



Conserving - Exploring - Exploiting

The [IPK](#) is one of the world's leading international institutions in the field of plant genetics and crop science. Its research program and services contribute significantly to conserving, exploring and exploiting crop diversity. Its research goals are driven by the need to ensure an efficient and sustainable supply of food, energy and raw materials, thereby addressing a major global ecological challenge.

Postdoctoral Researcher (f/m/d) in the field of Deep Learning for the cereal Gene Regulation

The [Network Analysis and Modelling](#) group investigates how genetic variation shapes gene regulation, protein function, and, ultimately, observable plant traits. Using deep learning and network analysis, we aim to enhance crop performance through the discovery and annotation of regulatory variants that can guide breeding and gene-editing approaches.

We are seeking a Postdoctoral Researcher to join our team within the BMFTR-funded project Twin – A Digital Discovery Platform for Cereal Genetic Resources, to infer the cereal pan-regulome and its functional variation in wheat and barley.

Your tasks:

- Design, train and interpret deep-learning models to infer regulatory sequence features across barley and wheat genomes.
- Integrate genome assemblies, WGS variant calls and large-scale RNA-seq data.
- Quantify the functional impact of regulatory sequence variation (SNPs, indels, SVs) and integrate the results with GWAS and trait data.
- Contribute to the open RegulomeAtlas resource, exposing results through REST and BrAPI-compatible APIs.
- Ensure FAIR data management; collaborate closely with geneticists, breeders and industry partners; publish your results in high-impact journals.
- Collaborate closely with project partners, supervise MSc/PhD students and contribute to new grant proposals.

Your qualifications and skills:

- PhD in Bioinformatics, Computational Biology, Genomics or a related field.
- Proven expertise in deep learning and statistical modelling of biological sequence data (e.g. genomic, regulatory or transcriptomic data).
- Experience with genomic and transcriptomic (RNA-seq) data; familiarity with cis-regulatory elements, gene regulation or pan-genomics is an advantage.
- Confident use of HPC environments, version control and FAIR principles.
- Excellent English communication skills and a strong publication record.

You fit to us:

- if you have strong interest in plant genomics, gene regulation and deep learning.
- if you have a strong scientific curiosity and motivation.
- if you are able to work autonomously and in a team.

We offer you:

- a dynamic research environment and access to state-of-the-art facilities, with a wide range of opportunities for personal and professional growth.
- an international, interdisciplinary team that values open communication and flat hierarchies.
- a collegial atmosphere that supports work-life balance and flexible working arrangements.
- a project-based position starting on 1. September 2026, limited for 2 years.
- a gross salary up to 100 % E13 TV-L.

If you need further information, please feel free to contact **Dr. Jedrzej Jakub Szymanski** Tel.: +49 39482 5-753 directly.

What you need to know:

For us, your qualifications and strengths count. Therefore, everyone – independent from gender, origin, age, or possible disability – is welcome. The IPK is striving to increase the proportion of women in sectors where they are underrepresented and therefore explicitly encourages qualified women to apply. As an institution which has been awarded the Certificate for Career and Family (“berufundfamilie”), we offer family-friendly working conditions and flexible working hours. The IPK has set a goal to employ more people with disabilities. Qualified applicants with a disability will be given preference.

Your application:

We are looking forward to receive your **complete** online-application (letter of motivation, CV, certificates) as one single pdf-document (<https://www.ipk-gatersleben.de/en/career/job-offers>) until **22.07.2026**. If you have questions or require more information, please do contact **Kerstin Schweigert** (jobs@ipk-gatersleben.de). Please indicate the reference number **28/06/26** in your correspondence. Please note that incomplete application documents cannot be considered. **Foreign qualifications must carry out an equivalence test in Germany, which is subject to a fee. This must be presented in the event of a later hiring:** <https://zab.kmk.org/en/statement-comparability>