Prof. Dr. Tassula Proikas-Cezanne

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- Prof. Dr. Proikas-Cezanne is a German molecular biologist and an internationally recognized expert in autophagy research.

- She discovered the human WIPI genes (Proikas-Cezanne et al. Oncogene 2004, 23(58):9314-25), including the WDR45 gene, which encodes the autophagy protein WIPI4, and mutations of which are responsible for BPAN.

- Prof. Dr. Proikas-Cezanne studied biology at the universities of Frankfurt and Hamburg and conducted her doctoral studies at the Max Planck Institute, Max Delbrück Laboratories in Cologne, Germany.

- After postdoctoral studies at the Marie Curie Research Institute in Oxted, UK and Temple University in Philadelphia, PA, USA, Proikas-Cezanne established her independent research on autophagy at the Eberhard Karls University Tübingen, Germany.

- In recent years, Prof. Dr. Proikas-Cezanne expanded her research program on autophagy to understand the underlying mechanisms of BPAN.

- In addition to research, she teaches master's and bachelor's students, is elected Equal Opportunities Officer for Biology at the Eberhard Karls University Tübingen and active as founder and spokesperson for the German Autophagy Network under the umbrella of the Society for Biochemistry and Molecular Biology (GBM).

Selected publications

- Sporbeck K, Haas ML, Pastor-Maldonado CJ, Schüssele DS, Hunter C, Takacs Z, Diogo de Oliveira AL, Franz-Wachtel M, Charsou C, Pfisterer SG, Gubas A, Haller PK, Knorr RL, Kaulich M, Macek B,

Eskelinen EL, Simonsen A, Proikas-Cezanne T*. The ABL-MYC axis controls WIPI1-enhanced autophagy in lifespan extension. Commun Biol. 2023 Aug 24;6(1):872. doi: 10.1038/s42003-023-05236-9.

- Schüssele DS, Haller PK, Haas ML, Hunter C, Sporbeck K, Proikas-Cezanne T*. Autophagy profiling in single cells with open source CellProfiler-based image analysis. Autophagy. 2023 Jan;19(1):338-351. doi:10.1080/15548627.2022.2065617.

- Bakula D, Müller AJ, Zuleger T, Takacs Z, Franz-Wachtel M, Thost AK, Brigger D, Tschan MP, Frickey T, Robenek H, Macek B, Proikas-Cezanne T*. WIPI3 and WIPI4 β-propellers are scaffolds for LKB1-AMPK-TSC signalling circuits in the control of autophagy. Nat Commun. 2017 May 31;8:15637. doi: 10.1038/ncomms15637.

- Proikas-Cezanne T*, Takacs Z, Dönnes P, Kohlbacher O. WIPI proteins: essential PtdIns3P effectors at the nascent autophagosome. J Cell Sci. 2015 Jan 15;128(2):207-17. doi: 10.1242/jcs.146258.

- Dupont N, Chauhan S, Arko-Mensah J, Castillo EF, Masedunskas A, Weigert R, Robenek H, Proikas-Cezanne T, Deretic V. Neutral lipid stores and lipase PNPLA5 contribute to autophagosome biogenesis. Curr Biol. 2014 Mar 17;24(6):609-20. doi: 10.1016/j.cub.2014.02.008.

- Pfisterer SG, Bakula D, Frickey T, Cezanne A, Brigger D, Tschan MP, Robenek H, Proikas-Cezanne T*. Lipid droplet and early autophagosomal membrane targeting of Atg2A and Atg14L in human tumor cells. J Lipid Res. 2014 Jul;55(7):1267-78. doi: 10.1194/jlr.M046359. Epub 2014 Apr 28.

- van der Vos KE, Eliasson P, Proikas-Cezanne T, Vervoort SJ, van Boxtel R, Putker M, van Zutphen IJ, Mauthe M, Zellmer S, Pals C, Verhagen LP, Groot Koerkamp MJ, Braat AK, Dansen TB, Holstege FC, Gebhardt R, Burgering BM, Coffer PJ. Modulation of glutamine metabolism by the PI(3)K-PKB-FOXO network regulates autophagy. Nat Cell Biol. 2012 Aug;14(8):829-37. doi: 10.1038/ncb2536.

- Codogno P, Mehrpour M, Proikas-Cezanne T. Canonical and non-canonical autophagy: variations on a common theme of self-eating? Nat Rev Mol Cell Biol. 2011 Dec 14;13(1):7-12. doi: 10.1038/nrm3249.

- Mauthe M, Jacob A, Freiberger S, Hentschel K, Stierhof YD, Codogno P, Proikas-Cezanne T*. Resveratrol-mediated autophagy requires WIPI-1-regulated LC3 lipidation in the absence of induced phagophore formation. Autophagy. 2011 Dec;7(12):1448-61. doi: 10.4161/auto.7.12.17802.

- Proikas-Cezanne T*, Waddell S, Gaugel A, Frickey T, Lupas A, Nordheim A. WIPI-1alpha (WIPI49), a member of the novel 7-bladed WIPI protein family, is aberrantly expressed in human cancer and is linked to starvation-induced autophagy. Oncogene. 2004 Dec 16;23(58):9314-25. doi: 10.1038/sj.onc.1208331.