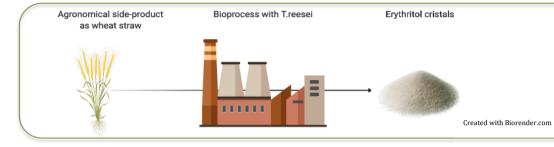




Master Thesis: "Development of a cultivation process for production of erythritol in *Trichoderma reesei*"



The project/The team

The goal of this project is to develop a process to produce erythritol with *Trichoderma reesei* in a biorefinery approach. Erythritol is a naturally occurring polyol mainly used as a sweetener in the food industry. Currently industrially produced in yeast, our aim is to reduce the environmental impact of the process.

The aim of your thesis

Your will work on the development of the fungal cultivation process. You will be supervised in this task by an international Prae-Doc with an industrial experience of process development.

You will use the Design of Experiment approach to screen the effect of process parameters and then optimise the process based on the knowledge gained. Our experimental approach for this part is summarised in the figure below.

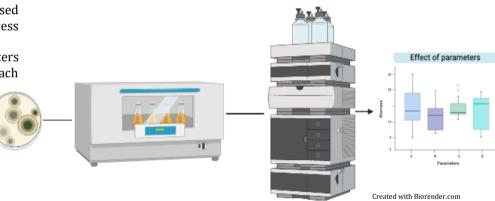
Main methods used:

- Work in sterile conditions
- Cultivation in shake flasks
- HPLC
- MODDE software

Who you are:

- Master student in a biology related field
- With previous experience with work in sterile conditions
- Superior command of English (non german-speakers in the team)
- Able to work in teams with colleagues from diverse nationalities
- Highly motivated to learn new things
- Capable to work independently / Good organisational skills Nice to have
- Previous experience in one of the mentioned methods

Salary: 460.66 € monthly (marginal employment based on the FWF guidelines)



Our experimental approach

Start: Between January and March 2021 **Duration:** 6 to 8 months **Application dead line: as soon as possible**

Location: TU Wien -Institute of Chemical, Environmental and Bioscience Engineering

Christian Doppler Laboratory for Optimized Expression of Carbohydrateactive Enzymes

Gumpendorfer Str. 1a, A-1060 Wien

Application and enquiries: CV and cover letter to Audrey Masi, <u>audrey.masi@tuwien.ac.at</u>