

# 5<sup>th</sup> Hands-on Computational Enzyme Design

12–14 February 2024, ONLINE



## Introduction

Computational tools can dramatically accelerate the discovery and design of improved enzymes. This course will introduce a number of user-friendly **software tools** for predicting and redesigning enzyme properties, and will provide intensive **practical training**. The developers of those tools will run this interactive course. In the end the participants will be able to use the tools **independently**. Prior experience in molecular modelling or bioinformatics is not required and experimentalists are welcome.



## Registration fees

	Academia	Industry
<b>Early</b> (30 Nov. 2023)	400 €	700 €
<b>Late</b> (15 Dec. 2023)	550 €	850 €

**Fees include:** theoretical materials, protocols, tips and tricks, advanced exercises, personalized hands-on sessions, troubleshooting, certificate

★ **Limited number of participants** ★



## Program

### Main topics

- Mining of novel enzymes
- Design of protein stability and solubility
- Design of enzyme activity and specificity
- Machine learning in biochemistry

### Software and databases covered

- EnzymeMiner
- Hotspot Wizard
- FireProt, FireProt<sup>ASR</sup>, FireProt<sup>DB</sup>
- Caver, Caver Web, CaverDock,
- LoopGrafter
- SoluProt, SolubiS, SoluProtMut<sup>DB</sup>, AggreProt
- AlphaFold, ProteinMPNN, RF Diffusion

### Workshop format

- Theoretical lectures
- Hands-on practical sessions
- User-personalized sessions



## Organizers

- Loschmidt Laboratories, RECETOX, Faculty of Science, Masaryk University
- Enantis Ltd., FNUSA-ICRC
- ELIXIR.CZ; COST-COZYME

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**Register now!**

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