Research profile for applicants

Name of DKFZ research division/group:	***Department for Functional Imaging in Surgical Oncology (FBOO / DD11 / 1030000139)***
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Group homepage: *Visit this website for further information on current research and recent publications.*	***https://www.nct-dresden.de/forschung/departments-and-groups/department-for-functional-imaging-in-surgical-oncology.html***
Eligibility:	• ***DKFZ Postdoctoral Fellowships***

RESEARCH PROFILE AND PROJECT TOPICS

The research of my group is dedicated to the development of excellent techniques for biomedical imaging. The advancement of new targeted contrast agents and novel imaging modalities will pave the way for personalized therapy and high precision treatments in the near future.

Imaging in the short-wave infrared region (SWIR) is a new technology for biomedical applications. It provides several advantages over the visible and near-infrared regions: general lack of autofluorescence, low light absorption by blood and tissue, and reduced scattering. In this wavelength range tissues become translucent. Recent progress in detection technology and the development of probes demonstrated that, in principal, SWIR imaging enables applications which were previously not feasible with any other technique. These advantages will enable new capabilities in preclinical and clinical imaging.

Potential projects for a postdoc working in my group include fluorescence guided surgery as well as the development of contrast agents for deep tissue imaging.