CEPLAS
Cluster of Excellence on Plant Sciences

The Cluster of Excellence on Plant Sciences CEPLAS invites applications for

21 Postdoctoral Research Associates (100 %, EG 13 TV-L/TVöD-Bund)

to be filled for the next possible date for three years at the participating institutions.

SMART Plants for Tomorrow's Needs

The Cluster of Excellence on Plant Sciences is a joint unit of Heinrich Heine University Düsseldorf, University of Cologne, Max Planck Institute for Plant Breeding Research Cologne and Forschungszentrum Jülich. CEPLAS is developing innovative science-based strategies for sustainable plant production. Our aim is to mechanistically understand complex plant traits of agronomic relevance that impact on yield and adaptation to limited resources.

What we offer

CEPLAS creates an international, interdisciplinary research environment. We offer a comprehensive training program for early career researchers tailored to your respective career level.

We are looking for

talented, highly motivated applicants with a doctoral degree (preferably recently completed) and a strong background in molecular plant sciences, genetics, quantitative biology, bioinformatics or a related discipline.

We invite applications for the following projects (detailed descriptions on www.ceplas.eu):

1. 'Mechanisms and conservation of roles of trehalose 6-phosphate in plant developmental progression
2. Just coincidence? How similar signals convey different information during systemic light signaling
3. Identification and 3D modeling of gene regulatory networks that determine leaf anatomy and physiology in C3-C4 intermediate Brassicaceae.
4. Genetic and physiological characterization of a novel leaflet number QTL in C. hirsuta
5. Photosynthesis phenomics
6. Computational modeling of Fe-regulatory networks
7. Antimicrobial effectors secreted by plant-colonizing fungi and their impact on microbial communities in natural soils
8. Host-specific regulation of effector gene expression in mutualistic root endophytic fungi
9. Non-invasive genetic mapping of nutrient-related root responses with single-cell resolution
10. Metabolic interactions of plants and root-associated microbes via the pipecolate pathway
11. DryCell - uncovering the cell biology of desiccation and rehydration in plant roots
12. Reconstruction of carbon allocation towards multiple plant cell wall sinks in yeast and cyanobacteria
13. Synthetic leaf-like structures to study differentiation and developmental trajectories/programs
14. Synthetic biology reconstruction and optogenetics approach towards a quantitative analysis of plant signalling networks
15. Towards a synthetic leaf - vasculature pattern
16. Haplotype diversity of cultivated potato
17. Modelling the crosstalk between phytohormone signalling and metabolism
18. Impact of drought on the secondary cell wall of poplar xylem, a multi-disciplinary approach
19. DeepCRE - deep learning applications for identification and functional annotation of cis-regulatory elements in crops
20. The contribution of off-target transcription factor binding site on covariation between seed dormancy and flowering time
21. A multi-scale model to predict productivity improvements from modifications of plant anatomy, resource allocation, and protein activities

Application process

The place of employment is defined by the respective research project. According to the applicant's personal qualification and the institution, employment will be based on salary group 13 TV-L/13 TVöD-Bund. Qualified candidates should send their application (cover letter (including motivation statement and indicating which project(s) the application refers to), CV, publication list, contact info of two references, PhD certificate) citing reference number 129.22-3.1 no later than 06.06.2022 by e-mail (one single pdf-file) to application@ceplas.de.

In principle, the employments can also take place part-time, if no compelling official reasons are opposed in an individual case. 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.

hhu Heinrich Heine Universität Düsseldorf

Universität zu Köln

Max-Planck-Institut für Pflanzenzüchtungsforschung

JÜLICH Forschungszentrum