

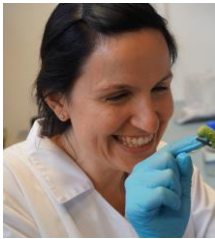


Plant Biology

XXIII Meeting of the Spanish
Society of Plant Physiology

XVI Spanish Portuguese
Congress of Plant Physiology

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I did my PhD in the group of Sustainability of Soil-Plant Systems (CEBAS-CSIC, SP), led by Prof. Roldan. The main aim of my PhD was to investigate the ability of beneficial microbes in the plant root microbiome of controlling root diseases. After finishing my PhD, I became intrigued by the main mechanisms by which beneficial microbes immunize plants and protect them against pathogens. To answer this, I moved to the lab of Prof. Pozo (EEZ-CSIC, SP) as a Postdoctoral Researcher, being one of the pioneer groups worldwide in mycorrhiza-induced plant protection. During this period I explored the main transduction pathways involved in induced systemic resistance by mycorrhiza and *Trichoderma* fungi. Later, I became Marie Curie Postdoctoral Fellow at Prof. Pieterse's lab at Utrecht University (NL), the pioneer group on induced resistance by beneficials. There, I further explored the main molecular mechanisms by which beneficial microbes, and their secondary metabolites *prime* the plant immune system against pathogens and insects. In 2015, I joined the group led by Prof. van Dam at iDiv (DE), where I became a Project Leader. At iDiv I started a new research line on plant-microbe-insect 3-way interactions. By using "omics" technologies and a multitrophic approach I had the opportunity to investigate the impact of beneficial microbes on plant-insect interactions at a high level of complexity. In 2018, I got a grant, by *Salamanca Foundation City of Culture and Knowledge* to start my own research group as Junior Group Leader at IRNASA-CSIC (SP). There I have established a new research line on Beneficial Plant-Microbe Interactions. I am focused on the main molecular and chemical mechanisms by which beneficial microbes *prime* the plant immune system against herbivores. With my research I aim to contribute to grand societal challenges, such as food security and sustainable agriculture.