



MAX-PLANCK-GESellschaft

Max Planck Institute for Developmental Biology, Tübingen

The Molecular Recognition and Catalysis Group in the Department of Protein Evolution at the Max Planck Institute for Developmental Biology in Tübingen offers a

PhD position at the intersection of medicinal chemistry and structural biology

Our group follows an integrative structural biology approach to study the structural and functional dynamics of biomolecular interactions in molecular signaling processes, metabolic pathways and macromolecular complexes. Where applicable, we try to use our insights for drug development. Embedded within the Department of Protein Evolution, we have access to state-of-the-art biophysical instrumentation (e.g. HPLC-MALS, ITC, MST, CD spectroscopy), the core facilities of the institute (e.g. protein crystallization, NMR spectroscopy, cryo-EM) and have regular access to synchrotron beamlines for both X-ray crystallography and SAXS.

We currently offer a project on the development of a novel anti-pathogenic drug for the prevention and treatment of Salmonella infections. It aims at the inhibition of a transcription factor that is crucial for the onset of infection, for which a first active compound has been identified. The project is run within a multidisciplinary consortium including microbiologists, medicinal chemists and structural biologists, which is fully funded by the Baden Württemberg Stiftung. The main objectives of the PhD project are to unravel the structural basis of the inhibition via X-ray crystallography and other biochemical and biophysical methods, perform a fragment based drug discovery screen, and to participate in the iterative structure-activity-relationship analysis of potential lead compounds in close collaboration with our project partners.

We are looking for a highly motivated candidate who enjoys working both on his/her own and as part of a team. Key requirements for the position is expertise in protein expression, a strong background in biochemistry, and the will to learn X-ray crystallography. Prior experience with medicinal chemistry or structural biology is a strong plus.

To apply:

Applications including a letter of motivation, detailed CV, a brief description of previous work, as well as the names and contact information of two referees should be sent before the 1st of June 2018 electronically to Dr. Marcus Hartmann (marcus.hartmann@tuebingen.mpg.de).