



The research group of Prof. Dr. Franziska Jundt

at the Comprehensive Cancer Center Mainfranken in Würzburg invites applications for a

a Postdoc in Cancer Research (m/f/d)

to conduct research on the project:

“Identification of the early footprint of myeloma bone disease: spatio-temporal mapping and quantifying of extracellular matrix biomarkers in murine model and human bone biopsies”

commencing on 01.10.2022. A later start may be possible if desired. The position is limited to 3 years.

Project:

Multiple myeloma is a cancer that causes massive destruction of the extracellular matrix in bone, and is consequently one of the most serious bone diseases. Damage is induced following extensive osteolytic activity of osteoclasts while blocking bone regeneration. The project focuses on detection of damage to the extracellular matrix and microstructure at the initial disease stage seeking new molecular and ultrastructural biomarkers for bone extracellular matrix, employing advanced materials-science methods for microstructure imaging. We will quantify in space and time, early extracellular damage evolution at local sites after MM cell inoculation and throughout the skeleton as the MM cells spread. Using transcriptomic profiling, we will track the components of our candidate pathway and its molecular targets to identify yet unknown very early molecular changes in osteocyte gene expression and pathway activity. This will allow us to identify new biomarkers and innovative therapeutic targets in host and tumor.

Your responsibilities:

- Development of project: develop the model, perform experiments, evaluate and quantify results ensuring the project evolves and fulfills the goals and work packages.
- Produce written reports and draft papers.
- Present your results at local meetings and national and international conferences.
- Assist with training other researchers, including Masters' and undergraduate project students.
- Contribute to enhancing a welcoming sustainable and collaborative environment within the group.

Your profile:

- A PhD in Life Sciences (e.g. Biology, Biochemistry, Veterinary Medicine) or related discipline.
- Experience with conditional knockout or transgenic mice and handling of animals
- Experimental background in one or more of the following subjects is beneficial: Molecular Biology, Cell Biology, Biochemistry.
- Highly motivated individuals with an interest in joining one of the interdisciplinary research areas of the Priority Programme (SPP 2084)
- The ability to work creatively and independently towards developing your own research project
- English communication skills, both written and spoken

We offer:

- A highly communicative atmosphere within an energetic scientific network
- Cutting-edge research in an international team
- A comprehensive mentoring program and soft skill courses for early career researchers at the Graduate School of Life Sciences at the University of Würzburg
- Würzburg with the UNESCO World Cultural Heritage Site Residence Palace
- A family-friendly working environment with a variety of offers for families
- A wide range of university sports activities

The three year full-time doctoral researcher position (100% TV-L E13) will be funded through the German Research Foundation (DFG). To promote gender equality in science, applications by female candidates are especially welcome. Candidates with severe disabilities will be given preference in the case of equal qualifications and suitability.

Applications in English should comprise a letter of motivation with a description of scientific achievements and academic goals (2 pages), your CV, abstract of Bachelor / Master /doctoral thesis, contact information of two

academic references, copies of academic certificates. Please submit your application via email (jundt_f@ukw.de) to Prof. Franziska Jundt by 10 September 2022:

<https://www.med.uni-wuerzburg.de/ccf/krebsforschung/molecularly-targeted-therapies/ag-jundt/>

Selected references:

Ziouti F*, Rummler M*, Steyn B, Thiele T, Seliger A, Duda GN, Bogen B, Willie BM*, Jundt F*, Prevention of Bone Destruction by Mechanical Loading Is Not Enhanced by the Bruton's Tyrosine Kinase Inhibitor CC-292 in Myeloma Bone Disease. *International Journal of Molecular Sciences*, 2021, 22:3840. *contributed equally
Rummler M*, Ziouti F*, Bouchard AL, Brandl A, Duda GN, Bogen B, Beilhack A, Lynch ME, Jundt F*, Willie BM*, Mechanical loading prevents bone destruction and exerts anti-tumor effects in the MOPC315.BM.Luc model of myeloma bone disease. *Acta Biomaterialia*, 2021, 119:247-258. *contributed equally
Ziouti F, Soares AP, Moreno-Jiménez I, Rack A, Bogen B, Cipitria A, Zaslansky P, Jundt F, An Early Myeloma Bone Disease Model in Skeletally Mature Mice as a Platform for Biomaterial Characterization of the Extracellular Matrix, 2020, *J Oncol*. 2020:3985315.