

Stanford



Felix Boos

Postdoctoral Scholar, Genetics

Bio

STANFORD ADVISORS

- Anne Brunet, Postdoctoral Faculty Sponsor

Research & Scholarship

LAB AFFILIATIONS

- Anne Brunet (7/1/2021)

Publications

PUBLICATIONS

- **The unfolded protein response of the endoplasmic reticulum supports mitochondrial biogenesis by buffering non-imported proteins.** *Molecular biology of the cell*
Knöringer, K., Groh, C., Krämer, L., Stein, K. C., Hansen, K. G., Zimmermann, J., Morgan, B., Herrmann, J. M., Frydman, J., Boos, F.
2023: mbcE23050205
- **Mitochondrial dysfunction rapidly modulates the abundance and thermal stability of cellular proteins.** *Life science alliance*
Groh, C., Haberkant, P., Stein, F., Filbeck, S., Pfeffer, S., Savitski, M. M., Boos, F., Herrmann, J. M.
2023; 6 (6)
- **The African Turquoise Killifish: A Scalable Vertebrate Model for Aging and Other Complex Phenotypes.** *Cold Spring Harbor protocols*
Boos, F., Chen, J., Brunet, A.
2023
- **MitoStores: chaperone-controlled protein granules store mitochondrial precursors in the cytosol** *EMBO JOURNAL*
Kraemer, L., Dalheimer, N., Raeschle, M., Storchova, Z., Pielage, J., Boos, F., Herrmann, J. M.
2023: e112309
- **Widespread use of unconventional targeting signals in mitochondrial ribosome proteins** *EMBO JOURNAL*
Bykov, Y. S., Flohr, T., Boos, F., Zung, N., Herrmann, J. M., Schuldiner, M.
2021: e109519
- **Increased levels of mitochondrial import factor Mia40 prevent the aggregation of polyQ proteins in the cytosol.** *The EMBO journal*
Schlagowski, A. M., Knöringer, K., Morlot, S., Sánchez Vicente, A., Flohr, T., Krämer, L., Boos, F., Khalid, N., Ahmed, S., Schramm, J., Murschall, L. M., Haberkant, P., Stein, et al
2021: e107913
- **The chaperone-binding activity of the mitochondrial surface receptor Tom70 protects the cytosol against mitoprotein-induced stress.** *Cell reports*
Backes, S., Bykov, Y. S., Flohr, T., Raschle, M., Zhou, J., Lenhard, S., Kramer, L., Muhlhaus, T., Bibi, C., Jann, C., Smith, J. D., Steinmetz, L. M., Rapaport, et al
2021; 35 (1): 108936

- **More than just a ticket canceller: the mitochondrial processing peptidase tailors complex precursor proteins at internal cleavage sites** *MOLECULAR BIOLOGY OF THE CELL*
Friedl, J., Knopp, M. R., Groh, C., Paz, E., Gould, S. B., Herrmann, J. M., Boos, F.
2020; 31 (24): 2657-2668
- **The intermembrane space protein Mix23 is a novel stress-induced mitochondrial import factor.** *The Journal of biological chemistry*
Zöller, E., Laborenz, J., Krämer, L., Boos, F., Räschle, M., Alexander, R. T., Herrmann, J. M.
2020; 295 (43): 14686-14697
- **How the Mitoprotein-Induced Stress Response Safeguards the Cytosol: A Unified View.** *Trends in cell biology*
Boos, F., Labbadia, J., Herrmann, J. M.
2020; 30 (3): 241-254
- **The NADH Dehydrogenase Nde1 Executes Cell Death after Integrating Signals from Metabolism and Proteostasis on the Mitochondrial Surface** *MOLECULAR CELL*
Saladi, S., Boos, F., Poglitsch, M., Meyer, H., Sommer, F., Muehlhaus, T., Schroda, M., Schuldiner, M., Madeo, F., Herrmann, J. M.
2020; 77 (1): 189-+
- **Multiple mitochondrial thioesterases have distinct tissue and substrate specificity and CoA regulation, suggesting unique functional roles.** *The Journal of biological chemistry*
Bekeova, C., Anderson-Pullinger, L., Boye, K., Boos, F., Sharpadskaya, Y., Herrmann, J. M., Seifert, E. L.
2019; 294 (50): 19034-19047
- **Mitochondrial protein translocation-associated degradation** *NATURE*
Martensson, C. U., Priesnitz, C., Song, J., Ellenrieder, L., Doan, K., Boos, F., Floerchinger, A., Zufall, N., Oeljeklaus, S., Warscheid, B., Becker, T.
2019; 569 (7758): 679-+
- **Mitochondrial protein-induced stress triggers a global adaptive transcriptional programme** *NATURE CELL BIOLOGY*
Boos, F., Kraemer, L., Groh, C., Jung, F., Haberkant, P., Stein, F., Wollweber, F., Gackstatter, A., Zoeller, E., van der Laan, M., Savitski, M. M., Benes, V., Herrmann, et al
2019; 21 (4): 442-+
- **Detection of Internal Matrix Targeting Signal-like Sequences (iMTS-Ls) in Mitochondrial** *BIO-PROTOCOL*
Boos, F., Muehlhaus, T., Herrmann, J. M.
2018; 8 (17)
- **Genome-wide SWAp-Tag yeast libraries for proteome exploration** *NATURE METHODS*
Weill, U., Yofe, I., Sass, E., Stynen, B., Davidi, D., Natarajan, J., Ben-Menachem, R., Avihou, Z., Goldman, O., Harpaz, N., Chuartzman, S., Kniazev, K., Knoblauch, et al
2018; 15 (8): 617-+
- **Accessory signals in protein translocation** *AGING-US*
Hansen, K. G., Boos, F., Herrmann, J. M.
2018; 10 (4): 530-531
- **Tom70 enhances mitochondrial preprotein import efficiency by binding to internal targeting sequences** *JOURNAL OF CELL BIOLOGY*
Backes, S., Hess, S., Boos, F., Woellhaf, M. W., Goedel, S., Jung, M., Muehlhaus, T., Herrmann, J. M.
2018; 217 (4): 1369-1382
- **Methionine on the rise: how mitochondria changed their codon usage.** *The EMBO journal*
Boos, F., Wollin, M., Herrmann, J. M.
2016; 35 (19): 2066-2067