

## Advanced Engineering of Non-Heme Iron Monooxygenases

### Postdoctoral Position and Short-Term Internships

**Location:** Vilnius University, Life Sciences Center, Department of Molecular Microbiology and Biotechnology

**Start:** From 2026/09/01

**Duration:** Up to 24 months for postdoc and up to 10 days for internships

We are seeking highly motivated researchers to join an exciting project focused on the next-generation engineering of non-heme iron monooxygenases. This project aims to unlock their full potential using cutting-edge computational design, enzyme engineering and screening, UAAs integration, enabling sustainable routes toward high-value product synthesis.

#### Your Role

- Enzyme engineering strategies and their implementation (mutational hotspots, computational enzyme design, prediction of enzyme–substrate interactions)
- Designing enzyme screening platforms
- Enzyme expression, purification, and *in vitro* characterization
- Integration of computational and experimental workflows

#### Who We're Looking For

- Strong background in enzymology, microbiology or biochemistry
- Hands-on experience in enzyme expression and *in vitro* characterization
- Background in computational enzyme design, bioinformatics, or protein/enzyme engineering
- Experience with structure determination and cryo-electron microscopy (Cryo-EM) would be highly advantageous
- Ability to work both independently and collaboratively

#### What We Offer

- A full-time position in a vibrant research environment at the VU Life Sciences Center
- Access to modern biotechnology facilities and equipment
- Participation in international and local workshops and conferences
- Salary for the postdoctoral position: €3000–4500 (gross), depending on experience
- Travel and accommodation covered for short-term research visits (up to 10 days), open to PhD students and early-career scientists

#### About the Group

The research group led by Dr. Vytautas Petkevičius focuses on microbial biodegradation and the development of oxidative enzymes for sustainable biocatalysis. Their work bridges fundamental studies of non-heme iron monooxygenases with practical applications in selective oxidation reactions and green chemistry. The group combines strong expertise in enzyme engineering, molecular biotechnology, and applied biotransformations, supported by international collaborations and competitive research projects.

#### How to Apply

Please send the following documents—CV, cover letter, and two references—to [vytautas.petkevicius@bchi.vu.lt](mailto:vytautas.petkevicius@bchi.vu.lt) For further information, feel free to contact us at the same email address.