Research profile for applicants

Name of DKFZ research division/group:	***Redox Regulation (A160)***
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Group homepage: *Visit this website for further information on current research and recent publications.*	***www.dkfz.de/en/redoxregulation***
Eligibility:	• ***DKFZ Postdoctoral Fellowships***

RESEARCH PROFILE AND PROJECT TOPICS

Both healthy and tumor cells need to balance reductive and oxidative processes. These are intimately connected to metabolism and dynamically coupled to micro-environmental conditions. Research in recent years has started to reveal how cells sense subtle redox changes in order to trigger rapid adaptation and lasting cytoprotection. Tumor cells exploit such mechanisms to survive episodes of metabolic imbalance and oxidative stress. Our research group aims to fundamentally understand the relevant sensing and signaling pathways, all the way from the basic chemistry to the cellular and organismal level. Eventually we want to understand how tumor cells take advantage of these protective pathways and find ways to prevent them from doing so.