

The **University of Natural Resources and Life Sciences, Vienna** (BOKU), is the prime Austrian education and research institution for renewable resources, which are a necessity for human life. With its wide range of areas of expertise, it is the task of BOKU to contribute significantly to the protection of life resources for future generations.



The Institute of **Organic Chemistry** at BOKU is seeking applications for a  
**PhD Position in Organic Chemistry**  
within the frame of the interdisciplinary research project  
“**Structural Glycobiology & Inhibition of S-Layer Anchoring by Secondary Cell Wall Polymer**”

Website: <https://boku.ac.at/en/chemie/institut-fuer-organische-chemie-dchoc>

#### **The project:**

<https://boku.ac.at/en/chemie/institut-fuer-biochemie-dchbc/group-schaeffer/projects/ongoing-research-projects>

- Bacteria have evolved sophisticated strategies to stick their cell wall together and to survive in a competitive environment. One of these strategies is the display on surface (S-) layers on the bacterial cell surface.  
The research project aims at unraveling the molecular mechanism of S-layer anchoring to the cell wall via pyruvylated secondary cell wall polymers. The long-term aim is the inhibition of the cell wall biosynthesis in Gram-positive bacteria and the contribution to new ways of fighting bacterial infections. The project relies on the preparation and modification of small molecule-sized carbohydrate structures, which shall be accomplished with the advertised PhD project.
- The project is embedded in an interdisciplinary research team and based on the combination of organic chemistry, microbial molecular glycobiology, structure modelling, X-ray crystallography and cryo-electron microscopy.

#### **Required qualifications:**

- Applicants should hold a MSc-degree in chemistry (awarded or expected within the next months)
- Experience in synthetic organic chemistry
- Experience in analytical and purification methods (e.g. HPLC, MS, NMR)
- High motivation and enthusiasm for research and problem solving
- Confidence in spoken and written English

#### **We offer:**

- Well-equipped lab facilities and advanced instrumentation
- Scientifically stimulating and supportive lab groups
- The position is funded by the Austrian Science Fund FWF for a period of 3 years and 30 hours per week. The salary is within the standard salary range for doctoral graduates in Austria according to the University Collective Agreement and under full coverage of the Austrian social security system. Gross monthly salary ~€ 2460, payable 14 times per year.

#### **Application procedure:**

Applicants are asked to submit their CV, a summary of their MSc thesis and two potential academic references directly to Dr. Markus Blaukopf, e-mail: [markus.blaukopf@boku.ac.at](mailto:markus.blaukopf@boku.ac.at). Expected starting date is July/August, 2023. Application deadline is June 1, 2023. Applicants who are invited for an interview will be notified by June 7, 2023.