

Post-doctoral research grant– (BIPD) 1 vacancy

Reference: 2022_018_BPD_CTA-AMB

A competition is open for the attribution of 1 Post-doctoral research grant in the framework of the project “Freshwater Bivalves at the edge: Adaptation genomics under climate-change scenarios”, with reference PTDC/CTA-AMB/3065/2020 within the R&D Institution CIIMAR (Interdisciplinary Centre of Marine and Environmental Research), supported FCT, according to the following conditions:

1. Scientific area: Biological Sciences/Environmental Sciences/Bioinformatics.

2. Admission requirements:

The candidate must accomplish the following requisites:

- PhD degree obtained in the last 3 years in the field of Biological Sciences, Environmental Sciences, Bioinformatics or related without CIIMAR as the host institution;
- Experience in Linux/Unix environment, shell script and development of integrative pipelines is mandatory;
- Demonstrated capacity to perform data analysis using other programming languages, such as R, python, perl, ..., is a plus;
- Web design experience is a plus;
- Familiarity with High Performance PC (HPC) interface is desirable;
- Background in Evolutionary Genomics, NGS genome/transcriptome data analysis is desirable;
- Applicants should be proficient in English. No knowledge of Portuguese is required.

Candidates should have a competitive CV, excellent communication (orally and written) skills in English have willingness for team work in Evolutionary Genomics.

This research Grant for PhD Holder provides an excellent opportunity for the candidate to work with a multidisciplinary team of researchers in the wide field of Aquatic Ecology and Evolution. Given the multidisciplinary nature of the research, motivated, enthusiastic and hardworking candidates are sought and expected to work in an independent but collaborative way.

In cases where the PhD/doctorate degree was awarded by a foreign higher education institution, the said degree must comply with the provisions of Decree-Law no. 66/2018 of 16th August until the signature of the contract.

3. Work plan:

Freshwater ecosystems are at great risk and with unprecedented threats to the biodiversity they support. Climate change is intensifying these trends, with future scenarios predicting an exacerbation of drought conditions in all Mediterranean areas where many watercourses

already dry up in summer, challenging the adaptation and survival of freshwater organisms and acting as additional selective stress forces. EdgeOmics project (<http://www2.ciimar.up.pt/projects.php?id=170>) aims to assess and predict the impact of climate change on freshwater biodiversity, using freshwater mussels as models.

The hired Assistant Researcher will be integrated in the EdgeOmics project, and expected to collaborate in the main genomic Tasks of the project using state of the art methodologies, genomics and transcriptomics pipelines, and bioinformatics HPC infrastructures to: 1) produce *de novo* genome assemblies and whole genome annotation; 2) identify candidate genes and functional pathways involved in environmental stress response; 3) perform differential gene expression analyses and profiles using RNAseq. The candidate will be also involved in student orientation, management of the project and occasional non mandatory field and laboratory work (DNA/RNA extraction).

4. Legislation and official rules:

Law nº.40/2004, 18th August (Research Fellowship Holder Statute) in its current version; Regulations for Studentships and Fellowships of the Fundação para a Ciência e a Tecnologia, I.P. and CIIMAR Grants Regulation.

5. Work place:

The work will be carried out at CIIMAR, in the Aquatic Ecology and Evolution group (AEE).

6. Duration of the contract:

Duration of 12 months, starting in March 2022, under the regime of exclusive dedication. The contract period may also be extended for a single period of another 12 months, never exceeding the ending date of the project.

7. Monthly salary:

The monthly maintenance allowance is € 1.646,00, in agreement with the monthly maintenance stipend table of the grants directly attributed by FCT, I.P. within the country <https://www.fct.pt/apoios/bolsas/valores.phtml.en>, by bank transfer payment.

8. Selection methods:

The ranking of candidates will be performed by a global evaluation based on the evaluation of the Curriculum Vitae, letter of motivation and supporting documents, according to the following criteria:

A - Evaluation of the admission requirements and preferential conditions in the field of study;

B - Scientific production;

C - Evaluation of the candidate's profile, considering motivation, knowledge and experience in the field as well as transversal knowledge.

The evaluation will score as follows:

$$0,40 \times A + 0,30 \times B + 0,30 \times C$$

The grading system will produce a result on a 0 to 20 scale, based on the basis of the above-mentioned criteria and weights. The Selection Committee shall deliberate by means of a nominal vote based on the selection criteria adopted and published, and abstentions are not allowed. After completing the application of the selection criteria, the jury will draw up an ordered list of successful candidates with their classification.

The top three candidates that achieve a minimum of 15 will be subjected to an interview that might include a practical test to determine the candidate's experience in shell scripting and development of integrative pipelines while allowing freedom to elaborate the test using alternative programming languages, such as R, python, perl, ..., as well as the Background in Evolutionary Genomics, i.e., NGS genome/transcriptome data analysis.

This will be scored as:

$$0,6 \times \text{Interview} + 0,4 \text{ practical test}$$

The jury reserves the right to not assign the research grant if none of the candidates meets all requirements and matches the desired profile.

9. Composition of the jury selection:

President of the jury: Elsa Froufe

Vogal: Filipe Castro

Vogal: Manuel Lopes-Lima

10. Form of advertising/notification of results:

The final results of the evaluation will be send through a list sorting the candidates according to their attributed mark, by e-mail and available in CIIMAR website; in case of disagreement, the candidates have a 10-working day term in which to contest the decision, if he/she so wishes, as provided for in the Código do Procedimento Administrativo in a preliminary hearing setting. The jury reserves the right to not assign the contract depending on the quality of the applications.

11. Deadline for application and presentation of applications:

The competition is open from **27/1 until 9/2 2022**. The applications must be formalized, compulsorily, by sending the following documents:

- detailed Curriculum vitae;
- copy of the eligibility certificates;
- motivation letter;
- indication of the reference of the competition (as indicated in the selection criteria)
- contact information of PhD and current and past post-doctoral (if applicable) supervisors;
- contact e-mail address and phone number;
- Detailed description of the projects or works that the candidate developed that will be important to demonstrate the adequacy to the function (experience in Linux/Unix environment and shell script and other programming languages);
- Any other documents that the candidates may recognize as relevant.

Applications must be sent to rh@ciimar.up.pt with reference on the subject. Attachments should be limited to 5 MB total size. **Applications that do not include all the elements previously indicated will not be considered.**

Non-discrimination and equal access policy: CIIMAR actively promotes a policy of non-discrimination and equal access, by which no candidate can be privileged, can benefit or be put in disadvantage, or can be deprived of any rights or duties based on their social or cultural background, ethnic group or race, age, sex, sexual orientation, marital status, family status, economic status, education, social condition, genetic assets, reduced work capacity, disability, chronic disease, nationality, territory of origin, language, religion, political or ideological beliefs and unionization.

As set forth by the Decree Law 29/2001, the candidate with disability has preference if equally classified, which prevails over any other legal preference. The candidates with disability must declare in their application, on their word of honour, their degree and type of disability, and the means of communication/expression that are to be used in the selection process, as provided by the above mentioned legal diploma.