

Position for Master's thesis

in Optogenetics for Cardiac Cellular Mechanism and High-Throughput Screening (HTS)

The Philipp Sasse Lab at the Medical Faculty of the University of Bonn is seeking a highly motivated master student to help developing and characterize our cellular models for the cell-based HTS assays in order to identify potential anti-arrhythmic agents employing optogenetics and cellular models (i.e. HEK-293). The successful candidate will be close supervised and work on a project that utilizes molecular biological techniques including immunofluorescence microscopy, cell culture, western blot, qPCR and live-cell Ca^{2+} imaging with high spatio-temporal resolution using a microscopy and microplate reader to characterize our novel and innovative cells. We collaborate closely with strategic partner the Bayer research and development center in Wuppertal. The position is thus embedded in an excellent, interdisciplinary and cutting-edge research environment with many possibilities of collaboration and training. The university of Bonn belongs to the 10 excellence universities in Germany situated and works closely with the other universities in the region such as the universities of Cologne, Düsseldorf and Aachen.

Responsibilities

- Conducting experiments using techniques including in cell culture, immunofluorescence microscopy, western blot, qPCR and live-cell Ca^{2+} imaging
- Analyzing imaging data using a variety of computational tools
- Collaborating with other members of the lab to implement experiments
- Discussion and presenting research findings with the supervisors
- Writing scientific reports, master's thesis and contributing to scientific papers

Qualifications

A M.Sc. Student in Molecular Biology, Biotechnology, Pharmaceutical Science or a related field. Preferably with a strong background in biology with medical sciences, cell biology, and/or genetics. Experience with big data analysis and/or imaging, genetics, and molecular biological techniques is preferred. Strong analytical and programming skills (e.g., MATLAB, Python). Ability to work both independently and collaboratively in a team environment.

To Apply

Please submit a cover letter, CV, short summary of your scientific experience and aims to Dr. Wanchana Jangsangthong [:wjan@uni-bonn.de](mailto:wjan@uni-bonn.de). Review of applications will begin immediately and will continue until the position is filled. The Philipp Sasse Lab is committed to creating an inclusive environment that supports diversity and equity. The University of Bonn is an equal opportunities employer. Applications by email only. For further information please take a look at our [webpage](#)