

Project abstract

Name of DKFZ research division/group:	<p>PD Dr. Ina Oehme, Functional pediatric precision oncology (B310) Prof. Dr. Kristian Pajtler, Early Cancer Diagnostics and Reverse Translation (B062),</p>
Contact person:	<p>Prof. Dr. Kristian Pajtler, email k.pajtler@kitz-heidelberg.de, phone 06221 56 34368</p>
<p>Group homepage:</p> <p>Please visit our website for further information on our research and recent publications.</p>	<p>https://www.kitz-heidelberg.de/en/research/research-groups/cns/-/brain-tumors/group-functional-pediatric-precision-oncology</p> <p>https://www.kitz-heidelberg.de/en/research/research-groups/hereditary-cancers/group-early-cancer-diagnostics</p>

PROJECT PROPOSAL

Our previous studies have allowed for subdivision of ependymoma, a group of central nervous system tumors, into molecular types with distinct biological characteristics, clinical features and outcome. This molecular classification has resulted in more precise diagnostics and risk stratification, identification of vulnerabilities and establishment of faithful tumor models. Despite these advances, clinical translation into novel treatment approaches is lagging behind. The mainstay of treatment remains surgery and radiotherapy, whereas chemotherapy has mostly been found ineffective. About 50% of high-risk ependymoma relapse. There is an urgent need to render aggressive ependymoma and their persister cells more susceptible to irradiation and to identify novel anticancer approaches. Together with the KiTZ group 'Functional pediatric precision oncology' (Ina Oehme), we seek an outstanding clinician scientist taking advantage of cutting-edge high-throughput drug screens, a rich repertoire of models and a large multi-omic ependymoma dataset for identification of potential novel therapeutic leads. Specific tasks include experimental planning, cell culturing, exploration of screening results and combinatorial validation experiments. Active participation in preclinical *in vivo* studies is optional. The candidate will have the exciting opportunity to be involved in the process of early clinical trial planning and to regularly participate in (inter-)national ependymoma-specific or molecular (INFORM) tumorboards. A welcoming and supportive international community of highly collaborative and aspirational colleagues will support your translational research to bridge the gap between basic scientific discovery and clinical application. This clinician scientist position is designed to advance important ependymoma projects, hone your molecular biology skills and foster new clinically relevant learning.



FROM BEDSIDE TO BENCH
AND BACK

DKFZ Clinician Scientist Program
www.dkfz.de/clinicianscientist