

PhD student positions

Transregional Collaborative Research Center (TRR) 425/SFB DEFINE University Hospital Würzburg/University Würzburg, Germany

The newly established Transregional Collaborative Research Center (TRR) 425 DEFINE is a multidisciplinary research consortium uniting leading scientists in medicine (dermatology, pediatrics, internal medicine and surgery), molecular biology, immunology, biomedicine, and system research to investigate fundamental mechanisms underlying development of diseases related to desmosome dysfunction.

Within TRR 425, project C05 investigates how desmosomes influence intestinal wound healing and interact with tight junctions during epithelial restitution. This project aims to elucidate the sequential changes, crosstalk and signaling pathways between desmosomal and tight junction proteins during different phases of intestinal repair, using *in vivo* wound healing models as well as murine intestinal organoids. Findings will be correlated with patient-derived tissues and organoids to identify potential therapeutic targets for stabilizing the intestinal barrier and promoting mucosal healing. The Department of General, Visceral, Transplant, Vascular and Pediatric Surgery at the University Hospital Würzburg invites applications for 2 PhD positions to support project C05: **“Role of desmosomal adhesion and tight junction formation for mucosal wound healing”**.

2 PhD student positions (m/f/x)

Your profile

- Master's degree (or equivalent) in biology, biochemistry, molecular medicine, biophysics or a related field
- Experience with laboratory methods relevant to the specific project (wet lab)
- Strong interest in mechanistic and translational biomedical research as well as interdisciplinary collaboration
- Motivation, reliability and ability to work independently
- Excellent communication skills and proficiency in English

Your responsibilities

- Conduct experiments as outlined and approved in the TRR 425 research program
- Analyze data and contribute to scientific publications
- Present results at internal meetings, retreats and national/international conferences
- Active participation in consortium-level collaborations

Position 1:

- Analysis of murine intestinal tissue samples from established wound healing models
- Processing and evaluation of human intestinal samples from healthy donors and IBD patients

Position 2:

- Culture, maintenance and experimental manipulation of murine intestinal organoids
- Comparative analysis with human intestinal organoid's derived from IBD patients

We offer

- Fully funded the position according to DFG/TV-L guidelines
- Access to state-of-the-art research facilities at the University Hospital Würzburg
- Integration into an experienced and supportive research team with established expertise in the applied methods
- Structured doctoral training within the Integrated Research Training Group (IRTG) of the TRR 425
- Supportive environment for researchers with diverse backgrounds and/or families
- Highly collaborative and international research environment
- Close exchange with researchers from Marburg and Munich within the TRR 425

Contact

Submit your application by 31st January 2026 in a pdf-file (including a cover letter, CV, degree certificates, transcripts of records, contact information for academic references) to: kollmann_c@ukw.de

If further information about the position or scientific work is needed in advance, please contact Dr. med. Catherine Kollmann via E-Mail: kollmann_c@ukw.de