



Der Vorsitzende des Promotionsausschusses

EINLADUNG

Hiermit lade ich ein zum öffentlichen Promotionskolloquium von

Herrn M.Sc. Sven Uwe Lauterbach
Pharmazeutische und Medizinische Chemie
(Prof. Dr. Christian Ducho)

am

Dienstag, 29.09.2026, 15:00 Uhr s.t.

per Videokonferenz: Link für MS Teams: <https://bit.ly/3SsCNek>

Raum für die Prüfung: Gebäude C1.7, Mikroskopierraum 0.07

Thema der Dissertation:

Pseudouridimycin and its derivatives as potential new antibiotics

The aim of this dissertation was to use derivatives of the novel antibiotic pseudouridimycin (PUM) to initiate the development of a dual inhibitor against the two essential bacterial enzymes RNA-polymerase (RNAP) and MraY. In a structure activity relationship (SAR) study, two distinct core structures of PUM were examined and the introduction of lipophilic moieties was explored. Moreover, first insights into the synthesis of a pseudouridine nucleoside for modified muraymycins are reported.

Overall, an improved synthetic strategy was established, enabling the successful preparation of new simplified deoxy PUM analogues. The biological evaluation revealed a new lead structure as dual inhibitor of both targets (RNAP and MraY) providing a promising starting point for further studies.

Saarbrücken, 15. September 2026



Prof. Dr.-Ing. Georg Frey