



Bundesforschungs- und Ausbildungszentrum für Wald, Naturgefahren und Landschaft

Austrian Research and Training Centre for Forests, Natural Hazards and Landscape | <http://bfw.ac.at>

Job offer:

Research Position for the study of molecular defense response of Norway spruce to Bark beetle attack

**Full Time (40h/w) – Limited for 1 year – Schönbrunn (Vienna),
Austria**

In the **Unit of Provenance research and Breeding in the Department for Forest Growth, Silviculture and Genetics** of the Austrian Federal Research and Training Centre for Forests, Natural Hazards and Landscape (BFW), Vienna.

We are seeking an experienced and highly motivated researcher in **plant molecular biology and pathology** to join our growing team of scientists and practitioners. This is a unique opportunity to work in a collaborative environment with a dynamic team engaged in the molecular breeding of forest tree species. **Our group specializes on genetics and molecular defense responses**, and is greatly interested in **deciphering the Norway spruce molecular defense response to bark beetle attack**. A specialist on this topic is missing in our unit so far.

Your Responsibilities:

The researcher will participate in a new project funded by the Austrian Forest Fund. The projects' aim in general is **to identify genes and metabolic pathways involved in the induced defense response in Norway spruce (*Picea abies*) upon bark beetle attack (*Ips typographus*) by a combined transcriptomic (RT-qPCR, RNA-Seq) and metabolomic (Terpenoids, Phenolics, Hormones) approach**. The job profile includes the selection of Norway spruce plots to be artificially infected, the planning and installment of in-natura infection attack controlled experiments, the establishment of the most appropriate protocol for collection and processing of samples for metabolomics and transcriptomics, scientific data analysis and interpretation, scientific discussions with our researchers on genetics and plant molecular defense biology, as well as project management duties (reporting, coordination, etc.) and scientific writing that summarizes results in a manuscript.

Your Profile:

The research project will be carried out at the Austrian Research Centre for Forests (BFW) in collaboration with the team member Priv.-Doz. Dr. S. Netherer from the University of Natural Resources and Life Sciences (BOKU) in Vienna. The successful candidate is expected to disseminate research findings in peer-reviewed journals, as well as through public engagements and other scientific platforms.



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- M.Sc. degree in Plant molecular biology, especially on biotic stress transcriptomics and metabolomics. However, this is not a PhD position. One scientific publication in this area will be greatly appreciated.
- Experience on plant molecular biology including transcriptomics and metabolomics is needed. Experience on forest pathology and entomology is well valued.
- Knowledge on genetics, transcriptomics, and metabolomics. Knowledge on bark beetle is appreciated.
- Knowledge on the biology of the main plant molecular defense pathways: Plant-Pathogen interaction, MAPK signaling, Plant hormone signal transduction and main plant secondary biosynthetic pathways.
- Experience with basic research principles and methods, applied statistics, data acquisition, management of big data sets, and publishing of results.
- Scientific writing skills.
- Strong written and verbal communication skills.
- High level of self-organization and willingness to work in a team.
- Willingness to travel in Vienna and outside Vienna for sampling, data collection, data analysis and scientific discussions.
- Knowledge of Statistics and R for data analysis. Other programming languages are also welcome (e.g. Python).

We offer:

Located close to Schönbrunn Palace in the city of Vienna, our scientists and staff are committed to creating a workplace culture that respects and celebrates diversity and values the well-being of all employees. This is a 40 hour, 1 year term position beginning 1st of April 2023 or until the position is filled. The gross monthly salary is at least EUR 3.315,10 based on salary scale for federal employees in evaluation group v1/1.

Others:

Reference is made to § 43 in conjunction with § 11b and § 11c of the Federal Equal Treatment Act, according to which women who are as equally qualified as male applicants will be given preference when the position is entrusted.

If we have raised your interest, please send your application including a cover letter detailing **your motivation, your CV and contact information for three references, a Letter recommendation. *at least one. by February 1st, 2023** to the Federal Research and Training Centre for Forests, Natural Hazards and Landscape, 1130 Vienna, Seckendorff-Gudent-Weg 8 via e-mail to: marcela.vanloo@bfw.gv.at

For further information, please contact Dr. Marcela van Loo (marcela.vanloo@bfw.gv.at)

Web: <https://bfw.gv.at>