

# PhD position

## Continuous gas fermentation with of *Clostridium carboxidivorans*

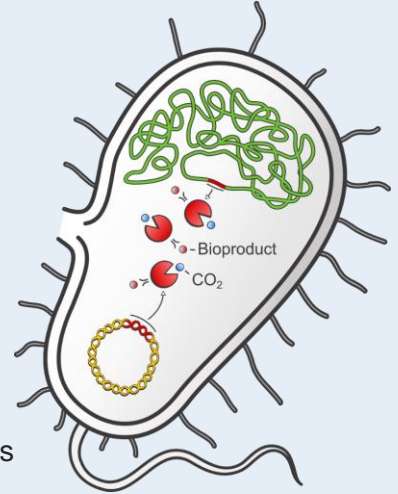
We are currently looking for a **highly motivated PhD candidate** to join our team.

### Introduction

Acetogens such as *Clostridium carboxidivorans* naturally and efficiently convert gaseous feedstocks such as CO<sub>2</sub>, H<sub>2</sub> and CO into value-added chemicals and fuels. *C. carboxidivorans* has the natural ability to perform chain elongation to produce C<sub>4</sub> and C<sub>6</sub> acids and alcohols. One of the goals of the EU-funded project GoodByO is to develop a continuous gas fermentation process for conversion of CO<sub>2</sub> from biogas production together with H<sub>2</sub> into hexanol using *C. carboxidivorans*.

### Tasks of the position

- Perform adaptive laboratory evolution on *C. carboxidivorans* to create a robust strain utilizing biogas-derived CO<sub>2</sub>
- Develop a continuous gas fermentation process for hexanol production from H<sub>2</sub>/CO<sub>2</sub>
- Perform systems level analysis (e.g. transcriptomics) and metabolic modelling to gain insights into strain physiology and metabolism
- Participate in conferences, write scientific articles, supervise students



### Requirements

- MSc in biotechnology, bioprocess engineering or comparable
- Experience in microbial fermentations and/or with anaerobic bacteria
- Hands-on experience with handling bioreactors and an affinity toward solving technical issues
- Knowledge of physiology and metabolism of prokaryotic organisms
- High degree of independence, commitment and reliability
- Excellent communication skills and ability to cooperate and work in a team
- Willingness to assist with teaching



### Application and position details

- Position is available from 10/2024 and is scheduled for 3 years
- Salary: 14x € 2,684, 5 weeks paid annual vacation time
- **Application deadline:** open until position is filled
- Send your application in one pdf including a motivation letter, your CV, your MSc diploma/transcripts in German or English to

