

Position Opening

The Rudolf Virchow Center for Integrative and Translational Bioimaging at Julius-Maximilians-Universität Würzburg (JMU), Germany, is inviting applications for a

PhD Position:

Structural Biology of FancJ Helicases Using Cryo-Electron Microscopy (Cryo-EM)

About the Position

The Rudolf Virchow Center for Integrative and Translational Bioimaging at the University of Würzburg is seeking a highly motivated and talented PhD candidate to join our dynamic research team- This exciting project will focus on the structural biology of the FancJ helicase, an essential component in genome maintenance and DNA repair mechanisms, using cutting-edge cryo-electron microscopy (Cryo-EM) techniques and biochemical analyses (see also reference).

Responsibilities:

- Conduct high-resolution structural studies of the FancJ helicase using Cryo-EM.
- Prepare and optimize protein samples and cryo-EM grids.
- Collect and analyze cryo-EM data, including image processing and 3D reconstruction.
- Perform mutagenesis and biochemical assays to investigate the functional implications of structural findings.
- Collaborate with interdisciplinary teams and contribute to the preparation of research manuscripts.
- Present findings at internal meetings, workshops and international conferences.

Qualifications:

- Master`s degree (or equivalent) in Biochemistry, Molecular Biology, Structural Biology or a related field.
- Strong background in protein biochemistry, including protein expression and purification.
- Experience with cryo-electron microscopy and structural biology is highly desirable.
- Proficiency in molecular biology techniques and mutagenesis.
- Excellent problem-solving skills and the ability to work independently as well as a part of the team.
- Strong communication skills and fluency in English, both written and spoken.

What we offer:

- Access to state-of-art cryo-EM facilities and equipment.
- A stimulating and collaborative research environment within a leading research institute.
- Opportunities for professional development, including training in advanced cryo-EM techniques and data analysis.
- Competitive salary and benefits based on the German public salary scale (TV-L E 13; 65%).

Application process:

Interested candidates should submit the following documents:

- A cover letter outlining your research interests and motivations for applying.
- A detailed CV, including a list of publications and presentations.
- Copies of academic transcripts and degree certificates.
- Contact information for at least two academic referees.

The JMU aims to reduce the underrepresentation of women and therefore explicitly encourages qualified women to apply.¹

Severely handicapped applicants will be given preferential consideration in the case of broadly equal suitability, ability and professional achievements.

Please send your application as a single PDF file to teresa.frank@uni-wuerzburg.de

The closing date for applications is 15th December 2024.

Reference:

Kuper, J., Hove, T., Maidl, S., Neitz, H., Sauer, F., Kempf, M., Schroeder, T., Greiter, E., Höbartner, C., & Kisker, C. (2024). XPD Stalled on Cross-Linked DNA Provides Insight into Damage Verification. *Nature Structural & Molecular Biology*. <https://doi.org/10.1038/s41594-024-01323-5>

About the Rudolf Virchow Center

The Rudolf Virchow Center at the University of Wuerzburg is a premier research institute dedicated to understanding the molecular mechanisms of cellular processes. Our center focuses on integrative and translational bioimaging, bridging the gap between basic research and clinical applications. We provide a vibrant scientific environment with access to cutting-edge technologies and collaborative research opportunities.

Equal Opportunity Statement

The University of Wuerzburg is an equal opportunity employer and encourages applications from individuals of all backgrounds and experiences. We are committed to creating an inclusive environment that values diversity and fosters collaboration.

Join us in advancing the frontiers of structural biology and contribute to groundbreaking discoveries in DNA repair mechanisms.

Please do not send any original documents to us; only send photocopies. As we need to save costs, we will not be able to return your documents to you. They will be shredded shortly after a hiring decision has been made. If you enclose a postage-paid return envelope, we will return your application documents to you three months after a hiring decision has been made.



¹ Bei einer erheblichen Unterrepräsentation von Frauen ist eine besondere Aufforderung mit aufzunehmen.