

Prof. Maya Schuldiner

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Prof. Maya Schuldiner was born in Israel. After completing her mandatory two years of military service in 1996, she began studying biology at The Hebrew University of Jerusalem, where she received her BSc, *magna cum laude*, in 1998 and her MSc and PhD in genetics in 1999 and 2003. She conducted postdoctoral research in the Department of Cellular and Molecular Pharmacology at the University of California in San Francisco until 2008, when she joined the faculty of the Weizmann Institute of Science.

Research in the Schuldiner lab focuses on understanding the function, structure and maintenance of organelles. Although nearly 20 years have passed since the publication of the *Saccharomyces cerevisiae* genome sequence, over 30% of the proteins that reside in its organelles have never been studied, and more than half of them do not have a known biochemical function. Most of these proteins are conserved all the way to humans, and some have been implicated in diseases. One of the great challenges of the post-genomic era is, therefore, to use novel methodologies to fill in these gaps in our knowledge, to uncover the functions of these unstudied proteins, and to delineate pathways and networks that enable the function and communication of the organelles in which they reside. The Schuldiner lab is dedicated to uncovering novel functions for yeast organelle proteins. We do this by employing a wide variety of high throughput screening techniques complemented by dedicated cell biological, genetic and biochemical follow ups.

Prof. Schuldiner, author of 40 articles in international peer-reviewed journals, has received the EMBO (European Molecular Biology Organization) young investigator award and was chosen in 2014 as one of the forty most promising young scientists worldwide (“40 under 40”) by the prestigious biology journal *Cell*. She was recently selected as a member of the Israel Young Academy. Dr. Schuldiner is married to Dr. Oren Schuldiner, also an assistant professor at the Weizmann Institute of Science, and they have three sons: Daniel, Noam and Mattan.

Chosen Publications:

1. M. Schuldiner, S. R. Collins, N. J. Thompson, V. Denic, A. Bhamidipati, T. Punna, J. Ihmels, B. Andrews, C. Boone, J. F. Greenblatt, J. S. Weissman & N. J. Krogan (2005). “Exploration of the function and organization of the yeast early secretory pathway through an epistatic mini array profile (E-MAP).” *Cell* 123: 507–519.

2. M. Schuldiner, J. Metz, V. Schmid, V. Denic, M. Rakwalska, H. D Schmitt, B. Schwappach & J. S. Weissman (2008). "The GET complex mediates insertion of tail anchored proteins into the ER membrane." *Cell* 134: 634–645.
3. M. C. Jonikas, S. R. Collins, V. Denic, E. Oh, E. M. Quan, V. Schmid, J. Weibezahn, B. Schwappach, P. Walter, J. S. Weissman & M. Schuldiner. (2009). "Comprehensive characterization of genes required for protein folding in the endoplasmic reticulum." *Science* 27: 1693–1697.
4. Y. Herzig, H. J. Sharpe, Y. Elbaz, S. Munro & M. Schuldiner. (2012). "A Systematic Approach to Pair Secretory Cargo Receptors with their Cargo Suggests a Mechanism for Cargo Selection by Erv14." *PLOS Biology* 10: e1001329.1–e1001329.14.
5. T. Ast, G. Cohen & M. Schuldiner (2013) "A Network of Cytosolic Factors Targets SRP-Independent Proteins to the Endoplasmic Reticulum." *Cell* 152: 1134–1145.
6. Y. Elbaz-Alon, E. Rosenfeld, V. Shinder, A. H. Futerman, T. Geiger & M. Schuldiner. "A dynamic interface between vacuoles and mitochondria in yeast." *Dev. Cell*. (In Press).