

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

Annual Research Retreat 2026

Schloss Tutzing
July 6 – July 7, 2026

PROGRAM



Research Training Group 2338 – Targets in Toxicology



Monday, 06.07.2026

11:00 – 11:10 **Prof. Dr. med. Thomas Gudermann**
"Welcome"

Session 1: Chair: Nina Amrhein & Alexander Diederichs

11:10 – 11:55 **Prof. Dr. Kai Kehe**
Pharmakologie und Toxikologie - Herausforderungen in der Zeitenwende (Talk in German)

12:00 – 12:20 **Vasco Peixoto – P10**
Mapping the function of TRPM7 in respiratory cells

12:30 – 13:30 --- Lunch ---

13:45 – 14:05 **Rosa Reithmeir – P01**
Identification of interaction-partners of the pro-inflammatory P2X7 receptor by proximity labelling

14:10 – 14:30 **Anna van Echten – P02**
Effect of Chloropicrin on Precision-Cut Lung Slices

14:35 – 14:55 **Pranavkumar Shadamarshan Rengasayee**
Functional dissection of neuroendocrine differentiation in Small-Cell Lung Cancer (SCLC) models

15:00 – 15:20 **Sofia Faraklou – Affiliate P04**
The role of the Transient Receptor Potential V2 (TRPV2) channel in virus-induced lung fibrosis

15:30 – 15:50 --- Coffee ---

Session 2: Chair: Nina Amrhein & Alexander Diederichs

15:50 – 16:10 **Anja Michl – P06**
Spatially Resolved Single Cell Analysis of Human Lung Aging

16:15 – 16:35 **Ghofrane Ben Helal – P12**
Aptamers targeted delivery of nucleoside drugs

16:40 – 17:00 **Alexa Wachtler – P03**
Inhibition of α -Chymotrypsin by Organophosphorus Compounds: Combining a Fluorescence-Based Activity Assay with Mass Spectrometry Adduct Analysis

17:05 – 17:25 **Elena Piran – Affiliate P04**
From structure to function: applying x-ray crystallography to decode TRPM6's kinase domain

17:30 – 17:45 *Group photo in the garden*

18:00 – 19:00 --- Dinner ---

19:30 **Networking and Scientific Exchange**

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Tuesday, 07.07.2026

08:00 – 09:00 --- Breakfast ---

Session 3: Chair: Vasco Peixoto & Pranavkumar Shadamarshan Rengasayee

- 09:00 – 09:45 **Prof. Dr. Claudia Staab-Weijnitz**
Collagen Biosynthesis in Pulmonary Fibrosis: From Post-Translational Modifications to Moonlighting Functions
- 09:50 – 10:10 **Osama Huzain – P05**
Modelling the alveolar niche using mono-, co-, and triple-culture systems to mimic the inflammatory response to inhaled carbon-based nanomaterial
- 10:15 – 10:35 **Susanne Hermann – P11**
Sex Differences in Immune Response to Checkpoint Inhibition in non-Small Cell Lung Cancer Patients
- 10:35 – 10:55 --- Coffee ---
- 10:55 – 11:15 **Randhwaj Pratap Singh – P04**
Role of TRPV4 in Lung Interstitial Macrophages
- 11:20 – 11:40 **Alexander Diederichs – P09**
Cell-selective miRNA targeting of alveolar macrophages in COPD
- 11:45 – 12:05 **Alisa Riediger – P07**
Cigarette smoke-induced airway loss, mediated by CD8+ T cells in COPD progression
- 12:10 – 12:25 **Nina Anna-Maria Shelby-Amrhein – MD P04**
Structural Context of a Kinetically Relevant Residue in $G\alpha$ proteins
- 12:35 – 13:35 --- Lunch ---

Session 4: Chair: Vasco Peixoto & Pranavkumar Shadamarshan Rengasayee

- 13:45 – 14:05 **Zala Serianz – P08**
TRPML Channels in Lung Disease
- 14:10 – 14:30 **Ebru Haholu – Affiliate P04**
Structural Biology of Membrane Protein Complexes: Insights from a lipoprotein transporter
- 14:35 – 14:55 **Dmytro Sirokha – Affiliate P07**
Single-Cell RNA Sequencing Identifies Stage-Specific Myeloid Dysregulation in Pulmonary Fibrosis
- 15:00 – 15:15 **Isabella Valerie von Koss – MD P08**
TMEM63 proteins as mechano- and osmosensors and their interaction with endolysosomal cation channels
- 15:20 – 15:35 **Abdel Hamad – MD P11**
Environmental effects and seasonal variability in patients with benign and malignant pulmonary nodules
- 15:35 – 15:50 --- Coffee ---



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- 15:50 – 16:05 **Elody Man – MD P11**
Proinflammatory Profiles and Tumour Cachexia in Lung Cancer: Risk and Early Detection in a Longitudinal Cohort
- 16:10 – 16:25 **Isabella Aulinger – MD P11**
The soluble interleukin-2 receptor as a potential predictive biomarker for toxicity and efficacy in immune checkpoint inhibitor therapies with and without chemotherapy in non-small cell lung cancer
- 16:30 – 16:45 **Leo Müller – MD P11**
Postoperative concentration of cytokines and ctDNA in pleural effusion
- 16:50 **Thomas Gudermann**
“Closing”