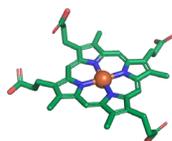




apply until 30th  
of April 2026

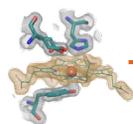


## Fully funded PhD-thesis:

# Coproheme – a naturally occurring cofactor?

You (most often) cannot find something you are not looking for. Coproheme – a naturally occurring cofactor? This is the title of this **PhD-thesis** and also highlights the main question we want to answer. In this work coproheme will be tested as a cofactor in well-described heme enzymes. Further, hints will be followed up to test if coproheme is actually used by nature as a prosthetic group. The outcome of this work will tell if we have to **fundamentally change our understanding of porphyrin and heme biology.**

- Falb, N., Warneke, R., Stadlmann, J., Satrapa, N. L., Furtmüller, P. G., Causon, T., Stülke, J., Hofbauer, S. 2025. **Free Rad. Biol. Med.**, 240, 364-372, doi: 10.1016/j.freeradbiomed.2025.08.046
- Patil, G., Alonso de Armiño, J. A., Borek, D., Furtmüller, P. G., Estrin, D. A., Hofbauer, S. 2025. **Protein Science**, 34, e70027, doi: 10.1002/pro.70027
- Gabler, T., Dali, A., Sebastiani, F., Furtmüller, P. G., Becucci, M., Hofbauer, S., Smulevich, G. 2023. **Protein Science**, 32, e4788, doi: 10.1002/pro.4788



**The work will include:**

**Where?**

**Protein Biochemistry Group  
Institute of Biochemistry  
NWN BOKU University**



## Production and Characterization of Coproheme Enzymes and Variants

-   molecular biological methods: cloning, site directed mutagenesis
-   protein expression (*E.coli*) and purification methods
-   spectroscopic methods: UV-vis, stopped-flow spectroscopy, CD, EPR, RR
-   steady-state and pre-steady-state kinetics (polarographic/spectroscopic)
-   protein crystallography and structure determination

**Start:** latest September 2026

**Duration:** 3 years

**Salary:** Standard Personnel Costs  
and Salaries for FWF Project  
Proposals – Doctoral Candidates



If you are interested please contact

**Stefan Hofbauer**

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