

Research profile for applicants

Name of DKFZ research division/group:	Medical Physics in Radiology (E020)
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Group homepage: <i>Visit this website for further information on current research and recent publications.</i>	https://www.dkfz.de/en/medical-physics-in-radiology

RESEARCH PROFILE AND PROJECT TOPICS

The Division of Medical Physics in Radiology develops new methods for imaging-based diagnostic and therapeutic procedures. Our research focuses on novel hardware as well as software-based acquisition and reconstruction strategies for magnetic resonance imaging (MRI), positron emission tomography (PET), and optical tomography. Our current focus areas are:

- 1) Low-field MR for population-based screening.
- 2) Online MR-guided particle therapy.
- 3) Whole-body acquisition of metabolic information at 7 Tesla.
- 4) Hyperpolarization of ^{13}C substrates for both preclinical (cell cultures and organoids) and clinical monitoring of metabolic processes.
- 5) Establishment of the technology for the world's first 14 Tesla human MR system.

Various opportunities for postdoctoral fellows are available in the working groups of our department. We often can tailor projects to the background and particular skills of applicants and find a good match to your interests. Please contact us for further information if you are interested.



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