

Postdoc (f/m/d) researching photophysics of protein-based imaging labels and sensors.

The **research group for Cell Engineering** is one of 11 inter-disciplinary laboratories at the **Chair of Biological Imaging (CBI)** at the **Technical University of Munich (TUM)** and focuses on developing genetically encodable molecular labels and sensors for innovative imaging schemes primarily fluorescence and optoacoustic imaging. We develop labels based on strategies of protein engineering building on our research in photophysics and structure-function relationships. The developed molecular tools are employed on the level of single mammalian cells as well as whole organisms.

We are now looking for a highly qualified and motivated **Postdoc (f/m/d)** for **photophysics of protein-based imaging labels and sensors**.

The candidate will work on studying the mechanisms of photophysical functioning of chromophore-bearing proteins (such as GFP-like, Bacteriophytochromes or Phycobiliproteins) using and developing spectroscopic methods. The gained insight will fuel the development of new labels and sensors on the molecular level. The candidate will bridge between the applications, the technical developments of imaging-setups and the protein engineering and support all approaches with the photophysical insight. One of our main foci are photo-switching proteins. Here the candidate will further explore and exploit their intricate and exciting mechanisms towards driving such proteins towards a use in applications – primarily optoacoustics. The work will be conducted in close collaboration with other laboratories of TUM and the Helmholtz Zentrum Munich (HMGU) that are leading in the respective research areas, e.g. setup building or protein structure elucidation. Hence, the position is an exciting interface between basic photophysical research, development of molecular tools as well as imaging.

Qualification:

The successful applicant must have the following:

- High motivation, curiosity, and commitment to scientific excellence
- Master Degree and Ph.D. in Chemistry, Physics, Biochemistry or similar field
- Background in chromophores, photophysics, photochemistry
- Experience with excited state photophysics, and photoisomerization processes will be appreciated as well as understanding of (protein-) environmental effects on the photophysical properties of chromophores
- Experience in optical spectroscopy techniques
- Interest in imaging
- Team player skills and enthusiasm to work in a multi-disciplinary, collaborative environment
- Excellent command of the English language

Our offer:

The successful applicant will have a 2-year contract. We offer a competitive salary and benefits depending on work experience and seniority in accordance with the public service wage agreement of the Free State of Bavaria (TV-L E13). As an equal opportunity and affirmative action employer, TUM explicitly encourages applications from women as well as from all others who would bring

additional diversity dimensions to the university's research and teaching strategies. Preference will be given to disabled candidates with essentially the same qualifications.

Your application:

We are looking forward to receiving your comprehensive application including your letter of motivation, CV and academic transcripts of records preferably in English and in a single PDF file, via email to cbi.recruitment@tum.de. Please indicate "Postdoc in photophysics" in the subject line.

For any questions please contact:

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Links:

<https://web.med.tum.de/cbi/research-labs/cellengineering/>

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