Postdoc / PhD position in the Protein Stability and Cancer group at the Mildreed-Scheel Junior Research Center

University of Würzburg, Germany

Applications are invited for a Postdoc/PhD position to study autochthonous tumour models of the gastrointestinal and respiratory tract in the Diefenbacher lab, University Würzburg, Germany

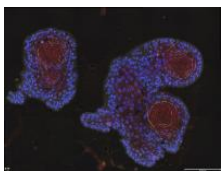
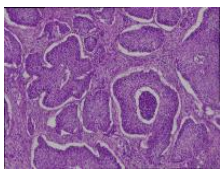
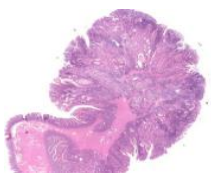
Research description: The Diefenbacher lab **(**https://www.biozentrum.uni-wuerzburg.de/molbio/research-groups/ag-diefenbacher/)focuses on the deregulation of protein turnover as a central driver in tumorigenesis. The protein abundance of proto-oncogenes such as CTNNB1, MYC, JUN, NOTCH or TP63 is tightly regulated by the ubiquitin-proteasome system. Patient tumour Next-Generation Sequencing data has revealed the recurrent mutation or loss of E3-ligases, or their associated complexes, such as FBXW7, KEAP1 or APC, in colon and lung tumours. These mutations result in the accumulation of proto-oncogenes, which drive and maintain hyperproliferation and transformation.
To model these effects, the Diefenbacher lab has established CRISPR/Cas9 murine *in vivo* primary tumour models, as well as murine and patient derived organoid systems of colorectal and lung cancer. 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 tumours *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 closely collaborate with two clinical research labs, Dr. Armin Wiegering (Center for Operational Medicine) and Dr. Mathias Rosenfeldt (Institute of Pathology), which will offer scientific exchange, advice 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 2019**.

Diefenbacher Lab

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