External Job Announcement Reg.-Nr. 7-258/23-D

Creating Knowledge. Since 1502: Martin Luther University Halle-Wittenberg (MLU) offers a wide range of academic subjects in the areas of humanities, social sciences, natural sciences and medicine. The oldest and largest university in Saxony-Anhalt was created in 1817 when the University of Wittenberg (founded in 1502) merged with Friedrichs University Halle (founded in 1694). Today the university has 340 professors and 20,000 students. Research at the university focuses on nano and life sciences, the Enlightenment, society and culture.

Martin Luther University Halle-Wittenberg, Medical Faculty, Molecular Medicine of Signal Transduction, offers the third-party funded position of a

Research Assistant/ PhD Student (m-f-d)

starting from 01.02.2024 for the duration of 3 years and in part-time (65%).

Salary will be in accordance with salary class 13 TV-L, pending classification based on individual capacities and qualifications.

Funded by the German Research Foundation (DFG), this project focuses on the reconstruction of transcriptional networks downstream of the MAPK signaling cascade. MAPK signaling plays a key role in the regulation of cell proliferation, differentiation as well as survival. The constitutive activation of the MAPK signaling cascade by activating mutations of its components, such as EGFR, RAS or BRAF, is one of the main causes for the development of numerous types of cancer. Despite the clinical relevance of the MAPK signaling cascade, the topology of the transcriptional networks it regulates is still largely unexplored. To investigate these networks in more detail, orthogonal CRISPR screens will be combined with single-cell RNA sequencing (scRNA-Seq) and computational methods for modeling transcription networks in close collaboration with the Blüthgen group at Charité Berlin. The aim of the project is to gain new insights into the regulation of transcriptional networks downstream of the MAPK signaling cascade and thereby identify new therapeutic targets for the treatment of MAPK-related cancers.

Tasks:

- Design and cloning of CRISPR sgRNA libraries
- Performance of CROP-Seq experiments in human cancer cell lines
- Bioinformatic analysis of the generated CROP-Seq data
- Scientific processing, presentation and publication of obtained results
- Independent project management
- Participation in national collaborations
- Opportunity for own scientific qualification

Requirements:

- Completed scientific university degree in the field of life sciences (Master)
- Extensive experience with molecular cloning techniques
- Experience with lentiviral transduction of human cells
- Experience with genome editing in human cells
- Experience with performing and analyzing scRNA-Seq experiments is an advantage
- Programming skills with R and/or Python are desirable

- Very good written and spoken English language skills
- Analytical and problem-oriented thinking
- Structured and thorough way of working
- Ability to work in a team
- Ability to cooperate

Applications from severely disabled candidates with equivalent qualifications will be given priority. Women and diverse are particularly encouraged to apply. Applicants with a foreign qualification have to submit the Statement of Comparability for Foreign Higher Education Qualifications issued by the Central Office for Foreign Education - ZAB (https://www.kmk.org/zab/statement-of-comparability.html).

For further information, please contact Jun.-Prof. Michael Böttcher, E-Mail: michael.boettcher@medizin.uni-halle.de.

Please send your application including registration number 7-258/23-D until 12/12/2023 to Martin Luther University Halle-Wittenberg, Medical Faculty, Molecular Medicine of Signal Transduction, Jun.-Prof. Michael Böttcher, 06097 Halle (Saale). An electronic application in one single PDF file to tanja.wolf@uk-halle.de is preferred.

This job vacancy may be subject to budgetary restrictions.

Martin Luther University Halle-Wittenberg will not reimburse application expenses. Application documents will only be returned if a prepaid return envelope has been attached.