



4 DFG-funded positions to study the plant microbiota

The Department of Plant-Microbe Interactions at the The Max Planck Institute for Plant Breeding Research (MPIPZ) in Cologne, Germany, invites applications for three PhD positions and one postdoctoral position to investigate community-level assembly of plant-microbe interactions, the role of the plant immune system in shaping resident microbial consortia and to establish computational pipelines for analysis of plant microbiota data.

The positions are available in the following research groups:

1 PhD position in the group of **Jane Parker** (in collaboration with **Alga Zuccaro** at Cologne University) is to investigate the impact of Arabidopsis immunity programmes on root fungal endophyte colonization;

1 PhD position in the group of **Kenichi Tsuda** is to study the impact of plant immunity on the functions of commensal bacteria and the plant microbiota;

1 PhD position in the group of **Stéphane Hacquard** is to carry out genome-resolved fungal metatranscriptomics within synthetic fungal-bacterial communities colonizing plant roots;

1 postdoctoral position in the group of **Ruben Garrido-Oter** to develop computational approaches for the analysis of synthetic community sequencing data

Background/Objectives

In nature, the roots and leaves of healthy plants are intimately associated with diverse microbes, including bacteria, fungi, oomycetes, viruses and protists, collectively called the plant microbiota. Research in the department is aimed at understanding how plants influence the assembly and function of the plant microbiota, how these microbes interact with each other and at elucidating the impact of these microbial communities on plant physiology. The successful candidates will conduct research within the scope of a DFG-funded Germany-wide Priority Programme (**SPP 2125 'DECrypT'**). Twenty-five different laboratories are joining forces to generate fundamental insights into the molecular mechanisms that govern plant microbiota establishment and function. The successful candidates will apply pioneering reductionist approaches, involving establishment of plant microbe culture collections and reconstitution experiments to test the impact of different microbial communities in nature and the role of plant immunity in influencing microbiota establishment and function. Computational and genomic tools will be applied to plant microbiota data to guide hypothesis testing and the design of microbiota reconstitution experiments.

Requirements

We seek highly motivated applicants with an MSc degree (or equivalent) in genetics/molecular biology/microbiology or bioinformatics. A background in plant science is not essential, but candidates will be expected to demonstrate their strong interest in the field of plant-microbe interactions.





What we offer

Successful candidates will take part in annual meetings and workshops organized by the Priority Programme where they can network with the other programme members and receive training in different aspects of plant microbiota research. In addition, the PhD students will enjoy all the benefits of the MPIPZ Graduate School, including structured supervision and training in soft and hard skills. Members of the Plant Microbe Interactions department also receive in-house training in scientific writing and communication.

Payment/Position

The positions are available immediately and successful candidates would be expected to start at approximately the beginning of 2019. Funding is provided for an initial period of three years, and salary and benefits are commensurate with public service organization rules (TVöD) – 65% and 100% of E13 for the PhD and postdoctoral positions, respectively. The Max-Planck Society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals. Furthermore, the Max Planck Society seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.

Application

For specific questions concerning the respective projects please contact Jane Parker (parker@mpipz.mpg.de), Kenichi Tsuda (tsuda@mpipz.mpg.de), Stéphane Hacquard (hacquard@mpipz.mpg.de) or Ruben Garrido-Oter (garidoo@mpipz.mpg.de).

Please use our online application platform:

https://lotus2.gwdg.de/mpg/mkzf/pmi-DECRYPT_1.nsf/Bewerbungen

clearly specifying the position for which you are applying, and include a CV, publication list and contact information for 3 references. The deadline for all four applications is September 10, 2018.

Shortlisted candidates will be invited for interview in mid-October 2018.

