

## Bachelor's / Master's / Semester Thesis

### Process Intensification: Developing a Continuous Fermentation Process of Macrofungi

Keywords: Continuous Fermentation, Upstream Processing, Process Intensification

#### Project Description

My research focuses on developing an innovative process to sustainably produce vegan proteins. As part of this process, in the upstream stage, food industry sidestreams are upgraded through fermentation with macrofungi. The resulting proteins are then separated and purified in the downstream stage.

This thesis specifically focuses on intensifying the upstream process by transitioning from batch to continuous fermentation. This shift aims to enhance efficiency, productivity, and consistency in producing the desired proteins, paving the way for a more sustainable and scalable production system.



#### Research objectives

1. Develop a continuous fermentation process for macrofungi
2. Optimize conditions to maximize protein production
3. Develop analytics to quantify fermentation result

#### Profile

- Motivated, organized, and detail-oriented
- Passionate about sustainable bioprocessing
- Skilled in fermentation and process optimization