

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



Within a scientific research project, funded by the Federal Ministry for Economic Affairs and Climate Protection (BMWK) through the Industrial Collective Research (IGF), we are seeking in the Department of Phytopathology for a three-year fixed-term position starting immediately a

Research Scientist (PhD-student) (m/f/d)

in the project “**Identification of effector proteins in SBR and Stolbur pathogens for the selection of tolerant sugar beets (acronym: EffectorSelect)**” with the possibility of a doctorate. Remuneration is based on the TV-L (EG 13, 65 %).

The SBR disease in sugar beet is a disease complex caused by phloem-limited bacteria and transmitted by cicadas, which is very difficult to control. Plant resistance characteristics have not yet been sufficiently identified. The aim of the research project is to identify bacterial effectors/pathogenicity factors and the corresponding host target proteins. Fundamentally, the work aims to achieve an improved understanding of host-pathogen interaction. Plant targets will be made available to the breeding companies involved in the project to accelerate resistance selection.

Your tasks:

- Identification of effector candidates using metatranscriptome studies and prediction using bioinformatic methods.
- Identification of plant target proteins using transcriptome studies and protein-protein interaction assays (YTH, proximity labelling).
- Standard molecular biology methods such as cloning of bacterial and plant genes, vector inoculation methods and quantitative qPCR-based detection methods.
- Cicada transmission of bacterial pathogens in the greenhouse
- Preparation of scientific manuscripts, project reports and presentations for conferences

Your profile:

- Candidates must possess master's degree (or equivalent) in plant science, agricultural sciences, horticulture, biology or related disciplines and desirably in phytopathology and/or molecular biology
- Good knowledge of protein-protein-interactions
- Strong background in Plant molecular biology, desirably Phytobacteriology and Bioinformatics
- Advanced English language and writing skills
- German language skills are of advantage
- The ability to work independently, team-oriented and flexible is assumed
- Willingness to travel and a valid EU driver's license

We offer:

- Collaboration in our dedicated scientific team and international network
- Interdisciplinary research and an intercultural working environment
- Well-equipped experimental infrastructure (laboratories, greenhouses)
- Flexible working hours with the possibility to work partly from home
- Living and working in the university city of Göttingen

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

Preliminary enquiries can be made to Prof. Dr. Varrelmann (varrelmann@ifz-goettingen.de).

Please send your application to the Institute of Sugar Beet Research, Holtenser Landstraße 77, D-37079 Göttingen or as a PDF by e-mail to bewerbung@ifz-goettingen.de by 15th January 2026