

The Cluster Project **ENABLE - Unraveling mechanisms driving cellular homeostasis, inflammation and infection to enable new approaches in translational medicine** is a newly established interdisciplinary research network which has been initiated jointly by the Goethe University Frankfurt, the Frankfurt Institute for Advanced Studies, the Fraunhofer Institute for Translational Medicine and Pharmacology, the Georg-Speyer-Haus and the Max Planck Institute of Biophysics. The Institute of Biochemistry II, Gustav Embden Zentrum der Biochemie, Department of Medicine of the Goethe University, is seeking to fill the position of

**1 postdoctoral scientist (m/f/d)**  
(E 13 TV-G-U, 100%)

to work on projects in the field of

**Computational Biophysics.**

The position is initially limited to two years with the option of prolongation, successful candidate is appointed from **01.02.2022**. The salary grade is based on the job characteristics of the collective agreement applicable to Goethe University (TV-G-U).

**Research focus** - We seek ambitious and highly motivated new team member to join the Computational Biology team of Dr. Ramachandra M. Bhaskara. The Bhaskara group focuses on challenging problems at the interface of computational biophysics, cell biology and data science. It is a new and inter-disciplinary group with ample opportunities to collaborate closely with Biochemists, Cell biologists and Structural biologists.

**The Postdoctoral candidate** will develop and apply state-of-the-art computational modelling and molecular dynamics simulations to understand molecular mechanisms in Autophagic pathways. The candidate will develop innovative computational tools and simulation methods to systematically characterize diverse biomolecular systems. This will include molecular and structural modeling of protein complexes, PTMs and molecular simulations of various membrane remodeling events. The candidate will also combine theory and simulation data with complementary experimental data into a unified framework.

**We offer**

- A versatile workplace in a university research institute consisting of eleven inter-disciplinary working groups (engaged and ambitious colleagues), spread across three locations of the Goethe University.
- Active mentorship and career development targeting both academia and industry through the GRADE program.
- Excellent national and international networks, and possibility to travel and be part of different consortia projects.
- Possibility of using the LandesTicket for employees of the state of Hesse.
- Help from the International office to relocate to Frankfurt am Main, Germany.

**We seek**

- Candidates should have PhD or equivalent degree in biophysics, physics, computational chemistry or computational biology.
- Excellent programming skills in C/C++, Python, R, or similar languages.
- Proven experience of performing coarse-grained and classical all-atom MD simulations and solid knowledge of simulation and modelling methods including free energy computations.
- Prior experience with Coarse-grained MARTINI models and GROMACS is preferred.
- A high interest in academic research, high-level analytical thinking and team-oriented personality with good communication skills are mandatory.
- Very good written and spoken English is expected.
- Candidate is also expected to work in collaboration with other groups and manage projects independently.

Applicants send their documents (including cover letter, CV, scanned academic degrees, list of publications and an advanced self-written code example preferably in Python) **until November 30<sup>th</sup> 2021** to Prof. Dr. Ivan Đikić and Dr. Ramachandra Bhaskara, Institute of Biochemistry II, Department of Medicine, University Hospital of Goethe University, Bldg 75, Theodor-Stern-Kai 7, 60590 Frankfurt am Main. Please send electronic applications in a single PDF to [ibc2@uni-frankfurt.de](mailto:ibc2@uni-frankfurt.de) and [bhaskara@med.uni-frankfurt.de](mailto:bhaskara@med.uni-frankfurt.de).

The university and all institutes advocate equal rights for women and men and therefore urge women to apply. Handicapped candidates are given preferential treatment with equal personal and professional qualifications.

Travel and application costs cannot be reimbursed.

Please do not send any original documents as the application documents will not be returned.