The Department of Biotechnology and Food Science, Institute of Computational Biology is currently seeking a

Postgraduate Research Associate

project employment

(Reference code 52)

Extent of employment: 30 hours per week
Duration of employment: 1st of June 2026, limited to 31st May 2029
Workplace: 1190 Vienna
Allocation in compliance with the Collective Agreement for University Staff to job group: B1
Gross monthly salary: (depending on previous eligible experience) at least: **€** 2.832,10 (payable 14 times per year)

This project is about association mapping in sugar beet (Beta vulgaris ssp. vulgaris) using existing short-read re-sequencing data and phenotypes generated by consortium partners. The focus is on computational analyses to discover candidate loci for resistance/tolerance to different types of biotic and abiotic stress, by applying machine learning methods on variant calls.

Responsibilities

- lllumina short-read mapping, variant calling, joint genotyping
- Population structure analyses
- Genome-wide association analysis for target traits, machine learning methods for classification and prediction of phenotypes
- Identification of candidate genes/regions and variants as markers for breeding and validation
- Collaboration with group members working on similar projects and with partners providing phenotypes
- Presentation of results at project meetings and conferences, contribution to manuscripts and data releases, own first-author publications

Required skills and qualifications

- Diploma degree in bioinformatics or other equivalent university degree
- Language skills: English

- Master's (or equivalent) in bioinformatics, computational biology, computer science, biology/biotechnology with bioinformatics focus, or a related field
- Competence with Linux and high-performance computing systems, experience in shell commands and scripting, programming skills (Python and/or Perl and/or R, but not exclusively R)
- Knowledge in plant genomics and applications of high-throughput sequencing
- Enthusiasm, dedication, problem-solving skills, and ability to work in an interdisciplinary consortium

Desirable skills and qualifications

- Experience with high-throughput sequencing data and variant calling
- Experience with genome-wide association analysis and population genetics
- Experience with machine learning applications for genomics

What we offer

- PhD position in an interdisciplinary team with access to comprehensive data sets (re-sequencing data and reference assemblies) and strong computational resources
- Mentoring and the option to apply for the BOKU doctorate school "AgriGenomics" with additional financial support (e.g. conference attendances, research stay abroad)
- Well-connected working place close to metro station Wien Heiligenstadt

Applications can be submitted until: 14th of April 2026

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.

- Motivation letter
- CV
- Contact details for 2-3 referees
- Email a single PDF, email subject: "KZ 52 - PhD Plant stress tolerance - [your last name]"
- We welcome applications from all qualified candidates and strongly encourage applications from underrepresented groups

to HR Management, BOKU University, Peter-Jordan-Straße 70, 1190 Vienna;
E-Mail: recruiting@boku.ac.at. **(Reference code: 52)**

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

www.boku.ac.at