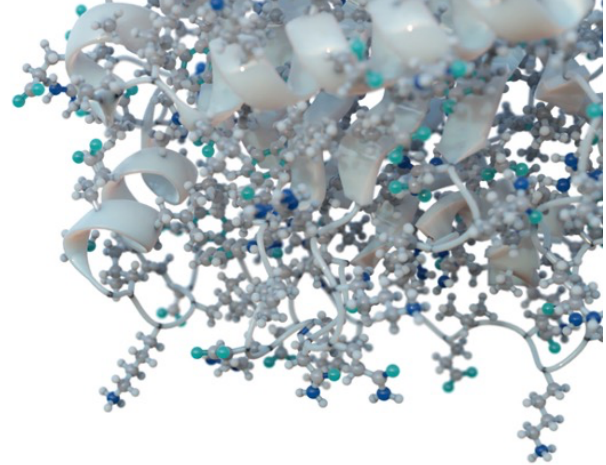


# MODELLING OF MULTIENZYME PROCESSES FOR THEIR OPTIMIZATION IN A SELF-DRIVING LAB



## ABOUT THE PROJECT

We are seeking a motivated Master Student to join our project team and work on a groundbreaking project to evaluate different process modeling approaches to inform the design part of a closed design-build-test-learn cycle. The work will be carried out in close collaboration with a Master student from the field of Chemistry/Biotechnology. This innovative system will automate the development of bioprocesses, significantly improving efficiency and reducing time-to-market for new drugs and therapies.

## POTENTIAL TOPICS FOR STUDENT CONTRIBUTIONS

- Designing and implementing a data extraction and analysis pipeline: This involves developing algorithms and tools to extract meaningful insights from the data generated by the experiments.
- Development, comparison and evaluation of two approaches to model a multienzyme process using a “black-box” or kinetic modeling (differential equation) approach.
- Integrating with existing bioprocess development workflows: This involves connecting the self-driving experimentation system with existing laboratory equipment and software platforms to facilitate seamless integration into existing workflows.

## IMPACT OF SELF-DRIVING EXPERIMENTATION IN BIOPROCESS DEVELOPMENT

Self-driving experimentation is transforming the bioprocess development landscape by automating the iterative process of designing, building, testing, and learning from experiments. This approach enables scientists to focus on analyzing data and making informed decisions, while the system handles the tedious and time-consuming tasks of preparing samples, running experiments, and analyzing results. As a result, self-driving experimentation is accelerating the development of new (bio)processes and improving the quality and reproducibility of research.

## JOIN OUR PROJECT TEAM AND REVOLUTIONIZE BIOPROCESS DEVELOPMENT WITH SELF-DRIVING EXPERIMENTATION!

- Gain hands-on experience in designing and implementing complex software systems.
- Contribute to a cutting-edge interdisciplinary project that has the potential to revolutionize bioprocess development.
- Work with a team of experienced researchers and engineers in a young company.
- Get exposure to the latest technologies and methodologies in automation, data science and biocatalysis.
- Enhance your technical skills and expand your professional network.

## START

Now

## CONTACT

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