

Post-doc position in soil biology and organic compound analysis of soils and food.

HORTBIOSOL project. 'Functionality of the microbiome in horticultural systems in regeneration phase: bioavailability of nutrients in soil, and vegetable sensory and nutritional quality' [TED2021-130783B-C21].

Duration: two years.

Gross salary: 37.000 € per year.

Location: Institute of Nutrition and Food Safety of the University of Barcelona

Contact: Maria Pérez, ([mariaperez@ub.edu](mailto:mariaperez@ub.edu)) or Joan Romanyà ([jromanya@ub.edu](mailto:jromanya@ub.edu))

Academic qualifications:

PhD in Environmental Sciences, Agronomy, Biology, Biotechnology, Food or Chemistry.

Job profile:

Junior PhD, PhD obtained in the last 2 years, with capacity in the analysis of soil-plant system microbiome and organic compounds by HPLC-MS and HPLC-HRMS in soil, plant and food samples, as well as in the statistical treatment of the results using genomics, metabolomics, and other multivariate statistics tools and bioinformatics. He/she will publish results in high-impact scientific journals in the areas of soil science, soil-plant relationships and food science and technology.

We are looking for a motivated, active, eager to work, with proven experience and ability to work in a team that includes farmers and advisors.

Functions to develop:

- Analysis of organic compounds in soil, plant, and food samples through HPLC-MS.
- Compound identification in soil, plant, and food samples (HPLC-HRMS).
- Microbiome studies (throughput sequencing, shotgun,...), quantification and composition of soil organic matter, C and N mineralization, enzymatic analysis of soils and composition of food and plants.
- Statistical analysis (SPSS, SAS, Stata and/or R.).
- Management and administration of research projects.
- Collaborate in current projects of the group.
- Analysis of results and elaboration of articles.
- Attendance at conferences.
- Direction and support for the completion of Master's final papers and doctoral theses.

Experience required:

Fulfilment of all these points is a prerequisite for consideration of the candidacy: - Experience of more than 5 years in the development of research projects analysis accredited by means of: 1.- Participation as part of the research team in such projects. 2.- Authorship in a minimum of 10 scientific articles in international journals in the field (impact index and being the first author will be positively valued) - Experience with databases and statistical programs - Experience in the field of the study of soil organic matter, nutrient availability, microbiome - Experience in the publication of reviews - Experience in the analysis of organic compounds by HPLC-MS - Experience in the identification of compounds by HRMS - Experience in microbiome studies - Stays in international research groups will be positively valued.

Other knowledge:

Training in applied statistics in experimental sciences, knowledge of bioinformatics, accredited knowledge of the English language and training in scientific communication will be positively valued. Ability to work in a team.