

Research profile for applicants

Name of DKFZ research division/group:	Immune Regulation in Cancer
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Group homepage: Visit this website for further information on current research and recent publications.	https://www.dkfz.de/en/immune-regulation-in- cancer

RESEARCH PROFILE AND PROJECT TOPICS

Our research group investigates the interplay between T cells and tumors, focusing on antigen-specific T-cell responses and the inhibitory cues that allow tumors to evade the immune system. We develop physiologically and clinically relevant cell and mouse models to recreate key barriers to effective immunotherapy, including insufficient T-cell trafficking into tumors, impaired T cell effector functions and the intrinsic resistance of tumor cells to immune attack. By combining function-based genomics with state-of-the-art molecular cell biology, biochemistry and imaging techniques, we systematically dissect these processes and identify molecular determinants that could be targeted to enhance antitumor immunity.

Potential project topics:

- 1. Molecular mechanisms controlling T cell trafficking
- 2. Regulation of immune checkpoint expression, interactions and functions
- 3. Tumor-intrinsic responses to T cell cytotoxicity
- 4. An open research topic to be developed jointly based on the candidate's interests and expertise

