



PhD OFFER

Centro de Biotecnología y Genómica de Plantas (CBGP, UPM-INIA)

A **predoctoral contract** is offered, with a maximum duration of 4 years, to carry out the **Doctoral Thesis** in the group "Innate immunity in plants and resistance to necrotrophic fungi" of the Center for Plant Biotechnology and Genomics of the Polytechnic University of Madrid. The employment contract will be associated with Project PID2021-126006OB-I00, "**New Perception and Signaling Mechanisms of Plant Immunity Activated by Molecular Patterns Associated with Plant Cell Damage (DAMPs) (DAMPSENSE)**", financed by the Spanish State Agency for Research and under the direction of Dr. Antonio Molina Fernández and Dr. Lucía Jordá Miró. The general objective of DAMPSENSE is to understand the perception and signaling mechanisms of new DAMPs identified in the laboratory in order to apply this knowledge to the design of effective strategies to deal with biotic stresses. To do this, the selected person will identify new DAMPs derived from the wall using chromatographic techniques and will characterize the immune responses activated by them. Subsequently, it will express the extracellular domains of different receptors in insect cells to carry out binding experiments using ITC.

We offer:

3-year contract, with an extra year extension. The salary will be that corresponding to the FPI Contracts of the Ministry of Science and Technology. The applicant will be trained in the latest plant immunity methodologies, transcriptomic data analysis and ligand/receptor binding biochemistry. Incorporation in a group with solid experience in the study of plant-pathogen interaction, which has a wide network of national and international collaborators, which has been strengthened within the framework of the **Severo Ochoa seal of excellence**, through the foundation of the Center of Excellence in Plant Environment Interactions (CEPEI: www.cepei.cbgp.es), which will allow the applicant to carry out research stays in centers of recognized international prestige. The candidate will carry out their Doctoral Thesis in the Biotechnology and Resources of Plants and Associated Microorganisms program of the Polytechnic University of Madrid (<https://short.upm.es/55w8z>), where they will receive additional training in Innovation and Entrepreneurship, Bioinformatics /Advanced statistics and FAIR data management.

Candidate profile:

We are looking for Graduates and Master in Biotechnology / Biochemistry / Biology or related areas. Experience in Molecular Biology, Biochemistry or Plant Pathology will be highly valued.

The criteria to be taken into account for the selection will be: i) academic and professional background, ii) adaptation to the research activities to be carried out and iii) capacity for teamwork and enthusiasm.

Application procedure and deadline

Interested persons send a single pdf file, with CV, contact of a possible reference person and a motivation letter to lucia.jorda@upm.es (indicating in the subject: FPI scholarship). **Deadline: November 20.**