

## 22 Doctoral Researchers / PhD positions (f/m/d)

### TRR 341 – ‘Plant Ecological Genetics’

The University of Cologne is one of the largest and most research-intensive universities in Germany, offering a wide range of subjects. With its six faculties and its interfaculty centres, it offers a broad spectrum of scientific disciplines and internationally outstanding profile areas, supported by the administration with its services.

The TRR 341 is a new Collaborative Research Center funded by the German Research Foundation (DFG) at the Universities of Cologne, Düsseldorf, Bochum, Marburg and the Max Planck Institute for Plant Breeding Research. In a joint and interdisciplinary approach, combining Plant Molecular Biology and Ecology, we are investigating the genetic underpinnings of plant responses and adaptation to global environmental change. Together, our aim is to provide new molecular and genetic data and tools to better understand the molecular basis of plant adaptation. We thereby hope to support current and future efforts for the preservation of plant biodiversity.

#### WE ARE LOOKING FOR

We are looking for talented and highly motivated doctoral candidates with a MSc degree in Plant Sciences, Molecular Biology, Genetics, Ecology, Systems Biology, Bioinformatics or related disciplines. Successful candidates should have a strong interest in generating knowledge on the ecological and genetic adaptation of plants to changing environments and thus contributing to the preservation of plant ecosystems/diversity. Successful candidates will convince us that they are excellent team players, driven by curiosity and with an aptitude for interdisciplinary research.

We invite candidates to apply for one or more of the following projects (detailed project information on <https://ag-demeaux.botanik.uni-koeln.de/trr341>):

- » A01: Adaptive potential of the leaf economics spectrum in the Brassicaceae (HHU)
- » A02: Fitness effect of molecular variants of leaf area and economics spectrum of *Hordeum vulgare* (HHU)
- » A03: Adaptive potential of temperature mediated plasticity in *Cardamine hirsuta* (MPIPZ)
- » A04: Ecological importance and genetic basis of adaptive myxospERMic strategies to drought stress in the Camelinae tribe and the Brassicaceae family (HHU)
- » A05: The genetic basis of ecological variation in meiotic recombination rates (MPIPZ)
- » A09: Evolutionary adaptation to local soil pH in *Arabidopsis halleri* (RUB)
- » A10: Adaptive potential of sulfate content in *Arabidopsis thaliana* and *Hordeum vulgare* (UoC)
- » A11: Ecological importance and genetic basis of plant-microbe associations in Brassicaceae and *Hordeum* species exposed to environmental challenges (UoC)
- » A12: Comparative analysis of gene-specific adaptive potentials across changing environments in *Arabidopsis thaliana* (UoC)

- » B02: Adaptation of perennial *Arabis alpina* along a latitudinal gradient in Scandinavia (MPIPZ)
- » B03: Adaptation to the afroalpine environment in Brassicaceae species with contrasting ecological strategies (MPIPZ)
- » B04: Adaptation in endangered *Arabis* floodplain species (UoC)
- » B05: Evolutionary signatures in gene copy-number variation in Brassicaceae (UoC)
- » B06: The role of polygenic adaptation and pleiotropy in the establishment of trait-syndromes (UoC)
- » B07: Adaptation in ecologically diverse *Hordeum* species: a comparative intra- and inter-species approach (PUM)

#### WE OFFER YOU

As a TRR 341 young researcher you will benefit from the unique and interdisciplinary TRR 341 research network in the field of Plant Ecological Genetics that bundles the expertise of excellent scientists from five different research institutions. We are dedicated to educate young scientific experts in Plant Ecological Genetics and to support them on their career path. Our integrated ‘Graduate School in Ecological Genetics’ (GEcoGen) offers you a comprehensive training program with targeted scientific education in the field of Plant Ecological Genetics as well as complementary training supporting your personal and career development.

#### APPLICATION PROCESS

The place of employment is defined by the respective research project. The positions are available as soon as possible and are to be filled for fixed term until 30.06.2026. According to the applicant’s personal qualification and the institution, employment payment will be based on 65% of salary group 13 TV-L/13 TVöD-Bund. The employment regulations of the respective hiring institution apply.

Please apply online at: <https://jobportal.uni-koeln.de> with proof of the sought qualifications (letter of motivation indicating for which project(s) you apply, CV, degree certificates, transcript of records and contact of two references). The reference number is Wiss2206-01. The application deadline is 10.07.2022. If you have any questions, please contact ([j.groenewold@verw.uni-koeln.de](mailto:j.groenewold@verw.uni-koeln.de)).

All participating institutions are equal opportunity employers and strive for gender equality and diversity. Applications from individuals with backgrounds that are underrepresented in MINT disciplines are expressly welcome. Women with comparable qualifications will be considered preferentially. Applications from suitably qualified severely disabled persons or people of equivalent status according to Book IX of the German Social Legal Code (SGB – Soziales Gesetzbuch) are encouraged. Severely disabled applicants of equal merit and qualifications will be given priority.