

Postdoctoral Fellow (E 13, TV-G-U)
and
PhD Student (E 13, TV-G-U, 65%-Teilzeit)

We are seeking for highly talented and motivated Postdocs and PhD students to join the Cancer Metabolism Group (http://www.biochem2.com/cmj/Canan_Arkan.html) at the Institute of Biochemistry II, Goethe University Frankfurt, as part of a research team investigating the role of diet as a risk factor for the development of gastrointestinal cancers. Our previous studies show that high fat diet-induced obesity (Khasawneh et al. 2009, *PNAS*) or dysbiosis cooperates with oncogenic K-ras activation to promote carcinogenesis independently of obesity (Schulz et al., 2014, *Nature*). Yet the mechanisms, through which diet-mediated changes impact anti-tumor immunity or tumor bioenergetics, remain to be elucidated. Using 16S rRNA gene sequencing, metagenomics and metaproteomic approaches, we are interested in providing genetic information on the profiles of microbial community structure, function and expressed activities under different diet regimen in mouse models of cancer. Exploring cross-talk between host and microbiota, post-translational modifications, metabolic derangements that foster tumorigenesis comprise the focus of our research.

Highly motivated applicants are expected to have a degree in Biology, Life Sciences or related fields with a strong background in molecular and tumor biology. Previous strong skills in mouse models, *in vivo* metabolic measurements, and/or microbiota analysis is a prerequisite.

Qualifying applicants should send their application together with their CV, publication record, a summary of previous research activities, and 2 contact addresses for recommendation letters to PD Dr. Melek Canan Arkan by e-mail (Arkan@med.uni-frankfurt.de).