

GRK 2338 RTG
**“Targets in Toxicology - Deciphering Therapeutic
Targets in Lung Toxicology”**

Annual Research Retreat 2022

Haus der bayrischen Landwirtschaft Herrsching
July 26, 2022

PROGRAM



GRK 2338 Retreat PROGRAM

09:30 – 09:45 Thomas Gudermann “Welcome”

Session 1 Chair: Tatiana Abikeeva

09:45 – 09:55 **Gonxhe Lokaj – P01 Ph.D. 2nd Cohort**

Analysis of ligand binding at human and insect nAChRs

09:55 – 10:05 **Fee Gölitz – P02 Ph.D. 2nd Cohort**

Investigation of novel therapeutic approaches in organophosphate-induced lung injury using precision cut lung slices (PCLS)

10:05 – 10:15 **Helena Sieber – P03 Ph.D. 2nd Cohort**

Detection and identification of protein-adducts from blood and tissue as systemic and local forensic biomarkers of exposure to inhalational toxicants

10:15 – 10:25 **Lena Schaller – P04 Ph.D. 2nd Cohort**

TRPM2 and TRPV4 channels in endothelial and epithelial signal transduction cascades after acute lung injury

10:25 – 10:45 Coffee

Session 2 Chair: Tatiana Abikeeva

10:45 – 10:55 **Aakruti Nayak – P05 Ph.D. 2nd Cohort**

Effects of long-term oxygen therapy on p53 dependent cellular crosstalk in idiopathic pulmonary fibrosis – studies in advanced organoid models

10:55 – 11:05 **Ahmed Agami – P06 Ph.D. 2nd Cohort**

Distal lung cell circuit dynamics in human lung fibrogenesis

11:05 – 11:15 **Marie Zöllner – P07 Ph.D. 2nd Cohort**

Disease - and cell type-specific responses of human bronchial epithelial cells to cigarette smoke

- 11:15 – 11:25 **Eva-Maria Weiden – P08 Ph.D. 2nd Cohort**
Role of TRPML1 in chronic toxic lung disease
- 11:25 – 11:35 **Tatiana Abikeeva – P09 Ph.D. 2nd Cohort**
Targeted delivery of RNA oligonucleotides to treat pulmonary fibrosis
- 11:35 – 11:45 **Leonor Correia – P10 Ph.D. 2nd Cohort**
Role of TRPM6 and TRPM7 channels for the uptake of physiological and toxic divalent cations in AII cells
- 11:45 – 11:55 **Jianlong Jia – P11 Ph.D. 2nd Cohort**
Identification of the cells of origin of squamous cell lung carcinoma
- 11:55 – 12:05 **Elisa Fiedler – P11 MD 3rd Cohort**
Causative molecular signatures of early-stage squamous cell lung carcinoma
- 12:05 – 13:30 *Lunch*

Session 3

Chair: Leonor Correia

- 13:30 – 13:40 **Katharina Müller-Dott – P03 Ph.D. 1st Cohort**
Identification of Sulfur Mustard-induced TRPA1 Channel Modifications and TRPA1 Activation by Different Alkylating Agents
- 13:40 – 13:50 **Michal Mastalerz – P07 Ph.D. 1st Cohort**
Susceptibility and response of primary human bronchial epithelial cells to environmental agents
- 13:50 – 14:00 **Barbara Spix – P08 Ph.D. 1st Cohort**
TRPML3 in lung emphysema and COPD
- 14:00 – 14:10 **Sarah Zeitlmayr – P10 Ph.D. 1st Cohort**
TRPM7 activity restrains plasmin activity and promotes fibronectin and collagen levels in primary human lung fibroblasts
- 14:10 – 14:20 **Yves Haufe – P01 Ph.D. 1st Cohort**
Characterization of nicotinic acetylcholine receptor modulators with a focus on bispyridinium compounds as possible treatments for organophosphate poisoning
- 14:20 – 14:30 **Christian Schremmer – P04 Ph.D. 1st Cohort**
TRP Channels in Pulmonary Disease & Lung Toxicology

- 14:30 – 14:40 **Georgia Giotopoulou – P11 Ph.D. 1st Cohort**
Signatures of Smoke and Irradiation on lung Adenocarcinoma (SISTA)?
- 14:40 – 15:00 *Coffee*
- 15:00 – 15:10 **Mane Mkhitarian – P08 MD 3rd Cohort**
TRPML and two-pore channels in lung function and disease
- 15:10 – 15:20 **Keyne Talbot – P08 MD 3rd Cohort**
Function of TPCs in mast cells: role in Asthma?
- 15:20 – 15:30 **Carina Steinchen – P02 MD 3rd Cohort**
Immunomodulation of age-dependent alveolar stem cell function
- 15:30 – 15:40 **Phoebe Cabanis – P05 MD 3rd Cohort**
3D co-culture model of human fibroblasts and iAT2s to study the cellular crosstalk
- 15:40 – 15:50 **Elisabeth Dick – P07 MD 1st Cohort**
Effects of cigarette smoke on extracellular matrix dynamics in the bronchial epithelium
- 15:50 – 16:00 **Ashesh Chakraborty – P07 Affiliate**
Establishment of human in-vitro model for lung epithelial repair and regeneration
- 16:00 – 16:10 **Lilith Trassl – P11 Affiliate**
Transcriptomic characterization of malignant pleural effusions for discovery of diagnostic and prognostic signature
- 16:10 – 16:30 *Coffee*
- 16:30 – 16:40 **GRK 2338 Poster Award**
Announcement of the two winners

RTG GRK 2338 review

- 16:45 – 18:00 **Guidelines for Reviewing Renewal Proposals for RTG GRK 2338**
- *General Information on the procedure*
 - *Review criteria*
 - *Additional aspects of the review*
- 18:00 *Dinner*