

Curriculum Vitae

Markus Elmar Diefenbacher

Univ.-Professor, Dr. rer.nat.

d.o.b. April 19th, 1978, in Karlsruhe, Germany

University Education

10. 2023 Univ. Prof. Experimental Pneumology (LMU) and Helmholtz Research Group Experimental Oncology
- 2009 Dr. rer. nat., KIT
- 1997–2004 Studies of Biology, University of Karlsruhe and Helmholtz Zentrum Karlsruhe/Karlsruhe Institute of Technology (KIT)

Scientific Career

- Since 2023 Univ. Prof. Experimental Pneumology (LMU) and Helmholtz Research Group Experimental Oncology, Munich, Germany
- Since 2023 Affiliated Editor at Oncogene
- 2020-2023 Founding member of the Mildred Scheel Junior Research Center Würzburg
- 2015-2023 Junior Group Leader, Biocenter University Würzburg
- 2015-2023 Junior Group Leader, Comprehensive Cancer Center Würzburg
- 2009–2015 Postdoctoral Fellow, Cancer Research UK London Research Institute and The Francis Crick Institute, Mammalian Genetics Department, London, UK

Citation Record

Total citations: 2.135; h-index:21; h-index since 2017: 19(Google Scholar December 05th, 2023)

Top-10 selected Publications

Senior author papers:

Hartmann O, Reissland M, Maier CR, Fischer T, Prieto-Garcia C, Baluapuri A, Schwarz J, Schmitz W, Garrido-Rodriguez M, Pahor N, Davies CC, Bassermann F, Orian A, Wolf E, Schulze A, Calzado MA, Rosenfeldt MT, **Diefenbacher ME** (2021) Implementation of CRISPR/Cas9 Genome Editing to Generate Murine Lung Cancer Models That Depict the Mutational Landscape of Human Disease. *Front Cell Dev Biol* 9: 641618

Prieto-Garcia C, Hartmann O, Reissland M, Braun F, Bozkurt S, Pahor N, Fuss C, Schirbel A, Schulein-Volk C, Buchberger A, Calzado Canale MA, Rosenfeldt M, Dikic I, Munch C, **Diefenbacher ME** (2022a) USP28 enables oncogenic transformation of respiratory cells, and its inhibition potentiates molecular therapy targeting mutant EGFR, BRAF and PI3K. *Mol Oncol* 16: 3082-3106

Prieto-Garcia C, Hartmann O, Reissland M, Braun F, Fischer T, Walz S, Schulein-Volk C, Eilers U, Ade CP, Calzado MA, Orian A, Maric HM, Munch C, Rosenfeldt M, Eilers M, **Diefenbacher ME** (2020) Maintaining protein stability of $\Delta Np63$ via USP28 is required by squamous cancer cells. *EMBO Mol Med* 12: e11101

Prieto-Garcia C, Hartmann O, Reissland M, Fischer T, Maier CR, Rosenfeldt M, Schulein-Volk C, Klann K, Kalb R, Dikic I, Munch C, **Diefenbacher ME** (2022b) Inhibition of USP28 overcomes Cisplatin-resistance of squamous tumors by suppression of the Fanconi anemia pathway. *Cell Death Differ* 29: 568-584

Fischer T, Hartmann O, Reissland M, Prieto-Garcia C, Klann K, Pahor N, Schulein-Volk C, Baluapuri A, Polat B, Abazari A, Gerhard-Hartmann E, Kopp HG, Essmann F, Rosenfeldt M, Munch C, Flentje M,

Diefenbacher ME (2022) PTEN mutant non-small cell lung cancer require ATM to suppress pro-apoptotic signalling and evade radiotherapy. *Cell Biosci* 12: 50

Maier, C. R., O. Hartmann, C. Prieto-Garcia, K. M. Al-Shami, L. Schlicker, F. C. E. Vogel, S. Haid, K. Klann, V. Buck, C. Munch, W. Schmitz, E. Einig, B. Krenz, M. A. Calzado, M. Eilers, N. Popov, M. T. Rosenfeldt, **M. E. Diefenbacher** and A. Schulze (2023). "USP28 controls SREBP2 and the mevalonate pathway to drive tumour growth in squamous cancer." *Cell Death Differ* 30(7): 1710-1725.

Contributing author papers:

Mainz L, Sarhan M, Roth S, Sauer U, Kalogirou C, Eckstein M, Gerhard-Hartmann E, Seibert HD, Voelker HU, Geppert C, Rosenwald A, Eilers M, Schulze A, **Diefenbacher M**, Rosenfeldt MT (2022a) Acute systemic knockdown of Atg7 is lethal and causes pancreatic destruction in shRNA transgenic mice. *Autophagy* 18: 2880-2893

Mainz L, Sarhan M, Roth S, Sauer U, Maurus K, Hartmann EM, Seibert HD, Rosenwald A, **Diefenbacher ME**, Rosenfeldt MT (2022b) Autophagy Blockage Reduces the Incidence of Pancreatic Ductal Adenocarcinoma in the Context of Mutant Trp53. *Front Cell Dev Biol* 10: 785252

Novak R, Ahmad YA, Timaner M, Bitman-Lotan E, Oknin-Vaisman A, Horwitz R, Hartmann O, Reissland M, Buck V, Rosenfeldt M, Nikomarov D, **Diefenbacher ME**, Shaked Y, Orian A (2022) RNF4~RGMb~BMP6 axis required for osteogenic differentiation and cancer cell survival. *Cell Death Dis* 13: 820

Ruiz EJ, **Diefenbacher ME**, Nelson JK, Sancho R, Pucci F, Chakraborty A, Moreno P, Annibaldi A, Liccardi G, Encheva V, Mitter R, Rosenfeldt M, Snijders AP, Meier P, Calzado MA, Behrens A (2019) LUBAC determines chemotherapy resistance in squamous cell lung cancer. *J Exp Med* 216: 450-465