Programming the Lung

Epigenetic control of lung biology through histone and chromatin modification

The seventh scientific symposium of the
University of Giessen and Marburg Lung Center School

Schlosshotel Weilburg, Hessen, Germany
12th – 13th November, 2012

UGMLC
UNIVERSITIES OF GIESSEN & MARBURG LUNG CENTER

HESSEN

LOEWE
Exzellente Forschung für Hessens Zukunft

DZL
Deutsches Zentrum für Lungenforschung

Monday, 12th November 2012

08:45 **Student bus arrival from Giessen**

08:45 – 09:00 **Badge pickup** (coffee available)

09:00 – 09:15 **Welcome** (Rory E. Morty, Dorothea M. Peters, Florian Veit)

09:15 – 10:45 **Asthma and Airway Inflammation**
Chairs: Nieves Gabrielli and Gani Oruqaj

09:15 – 10:00 DAVID A. SCHWARTZ (National Jewish Health, Denver)
Asthma: an epidemic caused by epigenetics

10:00 – 10:45 IAN M. ADCOCK (Imperial College, London)
Chromatin modifications and non-coding RNAs in airway inflammation

10:45 – 11:15 **Coffee break**

11:15 – 12:45 **COPD and ALI**
Chairs: Łukasz Wujak and Mariola Bednorz

11:15 – 12:00 IRFAN RAHMAN (University of Rochester)
Sirt1 deacetylase and senescence in COPD

12:00 – 12:45 BERND SCHMECK (University of Marburg)
Chromatin modifications in pneumonia and acute lung injury

12:45 – 14:15 **Group photograph, followed by lunch**

14:15 – 15:45 **Lung Cancer**
Chairs: Aleksandra Tretyn and Alicia Madurga-Hernández

14:15 – 15:00 STEVEN A. BELINSKY (Lovelace Respiratory Research Institute, Albuquerque)
Chromatin remodeling as a driver and target for lung cancer

15:00 – 15:45 JUAN SANDOVAL (Bellvitge Biomedical Research Institute, Barcelona)
DNA methylation signatures for prognosis in non-small cell lung cancer

15:45 – 16:15 **Coffee break**

16:15 – 18:30 **Pulmonary Hypertension and Histone Deacetylases**
Chairs: Prakash Chelladurai and Elisabetta Gamen

16:15 – 17:00 SONI PULLAMSETTI (Max Planck Institute, Bad Nauheim)
Role of histone deacetylases in the pathophysiology of pulmonary hypertension

17:00 – 17:45 TIMOTHY MCKINSEY (University of Colorado, Denver)
Regulation of pathological cardiac and lung remodeling by histone deacetylases

17:45 – 18:30 JIM DAVIE (Manitoba Institute of Child Health, Winnipeg)
Dynamic histone acetylation and alternative splicing

18:45 **Dinner, followed by open bar**

Tuesday, 13th November 2012

09:00 – 11:00 **Morning Session: Lung Development I**
Chairs: Elpidoforos Sakkas and Adriana Contreras

09:00 – 09:45 ROBERT H. LANE (University of Utah, Salt Lake City)
Early life events affect pulmonary epigenetics

09:45 – 10:30 MARIA I. RAMIREZ (Boston University)
Interactions of long non-coding RNAs and histone modifying proteins contribute to lung gene regulation in development and disease

10:30 – 11:00 **Coffee break**

11:00 – 12:00 **Morning Session: Lung Development II**
Chairs: Tatyana Likhoshvay and Elie El Agha

11:00 – 11:45 WEI SHI (Children's Hospital Los Angeles)
MMP9 expression controlled by a TGF-β/SIRT1 epigenetic mechanism plays a critical role in alveolar homeostasis

11:45 – 12:30 GUILLERMO BARRETO (Max Planck Institute, Bad Nauheim)
HMGA2 mediated epigenetic regulation of GATA6 controls epithelial WNT signaling during lung development and homeostasis

12:30 – 14:00 **Lunch**

14:00 – 18:00 **METHODOLOGY WORKSHOP: Next Generation Sequencing**
Workshop Leader: THOMAS WERNER (Munich/Ann Arbor)
Note: This workshop includes two short coffee breaks

18:00 – 18:10 **Closing** (Rory E. Morty)

18:30 **Student bus departure from Weilburg to Giessen**

19:00 **Dinner for speakers and guests staying overnight (Weilburg)**

Notes