

DKFZ Clinician Scientist Fellowships 2024

Project abstract

Name of DKFZ research division/group:	Junior Clinical Cooperation Unit Translational Gastrointestinal Oncology and Preclinical Models (B440)
Contact Person:	Priv.-Doz. Dr. med. Johannes Betge, j.betge@dkfz.de
Group homepage: Please visit our website for further information on our research and recent publications.	www.dkfz.de/en/gastrointestinal-oncology

PROJECT PROPOSAL

Our group aims to develop novel, individualized therapies for patients with gastrointestinal cancer and we analyze predictive markers and mechanisms of resistance to cancer therapies. We use tumor models such as patient derived organoids and co-culture models that we establish from our cancer patients, together with up-to-date screening and sequencing technologies to dissect the molecular profiles of tumors/models and to directly test potential therapies *ex vivo*. The group is part of the DKFZ with main location in Heidelberg and clinical attachment to University Medical Center Mannheim, Department of Medicine II (Heidelberg University), thereby having access to top-level technical infrastructure together with close clinical connection for direct translation from/back-to bedside. Join an ambitious interdisciplinary team willing to advance personalized oncology! Potential projects for clinician-scientists may include:

- Evaluate clinical application of organoid based functional drug testing in combination with molecular markers or develop novel organoid-based functional test systems for drug response, evaluate them within clinical/translational studies
- Analyze mechanisms of drug resistance or predictive markers for tumor therapies in colorectal cancer or gastric cancer and test strategies to overcome resistance using patient derived organoids.
- Perform molecular profiling (e.g. single cell seq) of clinical specimen and/or bioinformatics analyses of clinical and experimental datasets to predict novel biomarkers, validate and characterize those in experiments with patient derived organoids.

Adaptations or different project ideas according to your talents and preferences are welcome within the scope of our groups aims and will be discussed to formulate the research plan. Please contact me if you have any questions!



FROM BEDSIDE TO BENCH
AND BACK

DKFZ Clinician Scientist Program
www.dkfz.de/clinicianscientist