

# E I N L A D U N G

## zum ZHMB Kolloquium

### Vortrag von

**Prof. Dr. Stefanie Müller-Schüssele**  
(RPTU Kaiserslautern-Landau, Molecular Botany)

am

**Montag, 02. Dezember 2024**  
**12:30 – 14:00 Uhr**

**Campus Saarbrücken, Gebäude B 2.1 – Hörsaal 0.02**

Link für MS Teams: <https://tinyurl.com/48byptbd>

Dr. Stefanie Müller-Schüssele is Professor for Molecular Botany at the RPTU Kaiserslautern-Landau. Her research expertise is in Molecular Cell Biology, organelle dynamics, redox biology and evolution. Further, she has deep knowledge and experience with the model moss *Physcomitrium patens*, an early land plant unique for targeted genetic modification via homologous recombination and thus not only essential for basic research but also for biotechnological application.

### **Two gentlemen in the bathtub: Dynamic redox steady states in plant subcellular compartments**

Rapidly changing environmental conditions challenge plants, as reactive oxygen species (ROS) are formed by overreduction of the mitochondrial and/or chloroplast electron transport chains. In contrast, specific ROS generation in the extracellular apoplast is necessary for cell growth, reproduction, long distance signaling and the defense against pathogens. In this talk I will give an overview of redox dynamics at the (sub)cellular level during oxidative challenge, addressing important pathways for stress resilience, with a focus on the glutathione/glutaredoxin system.