

The German Cancer Research Center (DKFZ) is seeking for the partner site Munich of the German Cancer Consortium (DKTK) a

## PhD Position in Hyperpolarized $^{13}\text{C}$ Molecular Imaging Agents

(Kennziffer 2022-0366)

*The DKFZ is committed to increase the proportion of women in all areas and positions in which women are underrepresented. Qualified female applicants are therefore particularly encouraged to apply.*

*Among candidates of equal aptitude and qualifications, a person with disabilities will be given preference.*

*To apply for a position please use our online application portal (<https://www.dkfz.de/de/stellenaengebote/index.php>).*

*We ask for your understanding that we cannot return application documents that are sent to us by post (Deutsches Krebsforschungszentrum, Personalabteilung, Im Neuenheimer Feld 280, 69120 Heidelberg) and that we do not accept applications submitted via email. We apologize for any inconvenience this may cause.*

The German Cancer Research Center is the largest biomedical research institution in Germany. With more than 3,000 employees, we operate an extensive scientific program in the field of cancer research.

Together with university partners at seven renowned partner sites, we have established the German Cancer Consortium (DKTK).

The DKTK partner site Munich is seeking for the Department of Nuclear Medicine at Klinikum rechts der Isar (MRI), Hospital of Technical University of Munich (TUM), applications from highly motivated candidates for a PhD position in hyperpolarized  $^{13}\text{C}$  metabolic magnetic resonance imaging. This position is part of the DKTK funded project „HYPERBOLIC - Visualizing Hallmarks of Cancer through tailored Hyperpolarized Magnetic Resonance Imaging“. The main task of the position is the synthesis, characterization and application of innovative molecular imaging agents for visualization of e.g., pH, hypoxia, metabolism, and oxidative stress by HP-MRI.

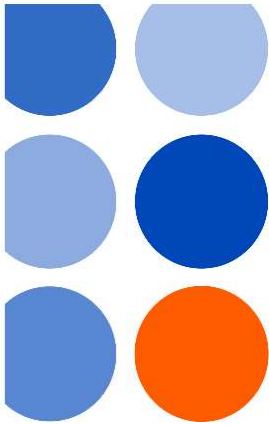
The PhD position is embedded within the Research Group “Biomedical Magnetic Resonance” led by Prof. Dr. Franz Schilling ([www.schillinglab.com](http://www.schillinglab.com)). The imaging infrastructure located at the Department of Nuclear Medicine ([www.nuk.mri.tum.de](http://www.nuk.mri.tum.de)) and the Center for Translational Cancer Research (TranslaTUM, [www.translatum.tum.de](http://www.translatum.tum.de)) provides a unique and multi-faceted research environment.

### Job description:

Your research project:

- Synthesis of hyperpolarized  $^{13}\text{C}$ -labelled molecular imaging agents
- Establishment of hyperpolarization protocols for dissolution DNP
- Studies of the tumor microenvironment using molecular imaging agents in animal models of breast cancers and glioma
- Image analysis and processing

You have the chance to be working in a well-equipped, cutting-edge research environment within the Klinikum rechts der Isar including a 3T PET-MRI, a preclinical imaging facility with a 7T preclinical animal MRI, a 3T PET-MRI, a tabletop NMR spectrometer, a SPECT-CT and a HyperSense dissolution DNP polarizer. The



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workspace is located in the middle of Munich with an excellent research network and excellent public transport connections. Situated next to the Alps, Munich is consistently ranked as one of the most enjoyable cities in the world.

#### **Your profile:**

- M.Sc. or equivalent degree in chemistry, biochemistry, bioengineering or other related subjects
- Previous experience in biomedical imaging is beneficial
- Team spirit, capability of independent self-motivated work
- Very good English and communication skills are a prerequisite
- Very good computer skills and experience in data analysis are required

#### **We offer:**

- Interesting, versatile workplace
- International, attractive working environment
- Campus with modern state-of-the-art infrastructure
- Access to international research networks
- Doctoral student payment including social benefits
- Flexible working hours
- Comprehensive training and mentoring program through the Helmholtz International Graduate School

#### **Contract period:**

The position is limited to 3 years.

#### **Important notice:**

The DKFZ is subject to the regulations of the Infection Protection Act (IfSG). As a consequence, only persons who present proof of immunity against measles as well as against COVID-19 may work at the DKFZ.

#### **Contact:**

Ms. Christine Koppenhöhl, Telefon +49 (0)89/4400-54627

Please note that we do not accept applications submitted via email.

#### **Application deadline:**

18.10.2022

