

The Department of Chemistry, Institute of Biochemistry is currently seeking a

Postgraduate Research Associate

(Reference code: 227)

Extent of employment: 30 hours per week

Duration of employment: 1st of March 2024, limited to 28th of February 2027

Workplace: 1190 Vienna, Muthgasse 11 and 18

Gross monthly salary and pay grade in terms of collective agreement for university staff (payable 14 times per year): B1, € 2.458,00

Responsibilities

- Perform PhD thesis is desired
- Join the PhD program BioToP (<https://biotop.boku.ac.at>) at BOKU, participate in the lectures, events, workshops and retreats
- Carry out research project “Importance of heme biosynthesis in the oral pathogen *Porphyromonas gingivalis*” (see <https://biotop.boku.ac.at/application.html> for a detailed project description)
- Heterologous expression of heme biosynthesis enzymes from *P. gingivalis* in *E. coli*
- Enzyme engineering by site-directed mutagenesis in order to analyze characteristics of substrate binding and enzymatic activities
- Protein characterization by biochemical and biophysical methods (spectral analysis, X-ray crystallography time-resolved multi-mixing UV-vis stopped-flow studies)
- Genetical manipulation of heme biosynthesis genes directly in *P. gingivalis* and thorough characterization of the resulting phenotypes with regards to bacterial fitness (external stressors), biofilm formation capability and influence of heme biosynthesis on cohabiting bacteria in oral model biofilms
- Establishment of a convenient method for porphyrin profiling using mass spectrometry

Required skills and qualifications

- Diploma degree in Biotechnology, Biochemistry or other equivalent university degree
- Language skills: English

Desirable skills and qualifications

- Practical experience on molecular biology
- Considerable knowledge in protein characterization
- Practical experience in heterologous enzyme expression of advantage
- Practical experience in one or more of the above mentioned characterization and analysis methods desired
- Confidence in communication and presenting scientific work to colleagues, at conferences and to public
- Experience in writing scientific publications
- Interest in working on an interdisciplinary topic

Applications can be submitted until: 8th of December 2023

University of Natural Resources and Life Sciences Vienna seeks to increase the number of its female faculty and staff members. Therefore qualified women are strongly encouraged to apply. In case of equal qualification, female candidates will be given preference unless reasons specific to an individual male candidate tilt the balance in his favour.

People with disabilities and appropriate qualifications are specifically encouraged to apply.

Please send your job application incl.

- BioToP application form (download from <https://biotop.boku.ac.at/application.html>)
- Copies of degree certificates
- Copy of your passport

to Personnel Management, University of Natural Resources and Life Sciences, Peter-Jordan-Straße 70, 1190 Vienna; E-Mail: kerstin.buchmueller@boku.ac.at. **(Reference code: 227)**

We regret that we cannot reimburse applicants travel and lodging expenses incurred as part of the selection and hiring process.

www.boku.ac.at