

The University Medical Center of the Johannes Gutenberg-University Mainz is the only medical maximum care provider in Rhineland-Palatinate and an internationally recognized scientific location. In more than 60 clinics, institutes and departments that work together interdisciplinary, 350,000 patients are cared for every year. Highly specialized patient care, research and teaching form an inseparable unit at the Mainz University Medical Center. 3,400 students of medicine, dentistry and biomedical sciences are trained here. With around 8,500 employees, the University Medical Center Mainz is also one of the largest employers in the region and an important driver of growth and innovation.

The **Working Group Dendritic Cell Immune Regulation** of the **Institute for Molecular Medicine** (Prof. Dr. Björn Clausen) is currently seeking a

## PhD student (m/f/d)

(Pay grade: 13 TV-L / 65% – temporary employment)

The third-party funded employment is initially limited until December 31, 2025 with a possible extension depending on available funding.

### Project:

In the context of the DFG SFB 1292 project “**Mechanisms of IL-10 mediated tumor immune evasion in colorectal cancer development**” (<https://crc1292.uni-mainz.de/about-the-crc/>), we are looking for a highly motivated and skilled PhD student in the area of molecular immunology and preclinical oncology. Colorectal cancer (CRC) is one of the leading causes of cancer deaths worldwide. Current standard-of-care therapy improves survival in only up to 20% of patients, most of whom relapse within 5 years of surgery. One of the reasons for this is that the tumor microenvironment represents a special immunosuppressive milieu facilitating tumor immune evasion. This project aims to elucidate the role of the regulatory cytokine IL-10 during CRC development and progression. The project represents a close collaboration between our working group and the research team of Dr. Nadine Hövelmeyer.

### Your tasks:

- Investigating the mechanisms of IL-10 mediated immune evasion during CRC
- Planning, conducting, and analysis of *in vivo* and *in vitro* experiments
- AOM/DSS-induced CRC model
- Flow cytometric analyses
- Immunohistochemical analyses
- Bulk, single-cell, and spatial transcriptomics
- Supervision of undergraduate students
- Presentation and publication of scientific results

### Your profile:

- Completed diploma or master's degree in natural or life sciences
- Ability to work in a team and also independently
- Self-motivated, creative and proactive
- Strong interest in immunology and translational biomedical research
- Experience in standard laboratory techniques (flow cytometry, immunohistochemistry, PCR)
- Experience with *in vivo* research is a plus
- Experience with R and/or python is a plus
- Fluent proficiency in English, ideally basic command of the German language

**We offer:**

- A friendly, collaborative and stimulating work environment
- Individual supervision in a young, dynamic, international team
- The freedom to realize own research ideas
- Access to *in vivo* model systems and cutting-edge technology platforms
- Great opportunities for scientific collaboration with leading researchers
- Support in acquiring the necessary qualifications (soft skills) for an academic career

The University Medical Center Mainz is an equal opportunity employer. Female scientists are particularly encouraged to apply. Disabled applicants will be preferentially considered in case of equal qualification. Our research team is embedded in the interactive Research Center for Immunotherapy (FZI) (<https://www.blogs.uni-mainz.de/fb04-rci/>) and the successful candidate will have the opportunity to enroll in the Mainz Research School of Translational Medicine (TransMed, <https://www.unimedizin-mainz.de/index.php?id=41343>).

For further information regarding this vacancy, please contact Prof. Björn Clausen ([bclausen@uni-mainz.de](mailto:bclausen@uni-mainz.de), Tel: +49-(0)6131-2204). Interested candidates can send their electronic application in English, including a letter of motivation, curriculum vitae, credentials and qualifications, and recommendation letters or contact information of 2-3 references, in a single pdf document to Mrs. Susanne Gahr ([gahr@uni-mainz.de](mailto:gahr@uni-mainz.de)). This search will remain open until the position is filled.