



UNIVERSIDAD  
DE GRANADA

Máster Universitario en  
Biotecnología

## **Oferta 1 contrato predoctoral (4 años) en la EEZ-CSIC**

Hasta el ~~16/09/2024~~ 16/09/2024 -168100

**Oferta 1 contrato  
predoctoral. EEZ-CSIC**



1 Postdoctoral (2 years) & 1 Ph.D. (4 years) open positions  
ASSOCIATED TO THE PROJECT: "AUXIN SIGNALLING IN BENEFICIAL AND PATHOGENIC PLANT-ASSOCIATED BACTERIA" (PID2023-146281NB-I00).  
LOCATION: Environmental Microbiology & Biotechnology group  
(<https://www.eez.csic.es/microbiologia-ambiental-y-biotecnologia>) - Estación Experimental del Zaidín (Granada, Spain).

PROJECT SUMMARY: The plant microbiome is key to plant growth and health. The interaction between plants and microorganisms involves a complex network of signal molecules (SMs). Among these, the auxin indole-3-acetic acid (IAA) - a phytohormone essential for plant growth and development - is emerging as an important SM in plant-bacteria communication. Indeed, a growing body of research indicates that IAA acts as a SM in bacteria regulating relevant processes during the interaction with plants. However, the mechanisms through which IAA modulates these processes remain largely unknown. To advance this knowledge, a postdoctoral (2 years) and a Ph.D. (4 years) positions are offered to focus on the molecular mechanisms of IAA recognition in different phytopathogenic and plant growth-promoting bacteria, as well as on the study of the processes controlled by IAA in these microorganisms.

Achieving these objectives will involve multidisciplinary *in vivo*, *in vitro* and *in silico* approaches, including microbiology, plant-bacteria interaction, molecular biology, transcriptomics, proteomics, high-throughput ligand screening, microcalorimetry, bioinformatics and crystallography. The results will have future implications for the development of new strategies for plant growth promotion and biocontrol of plant pathogens.

#### PROFESSIONAL PROFILE:

Ph.D. applicant minimum requirements:

- University degree of at least 300 ECTS credits or university master's degree in Biology, Biochemistry, Biotechnology, or related degrees.
- Do not hold a doctorate degree.

Valuable merits:

- Academic record and scientific-technical contributions.
- Strong background in microbiology and molecular biology.
- Mobility and internationalisation.
- High level of English (spoken and written).

See instructions in the attached file.

ADJUNTO

TAMAÑO

