



Microbiology doctoral researcher position

available as part of the new CRC 1756 "*Chemical and Biological Principles of Cellular Trigger Responses*" at University of Konstanz, Germany

Chemical-biology tools to release, sense, and study hydrogen sulfide (H₂S) as a trigger in bacterial model systems (project A06b)

Supervision: **Prof. Dr. David Schleheck**

Research area: **Microbiology, Bacterial Physiology, Biofilms, Proteomics**

Research topic: The major aims of this project are the development of novel synthetic chemicals that upon a stimulus of light irradiation release H₂S at physiologically relevant low concentrations, and the investigation of the release of H₂S in living cells using real-time fluorescence microscopy. This project will focus on the application of the developed H₂S releasing and sensing tools, and on the investigation of protein persulfidation, each in bacterial model systems.

Selection of planned methods: Bacterial cultures, biofilm development, chemical proteomics for persulfidation.

Questions regarding project A06b can be directed to David Schleheck, via e-mail: david.schleheck@uni-konstanz.de or by phone: (+49 (0)7531 / 88 – 4247).

About our CRC 1756 "*Chemical and Biological Principles of Cellular Trigger Responses*"

The CRC 1756 is an interdisciplinary collaborative research centre (CRC) funded by the German Science Foundation (DFG) and Austrian Science Fund (FWF) and led by principal investigators from the Departments of Biology and Chemistry at the University of Konstanz (Germany) and the University of Vienna (Austria). Projects in the CRC 1756 aim to elucidate the molecular mechanisms of the generation, sensing, and cellular responses to chemical and physical triggers by applying Chemical Biology approaches.

Research Environment

The University of Konstanz has been successful in the German Excellence Initiative and its follow-up programme, the Excellence Strategy and is among the most highly ranked institutions in Germany. All doctoral researchers can conduct their research in a lively and academically outstanding research environment.

Doctoral researchers of the CRC 1756 will be members of the Konstanz Research School Chemical Biology (KoRS-CB), an interdisciplinary graduate school of the Departments of Biology, Chemistry and Computer & Information Science. Our doctoral researchers are supported by a thesis committee, participate in scientific and transferable skills courses and profit from career development support.

The city of Konstanz is located directly on the border to Switzerland and situated beside the beautiful shores of Lake Constance/Bodensee. Surrounded by stunning natural landscapes, it offers countless opportunities for year-round outdoor activities.

Funding

The position is funded until December 31st, 2029 according to TV-L (E13, 67%).

Eligibility

You must hold a master's degree or equivalent in Biology, Microbiology, Chemistry, Life Sciences, or related subjects and should have completed your studies with grades significantly above-average and bring a strong interest in Chemical Biology.

A keen enthusiasm for science, a high level of motivation, excellent communication skills, the ability to work in a team, and fluency in written and spoken English are prerequisites.

Application Procedure

Applications should contain the following documents in one PDF file:

- Cover letter with the indication of the projects you would like to apply for (max. 1 page)
- Motivation letter (max. 1 page)
- Curriculum vitae
- Contact details for two academic references, who agree to be contacted during the selection process
- A maximum of three CRC 1756 projects you are interested in, ranked by your preference
- Copy of your bachelor's and master's degree certificates (or equivalent) incl. transcripts of records

Applications are to be submitted as one PDF by email to:

application-chembiol@uni-konstanz.de

Application deadline:

The application process is open until **February 11th, 2026**.