Offering a PhD with 4-year predoc contract **2023-2028** (FPI) associated to the recently funded project (PID2022-141627NB-I00) " The island syndrome: toward an integration of life history traits, gut symbionts and population dynamics (ISLAB)."

Specific PhD project: Host-gut microbiota coevolution in insular populations of *Podarcis lilfordi* lizards from the Balearic Islands (Spain)". The project aims at combining multi-omics with host metadata to understand the role of gut symbiosis in shaping insular adaptation.

The PhD candidate will work at the University of Barcelona (lab webpage) in collaboration with the Animal Demography and Ecology Unit (blogspot) at the Mediterranean Institute for Advanced Studies (IMEDEA) in Mallorca (Spain).

The project will include:

- Field sampling in the Balearic Islands
- Gut microbiomics (16S full-length, shotgun metagenomics and metabolomics)
- Diet metabarcoding
- Data integration at the host individual (sex, age, morphometrics, genetics) and population/island level (life history traits, demography, diet, ecology)

Timing: August-September 2023 candidate pre-screening and interview. Expected incorporation in last trimester 2023 or beginning of 2024.

Our group aims at applying a holobiont perspective to the study of population biology and ecology. We use an insular terrestrial species, the Balearic lizard *Podarcis lilfordi*, an incredible diverse species with a patchy distribution in small islets, to dissect the spatial and temporal factors involved in the host-gut microbiota interaction (Baldo et al. 2023 PeerJ, Baldo et al. 2018 FEMS, Gomez-Garrido et al. 2023 DNA Research). Several insular populations of this species are now under a long-term demographic monitoring, providing unique individual-level data.

Our ultimate goals are to understand the strength of the symbiosis over a short-evolutionary time frame (across populations) and the potential role of the gut microbiome in extending host fitness landscape in resource-limited environments.

If interested, **email Prof. Laura Baldo** baldo.laura@ub.edu with your CV, including technical skills, previous research and publications, and a letter of research interests (one single PDF).