

The Rudolf-Virchow-Zentrum-Center for Integrative and Translational Bioimaging is a central scientific institution of the Julius-Maximilians-Universität Würzburg and is dedicated to the research of target proteins using a wide range of imaging methods.



Center for Integrative and
Translational Bioimaging

The Rudolf Virchow Center is looking for a

PhD student (f/m/d) (Bioimaging / Biophysics)

in the field of whole organ fluorescence imaging

*Antibodies are causally linked to the progression of ischemic heart failure. In this interdisciplinary approach, the **Molecular Microscopy Lab** led by **Katrin Heinze** combines high-end imaging and state-of-the-art molecular biology techniques to track the antibody-producing B-cells activated after myocardial infarction and characterize their roles in heart failure. Therefore, we will adjust and develop high-resolution concepts of fluorescence microscopy to analyze heart-specific antibodies as modulators of myocardial infarction. The project largely involves the development of sample preparation workflows, light-sheet fluorescence microscopy, image analysis pipelines and modelling. The project particularly requires enthusiasm for translational sciences, fluorescence microscopy, and computational analysis.*

Your role:

- Sample preparation for high content fluorescence microscopy
- Combining different microscopy techniques
- Developing quantitative image analysis pipelines
- Collaborating with cardioimmunology experts on different imaging projects

Your qualification profile

- Background in biophysics and fluorescence approaches
- Passion for interdisciplinary projects and translational science
- Ideally: experience in sample preparation for microscopy, operating fluorescence microscopes and computational analysis
- Desired: experience with light-sheet fluorescence microscopy
- Mandatory: good command of English

What we offer:

- Working in a highly motivated research institute with an outstanding infrastructure with access to state-of-the-art instrumentation for nanofabrication and microscopy and to an extensive range of modern biophysical and cell biological equipment
- Integration into a cross-disciplinary environment (Comprehensive heart failure center of the University Hospital, Max Planck research group for Systems Immunology, and the Biocenter and Physics department from the University of Würzburg)
- Three-year position (competitive TV-L salary, initial funding for one year with extension upon positive evaluation) funded by the *Collaborative Research Centre CRC1525 Cardio-Immune Interfaces* (<https://www.ukw.de/en/crc-1525/home/>)
- Earliest start date: September/October 2026
- Enrollment in the *Graduate School for Life Sciences (GSLs)* in Würzburg with benefitting from its extensive transferable skills program, travel funds and administrative support
- Würzburg as city in the center of Germany in the wine-growing area of Franconia, in proximity of Frankfurt (1 hour by train) and Munich (2 hours).
- Access to both national and public-service pension schemes (VBL), health care, and 30 days of holiday entitlement.

Female scientists are particularly encouraged to apply. Disabled applicants will be preferentially considered in case of equivalent qualification.

Applications including cover letter, detailed CV, copies of certificates, and contact information of two referees, should be sent as a single pdf file (no more than 10 MB) via email to katrin.heinze@uni-wuerzburg.de until 19th of July 2026.

More information:

<https://www.uni-wuerzburg.de/en/rvz/news/jobs-and-career/>
<https://www.uni-wuerzburg.de/rvz/forschungsgruppen/heinze-lab/>

