Universitat Pompeu Fabra Barcelona

Master in Bioinformatics for Health Sciences

Master project 2024-2025

Personal Information

Supervisor	Javier del Campo
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Project

Computational genomics

Project Title:

The dark proteome of the coral holobiont

Keywords:

corals, holobiont, zooxanthellae, proteome, natural language

Summary:

Within the framework of the TFM, the student will carry out a project in which they will analyze genomic data of corals and their symbionts to put into practice the knowledge acquired and to develop their skills as a researcher. During their project, the student will carry out first-hand data analysis of coral and symbiont proteomes using natural language processing models to reveal the “dark proteome” of the coral holobiont, thus revealing new functions that until now have gone unnoticed by traditional analyses.

References:

Martínez-Redondo, G.I., Barrios-Núñez, I., Vázquez-Valls, M., Rojas, A.M., and Fernández, R. (2024). Illuminating the functional landscape of the dark proteome across the Animal Tree of Life through natural language processing models. Preprint, 10.1101/2024.02.28.582465 10.1101/2024.02.28.582465.

Expected skills:

bash, R, python, data management

Possibility of funding:

To be discussed

Possible continuity with PhD:

Yes