

With more than 6,200 employees in research, teaching and administration and its unique profile, TU Dortmund University shapes prospects for the future: The cooperation between engineering and natural sciences as well as social and cultural studies promotes both technological innovations and progress in knowledge and methodology. And it is not only the more than 34,600 students who benefit from that.

The **Faculty of Chemistry and Chemical Biology**, TU Dortmund University, invites applications for

### a PhD candidate position

to be filled at the earliest possible date and appointed for 3 years. Duration of the contract will be based on the targeted qualification (e.g. PhD). Salary will be paid, in agreement with the lawful regulations of tariffs, according to salary group E13 TV-L resp. according to the provisional regulations of the TVÜ-L, if applicable. The Position is a 50% appointment, which represents a typical employment for a PhD candidate in this research area. The possibility to pursue further scientific qualifications is offered.

#### Research Topic

The identification of small molecules that bind to a target protein is an important topic in Chemical Biology and Medicinal Chemistry. Emerging technologies addressing this topic are DNA-encoded chemical libraries and computational methods.

The project is a joint, interdisciplinary project of the research groups of “medicinal chemistry” and “*in silico* molecular design” at the TU Dortmund. It deals with the computer-assisted design, synthesis and testing of DNA-encoded libraries that target protein-protein interactions. The applicant will gain a comprehensive insight into the technology of DNA-encoded chemistry, and computational molecular design and cheminformatics.

#### Requirements:

Applicants should hold an excellent scientific master's/diploma degree in chemical biology, chemistry, pharmacy, or a similar qualification. The candidates should have interest in drug research using encoded library technology and computer-based methods. They should have acquired experience with solid-phase synthesis and HPLC. First experience with computer-assisted methods is a plus.

#### Working Environment:

The research group for medicinal chemistry deals with the development of methods for synthesis and selection of DNA-encoded libraries, a research field that experiences a surge of activity both in academia and in the pharmaceutical industry. The research group of *in silico* molecular design deals with the development and application of computer-based methods in rational drug design. This includes a whole range of ligand- and structure-based *in-silico* methods that are generally applied in industrial pharmaceutical research. Close collaboration with a project partner at the University of Frankfurt, and with groups at the TU Dortmund University (www.tu-

dortmund.de) and the Max Planck Institute of Molecular Physiology (www.mpi-dortmund.mpg.de) allow a verification of DNA-encoded library screening results.

The TU Dortmund University is committed to increasing the number of women in the Faculty of Chemistry and Chemical Biology in scientific positions and particularly encourages female candidates to apply.

Applications from disabled persons are explicitly welcome.

#### Application:

Please send your application until **23.04.2018** with the reference number **w15-18** to:

#### **Dr. Andreas Brunschweiger or Dr. Oliver Koch**

Technische Universität Dortmund  
Fakultät für Chemie und Chemische Biologie  
Otto-Hahn-Straße 6, D-44221 Dortmund

#### For further information please contact:

#### **Dr. Andreas Brunschweiger**

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#### **Dr. Oliver Koch**

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