

## 3<sup>rd</sup> Hands-on Computational Enzyme Design Course

### Press release note

The Hands-on Computational Enzyme Design Course is a highly practical and interactive course meant primarily for protein and metabolic engineers with no prior experience in computer modelling and bioinformatics. Other experts willing to broaden their current computational protein design toolbox can also benefit from this course. A team of experts and software developers trains the participants on how to operate several software tools devoted to different aspects of enzyme engineering, and how to properly interpret the results. Four main topics are covered: (1) Mining and analysis of novel enzymes, (2) Engineering protein stability, (3) Engineering enzyme activity and specificity and (4) Engineering protein solubility. The theoretical background and practical exercises are provided in a dynamic discussion environment using multiple software tools.

The first edition of this course was carried out in the classical on-site format for 3.5 days, in Brno, Czech Republic, in February 2020. Due to the COVID-19 pandemic, the second and third editions of the course took place online in May 2021 and May 2022, respectively. All three editions were successful. They were fully booked and the feedback from the participants was very positive: the vast majority of the respondents to the survey were highly satisfied and would recommend the course to a colleague. The 3<sup>rd</sup> and last course was half-booked after only two weeks. To promote the education of disfavoured students, we granted three scholarships that fully covered the course fees. Overall, we had 59 participants from 26 countries and 4 continents, 35% of them coming from industry. All these indicators were the highest among the three editions. From these numbers, we conclude that: (1) by running an online edition we shortened distances, allowing participants from far regions of the globe to join, 2) the demand for training on computational enzyme design tools is high, and 3) the Loschmidt Laboratories enjoy a growing reputation as providers of valuable tools and training.

We expect that this course will maintain its high popularity in the future, and thus we plan to run both on-site and online versions in the coming years. If you are interested in participating in the next edition, you can access the course website and sign up for our newsletters to stay tuned: <https://loschmidt.chemi.muni.cz/academy/>