5th 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
Early (30 Nov. 2023)	400 €	700 €
Late (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^{ASR}, FireProt^{DB}
- ☑ Caver, Caver Web, CaverDock,
- ☑ LoopGrafter
- ☑ SoluProt, SolubiS, SoluProtMut^{DB}, 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!

https://loschmidt.chemi.muni.cz/academy