



Der Vorsitzende des Promotionsausschusses

EINLADUNG

Hiermit lade ich ein zum öffentlichen Promotionskolloquium von

Herrn M.Sc. Marc Blanch Asensio
Materialsynthese und Werkstoffentwicklung
(Prof. Dr. Aránzazu del Campo Bécares)

am

Montag, 6. Juli 2026, 10:00 Uhr s.t.

per Videokonferenz: Link für MS Teams: <http://bit.ly/3QkDzZv>


Raum für die Prüfung: INM, Geb. D2.5, Leibniz-Saal (5. Etage).

Thema der Dissertation:

Programming Probiotic Lactobacilli Towards Next-Generation Probiotics

Lactiplantibacillus plantarum is a probiotic bacterium with significant potential in health-related applications. However, its broader use has been limited by challenges in genetic transformation and a limited genetic toolbox for advanced programmability. This thesis describes a rapid direct-cloning strategy to overcome transformation barriers and focuses on expanding the genetic toolbox of *L. plantarum* through the discovery and characterization of novel genetic parts, mediating enhanced gene expression, improved protein secretion, and tunable plasmid retention. In addition, bacteria retained functionality when encapsulated within alginate beads as Engineered Living Materials, enabling switchable protein release from biocompatible materials and opening new opportunities for living therapeutics.

Saarbrücken, 22. Juni 2026


Prof. Dr.-Ing. Georg Frey