



Der Vorsitzende des Promotionsausschusses

EINLADUNG

Hiermit lade ich ein zum öffentlichen Promotionskolloquium von

Frau M.Sc. Roya Shafiei
Wirkstoffdesign und Optimierung
(Prof. Dr. Anna K. H. Hirsch)

am

Freitag, 06.02.2026, 14:00 Uhr s.t.

per Videokonferenz: Link für MS Teams: <https://bit.ly/4a1vNeN>

Raum für die Prüfung: Seminarraum 0.27 am HIPS, Campus E8.1

Thema der Dissertation:

Targeting LasB in *Pseudomonas aeruginosa*: A Multifaceted Antivirulence Strategy for Lung Infections

Pseudomonas aeruginosa is a major cause of pulmonary infections and a key driver of the global antimicrobial resistance (AMR) crisis due to its robust resistance mechanisms and virulence factors. LasB, a metalloprotease secreted by *P. aeruginosa*, contributes to lung pathogenesis by disrupting epithelial barriers and modulating immune responses. Using human lung cell models, we demonstrate that LasB functions both as a structural disruptor and as a regulator of host defense pathways. Inhibiting LasB preserves barrier integrity, restores immune responses, and enhances antibiotic efficacy. These findings deepen our understanding of *P. aeruginosa* pathogenesis and highlight antivirulence therapies as promising strategies to combat AMR.

Saarbrücken, 23. Januar 2026



Prof. Dr.-Ing. Georg Frey