

The Medical Clinic III for Oncology, Hematology and Rheumatology at the Faculty of Medicine of the Rheinische Friedrich Wilhelms-University Bonn invites applications for a

PhD position (f/m/d) in Spatial Cancer Biology

The Brägelmann Lab at the University Hospital Bonn (UKB), University of Bonn, is seeking a highly motivated PhD candidate to join our interdisciplinary research team. We study tumor evolution and immune microenvironment adaptation by combining functional genomics, experimental model systems, patient samples, and computational biology (Brägelmann et al., Nature Comm 2021; Müller, ... Brägelmann, Can Res 2023; Pisula, ..., Brägelmann, Nat Prec Onc 2025).

Your project: In this project we will investigate tertiary-lymphoid structures (TLS), which have emerged as important predictors of response to immunotherapy. However, the molecular and spatial cues guiding their development remain poorly understood. Your work will include:

- Performing spatial transcriptomics and single-cell RNA sequencing on patient samples
- Mining and analyzing public cancer databases (TCGA, GEO, etc.) and omics data
- Inferring TLS formation and maturation stages from these data and histopathology images (in collaboration with PD Yuri Tolkach, University Hospital Cologne)
- Integrating multi-modal data to identify genomic determinants of TLS formation

Our long-term goal is to derive novel immunotherapeutic strategies by understanding TLS biology in the tumor microenvironment.

The position is to be filled for the duration of the doctorate until 30.09.2028.

What we offer:

- A dynamic and interdisciplinary team with a strong focus on translational cancer research, tumor-immunity and genomics and close cooperation with clinicians
- Excellent core facilities to support your research across the campus
- Salary according to the German salary scale TV-L E13 (65%), initially limited to 3 years
- Possibility to use the day care center
- Supplementary employer & corporate benefits in the public sector (e.g. pension plan)
- A supervisor and research institution that foster innovation and collaboration and are committed to training and career development of the next generation of scientists
- A lot of creative freedom and flexible working time models
- Subsidized further education and training

The University of Bonn is committed to diversity and equal opportunity. It is certified as a family-friendly university. It aims to increase the proportion of women in areas where women are under-represented and to promote their careers in particular. It therefore urges women with relevant qualifications to apply. Applications will be handled in accordance with the Landesgleichstellungsgesetz (State Equality Act). Applications from suitable individuals with a certified serious disability and those of equal status are particularly welcome.

Requirements:

- Master's degree in life sciences, computational sciences, or related fields
- For biological candidates: Experience in molecular/cell biology techniques AND basic programming skills (Python or R)

- For computational candidates: Strong programming skills AND interest in cancer biology/immunology
- Ability to work independently and in a team
- Good English skills in speaking and writing
- Enthusiastic and collaborative work attitude

Applications including cover letter, CV, certificates, and names and addresses of two referees can be send by e-mail in **a single PDF file until 15th of September 2025** with the job offer reference number **ST-27087** to

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