



Der Vorsitzende des Promotionsausschusses

EINLADUNG

Hiermit lade ich ein zum öffentlichen Promotionskolloquium von

Herr Apotheker Thomas Kuhn
Lehrstuhl für Pharmazeutische Biologie
(Prof. Dr. Gregor Fuhrmann)

am

Mittwoch, 5. März 2025, 12:00 Uhr s.t.

per Videokonferenz; Link für MS Teams:

<https://teams.live.com/join/9381839415242?p=iTrQIIHK0TOU516a72>

Raum für die Prüfung: Gebäude E8 1. Raum: Seminarraum 0.27

Thema der Dissertation:

Anti-inflammatory microparticles for the treatment of autoimmune diseases

Probiotic bacteria possess anti-inflammatory properties, making them candidates for treatment of inflammation. Their origin as living organisms makes them unsuitable for therapeutic use in e.g. immunosuppressed patients. Here, a novel bacteriomimetic therapeutic was developed by coupling the vesicles (MVs) produced by *Lactobacillus casei* and *Lactobacillus plantarum* to microparticles (MPs). Properties of the MVs depended on bacterial culture conditions. MV-coated MPs showed anti-inflammatory effects in vitro (barrier restoration in enterocytes). Anti-inflammatory properties were also observed in a wound healing model, where the MV-coated MPs improved wound healing in mice. This shows the potential of the MVs in anti-inflammatory therapy and the advantages of coupling them to MPs in a bacteriomimetic system.

Saarbrücken, 19. Februar 2025

Prof. Dr. Uli Kazmaier