



The **Institute of Sugar Beet Research** (IfZ) associated with the Georg-August University is a nationally and internationally active research institution in Germany and aimed at developing concepts for sustainable sugar beet production.

Within the framework of a research project funded by the Deutsche Forschungsgemeinschaft (DFG), the Department of Phytomedicine has an **immediate** vacancy for a temporary position for three years for

Research Scientist (m/f/d)

on the topic "**Functional characterization of an antiviral resistance protein from *Beta vulgaris***" with the possibility of a PhD. The remuneration is based on the TV-L (EG 13, 65%).

Beet necrotic yellow vein virus is the causal agent of rizomania disease on *Beta vulgaris* (BNYVV). The high yield losses can only be controlled by plant resistance. The anti-BNYVV resistance gene *Rz2* was recently identified and classified as an immune receptor R protein with a classical architecture (CC-NB-LRR). Upon *Rz2* recognition of the viral avirulence gene "triple gene block protein 1", cell death is induced. In this research project, the nature of the interaction between TGB1 and *Rz2* will be characterized in more detail. This includes the elucidation of the subcellular localization and the signaling cascade of resistance induction. For this purpose, numerous methods of molecular biology and biochemistry will be used such as transient expression techniques, confocal microscopy, proximity labeling followed by mass spectroscopy. This work will provide a deeper understanding of *Rz2* function and antiviral resistance mechanisms.

Your tasks:

- Learning and application of molecular biology and biochemistry techniques
- Bioinformatic analysis of sequencing data
- Preparation of scientific manuscripts and presentations for conferences

Technical and personal requirements:

- MSc degree in agricultural science, horticulture, biology, or related discipline, preferably with a focus on phytopathology or molecular biology.
- Experience in the field of plant molecular biology
- Willingness to learn bioinformatics sequence analysis (e.g. R, QIAGEN CLC Genomics Workbench)
- Ability to work independently, ability to work in a team and flexibility

We offer:

- Being part of our dedicated scientific team and international network
- Interdisciplinary research and intercultural work environment
- Flexible working hours with the possibility of working partly in home office

The doctorate is accompanied by active participation in the doctoral program for agricultural sciences of the Georg-August-University.

Please contact Prof. Dr. Varrelmann (varrelmann@ifz-goettingen.de) or Dr. Sebastian Liebe (liebe@ifz-goettingen.de) for detailed questions on the project and position.

Please submit your application to Institut für Zuckerrübenforschung, Holtenser Landstraße 77, D-37079 Göttingen or as a PDF by e-mail to bewerbung@ifz-goettingen.de.