

# Position Offered: POSTDOCTORAL RESEARCHER

Project: *Evaluating the impact of climate change on microbial biodiversity and ecosystem functioning in soils of urban green areas throughout the Iberian Peninsula using bioinformatics techniques of massive DNA sequencing processing.*

**Technological and scientific fields:** Environmental resources / Microbiology

**Location:** Sevilla, Andalucía, IRNAS-CSIC, <https://www.irnas.csic.es/>

**Research Group/PI:** Laboratorio de Biodiversidad y Funcionamiento Ecosistémico (BioFunLab) / Manuel Delgado Baquerizo

## PROJECT SUMMARY

This project will contribute to investigate the influence of climate change on the soil microbiome of urban greenspaces. The main tasks of the postdoctoral researcher will be the processing of DNA sequencing data of the soil microbiome using computational biology (bioinformatics) techniques: creation and maintenance of pipelines for bioinformatics analysis, management of servers for bioinformatics analysis in the BioFunLab, metagenomics, taxonomic and functional annotation, amplicon sequencing. The technologies to be used will be diverse including bioinformatics: metabarcoding, metagenomics (shot-gun metagenomics on Illumina platforms with short-reads and NanoPore with long-reads), functional gene annotation, creation of "metagenome assembled genomes" (MAGs); statistics, database creation and a web page.

## PROFESSIONAL PROFILE

### Minimum requirements:

- PhD in Natural Sciences, specifically with theses carried out in the area of Microbial Ecology.
- Scientific writing skills in microbial ecology and soil ecology, with metabarcoding techniques.
- Proficiency in English and Spanish, spoken and written, at C1 Advanced level.

### Merits to be considered:

- Experience in field experiments investigating the impact of climate change.
- Experience in research projects related to urban soils.
- Experience with the R programming language and bioinformatics analysis

## WHAT IS OFFERED

A four-year PostDoc contract is offered with a very high percentage of training time (240 ECTS) in bioinformatics, statistics, web pages, and for data integration within the area of soil biodiversity and climate change effects in a scarcely studied environment: urban green areas. This contract offers the possibility to collaborate with an interdisciplinary network of collaborators from all over Spain and Portugal from different CSIC centers or universities.

### Contract conditions:

Indefinite contract for a Postdoctoral Researcher associated to the Momentum Project of 4 years' duration according to Spanish science law. Gross annual salary (41.000 € - 52.000 €).

**Start of contract: before 31 December 2024**

## PRINCIPAL INVESTIGATOR CONTACT

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