

PhD /PostDoc positions available

Exploration of physiological functions of the cell fusogen Fusexin1 in Archaea

In a collaborative project between the Albers lab (Freiburg) and the Podbilewicz lab (Technion) starting in January 2026.

We aim to elucidate the role and function of fusexins in Haloarchaea through the application of genetics, cell biology, and structural methods. Experience in one of the named fields is important; prior experience working with Haloarchaea would be beneficial, but is not mandatory.

If you are interested, please contact Sonja Albers (sonja.albers@biologie.uni-freiburg.de) or Benjamin Podbilewicz (podbilew@technion.ac.il).

Relevant references

- Moi, D., et al. and Podbilewicz, B. (2022). Discovery of archaeal fusexins homologous to eukaryotic HAP2/GCS1 gamete fusion proteins. *Nat. Commun.* 13, 3880. <https://doi.org/10.1038/s41467-022-31564-1>
- Sivabalasarma, S., Wetzel, H., Nußbaum, P., van der Does, C., Beeby, M., and Albers, S.-V. (2021). Analysis of Cell–Cell Bridges in *Haloferax volcanii* Using Electron Cryo-Tomography Reveal a Continuous Cytoplasm and S-Layer. *Front. Microbiol.* 11. <https://doi.org/10.3389/fmicb.2020.612239>.
- Valansi, C., Moi, D., et al., Aguilar, P.S., and Podbilewicz, B. (2017). Arabidopsis HAP2/GCS1 is a gamete fusion protein homologous to somatic and viral fusogens. *J. Cell Biol.* 216, 571–581. <https://doi.org/10.1083/jcb.201610093>.
- Wagner, A., Whitaker, R.J., et al., and Albers, S.-V. (2017). Mechanisms of gene flow in archaea. *Nat. Rev. Microbiol.* 15, 492–501. <https://doi.org/10.1038/nrmicro.2017.41>.