

We are looking for a team-oriented person to join our team as

## **Research Associate – Digitalization and Automation in Bioprocessing (PhD Candidate / PostDoc) (m/f/d)**

### **About Us**

Talents from all over the world come together at TUM to inspire each other, learn from one another and create innovations together. Our mission? As one of Europe's most outstanding universities in research and innovation, we find solutions to the most important scientific and social challenges of our time.

At the group of Bioseparation Engineering, we are at the forefront of research in bioengineering. Our group combines cutting-edge science with innovative technologies to revolutionize how new biologic therapies are manufactured through innovative processes. Join us in our mission to shape the future of biotherapeutics by leading innovative digitalization and advanced automation of bioprocessing technologies.

We are looking for a team-oriented person (m/f/d) as soon as possible.

### **Your Tasks**

- Develop and implement state-of-the-art digitalization platforms for upstream and downstream bioprocesses, integrating data-driven and mechanistic models for enhanced process control.
- Work on the integration of advanced process control systems and automation strategies.
- Contribute to the development of hybrid models that merge mechanistic understanding with data-driven approaches to improve predictive capabilities in process control.
- Collaborate in interdisciplinary research projects, contributing to high-impact publications and presenting findings at leading scientific conferences.

### **Your Skills**

- You have completed a university degree in the field of chemical/process/mechanical engineering, automation, bioengineering, biotechnology, biomanufacturing or in related fields
- Experience in process automation, digitalization, and control system integration is highly desirable.
- Proficiency in programming, data analytics, and the use of digital platforms
- Strong communication skills in English; knowledge of German is an advantage but not required. A passion for innovation and developing new methodologies for the biomanufacturing of next-generation therapeutics.
- You are team-oriented and strong in organization
- Interdisciplinary thinking and acting
- Excellent communication skills in English; German is an advantage but not required.

### **Our range**

- Exciting work in an international environment and in a very well-equipped workplace
- Diverse further education opportunities (TUM Institute for LifeLong Learning, TUM Language Center)
- TUM health offers, TUM university sports
- Public sector pension provision, annual special payment

The qualification position is full-time and according to TV-L, depending on qualifications and personal suitability. The position is initially limited to 2 years.

The position is suitable for people with severe disabilities. Severely disabled applicants will be given preference if they otherwise have essentially the same suitability, ability and professional performance. TUM aims to increase the proportion of women, and applications from women are therefore expressly welcomed.

### **Your Application**

We look forward to receiving your meaningful documents (including cover letter, CV and all relevant certificates). Please send this under the keyword "**Automation**" preferably by email to: [s.berenmeier@tum.de](mailto:s.berenmeier@tum.de)

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If you have any further questions, please feel free to contact Prof. Sonja Berensmeier ([s.berensmeier@tum.de](mailto:s.berensmeier@tum.de)).

**Note on data protection:**

As part of your application for a position at the Technical University of Munich (TUM), you submit personal data. Please note our data protection information in accordance with Article 13 of the General Data Protection Regulation (GDPR) on the collection and processing of personal data as part of your application <https://portal.mytum.de/kompass/datenschutz/Bewerbung/>. By submitting your application, you confirm that you have read TUM's data protection information