

PhD Opportunity – Plant Sulfur Metabolism in Gypsum Soils (GYPSME Project)

Project description

At the Pyrenean Institute of Ecology (IPE-CSIC, Spain), we are seeking outstanding candidates to apply for a predoctoral research fellowship (FPI) linked to the project: GYPSME: Evaluating Sulfur Metabolism in Plants from Gypsum Soils (Ref. PID2024-159400NB-I00).

This project combines multi-omics approaches, experimental cultivation, and field surveys to disentangle the adaptations that enable plant survival in gypsum soils—extreme environments that pose unique ecological and evolutionary challenges.

Application details

- **Application deadline:** Pre-applications until **October 31st, 2025** (official FPI call not yet open).
- **Expected start:** Early 2026 (depending on FPI 2025 call).
- **Duration:** 4 years.
- **Funding:** FPI Predoctoral Fellowship, Spanish Ministry of Science, Innovation and Universities. More information about previous calls: <https://www.aei.gob.es/en>
- **Location:** Pyrenean Institute of Ecology (IPE-CSIC, Zaragoza & Jaca, Spain) + collaborations with CEBAS-CSIC and UPV.
- **Supervisors:** Sara Palacio, Pablo Tejero, Diego A. Moreno.

Applicant profile

- BSc and MSc in **Biology, Environmental Sciences, Bioinformatics or Biochemistry** (combined biology/bioinformatics backgrounds particularly valued).
- Excellent academic record in BSc and MSc.
- Strong interest in **ecology, evolutionary biology, bioinformatics, metabolomics, and genomics**.
- Skills in bioinformatics (R and/or Python).
- English proficiency (B2 or higher, spoken and written).
- Availability for national and international short stays.
- Motivation for life sciences research, adaptability to diverse environments/cultures, teamwork spirit.
- Previous research experience will be positively evaluated.

About the supervisors

- **Sara Palacio (IPE-CSIC):** Expert in plant functional ecology and adaptations to extreme environments, with a focus on gypsum soils.
- **Pablo Tejero (IPE-CSIC):** Geneticist and plant ecologist with expertise in genomics, phylogeography, and conservation in extreme ecosystems.
- **Diego A. Moreno (CEBAS-CSIC):** Specialist in plant metabolite profiling, bioactives from cruciferous foods, and phytochemistry applied to human health.

What we offer

- An **exceptional scientific environment** in the Spanish Pyrenees, with headquarters in Zaragoza and Jaca.
- Integration into a **dynamic research group with strong international projection**.
- Opportunities for **research stays** at leading national and international labs (including CEBAS-CSIC and UPV).
- Access to **specialized training** offered by CSIC, covering bioinformatics, statistics, scientific writing, bibliographic tools, and other relevant skills.
- Support to **attend national or international conferences** annually, plus regular seminars and outreach activities at IPE-CSIC and CEBAS-CSIC.

Pre-applications

- To apply as a candidate prior to the official call (expected in September–October 2025), please send the following documents by email to Sara Palacio (s.palacio@ipe.csic.es), Diego Moreno (dmoreno@cebas.csic.es) and Pablo Tejero (ptibarra@ipe.csic.es) :

- Full CV
- Motivation letter (maximum 1 page)
- Contact details of up to two researchers who can provide references, preferably with whom you have collaborated.