

**PhD position in the Protein Stability and Cancer group
at the Comprehensive Cancer Center/Mildred-Scheel Junior Research
Center**

University of Würzburg, Germany

Applications are invited for a PhD position to study 'Re-wiring of the ubiquitin system in idiopathic pulmonary fibrosis' in the Diefenbacher lab, University Würzburg, Germany

Research description: The Diefenbacher lab (<https://www.biozentrum.uni-wuerzburg.de/molbio/research-groups/ag-diefenbacher/>) focuses on the control of protein turnover as a central mechanism of tissue maintenance and how its loss drives disease. Importantly, loss of control over tissue repair mechanisms gives rise to fatal disorders. In lung, chronic damage and misguided repair can result in idiopathic pulmonary fibrosis (IPF). IPF primarily occurs in older adults and several risk factors associated with IPF include smoking, environmental exposures, microbial pathogens or genetic risk factors, while treatment options are limited. To model these effects and to identify new target molecules, the Diefenbacher lab has established CRISPR/Cas9 murine *in vivo* models, as well as murine and patient derived organoid systems of lung. These models are used to identify and evaluate, by biochemical and genetic means, novel molecules and their therapeutic potential. Projects are at the intersection between patient mutation data and mouse genetics/organoid systems, as we strive to develop 'toolboxes' to model the genetic complexity and variety of human malignancies *in vivo*, and thereby aim at identifying novel exploitable vulnerabilities.

Qualifications/What we are looking for: Candidates should have a strong scientific track record. Prior experience with mammalian tissue culture and standard molecular techniques is expected. Experiences with mouse models (including FELASA-conform certificates) is appreciated. A background in ubiquitin biochemistry, *in vitro* protein biochemistry and/or organoid culture is a plus. The successful candidate will have excellent communication and writing skills, a curiosity-driven attitude, a high level of motivation and demonstrate enthusiasm and flexibility.

Work environment/What we offer: The University of Würzburg is the leading institution in the Life-Sciences in Germany. The Department of Biochemistry and Molecular Biology is integrated into the Biocenter. The successful candidate will join a young and dynamic international team of dedicated scientists and will benefit from a very collaborative environment. Further, the candidate will be integrated in the Research Training Group GRK2243 'Understanding Ubiquitylation: From Molecular Mechanism to Disease' and benefit from a well-established scientific training and mentoring program. The applicant will closely collaborate with several clinicians and clinical research labs, which will offer scientific exchange and support. The GSLS (graduate School of Life Sciences) offers career development and a structured course system for PhD candidates. The position is initially funded for a period of one year and will be extended in the case of a positive evaluation. The salary for this temporary position is commensurate with training and experience according to Collective Agreement for the Public Service of German Federal States TV-L. Female scientists are particularly encouraged to apply. Disabled applicants will be preferentially considered in case of equivalent qualification.

Applications: Applications including cover letter, detailed CV, copies of certificates, description of their scientific background and contact information of two referees, should be sent as a **single pdf file** (no more than 10 MB) via email to markus.diefenbacher@uni-wuerzburg.de until **31st of August 2021**.