



Breeding Data Scientist (m/f/d) (80-100%)

Location: Zürich, Switzerland

Employment: Contract for 3 years with the option to convert to permanent employment with excellent performance.

The Swiss Plant Breeding Center (SPBC) is seeking an experienced and versatile **Breeding Data Scientist**. In this role, you won't just be crunching numbers in a vacuum; you will be the bridge between complex data and the physical reality of breeding plots at Swiss private and public breeding organizations. Your primary objective is to leverage genomics and phenotype data to accelerate the development of resilient and high-quality crop varieties that are well-adapted to Switzerland. This is a unique opportunity to contribute to the building of the SPBC and to be a positive force for the Swiss agriculture and food system.

Key Responsibilities

- **Data analytics and biostatistics** across multiple crops to drive breeding program success and increase rate of genetic gain
- **Pipeline Development:** Build and maintain automated bioinformatics pipelines for processing breeding data, such as high-throughput sequencing (GBS, WGS, RNA-Seq) and digital phenotype (images) data.
- **GWAS & QTL Mapping:** Conduct Genome-Wide Association Studies and QTL mapping to identify genetic markers linked to relevant traits like disease resistance, product quality and environmental adaptation.
- **Molecular Marker Development:** Design cost-efficient markers and validation experiments with breeders for routine marker-assisted selection in breeding pipelines.
- **Predictive Models and AI Applications:** Develop and implement genomic and phenomic selection workflows, including the integration of AI.
- **Data Integration:** Harmonize diverse datasets, including (digital) phenotypic field data, environmental variables, pedigree and genotypic data to improve breeding outcomes.
- **Scientific Computing Environment:** Architect and maintain the SPBC scientific computing infrastructure and IT environment.
- **Stakeholder Engagement and Training:** Advise Swiss plant breeders on how to use new technologies and methods in their breeding programs and foster a collaborative environment in the Swiss breeding sector. Training team members.
- **Decision Support:** Translate complex statistical outputs into clear visualizations and recommendations for breeding teams to guide selection decisions.

Who you are

- You are hands-on and enjoy a dynamic work environment that solves diverse and practical scientific challenges in many plant species in a complex network of breeding organizations
- You are an effective communicator that can interact with a wide variety of stakeholders
- You are motivated by the application of new technologies and methods in practical breeding programs and understand that publishing papers is not the main emphasis for this role
- You enjoy developing efficient processes and workflows that can be applied routinely
- You are solution oriented and enjoy sharing your expertise freely and openly



- You enjoy working in a small team where everyone supports each other

Technical Requirements

- **Education:** PhD (or MSc with >6 years of experience) in Plant Breeding, Quantitative Genetics, Bioinformatics, Data Science or related field.
- **Programming:** Advanced proficiency in R and/or python.
- **Genomics:** Experience with generating sequencing libraries, genome assembly, alignment and variant calling, and imputation, establishment of data bases.
- **Digital Phenotyping:** Knowledge of processing image and/or sensor data
- **Quantitative Genetics:** Experience and strong understanding of quantitative genetics methodology and the breeder's equation
- **Statistics:** Experience in linear mixed models, experimental design, machine learning and artificial intelligence applications.
- **Cloud/HPC:** Experience with high-performance computing (HPC), including Linux environments and cloud computing (AWS/GCP)
- **Server maintenance:** experience with set up and maintenance of server infrastructure
- **Languages:** English and German or French.

The Swiss Plant Breeding Center

The Swiss Plant Breeding Center (SPBC) is the newly founded, independent competence and innovation center for plant breeding in Switzerland supported by the Federal Office for Agriculture (FOAG). Its aim is to strengthen Swiss plant breeding and increase breeding efficiency. Its main tasks are to network the players in breeding and research and to transfer research results into practical breeding programs. The SPBC provides breeders with technical support, know-how and expertise and plays an active role in the planning and implementation of innovations. It aligns its services to customer needs, is open to all crop types, cultivation systems and methods, covers broad areas of expertise through network partnerships and is active in the acquisition of customer and third-party funding.

Our competencies include molecular genetics, genomics, bioinformatics, quantitative genetics, data analytics, trial design, breeding program design, and digital phenotyping. In all these areas, we focus on supporting breeding organizations to translate research results into routine applications.

More info at [Swiss Plant Breeding Center - SPBC](#)

Please send your electronic application (incl. letter of motivation, CV, list of publications, 3 references) in German or English with the subject "**Data Scientist_SPBC**" to daetwyler@spbc-plantbreeding.ch by **the 26th of April 2026**. For further information please contact Hans Dätwyler by email or phone, +41 062 865 04 10.