

The **Thorn Laboratory** at the **Rudolf Virchow Center** of the **University of Würzburg** (Germany) is recruiting a

## PhD candidate (m/f/d) In crystallographic methods development

Macromolecular X-ray structures define molecular biology. However, the large discrepancy between the measured X-ray data and the structural models we use to interpret these data (as evidenced by R-values of 15-25%) clearly shows that something is amiss. This project aims to discover what is missing through analyses of practical experiments. This knowledge will then be used to improve how structures of biological macromolecules are modeled and ultimately, to enable structural biologists to answer more challenging biological questions.

### What we offer

We offer a 36-month 65%-position at the Rudolf-Virchow Center of the University Würzburg, with a competitive TV-L salary, funded as part of the DFG project "Towards a better understanding of macromolecular X-ray structures". This rewarding and challenging research project will allow you to acquire skills in applied structural biology and its theoretical foundations as well as data analysis including programming and machine learning. You will have access to state-of-the-art equipment and our group is well-connected; you will have the opportunity to visit several international collaboration partners. Through the Graduate School for Life Sciences you will have a personal thesis committee to guide you and benefit from their extensive transferable skill program. You will get access to national and public-service pension schemes (VBL), health care, and 30 days of holiday. The JMU Welcome Center supports international candidates with language classes and practical advice - and the University also offers support for researchers with children.

### Your qualification profile

You should have a M.Sc. or equivalent in a relevant subject or be due to complete your studies within 2 months of applying. We are looking for someone with a good working knowledge of Linux and Python and a basic understanding of crystallography (irrespective of the field, e.g. mineralogy, structural physics, biology or chemistry). Skills in statistical or image analysis, C++ and previous experience with machine learning are a bonus. You should be able to develop your own ideas, and have the necessary skills to successfully drive and complete a research project. You should be a good communicator and a good command of English is a prerequisite. You will be expected to present your work both at in-house and international meetings, and to contribute on occasion to teaching and public outreach. Female scientists are particularly encouraged to apply. Disabled applicants will be preferentially considered in case of equivalent qualification.

**Applications** should be sent by e-mail as one single pdf-document including: cover letter (stating why you are interested in this position specifically), curriculum vitae (detailing any data analysis, programming and crystallographic qualifications), diplomas/certificates and three addresses of referees **by January 31st, 2020** to **andrea.thorn@uni-wuerzburg.de**.

If you have any further questions, please do not hesitate to contact us!

[www.uni-wuerzburg.de/rvz/forschung/assoziierte-forschungsgruppen/ag-thorn](http://www.uni-wuerzburg.de/rvz/forschung/assoziierte-forschungsgruppen/ag-thorn)

