

## RESEARCH GRANT (BM) (1 vacancy)

### REF.: INSEAFood/BI-MSc/2017-068

A competition is open for the attribution of 1 Research Grant **ref. INSEAFood/BI-MSc/2017-068** in the framework of the Structured Program of R&D&I INNOVMAR - Innovation and Sustainability in the Management and Exploitation of Marine Resources, reference NORTE-01-0145-FEDER-000035, namely within the Research Line INSEAFood - Innovation and valorization of seafood products: meeting local challenges and opportunities, within the R&D Institution CIIMAR (Interdisciplinary Centre of Marine and Environmental Research), supported by the Northern Regional Operational Programme (NORTE2020), through the European Regional Development Fund (ERDF), according to the following conditions:

**1. Scientific area:** Biological Sciences

### 2. Admission requirements

The candidate should have:

- 1) Master Degree in the field of in Biological Sciences, Aquaculture or related fields with minimum final classification (Degree + master) of 14/20.
- 2) Scientific knowledge on fish nutrition and aquaculture; it will be valorized previous experience in salt-water rearing systems and feeding animals during growth trials; sampling of animal tissues for analysis; laboratorial capacity to perform laboratorial analyses independently in diets and biological material; experience in histological processing and histomorphologic evaluation of target tissues.
- 3) A demonstrated capacity to perform data analysis, prepare reports and write manuscripts is warranted. Fluency in English is expected.
- 4) Candidates should have a driving license.
- 5) The interest of candidates in proceeding for a PhD in Animal Science in an international setting is highly valued and should be expressed in the motivation letter.

### **3. Work plan:**

Global population growth and increase in living standards will push up the demand for fish-derived protein in the future. However, resource scarcity (feed, water and energy), environmental impacts, and changes in climate and growing conditions can seriously hamper aquaculture that supplies a significant proportion of human food. New sustainable protein and lipid sources and improved technologies to increase bio-availability of existing sources will be needed to ensure adequate supply of aquafeeds to ensure growth of aquaculture. On the other hand, the growth of the industry has caused environmental concerns. Interestingly, aquaculture effluents can be an excellent medium for algal growth under optimized technological processes to remove organic compounds and minerals from fish farm effluents, and producing high value products for aquafeeds while recycling nutrients; thus improving the water body quality and reducing the environmental impact.

This proposal targets to develop strategies for increasing efficiency of aquaculture and reducing environmental impact using micro- & macro-algal biomass. Specific objectives include: a) Identifying novel feed additives and technological processes to improve fish digestive capacity and nutrient metabolism upon using the selected algae; b) Improving fish welfare and end product quality providing consumers with a safe and healthy food item that has wider acceptance. The project adopts a multidisciplinary approach, integrating molecular and traditional tools (zootechny, histology, enzymology, nutrient budgets) to address physiological, nutritional and environmental challenges in modern aquaculture. The candidate will follow-up nutritional trials and be responsible for daily maintenance of the system, feeding, sampling of collected tissues and data analysis. At the end the candidate will prepare a project report and participate in the writing of manuscripts for publication in international journals.

### **4. Legislation and official rules:**

Law nº. 40/2004, 18th August (Research Fellowship and Studentship Regulation); Regulations for Studentships and Fellowships of the Fundação para a Ciência e a Tecnologia, I.P. — 2015 and CIIMAR Grants Regulation.

### **5. Work place:**

The work will be carried out at CIIMAR, Laboratory of Nutrition, Growth and Quality of Fish (LANUCE) under the scientific supervision of Prof. Luisa Valente.

### **6. Duration of the contract:**

Duration of six (6) months, under the regime of exclusive dedication, eventually renewable according to legal terms, up to 12 months or until the end of the project under the regime of exclusive dedication.

### **7. Monthly salary:**

The monthly maintenance allowance is €980 (nine hundred and eighty Euros – Taxe Free), in agreement with the monthly maintenance stipend table of the grants directly attributed by FCT, I.P. within the country  
(<http://www.fct.pt/apoios/bolsas/valores.phtml.en>).

### **8. Selection methods:**

The ranking of candidates will be performed by a global evaluation based on:

- Evaluation of the Curriculum Vitae -30%;
- Experience in the research field – 30%;
- Interview – 40% (Only the short listed candidates will be interviewed).

### **9. Composition of the jury selection:**

President of the jury: PhD Luísa MP Valente

Vogal: PhD Ana Nobre

Vogal: PhD Filipa Rocha

Substitutes

1. Rodrigo Ozório
2. Filipe Castro

### **10. Form of Advertising/notification of results:**

The final results of the evaluation will be published through a list sorting the candidates according to their attributed mark, on the CIIMAR website and by e-mail; 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 grant depending on the quality of the applications.

### **11. Deadline for application and presentation of applications:**

The competition is open from 9<sup>th</sup> until 22<sup>th</sup> January 2018. The applications must be formalized, compulsorily, by sending the following documents:

- detailed Curriculum vitae
- copy of the eligibility certificates
- motivation letter in english
- reference contact information of current and past post-doctoral and PhD supervisor
- contact e-mail address and phone number
- indication of the reference of the competition (as indicated in this announcement)

The applications should be sent by **postal mail** to Emília Afonso, CIIMAR – Centro Interdisciplinar de Investigação Marinha e Ambiental, Novo Edifício do Terminal de Cruzeiros do Porto de Leixões, Avenida General Norton de Matos s/n, 4450-208 Matosinhos, and simultaneously by e-mail to: [secretariado@ciimar.up.pt](mailto:secretariado@ciimar.up.pt).