



Der Vorsitzende des Promotionsausschusses

EINLADUNG

Hiermit lade ich ein zum öffentlichen Promotionskolloquium von

Herr M. Sc. Felix Deschner

Mikrobielle Naturstoffe
(Prof. Dr. Rolf Müller)

am

Freitag, 29. November 2024, 16:00 Uhr s.t.

per Videokonferenz; Link für MS Teams: <https://hips.saarland/promotion>

Raum für die Prüfung: HIPS, Geb. E8.1, Raum 0.27

Thema der Dissertation:

Biological Evaluation of Antibiotics overcoming Resistance - Natural Product Chlorotonil and synthetic Nitroxoline

Antimicrobial resistance is a threat to public health, and the WHO constantly calls for new antibacterial agents addressing new targets. New-generation antibiotics can come from the discovery of new chemical scaffolds as for example from novel natural products, or from the rekindling and repurposing of old antibiotics. This thesis covers analyses of both, the natural products chlorotonil, and the synthetic nitroxoline. Chlorotonil was optimized into the lead molecule dehalogenil, followed by studies on its mode of action and resistance in relevant human pathogens. Further, the activity, resistance, and mode of action of nitroxoline was reinvestigated, followed by an in-depth characterisation of its major metabolites. The goal of this work was to assess the potential of both molecules to counteract the global antimicrobial resistance crisis.

Saarbrücken, 14. November 2024

Prof. Dr. Uli Kazmaier