

The Rudolf Virchow Center / Research Center for Experimental Biomedicine of the University of Würzburg offers at the earliest possible date a position as

PhD student (f/m) (Physics / Engineering)

In the field of Nanophotonics & Biophysics

In this cross-disciplinary approach we combine high-resolution concepts of fluorescence microscopy with tricks from material sciences. Our approach involves designing and nanofabricating biocompatible nanostructured microscopy slides and cover-glasses for live cell applications that give rise to fundamentally new optical properties and the manipulation of light for superresolution imaging.

The project involves modelling, design and development of such metamaterial based substrates that serve as modified coverglasses for live-cell imaging.

The overall goal is to detect conformational changes and cellular receptor interactions even for relatively large donor-acceptor-distances that are typically not accessible using classic (single molecule) imaging. The project particularly requires enthusiasm for biomolecular sciences, plasmonics and high-resolution microscopy.

We are interested in a PhD candidate with strong background in condensed matter physics holding a Master's degree in Physics, Electrical Engineering or an equivalent level of professional qualification and experience. Ideally, the candidate has experience in thin film deposition and characterization. Skills in experimental and numerical modeling of nanophotonic systems are mandatory. Experience in super-resolution and single-molecule imaging is desired, however not a prerequisite.

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 (E13 (65%) for a three-year dissertation). Female scientists are particularly encouraged to apply. Disabled applicants will be preferentially considered in case of equivalent qualification.

Applications including cover letter, detailed CV, copies of certificates, and contact information of two referees, should be sent as a **single pdf file** (no more than 10 MB) via email to katrin.heinze@virchow.uni-wuerzburg.de until **17th December 2018**.