

CALL FOR AWARDING RESEARCH FELLOWSHIPS WITHIN PROJECT GRANTS AND R&D INSTITUTIONS

One research Fellowship

One research Fellowship(s) for master degree is(are) open at the **FCiências.ID – Associação para a Investigação e Desenvolvimento de Ciências**, for the project “ReefNets- Using ecological networks to predict marine ecosystem responses to human threats” (PTDC/BIA-ECO/28687/2017), financed by national funds by FCT / MCTES (PIDDAC) under the Programme All Scientific Domains, under the following conditions:

1. **Scientific Area:** Marine biology

2. **Requirements for admission:** Portuguese nationals, foreign and stateless persons may submit applications to this selection procedure, provided they hold a master degree in Biology, Ecology, Marine/Aquatic Science or akin areas, and comply with the following requirements:

a) Demonstrated experience in taxonomic identification of benthic macroinvertebrates assemblages from marine and/or estuarine ecosystems.

3. **Factors preferred:** Value is given to experience with:

- SCUBA diving sampling methods
- ecology of marine rocky reefs, namely macroalgae, zooplankton and phytoplankton
- functional ecology, namely functional trait characterization of marine and estuarine organisms
- isotope analysis to determine trophic levels
- projects and publications in international peer-reviewed journals in marine and estuarine ecology

4. **Work plan:** Awareness towards the implications of biodiversity loss on ecosystem functioning and services has highlighted the need to understand the mechanisms that underlie ecological resilience. Such knowledge should allow predicting how natural communities will change in face of major current threats, but in respect to marine ecosystems it is still scarce due to the lack of integrated approaches. Moreover, the assessment of changes should consider probable cascading effects due to the complexity of networks of interactions among living organisms, a characteristic of marine ecosystems. Ecological network analysis has been recognized as key to understand how biodiversity persists in ecosystems (i.e. stability and dynamics). In addition, the use of functional approaches in applied ecology is expanding rapidly, as they provide a mechanistic way to explore the ecological processes driving communities, while facilitating cross-system comparisons. Project ReefNets aims to improve the current ability to predict ecological response of biodiversity associated with rocky reef habitats due to human-induced changes, by considering complex networks of interactions (e.g. trophic webs), and providing a mechanistic explanation.

Based on reef-associated communities (i.e. fish, algae, invertebrates, zooplankton and phytoplankton), their interactions and functional traits (i.e. attributes of species that govern their performance in an environment), the project will develop complementary ecological network models (i.e. species-specific biotic interactions and functional interactions). The complementary modeling approach will allow the assessment of trait-environment relationships of the multiple taxonomic groups (ecological networks) and their functional redundancy (research issue RI1), as well as improve the understanding about the ecological processes driving the coexistence of rocky reef assemblages (RI2). These ecological network models will be then used to predict how marine communities will change under different scenarios of anthropogenic impacts (e.g. climate change, fishing, pollution), while investigating how ecological resilience is affected by the complexity and stability of the network (RI3). An expected key research outcome is the definition of ecological indicators suitable to monitor rocky reefs by

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allowing the detection of human-induced changes (RI4). These indicators, together with the knowledge gathered on sensitivity and resilience of marine communities, will provide essential tools to guide management and conservation strategies. In project ReefNets we will focus on a case-study rocky reef system (in Arrábida Marine Protected Area - MPA) with high habitat complexity and biodiversity (within mainland Portugal).

The main tasks and objectives of the successful candidate will be to:

- ensure the processing of the marine fauna and flora samples collected at Professor Luiz Saldanha Marine Park; taxonomic and functional characterization of the organisms
- ensure the execution of the project sampling plan in articulation with the other team members;
- collaborate in the analysis of the obtained data
- prepare and present communications in national and international meetings, as well as outreach activities to the general public.

5. **Legislation framework:** Statute of the Scientific Research Fellowship, in accordance with Law 40/2004, of 18 August, as amended and republished by Decree-Law No. 202/2012 of 27 August, and as amended by Decree-Law No. 233/2012 of 29 October and by Law No. 12/2013, of January 29, and Decree-Law No. 89/2013 of 9 July; And also by the FCT, I.P. Fellowships Regulation, in force (<https://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT.pdf>) and FCiências.ID Fellowship Regulation, as approved on 23rd February 2017.

6. **Place of work:** The work will be developed at the MARE ULisboa- Marine and Environmental Sciences Centre, Faculty of Science of the University of Lisbon under the scientific guidance of Professor Sofia Henriques.

7. **Fellowship duration:** This position is initially opened for 6 months and will begin on October, 2019. The fellowship contract may be renewed to more 12 months, in accordance with the provisions of Regulation of Research Fellowships from the Foundation for Science and Technology, I.P.

8. **Monthly allowance:** The fellowship amounts to € 989,70, according to table values of the fellowships awarded directly by the FCT, IP. (<http://www.fct.pt/apoios/bolsas/valores>).

The fellowship holder will have a personal accident insurance and, if not covered by any social protection scheme can ensure the right to social security through adherence to the voluntary social insurance scheme, pursuant to Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social.

The fellowship will be paid monthly by bank transfer.

9. **Selection method:** Candidates will be assessed by the quality of their CV and The evaluation of the merit of candidates, will rely on the following criteria:

- Experience with identification of benthic macroinvertebrates from estuarine and/or marine ecosystems 65%
- Experience with functional traits characterization of macroinvertebrates, macroalgae, zooplankton and phytoplankton: 15%
- Participation in relevant scientific projects and publications in the area of marine ecology : 10%
- Interview to the first 2 best candidates, if they are separated by less than 5 points: 10 %;

10. **Selection Committee:**

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- President– Sofia Henriques;
- 1st Evaluator – Marisa Batista;
- 2nd Evaluator – Miguel Pais;
- 1st Alternate Evaluator – Rita Vasconcelos;
- 2nd Alternate Evaluator – Susanne Tanner

11. **Publication/notification of results:** The final results of the evaluation will become public, through ordered list *final grade obtained* which will be posted at the entrance hall of the **FCiências.ID**, located at the Faculdade de Ciências da Universidade de Lisboa, C1 bldg – 3rd floor, Campo Grande, 1749-016 Lisboa, and the selected candidate will be notified by *e-mail*.

12. **Deadlines:** This call for applications is open from 1st to 15th September 2019.

13. **Application:** Applications may be sent via e-mail to snpires@fc.ul.pt, by attaching the following documents: Detailed curriculum vitae (indicating the macroinvertebrate processing and identification experience in each project); A motivation letter clearly demonstrating that the candidate has an adequate profile for the position and fully complies with the Admission Requirements; MSc certificate and other documents considered relevant.

NOTE: Please note that Degrees obtained in foreign countries need a Portuguese Recognition certificate issued by a Portuguese high degree Institution, according to the [Decree-Law nr. 66/2018](#), of august 16th and the [Ministerial Order nr. 33/2019](#), of January 25th. The presentation of such certificates is mandatory for contract signature. More information can be obtained in: <https://www.dges.gov.pt/en/pagina/degree-and-diploma-recognition>.