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Ruth Scherz-Shouval is an assistant professor in the Department of Biomolecular Sciences at the Weizmann Institute of Science in Israel.

Ruth's research focuses on mechanisms of stromal reprogramming in the tumor microenvironment, and specifically on the role of stress responses in transcriptional reprogramming of tumor stroma. Her long-term goal is to broaden and deepen our understanding of the evolutionary conflicts between tumorigenesis and tissue homeostasis and to explore new paths of research at the interface of stress responses, cancer, and evolution.

Ruth joined the Weizmann Institute as a principal investigator in August 2015, after carrying out her post-doctoral research as an HFSP and Fulbright fellow at the Whitehead Institute, MIT, with Susan Lindquist. Ruth received her BSc from The Hebrew University in Jerusalem and her PhD from The Weizmann Institute of Science.

Ruth's numerous grants include the ERC (European research council) starting grant, ISF (Israeli Science Foundation) research grant, and ICRF (Israel Cancer Research Fund) Geshar award.

Selected publications:

- 1) Grunberg N, Pevsner-Fischer M, Goshen-Lago T, Diment J, Stein Y, Lavon H, Mayer S, Levi-Galibov O, Friedman G, Ofir-Birin Y, Syu LJ, Migliore C, Shimoni E, Stemmer SM, Brenner B, Dlugosz AA, Lyden D, Regev-Rudzki N, Ben-Aharon I and Scherz-Shouval R. Cancer-associated fibroblasts promote aggressive gastric cancer phenotypes via heat shock factor 1-mediated secretion of extracellular vesicles. *Cancer Research*, 2021. 81(7):1639-1653.
- 2) Levi-Galibov O, Lavon H, Wassermann-Dozorets R, Pevsner-Fischer M, Mayer S, Wershof E, Stein Y, Brown L, Zhang W, Friedman G, Nevo R, Golani O, Katz L, Yaeger R, Laish I, Porco J, Sahai E, Shouval DS, Kelsen D and Scherz-Shouval R. Heat Shock Factor 1-dependent extracellular matrix remodeling mediates the transition from chronic intestinal inflammation to colon cancer. *Nature Communications*, 2020. 11, 6245.
- 3) Friedman, G., O. Levi-Galibov, E. David, C. Bornstein, A. Giladi, M. Dadiani, A. Mayo, C. Halperin, M. Pevsner-Fischer, H. Lavon, S. Mayer, R. Nevo, Y. Stein, N. Balint-Lahat, I. Barshack, H.R. Ali, C. Caldas, E. Nili-Gal-Yam, U. Alon, I. Amit, and R. Scherz-Shouval, Cancer-associated fibroblast compositions change with breast cancer progression linking the ratio of S100A4+ and PDPN+ CAFs to clinical outcome. *Nature Cancer*, 2020. 1(7): p. 692-708.
- 4) Grunberg, N., O. Levi-Galibov, and R. Scherz-Shouval, The Role of HSF1 and the Chaperone Network in the Tumor Microenvironment. *Adv Exp Med Biol*, 2020. 1243: p. 101-111. Review.