

Job offer: PhD contract (4 years)

Our group offers a 4-year PhD contract associated to our project (PID2022-141627NB-I00) "A MODEL FOR LESS IS MORE: development of *Oikopleura dioica* as an evolutionary knockout model to study the impact of gene loss on the evolution of gene networks" under the Doctorate program of Genetics in the **University of Barcelona, in the Section of Genetics and the Institute of Research of Biodiversity (IRBio).**

THE CANDIDATES must have a bachelor's degree and a master's related to Biological Sciences (e.g. Biology, Bioinformatics, Biotechnology, Biochemistry, Biomedicine, Environmental Sciences, etc).


THE PROJECT includes basic research lines in the field of EvoDevo and Genomics using the simple animal model *Oikopleura dioica* to investigate the impact of gene loss. Expected results will be oriented to the fields of Biomedicine and Ocean's health. Our project focuses in two case studies:

1.- Heart and muscle developmental gene regulatory network to investigate the differentiation of the myocardium and the pericardium and the evolution of the lifestyles of the ancestors of our own phylum

2.- To understand adaptive genetic responses of the defenses of marine embryos to environmental stress, in particular to biotoxins produced by harmful algal blooms in the context of climate change.



THE TECHNIQUES to be used during the PhD include molecular approaches of developmental biology and gene manipulation, including CRISPR, embryo microinjection, gene silencing, fluorescent whole mount embryo in situ hybridization, confocal microscopy, in vitro fertilization and embryo manipulation, comparative and functional genomics, RNAseq, ATACseq and bioinformatics.

COLLABORATIONS: The project will offer the possibility to do research stays with our collaborators (Japan, Norway, France, Italy, USA), especially in the laboratory of Nick Luscombe in the OIST in Japan.  OIST

FUNDING: 4-year contract with a total of 111.758 EUR salary for the 4 years, including PhD fees, travel support and health insurance.

DEADLINES:

- **August:** pre-screening of candidates (we recommend contacting us as soon as possible, since the agreement will be done at the earliest convenience)
- The application process will be open in **September 2023**
- Incorporation is expected at the end of 2023 or early 2024 (pending on publication of the bases)

CONTACT and SELECTION: Send an email to Cristian Cañestro (canestro@ub.edu) with a SINGLE pdf including *a*) letter of motivation explaining the reason to join our lab; *b*) brief CV; *c*) BS and MS transcripts including average grades.

There will be videocall interviews with selected candidates with the Principal Investigator and senior research members of the team, and the selection will be made under the criteria of responsible practices, no discrimination and gender balance, based on knowledge, background experience and motivation of the candidates, following the criteria published by the University of Barcelona.

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