

Project abstract

Name of DKFZ research division/group:	<i>Translational Gastrointestinal Oncology and Preclinical Models</i>
Contact person:	<i>Prof. Dr. med. Johannes Betge</i>
Group homepage: Please visit our website for further information on our research and recent publications.	<u>www.dkfz.de/gastrointestinal-oncology</u>

PROJECT PROPOSAL

Our group aims to develop novel therapies for patients with gastrointestinal cancer by preclinical disease modeling. We use 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 preclinically test therapeutic strategies. 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. Potential projects for clinician-scientists may include:

- 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.
- Dissect interactions between gastrointestinal tumors and their microenvironment, in particular microbiota and their metabolites using organoids and high-throughput technologies
- Perform molecular profiling 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.

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. Join an ambitious interdisciplinary team willing to advance gastrointestinal oncology! Please contact me if you have any questions.



FROM BEDSIDE TO BENCH
AND BACK

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