8th Hands-on Computational Enzyme Design

8–11 February 2027, ONLINE

Introduction

Computational tools can dramatically accelerate the discovery and design of improved enzymes. This course will introduce a range of user-friendly **software tools** for predicting and redesigning enzyme properties, combined with intensive **practical training**. The developers of those tools will run this interactive course. By the end, the participants will be able to apply the tools **independently**. No prior experience in molecular modelling or bioinformatics is required, and **experimentalists** are especially welcome.

Registration fees

	Academia	Industry
Early 31 Oct. 2026	540 €	840 €
Late 30 Nov. 2026	640 €	990 €

Fees include: theoretical materials, protocols, tips and tricks, advanced exercises, personalized hands-on sessions, troubleshooting, and 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, FireProtASR, FireProtDB
- ☑ AggreProt, SoluProt, SoluProtMutDB,
- ☑ Caver, Caver Web, CaverDock, LoopGrafter
- ☑ AlphaFold, ProteinMPNN, RF Diffusion, etc.

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, CLARA

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Registrations:

https://loschmidt.chemi.muni.cz/academy/ **from 16.09.2026**