Postdoctoral Position in Biocatalysis

In the lab of Prof. Xile Hu at EPFL (Swiss Federal Institute of Technology Lausanne; Ecole Polytechnique Fédérale de Lausanne)

Website: https://lsci.epfl.ch

(Availability: Immediately to First half of 2025).

We are looking for motivated and successful candidates to work on the following projects:

(i) Artificial enzymes. We seek to modify or create metalloenzymes for synthetic applications. We also seek to apply biocatalysis for organic synthesis according to metabolic guidelines. An organic or biochem background is preferred.

(ii) Enzyme engineering. We seek to engineering and design natural enzymes to extend their application towards unnatural substrates or unconventional reaction mechanisms. We also plan to (re)design natural enzymes by computational means for abiotic reactivity. See our latest publication on our ammonia-lyase project: https://onlinelibrary.wiley.com/doi/full/10.1002/anie.202406008.

The successful candidate should have:

- Practical experience in molecular biology techniques and enzymology (protein expression and purification, enzyme characterization and engineering, assay design)
- Strong expertise in organic chemistry and small-molecule characterization techniques including NMR, HPLC, MS.
- Basic proficiency in computational protein structure analysis and bioinformatic tools.
- Excellent communication skills, including fluency in English.
- Ability to conduct the project independently, although strong team-work skills are required.

The position is initially for one-year. There is possibility to extend the position for one more year pending the progress and mutual agreements.

 For all applications, please send your candidature to Prof. Hu via xilehu@gmail.com. Please include a CV, research interest, and names of two reference providers. In case of a large volume of applications, we can only reply to those who will be further considered for Zoom or onsite interviews. In this case if you do not hear from me within 2 weeks of initial application, please assume that you application is declined. Note that applications that do not meet the requirements stated above (e.g., necessary academic background) will not be replied.