

Academic staff for the Biopolymer Materials Group

04.10.2023, *Wissenschaftliches Personal / Academic Staff*

The lab of Prof. Lieleg at the Technical University of Munich (Campus Garching) is looking for academic staff (f/m/d) to further develop biopolymer-based lubricants with anti-viral properties.

Your responsibilities:

In the EU-project NatProLub (Nature-inspired Prophylactic Lubricants against HIV-V and HSV-2) we aim (as part of an international consortium comprising 7 project partners) at further engineering a biopolymer-based personal lubricant with anti-viral activity (see <https://doi.org/10.1002/adv.202203898>). The macromolecular key component of this lubricant is the glycoprotein mucin, which we purify from animal tissue. Here, your task will be to further tailor and optimize our current purification process to increase the purity of the obtained product while maintaining the process efficiency and yield. Moreover, you will characterize the viscoelastic properties and lubricity of different gels created from such purified mucins to find optimal material formulations that satisfy the various demands of a potential customer product.

Thus, you will be part of a highly interdisciplinary and international project team. You will be supervised by Prof. Dr. Lieleg (TUM School of Engineering and Design, Department of Materials Engineering).

Your qualifications:

You have completed a Master's degree in process technology, biotechnology, or chemical engineering (or in a related field) with a very good final mark. You are interested in investigating interdisciplinary scientific questions, and you can work well in a team. Experience with protein purification and/or characterization techniques for soft materials (e.g., rheology, tribology) is necessary for this project. Very good English skills are required; German skills are helpful.

Our offer:

We offer a 75% position as academic staff with the opportunity to pursue a doctoral degree. The position will be limited to four years. Payment will be based on the Collective Agreement for the Civil Service of the Länder (TV-L). TUM strives to raise the proportion of women in its workforce and explicitly encourages applications from qualified women. The position is suitable for disabled persons. Disabled applicants will be given preference in case of generally equivalent suitability, aptitude, and professional performance.

Your application:

If you are interested in working in our team, please send your application together with a strong CV and supporting documentation (e.g., Bachelor's and Master's degree, transcripts of records) to:

bme.mw@tum.de

All application documents should arrive no later than November 1st 2023.

As part of your application, you provide personal data to the Technical University of Munich (TUM). Please view our privacy policy on collecting and processing personal data in the course of the application process pursuant to Art. 13 of the General Data Protection Regulation of the European Union (GDPR) at <https://portal.mytum.de/kompass/datenschutz/Bewerbung/>. By submitting your application, you confirm to have read and understood the data protection information provided by TUM.

Find out more about Prof. Lieleg's lab here:

<https://www.mae.ed.tum.de/en/bme/home/>