



EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN



CSC-Tübingen PhD Scholarship Program

2025 application round: prospective PhD positions at the University of Tübingen

- Faculty: Faculty of Science
- Institute / Section / Subject: Interfaculty Institute of Microbiology and Infection Medicine, Dept. of Microbial Bioactive Compounds, Subject: microbiology, bacterial physiology, bacterial genetics
- Supervising Professor(s): [Prof. Dr. Heike Brötz-Oesterhelt](#)
- About the Supervisor(s): The [Brötz-Oesterhelt Lab](#) works with novel antibacterial agents active against multi-resistant bacterial pathogens. Primary focus is on the elucidation of the molecular mechanisms of action. Heike Brötz-Oesterhelt is a microbiologist and has been working in antibacterial drug discovery in the academic and pharmaceutical industry setting. Since 2014 she is full professor for Microbiology at the University of Tübingen heading the [Department of Microbial Bioactive Compounds](#).
- Specification: Unravelling the molecular mode of action of a new antibacterial agent
- Topic Description: Antibacterial agents with new chemical core structures and unprecedented targets are urgently needed. Natural products are promising starting points for antibiotic discovery. Also drugs initially developed for human diseases that are not infection-related can have antibacterial properties. The modes of action of such agents will be explored. An [assay platform](#) with microbiological, biochemical and genetic mode of action technology is established in the group and will be expanded in the course of the project.
- Intended Degree: Dr. rer. nat.
- Type of the PhD study: Full time at the University of Tuebingen
- Required Degrees and Qualifications: MSc in Biology, Biochemistry, Biotechnology or similar; experimental expertise in bacteria, fluorescence microscopy, cloning, protein purification; proficiency in scientific writing in English; team-player
- Language Requirements: English C1 in a SELTS (IELTS, PTE, TOEFL) for all parts of the test
- Notes: Exemplary recent publications:
Wex KW, ... Brötz-Oesterhelt H. Cell Chem Biol. 2021 doi: 10.1016/j.chembiol.2021.02.022.
Hörömpöli D, ... Brötz-Oesterhelt H. Antimicrob Agents Chemother. 2021; doi:10.1128/AAC.00986-20.