



4 Nov 2022

FPI predoctoral position at the Comparative Genomics and Metagenomics Lab ([CBGP](#), Madrid)

<https://euraxess.ec.europa.eu/jobs/860013>

Study of functional and phylogenetic biodiversity of low abundance uncultivated microorganisms and their dynamics under environmental change

Project code: PID2021-127210NB-I00

Supervisor: Jaime Huerta Cepas

Website: <http://compgenomics.org>

Project description:

Microbial biodiversity is dominated by low-abundant organisms that we have barely started to understand: *the rare biosphere*. Although low abundant species are known to modulate nutrients cycling, determine the resilience of ecosystems to pollutants, and impact the tolerance of natural habitats to climate change, we profoundly ignore the mechanisms governing these processes.

This project will investigate how the rare microbial biosphere relates to ecological functioning. For this, we will employ a combination of experimental and computational approaches to study the dynamics of low abundance organisms in various habitats, covering more than 300 soil and extreme environment samples from around the globe. Special emphasis will be put on investigating the genetic variability and biodiversity of specific molecular functions, such as the ones related with the nutrients cycling and biodegradation.

Profile:

- Skills and clear motivation for a bioinformatics project.
- Previous knowledge and motivation for evolutionary and ecological questions
- Aptitudes for big data statistical analysis, programming, use of bioinformatic software and large scale computations.
- Candidates must apply via FPI program (deadline ~20th Nov), but are encouraged to discuss the details of the project prior to the application deadline by contacting to j.huerta@csic.es