

PERSONAL INFORMATION **Jörg Fahrer****WORK EXPERIENCE**

- December 2018–Present **Professor for Food Chemistry and Toxicology**
Technical University Kaiserslautern (Germany)
- October 2017–November 2018 **Professor for Cellular Pharmacology and Toxicology**
Justus Liebig University Giessen (Germany)
- January 2012–September 2017 **Group Leader**
University Medical Center Mainz (Germany)
- January 2008–December 2011 **Postdoctoral Researcher**
University Medical Center Ulm (Germany)
- October 2004–December 2007 **PhD student**
University of Konstanz (Germany)

EDUCATION AND TRAINING

- March 2005–October 2010 **Fachtoxikologe (DGPT) and European-registered toxicologist**
German Society for Experimental and Clinical Pharmacology and Toxicology (DGPT) (Germany)
- October 1999–August 2004 **Diploma in Food Chemistry**
University of Karlsruhe (Germany)

ADDITIONAL INFORMATION

Expertise

- food-borne carcinogens (e.g. nitrosamines, heterocyclic aromatic amines)
- DNA damage response, DNA repair and genomic stability
- colorectal carcinogenesis

Publications Selected publications:

Seiwert N, Heylmann D, Hasselwander S, Fahrer J. Mechanism of colorectal carcinogenesis triggered by heme iron from red meat. *Biochim Biophys Acta Rev Cancer*. 2019, 1873(1):188334. epub ahead of print

Neitzel C, Seiwert N, Göder A, Diehl E, Weber C, Nagel G, Stroh S, Rasenberger B, Christmann M, Fahrer J. Lipoic Acid Synergizes with Antineoplastic Drugs in Colorectal Cancer by Targeting p53 for Proteasomal Degradation. *Cells*. 2019 Jul 30;8(8). pii: E794.

Kraus A, McKeague M, Seiwert N, Nagel G, Geisen SM, Ziegler N, Trantakis IA, Kaina B, Thomas AD, Sturla SJ and Fahrer J. Immunological and mass spectrometry-based approaches to determine thresholds of the mutagenic DNA adduct O(6)-methylguanine in vivo. *Arch Toxicol*. 2019, 93(2): 559-572.

Dörsam B, Seiwert N, Förch S, Stroh S, Nagel G, Begaliew D, Diehl E, Kraus A, McKeague M, Minneker V, Roukos V, Reißig S, Waisman A, Moehler M., Stier A, Mangerich M, Dantzer F, Kaina B and Fahrer J. PARP-1 protects against colorectal tumor induction, but promotes inflammation-driven colorectal tumor progression. *Proc Natl Acad Sci U S A*. 2018; 115(17):E4061-E4070.

Fahrer J, Kaina B. Impact of DNA repair on the dose-response of colorectal cancer formation induced by dietary carcinogens. *Food Chem Toxicol.*, 2017; 106 (Pt B):583-594.

Seiwert N, Neitzel C, Stroh S, Frisan T, Audebert M, Toulany M, Kaina B, and Fahrer J. AKT2 suppresses prosurvival autophagy triggered by DNA double-strand breaks in colorectal cancer cells. *Cell Death Dis.* 2017, 8(8):e3019.

Mimmler M, Peter S, Kraus A, Stroh S, Nikolova T, Seiwert N, Hasselwander S, Neitzel C, Haub J, Monien B, Nicken P, Steinberg P, Shay JW, Kaina B, Fahrer J. DNA damage response curtails detrimental replication stress and chromosomal instability induced by the dietary carcinogen PHIP. *Nucleic Acids Res.* 2016, 44(21):10259-10276.

Dörsam B, Göder A, Seiwert N, Kaina B, Fahrer J. Lipoic acid induces p53-independent cell death in colorectal cancer cells and potentiates 5-fluorouracil-dependent cytotoxicity, *Arch Toxicol.* 2015; 89(10):1829-46.

Fahrer J, Frisch J, Nagel G, Kraus A, Dörsam B, Thomas AD, Reißig S, Waisman A, Kaina B. DNA repair by MGMT, but not AAG, causes a threshold in alkylation-induced colorectal carcinogenesis. *Carcinogenesis* 2015; 36(10):1235-44.

Projects Research Activities:

- Alkylation-induced DNA damage response and role of DNA repair in colorectal carcinogenesis
- Impact of heme iron from red meat on colorectal carcinogenesis and relevance of DNA repair
- Synergistic effects of lipoic acid (LA) and derivatives with antineoplastic drugs in colorectal cancer
- Therapeutic potential of LA derivatives in combination with anticancer drugs in advanced and metastasized colorectal cancer
- genotoxicity of pyrrolizidine alkaloids

Memberships Memberships:

German Society for Research on DNA repair (DGDR)

German Society for Experimental and Clinical Pharmacology and Toxicology (DGPT)

German Society for Environmental Mutation Research (GUM)

German Chemical Society (GDCh) and German Food Chemical Society (LChG)

German Society for Biological Radiation Research (DeGBS)

European Association for Cancer Research (EACR)

European Environmental Mutagenesis and Genomics Society (EEMGS)

Editorial Advisory Board Member in "Journal of Molecular Medicine" and "Chemical Research in Toxicology"

Scientific Awards:

Kurt-Täufel Prize of the German Food Chemical Society

Boehringer-Ingelheim Award of the University Medical Center Mainz

Young Scientist Toxicology Award of the German Society of Toxicology donated by Merck KGaA

Nycomed Prize at the University of Konstanz

Procter & Gamble Award at the University of Karlsruhe

Other Relevant Information