

The group of
Prof. Dr. Almut Schulze

at the Department of Biochemistry and Molecular Biology
at the Biocenter in Würzburg offers a

PhD position in Cancer Metabolism

Lipid synthesis is controlled by the SREBPs, a class of helix-loop-helix transcription factors. We have previously shown that SREBPs are activated downstream of the Akt/mTORC1 signalling axis, one of the most important oncogenic pathways in cancer. We have also shown that fatty acid biosynthesis and modification is essential for cancer cell growth and to prevent the activation of cellular stress response pathways that limit tumour expansion. While this work demonstrated the importance of SREBPs in cancer, the exact role of these transcription factors in cell transformation and tumour formation is only partially understood. In particular, it is not known to which extent SREBPs contributes to cell-cell communication in the tumour microenvironment and whether these factors have additional functions in stem-like cells that contribute to treatment resistance and cancer recurrence.

We are looking for a highly motivated individual with a strong interest in molecular biology and biochemistry to join our research on this DFG-funded project. A prerequisite for this position is a Master degree in a relevant subject area (Biochemistry, Biological Sciences, Biomedicine) and documented experience in tissue culture as well as general molecular biology techniques. Bioinformatics and biostatistics knowledge is of advantage. The laboratory has access to state-of-the-art research facilities (metabolomics, screening unit, next-generation sequencing) and offers a highly collaborative international working environment.

The position is initially funded for a period of one year and will be extended in the case of a positive evaluation. The salary for this temporary position is according to TV-L (E13, 65%). Female scientists are particularly encouraged to apply. Disabled applicants will be preferentially considered in case of equivalent qualification.

Applications including a cover letter, detailed CV, copies of certificates, descriptions of previous research projects and the names of at least two referees should be sent almut.schulze@uni-wuerzburg.de until 15th of February 2019.

You can find more information about our research at
<https://www.biozentrum.uni-wuerzburg.de/molbio/research-groups/ag-schulze/>

Selected references:

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- Schug, Z.T., Peck, B., Jones, D.T., Zhang, Q., Grosskurth, S., Alam, I.S., Goodwin, L.M., Smethurst, E., Mason, S., Blyth, K., *et al.* (2015). Acetyl-CoA synthetase 2 promotes acetate utilization and maintains cancer cell growth under metabolic stress. **Cancer Cell** 27, 57-71.
- Rohrig, F., and Schulze, A. (2016). The multifaceted roles of fatty acid synthesis in cancer. **Nat Rev Cancer** 16, 732-749.
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