

Research profile for applicants

Name of DKFZ research division/group:	Division of Molecular Neurogenetics/A240
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Group homepage: Visit this website for further information on current research and recent publications.	https://www.dkfz.de/en/normale-und- neoplastische-stammzellen/index.php

RESEARCH PROFILE AND PROJECT TOPICS

To systematically model the genetic spectrum that are affected in human glioblastoma(GBM), we use human iPSC-derived organoid to dissect the genetic heterogeneity in GBM. Using CRISPR/Cas9, we generated a spectrum of mutation combinations (Pten, Trp53, Cdkn2a, Cdkn2b, Nf1, Rb1, Egfr, Tert etc.), which are the most frequently mutated genes in human GBM (McLendon et al., 2008), in human iPSCs. We could induce GBM organoid from these cells, the GBM organoid (LEGO: Laboratory Engineered Glioma Organoid) derived from these cells recapitulate key molecular features of human GBM. The postdoc candidate will make use of the LEGO system to identify novel targets and drugs againste glioblastoma, with particular focus on drug resistant cells.

