

The Hospital of the Technical University of Munich, Germany, is one of the largest and most competitive university hospitals in Germany and Europe. The Department of Nuclear Medicine (<https://nuklearmedizin.mri.tum.de>) invites applications for

## PhD Student (f/m/d) - Biology / Biochemistry / Biotechnology / Medicine

### Our research:

In the Department of Nuclear Medicine, we are interested in the development and clinical translation of molecular imaging tools for various applications, such as oncology, cardiology, and cellular therapies. In an interdisciplinary environment, we cover a broad range of expertise, including biomarker discovery and evaluation, chemical synthesis and radio-labeling, protein biochemistry, radiochemistry, preclinical imaging with positron emission tomography (PET), single-photon emission computed tomography (SPECT), and fluorescence imaging. Furthermore, we are working on animal model development, histopathological validation, tumor biology and molecular biology. Our work focuses on developing creative and innovative ways to characterize the diverse classes of novel molecular imaging compounds and develop applications with translational potential. This gives our PhD students the opportunity to follow the complete drug development process, starting with an initial molecular design for given medical need towards a clinically applied radiopharmaceutical.

### Your project:

In your PhD project “*PET-Imaging of Stem Cell Therapy in Cardiology*”, your work will involve

- Work with (stem) cell culture, including the generation of cell lines using viral vectors and CRISPR
- Evaluation of novel radioactively labeled ligands for PET-imaging
- *In vitro* evaluation in cell culture studies (ligand uptake, binding specificity, survival assays, ELISA, etc.)
- Molecular biology and histology (Western Blot, qPCR, Immunohistochemical staining, etc.)
- Animal studies in collaboration (preclinical imaging, cardiology, stem cell therapy, treatment studies)
- Experimental design, realization, and analysis of scientific data, writing of manuscripts, presentation of data at conferences

### Your profile for a successful application:

- Excellent university degree (Diploma, Master or comparable) in biology, biochemistry, biotechnology, medicine or a similar field
- High motivation, curiosity, and commitment to scientific excellence
- Self-driven, independent, and critical work ethic
- Experience in molecular biology techniques & mammalian cell culture is an advantage
- Willingness to conduct *in vivo* experiments (previous experience is an advantage)
- Team player skills and enthusiasm to work in a multidisciplinary, collaborative environment
- Very good command of the English language

### Our offer:

- You will work in an interdisciplinary group of scientists and clinicians (Postdocs and PhD students with a background in chemistry, biology, veterinarians, physicians, and technical assistants) with an excellent infrastructure and a strong focus on translational research
- Our laboratories are located in the Center for Translational Cancer Research (TranslaTUM) and the Department of Nuclear Medicine at the Klinikum rechts der Isar near the city center of Munich
- Salary will be according to TV-L E13 (65%)
- You will be a member of the graduate program at TUM and will be able to participate in workshops (scientific and soft skills), seminars and career-building programs
- Starting date: as soon as possible

Applicants (m/f/d) should submit their electronic application (including CV, motivation letter, certificates as well as publication list and references if available) to: Prof. Dr. Wolfgang Weber (email: [bewerbung.nuklearmedizin@mri.tum.de](mailto:bewerbung.nuklearmedizin@mri.tum.de)). Please indicate “PhD position PET-Imaging of Stem Cell Therapy in Cardiology” in the subject line.

The University of Munich is an equal opportunity employer. The University welcomes and encourages interest from handicapped candidates. Unfortunately, application costs will not be compensated.