

The institute of Quantitative Genetics and Genomics of Plants in the faculty of Mathematics and Natural Sciences at Heinrich Heine University Düsseldorf invites applications for the post of

**PhD student Quantitative Genetics/Breeding Methodology
(50%; TV-L EG 13)**

available from now on. The position is to be filled for three years.

The work of our institute aims to identify the causes of natural phenotypic variation of crop plants on a molecular level, in order to attain an ultimate goal – the prediction of phenotypic performance under various environmental conditions. This requires combined efforts on creating novel plant material, exploiting the possibilities of *omics technologies, and developing innovative biostatistical procedures.

Potato (*Solanum tuberosum*) is the third most important crop species worldwide. However, because of its tetraploid inheritance and its low multiplication coefficient, breeding programs have realized up to now only a low genetic gain for yield traits. Our institute aims at increasing the efficiency of potato breeding by providing novel tools for this important crop species.

Your tasks

- Development of new models for genomic selection (GS) adapted to tetraploid potato
- Empirical analyses of GS datasets
- Optimization of potato breeding programs using model calculations and computer simulations taking GS into account
- Prepare scientific publications
- Prepare a dissertation

Our requirements:

- MSc in agricultural sciences, statistics, or related disciplines
- Proficiency in programming (e.g. R, Python, C/C++)
- Knowledge of plant breeding and quantitative genetics theory
- High interest in statistical/biometrical analyses
- Excellent communication skills in English (spoken and written)
- High motivation, ability to work independently, team spirit

We offer:

- An interdisciplinary working environment in an international team of plant breeders, statisticians, molecular geneticists and bioinformaticians
- Active exchange and collaboration with partners from academia and industry in a field of constant technical and methodological development
- The salary will be, depending on the personal qualification of the applicant, up to pay grade TV-L EG 13.

Heinrich Heine University Düsseldorf aims at increasing the percentage of employed women. Applications from women will therefore be given preference in cases of equal aptitude, ability and professional achievements unless there are exceptional reasons for choosing another applicant. Applications from suitably qualified severely disabled persons or disabled persons regarded as being of equal status according to Book IX of the German social Code (SGB – Soziales Gesetzbuch) are encouraged.

Your contact person in case of questions is Benjamin Stich; email: benjamin.stich@hhu.de

Please submit your application documents (curriculum vitae, master's thesis, copies of academic certificates, description of personal motivation and previous teaching/research experience, together with a separate letter of recommendation) citing reference no. PTPhDBM until 20.04.2019 preferentially as a single PDF file to ines.sigge@hhu.de