macrophage expansion and functional polarization in influenza virus-induced acute lung injury"

E) LUNG FIBROSIS

Thursday, June 27th, at 15:00

Chairs: Shalini Venkatasan and Balachandar Selvakumar

<u>15:00 - 15:15:</u> Żaneta Sibinska (PI: Ralph T. Schermuly)

"The role of HSP90 α in the lung fibrosis"

15:15 - 15:30: Oleksiy Klymenko (PI: Andreas Günther)

"Biological role of the pro-apoptotic transcription factor C/EBP homologous protein in idiopathic pulmonary fibrosis"

15:30 - 15:45: Gani Oruqaj (PI: Eveline Baumgart-Vogt)

"Influence of TGF-β on peroxisomal metabolism the role of peroxisomes in pulmonary fibrosis"

15:45 - 16:00: Saket Ahuja (PI: Andreas Günther)

"Defective autophagy in Hermansky Pudlak syndrome interstitial pneumonia"

F) LUNG PARENCHYMA

Thursday, June 27th, at 16:30

Chairs: Mirka Didiasova and Cho Ming-Chao

16:30 - 16:45: Michael Shimko (PI: Jeff Fedan, West Virginia University)

"Nerve growth factor reduces amiloride-sensitive Na⁺ transport in human airway epithelial cells"

<u>16:45 - 17:00</u> Jan Phillip Schneider (PI: Matthias Ochs, *DZL Hannover campus*)

"Development of lung (ultra-)structure in SP-D-deficient mice with age and alteration of tissue dimensions in different embedding media - a comparison of methods"

<u>17:00 - 17:15</u>: Hinnerk Schulz-Hildebrandt (PI: TBA, DZL Cluster North Campus)

"Multiphoton tomography and optical coherence microscopy for imaging dynamic cellular process in the airways"

17:15 - 17:30: Jonathan Fallica (PI: Rachel Damico, Johns Hopkins University)

"The potential role of MIF in cigarette smoke-induced emphysema"

G) STEM CELLS AND CELL PLASTICITY IN THE LUNG

Friday, June 28th, at 10:00

Chairs: Lina Jankauskaite and Jennifer Quantius

10:00 - 10:15: Anita Golec (PI: Robert Voswinckel)

"Generation of iPS cells by integrase-deficient lentiviral transduction"

10:15 - 10:30: Yu-Han Huang (PI: Heinrich Sauer)

"Impact of the arachidonic acid/leukotriene signalling pathway for vasculogenesis and leukocyte differentiation of mouse embryonic stem cells"

<u>10:30 - 10:45</u>: Bettina Oehrle (PI: Oliver Eickelberg, DZL Munich Campus)

"Phenotypic profiling of invading lung fibroblasts in 3D cell culture models"

10:45 - 11:00: Alina Asafova (PI: Rajkumar Savai)

"Involvement of circulating fibrocytes in the progression of adenocarcinomas by modulating the tumor microenvironment"

E) MICRO RNAs IN THE LUNG

Friday, June 28th, at 12:30

Chairs: Jordi Ruiz Camp and Elisabetta Gamen

12:30 - 12:45: Daria Dontireddy (PI: Robert Voswinckel)

"Identification of alveolar fibroblast subset-specific miRNA and mRNA expression profiles in postnatal lung development"

<u>12:45 - 13:00:</u> Adriana Contreras (PI: Guillermo Barreto)

"microRNA-mediated transcriptional regulation"

13:00 - 13:15: Marco Schlappkohl (PI: Konstantin Mayer)

"Role of miRNAs in the resolution of acute lung injury"

13:15 - 13:30: Elpidoforos (Akis) Sakkas (PI: Rory E. Morty)

"MicroRNA dynamics in normal and pathological late lung development"

Speaker Introductions

Werner Arber by Nieves Gabrielli

Norman Thagard by Anuar Kalymbetov

Troy Stevens by Anja Buchbinder

Michael Matthay by Adriana Contreras

Eric White by Tatyana Likhoshvay

Roberto Canessa & Laura Surraco de Canessa by Elpidoforos Sakkas

Laura Dada by Alicia Madurga Hernández

Lester Kobzik by Nefertiti El Nikhely

Poster Presentations:

Poster board	Presenter (Wednesday)
number	
1	Amit Shrestha
2	Anna Lena Merkel
3	Balram Neupane
4	Christina Herkt
5	Christoph Arens
6	Dijana Iloska
7	Gayathri Viswanathan
8	Ivana Mižíková
9	Jan Schneider
10	Jordi Ruiz Camp
11	Karla Rubio
12	Kathrin Siebers
13	Lina Jankauskaite
14	Luciana Mazzocchi
15	Mariola Bednorz
16	Natalia El-Merhie
17	Rebecca Hasseli
19	Salma Dilai
19	Shalini Venkatesan
20	Trevor Stevens