

Wanted: 3 MSc students

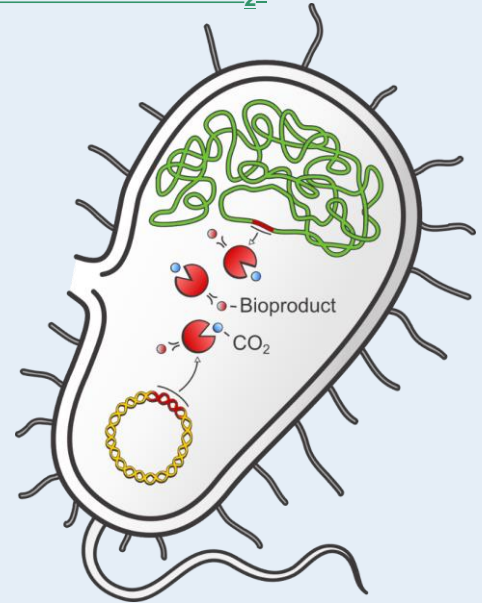
Metabolic and bioprocess engineering of gas-fermenting acetogens

Sustainable biochemicals and biofuels, directly from CO₂

→ We engineer microbes to produce value-added chemicals from CO₂!

Acetogens such as *A. woodii* and *T. kivui* naturally and efficiently convert CO₂ and related 1-carbon compounds into acetic acid. This ability could be harnessed to produce sustainable biofuels and biochemicals with a low carbon footprint. Other products than acetic acid could be obtained by rational metabolic engineering.

To assist our efforts, we are offering two master theses in molecular biology and one in fermentation.



What you will learn

- **Microbiology:** Work with gas-fermenting, strictly anaerobic bacteria
- Depending on the topic:
 - **Molecular biology:** Construct plasmids to overexpress different metabolic pathways, and ultimately to precisely integrate them in the genome
 - **Fermentation:** Use bioreactors to cultivate and monitor bacteria and assess their potential

Who we are looking for

- Background in technical chemistry, biotechnology, biochemistry or comparable
- Interested in anaerobic cultivations, molecular biology and microbial genetics
- Open-minded and eager to learn new methodology and techniques
- High degree of independence, commitment and reliability
- Proficient English communication skills

Working at TU Wien

- Positions are available from 02/22 and are scheduled for 6-9 months
- Compensation of € 300/month, supervision by PhD students and Postdoc
- Integration in the [Sustainable Bioprocess Solutions](#) group at TU Wien

