Postdoctoral Researcher (m/f/d) – Biophysical Characterization of Biomolecular Interactions Technology Hub (BioSysteM)

30.07.2026, *Scientific Personnel*

To meet the advanced technology and instrumentation needs of the BioSysteM cluster of excellence, BioSysteM is establishing a Technology Hub staffed with dedicated personnel for technical support, ensuring proficient operation. BioSysteM at LMU invites applications for a Postdoctoral Researcher (m/f/d) to lead and further develop the Biophysical Characterization of Biomolecular Interactions Technology Hub. The position is temporary until 31.12.2032.

About the Position

The BioSysteM Cluster of Excellence is an international research network in which scientists from the Ludwig Maximilian University of Munich, the Technical University of Munich, the Helmholtz Zentrum München and the Max Planck Institute of Biochemistry, collaborate on an interdisciplinary basis. The cluster's research vision is to design and control biological systems. The cluster, launched on January 1, 2026, is funded by the DFG as part of the Excellence Strategy of the German federal and state governments. We are seeking a Postdoctoral Researcher to play a central role in establishing, operating, and advancing state-of-the-art biophysical methods that enable researchers across the cluster to characterise in depth bimolecular interactions designed for a broad range of synthetic biology, biomedical and biotechnological applications. The position combines scientific leadership, technology development, and facility management.

Your Responsibilities

- Scientific and operational leadership of the Biophysical Characterization of Biomolecular Interactions in the Technology Hub
- Development and maintenance of cell free transcription-translation system production pipelines for mimicking *in cell* conditions
- Implementation and optimization of experimental workflows for rapid protein expression and functional characterization, including high-throughput assays (e.g. binding assays from purified material, plate-reader based live monitoring of molecular binding upon expression, etc)
- Development and management of lab automation and high-throughput liquid-handling systems to enable scalable experimental workflows
- Training and support of researchers across the cluster in experimental assay development, and high-throughput data acquisition
- Establishment of quality control, method validation, and standardized protocols to ensure reproducible and scalable experimental pipelines

- Close collaboration with BioSysteM research groups and the Technology Hub, interacting with colleagues responsible for complementary technologies (e.g. protein design accelerator, microscopy, bioanalytics, and other platforms)
- Contribution to grant applications, publications, and strategic technology development

Your Profile

- PhD in Biochemistry, Biophysics, Physics, Chemistry, Molecular Biology, or related filed
- Strong expertise in protein biochemistry, molecular biology, or synthetic biology, with experience in analytical and biochemical assays
- Experience with production and use of cell free transcription-translation systems, high-throughput experimentation, automated liquid handling, or laboratory automation platforms
- Experience with handling and analysis of biophysical datasets
- Strong organizational, communication, and project management skills
- Interest in developing and operating shared research infrastructure and enabling technologies

We offer

- A dynamic and highly collaborative research environment within the BioSysteM cluster of excellence
- Access to cutting-edge research infrastructure
- Opportunity to shape and expand a central technology platform
- Competitive salary according to TV-L
- Support for career development and academic advancement

The position is limited (to Dec 2032, according to the funding period), starting at the earliest possible date.

Equal opportunities and diversity

LMU is committed to equal opportunities, diversity, and respectful coexistence. We welcome applications regardless of gender, nationality, ethnic and social origin, religion or belief, disability, age, sexual orientation, and identity.

LMU strives to increase the proportion of women in its workforce, and applications from women are therefore expressly welcome.

Applicants with severe disabilities will be given preference if they are otherwise equally qualified, capable, and professionally competent.

Contact and application

If you have any questions about the advertised position, please contact the BioSysteM Prof. Dr. Alena Khmelinskaia at akhmelin@cup.lmu.de or Prof. Dr. Tim Liedl at tim.liedl@lmu.de.

Please send your application with the usual documents, stating your earliest possible starting date and the reference “BioSysteM Postdoc Technology Hub Biomolecular Interaction Characterization” by email in a single PDF file, to akhmelin@cup.lmu.de . Application will start being reviewed on the 26.08.2026 and continue on a rolling basis until a suitable candidate is found.

Data Protection Information:
When you apply for a position with the Technical University of Munich (LMU), you are submitting personal information. With regard to personal information, please take note of the Datenschutzhinweise gemäß Art. 13 Datenschutz-Grundverordnung (DSGVO) zur Erhebung und Verarbeitung von personenbezogenen Daten im Rahmen Ihrer Bewerbung. (data protection information on collecting and processing personal data contained in your application in accordance with Art. 13 of the General Data Protection Regulation (GDPR)). By submitting your application, you confirm that you have acknowledged the above data protection information of LMU.

Kontakt: akhmelin@cup.lmu.de