



## University of Stuttgart

3R-BioMedicUS Stuttgart Research Initiative

<https://www.verbund.uni-stuttgart.de/3r-biomedicus/>



WINTER SEMESTER 2023

TUESDAYS, 4 – 5.30 PM

ALLMANDRING 31  
CAMPUS VAIHINGEN  
ROOM 0.106

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@3R-BioMedicUS - Stuttgart  
Research Initiative

## Lecture series

### *Ex vivo versus in vivo biomedical systems*

24.10.23 Prof. Dr. Roland Kontermann „Animal experiments: regulatory aspects, planning, limits and challenges“

31.10.23 Prof. Dr. Ingrid Ehrlich „Neuronal and organotypic slice culture systems in brain research: applications and limitations“

07.11.23 Prof. Dr. Monilola Olayioye „The power of organoids in biomedical research and personalized medicine: potential and limitations“

### *De novo systems in biomedical research*

14.11.23 Prof. Dr. Giorgio Cattaneo „Biologized cardiovascular models for *in vitro* research“

21.11.23 Jun.-Prof. Dr. Michael Heymann „*De novo* tissue engineering, bioprinting, plant-based ECM protein production“

### *In silico – the power of modeling and simulation of human physiology*

28.11.23 Dr. Tian Qiu „Cyber-physical organ models for surgical training and quantitative assessment“

05.12.23 Prof. Dr. Oliver Röhrl „Multi-scale and multi-physics models of the musculoskeletal system: in-silico investigation of movement, neuromuscular diseases and more“

12.12.23 Prof. Dr. Tobias Siebert „Organ models: Determination of realistic parameters, modeling, and validation“

### *3R principles and ethical issues*

16.01.24 Prof. Dr. Thomas Zoglauer „Ethics in Biomedical Research“

23.01.24 Dr. Sergio Wittlin „Refinement of animal experiments: focus on malaria research“

30.01.24 Dr. Norbert Alzmann „Animal ethics with special emphasis on animal experimentation“

