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.

The Division of Medical Physics in Radiology is seeking a

**PhD Candidate for Diffusion MRI using a local breast gradient coil**  
(Ref-No. 2022-0378)

**Job description:**  
At a recently installed 3 Tesla MR scanner of the DKFZ, a local gradient coil with ultra-high amplitude for imaging of the female breast will be set up. Your research work will encompass:

- Participation in the development of the hardware integration to the main MRI system
- Development of first diffusion-weighted MRI sequences by combining the local gradient coil with the whole-body gradient system
- Accounting for gradient field inhomogeneities, eddy currents and concomitant fields
- Applications using advanced diffusion-weighted imaging sequences including time-dependent diffusion measurements and the use of non-conventional gradient profiles

**Requirements:**  
Successful candidates will become members of a multidisciplinary international team and should:

- hold a graduate degree (master’s / diploma) in physics, engineering, or a related scientific or technical field,
- possess keen interest in scientific research and be able to work independently,
- have good oral and written communication skills in both German (ideal) and English (mandatory).

Experience in MR physics including pulse sequence programming (preferred: C/C++, IDEA, MATLAB / Python) and hardware development would be beneficial but is not a prerequisite.

**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

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.

For further information please contact Prof. Dr. Mark Ladd, phone +49 (0)6221/42-2550.