

3rd 3R-Symposium

“Animal-free Methods in Pharmaceutical Research”



October 18th, 2024

Saarland University, Campus Saarbrücken – Aula A3 3

Organizers and Chairs

Dr. Marius Hittinger, Dr. Christina Körbel, Prof. Matthias Laschke, Prof. Claus-Michael Lehr, Prof. Marc Schneider and Prof. Daniela Yildiz

Advisory Board

Dr. Sylvia Wagner, Prof. Martin Empting

Kindly supported by

3R-Plattform Saar | Ministerium für Umwelt, Klima, Mobilität, Agrar und Verbraucherschutz |
Helmholtz Institute for Pharmaceutical Research Saarland & Saarland University | MucosaTec GmbH |
PharmBioTec gGmbH | URSATEC GmbH

AGENDA:

9:00 Opening and Welcome Address

- **Sebastian Thul** (Secretary of State, Saarland Ministry for the Environment, Climate, Mobility, Agriculture and Consumer Protection)
- **Prof. Dr. Robert Ernst** (Vice president for Research and Outreach, Saarland University)

09:30 Keynote I (Chair: Prof. Lehr)

Prof. Nicole Teusch (Department of Pharmaceutical Biology and Biotechnology, Heinrich-Heine University of Düsseldorf)

Tumor microenvironment on-chip model for precision drug discovery in pancreatic cancer

10:00 Short presentations I (Chair: Prof. Schneider)

- Dr. Yvonne Kohl, Fraunhofer Institute for Biomedical Engineering IBMT:
New Approach Methods for predictive toxicology: Are we on the right track? (10:00 – 10:15 a.m.)
- Dr. Maximiliane Wußmann, Fraunhofer Institute for Silicate Research ISC:
Efficacy in Focus: *In Vitro* Barrier Models for Pharmacological Studies (10:15 – 10:30 a.m.)
- Dr. Sabrina Schnur/Verena Vogel, Department of Pharmaceutics and Pharmaceutical Technology, Uds/htw Saarland:
Development of a modular fluid system to investigate the permeation of drugs from BCS I and BCS III classes through an epithelial barrier to predict pharmacokinetics (10:30 – 10:45 a.m.)
- Simone Lichtner, Department of Pharmacy, Biopharmaceutics and Pharmaceutical Technology, Uds:
SaAr *in vitro*: Advancing Drug Safety and Efficacy with *in vitro* Models and High-Throughput Proteomics in inflammatory diseases (10:45 – 11:00 a.m.)

11:00 Coffee break

11:30 Keynote II (Chair: Dr. Hittinger)

Dr. Marta Venczel (early development, Sanofi, Frankfurt)

Advancing *in vitro* assays to substitute *in vivo* experiments

12:00 Short presentations II (Chair: Dr. Wagner)

- Aghiad Bali, Department Drug Delivery Across Biological Barriers, HIPS:
3D-Bioprinting of bacterial biofilms for modeling chronic infections and investigating novel therapeutics and their delivery (12:00 – 12:15 p.m.)
- Dr. Anna M. Jötten, Ludwig-Maximilians-University Munich | PHIO scientific GmbH:
Unveiling the Dynamics of Scratch Assays: Continuous, Label-Free Monitoring of Cell Migration Using Lensfree Imaging and AI (12:15 – 12:30 p.m.)
- Mariana S. Guedes, Institute of Experimental and Clinical Pharmacology and Toxicology, UoS:
A lentiviral reporter platform for live imaging screening of 3D human lung organoids (12:30 – 12:45 p.m.)
- Pia Empting, SCIVII-labs, Saarbrücken:
3-R in regulatorischen Tierversuchen - Quo Vadis? (12:45 – 1:00 p.m.)

13:00 Poster Session & Finger Food

14:00 Keynote III (Chair's: Prof. Laschke/ Prof. Yildiz)

Prof. Stephanie Krämer (Laboratory Animal Science and Animal Welfare & 3R-Centre, Justus-Liebig University Giessen)

Wo stehen wir in der biomedizinischen Forschung und welche Rolle spielt darin noch das 3R-Konzept?

14:30 Short presentations III (Chair's: Prof. Laschke/ Prof. Yildiz)

- Charline Sommer, Fraunhofer Institute for Toxicology and Experimental Medicine, Hannover:
Using irAOPs to Uncover Immunotoxicity Mechanisms and Refine Experimental Approaches (2:30 – 2:45 p.m.)
- Nicolas Freche, Department of Radiation Therapy, Saarland University Hospital:
Isolated skin irradiation for minimal radiation exposure of other organs and tissues (2:45 – 3:00 p.m.)
- Jan M. Federspiel, Institute for Legal Medicine, Saarland University, Faculty of Medicine:
Postmortem retrograde-dye perfusion of the human heart – First steps in body donors towards a postmortem functional assessment of the heart (3:00 – 3:15 p.m.)

15:15 Adjourn