

Silvia von Karstedt

Department of Translational Genomics/CECAD

Redox pathway plasticity allows ferroptosis escape of lung cancer

Small cell lung cancer (SCLC) is one of the most aggressive forms of cancer. Chemo-naïve SCLC presents with bi-allelic loss of p53 and Rb1, suggesting selection against cell death pathways prior to therapy. Tumour selection can involve extrinsic and intrinsic apoptosis, necroptosis, pyroptosis and ferroptosis. Yet, cell death selection landscapes of chemo-naïve cancers have remained unexplored. Here, I will present our finding that a subset of chemo-naïve SCLC remains sensitive to ferroptosis whilst neuroendocrine SCLC instead acquires synthetic dependency on the thioredoxin (TRX) redox pathway. These data hint at a fundamental role for ferroptosis escape in lung cancer and at the same time reveal novel vulnerabilities of SCLC.

Wednesday, January 22, 2020, 17:00

Institute for Biological Physics, Zülpicher Str. 77a

Seminar Room 0.02, Ground Floor

Hosted by Andreas Beyer