LMU KLINIKUM

Doctoral Researcher / PhD position in host-microbial interactions (part time 65%) (m/f/d)

Medizinische Klinik II (Gastroenterologie und Hepatologie)

The Hospital of the University of Munich, Germany, is one of the largest and most competitive university hospitals in Germany and Europe. 48 specialized hospitals, departments and institutions harbouring excellent research and education provide patient care at the highest medical level with around 11.000 employees.

WORKPLACE	Campus Großhadern	DATE OF ENTRY	01.04.2026
WORKING HOURS	Part time	APPLICATION DEADLINE	01.02.2026
INSTITUTION	Medizinische Klinik II (Gastroenterologie und Hepatologie)	REFERENCE NUMBER	2026-K-0006
DEPARTMENT	Forschung		

Scope of duties

Join our excellent team in the Host–Microbial Interactions research group led by Prof. Misselwitz and contribute to an innovative project within the newly established Transregional Collaborative Research Center TRR 425, "Desmosomal Dysfunction in Epithelial Barriers" (DEFINE). This multidisciplinary research consortium aims to elucidate the dynamic molecular and cellular mechanisms underlying desmosome dysfunction. TRR 425 integrates cutting-edge technologies with translational approaches, including the use of patient-derived samples.

This tandem project (A04; Prof. Misselwitz, Munich, and Dr. Gomez de Agüero, Würzburg) investigates how maternal microbial metabolites during pregnancy and early life shape the development and long-term integrity of epithelial barriers in the skin (Würzburg) and intestine (Munich). Using advanced experimental models, the project explores how these metabolites strengthen desmosomal structures and counteract bacteria-induced barrier disruption, thereby advancing our understanding of inflammatory diseases such as inflammatory bowel disease (IBD) and inflammatory skin disorders.

A central aim of the project is to unravel how the crosstalk between tissue developmental stage and the microbial community modulates desmosome function and influences susceptibility to inflammatory gut and skin diseases. Ultimately, the project seeks to identify targeted microbiome-based therapeutic strategies, including bacteriophage therapy, to eliminate harmful bacteria, reinforce desmosome-mediated barrier integrity, and reduce inflammation.

Our research group is pleased to offer a PhD position with a focus on gastroenterology and intestinal barrier integrity, providing an exciting opportunity to contribute to cutting-edge research on host–microbe interactions in the gut.

Your tasks:

- Fulfilment of research tasks within the framework of this DFG-funded TRR subproject
- Handling of complex cell culture models, including intestinal organoids and bacterial co-culture systems
- Performing in vitro and in vivo experiments
- Application of (immuno)histological and molecular biology techniques
- Data analysis, statistical evaluation, and interpretation of experimental results
- Presentation of scientific results within the TRR and at (inter)national conferences and workshops

Our requirements

- Excellent M.Sc. degree or equivalent in life sciences or a related field
- Strong interest in microbiology, gastroenterology, and translational biomedical research
- Hands-on experience in cell culture, microbiology, and the application of standard (immuno)histological and molecular biology techniques, e.g. Western blotting, immunofluorescence staining, and microscopy is an advantage
- Strong communication skills and proficiency in English
- High motivation, with the ability to work both independently on experimental projects and collaboratively within an interdisciplinary team
- Initial experience in bioinformatics and / or with multi-omics techniques is an advantage
- FELASA-B certificate is an advantage

Our offer

- The position offers the opportunity to work on a fascinating scientific topic within an international research team.
- Continuous scientific mentoring and comprehensive academic training are provided throughout the doctoral project.
- The project is embedded in a vibrant scientific environment with access to cutting-edge technologies and methods.
- Structured doctoral training is ensured through the Integrated Research Training Group (IRTG) and TRR 425.
- The research environment is highly collaborative and international, with close scientific exchange involving researchers from Würzburg and Marburg as part of TRR 425.
- The position is offered on a fixed-term basis in accordance with the duration of the funded research project.
- Remuneration is based on the Collective Agreement for the Public Sector of the Länder (TV-L) including all allowances customary in the public sector.

Offers and services of the employer

Further education and training	Job ticket
Company pension scheme	Discounts
Childcare services	Staff accommodation (if available)
Mobile work (if suitable)	

Mrs. Stolzer, Iris

089 4400 73178

Application format

Please use the Online-Form for your application

http://www.lmu-klinikum.de/bc7206c16015c846

Disabled persons will be preferentially considered in case of equal qualification. Presentation costs cannot be refunded.

Please note that we cannot reimburse travel expenses incurred through interviews.

We ask you for your understanding that postal applications will not be returned, but will be destroyed in accordance with data protection regulations. The data usage information also applies to postal applications