



Centro Interdisciplinar de Investigação Marinha e Ambiental

1. Job description

Job/Fellowship Reference: C2008-CIIMAR-LECOF-LANUCE-LN/01

Main research field: Biological sciences

Sub research field: Physiological and Nutritional Genomics

Job summary: CIIMAR opens 3 positions as assistant researcher in Physiological and Nutritional Genomics, focusing on the effects of environmental factors in aquatic organisms. The work will focus on the molecular basis of metabolic and functional adaptation, and the development of biomarkers. The candidates (Portuguese or foreigner), must hold a PhD and at least 3 years of relevant post-doc experience and outstanding publication track records in Genomics and related fields.

Job descriptions: The Centre of Marine and Environmental Research of the University of Porto (CIIMAR) is opening positions for scientists to work in physiological and nutritional genomics (and linked proteomics), focusing on molecular mechanisms governing 1) fish growth and hormonal related pathways, and modulation of those mechanisms and pathways by environmental factors and nutrition and 2) adaptation to environmental conditions including salinity, pressure and temperature.

The CIIMAR is one of the leading centres in its research field in Portugal, which is part of the CIMAR Associate Laboratory (created in March 2002). The CIMAR-LA is dedicated to research, and to the dissemination and transfer of technology in Marine Sciences. Its main objective is to carry out basic and applied research on the processes occurring in aquatic ecosystems, including the study of impacts of human activities on these ecosystems. The label "Associated Laboratory" is awarded to leading research units in Portugal by the Ministry of Science and Higher Education. The CIIMAR members are organized in diverse laboratories. More information about CIIMAR and CIMAR-LA can be found at: <http://www.cimar.org>

The PhDs to be hired, for an initial 5 year period, whether Portuguese or foreign nationals, must have at least 3 years of relevant post-doctoral experience and high-standard scientific production using a range of advanced molecular tools, including high-throughput analysis of gene expression (SAGE, SSH, microarrays), and proteomics and/or a strong background in bioinformatics, systems biology and biostatistics. Experience in cell culture, and analysis of gene function (RNAi, morpholinos) will also be favoured when evaluating each CV.

Payment will be made in accordance with the position of Assistant Researcher (gross salary ca. 43,000 € / year). The institutional environment and city life and culture are extremely attractive. The successful candidates will be assigned to the groups within the Laboratory of Ecophysiology (LECOF), Laboratory of Nutrition (LN) and Laboratory of Nutrition, Growth and fish quality (LANUCE). The successful candidates are expected to apply their expertise within current projects, to generate and develop new questions and projects within the research lines of the laboratories, and to help mentor younger scientists, namely the supporting PhD student and junior post-doc development. They should have strong curricula as a basis for attracting external funds to support research through both national and international research projects, within the scope of the strategic research lines defined for the Laboratories.

Laboratory of Nutrition, Growth and fish quality (LANUCE)

Our current research interests in physiology include the study of molecular mechanisms governing fish growth and hormonal related pathways, as well as the modulation of those mechanisms by environmental factors, such as water temperature and nutrition. A genomic approach to study epigenetic changes in response to environmental stimuli is being used to identify molecular biomarkers of muscle growth and other phenotypic traits in species of commercial relevance for aquaculture (Contact Luisa Valente: lvalente@icbas.up.pt for further information).



Laboratory of Ecophysiology (LECOF)

Our current research interests in fish physiology have been focused on the elucidation of the molecular mechanisms of adaptation and acclimation of fishes to hydrostatic pressure, salinity and temperature. We have been focused mainly on migratory fishes including eel (*Anguilla anguilla*), flounder (*Platichthys flesus*) and sea lamprey (*Petromyzon marinus*) at different life history stages. Another line of investigation in the lab is focused on mechanisms of ammonia tolerance in teleosts including model (*Danio rerio*) and more unusual air-breathing fishes. The lab also has established international collaborations for making use of micro array technology (Contact Jonathan Wilson: wilson_jm@ciimar.up.pt for further information).

Laboratory of Nutrition (LN)

Our current research in fish nutrition and physiology has focused the nutritional requirements (protein and amino acids, lipids, phosphorus) of species with potential for aquaculture, metabolic utilization of nutrients and the potential use of vegetable feedstuffs by the fish. Our goal is to further study the nutritional control of gene expression and hormonal control of metabolism, particularly focusing on dietary carbohydrates and protein/amino acids and how vegetable feedstuffs affect nutrient metabolism and utilization throughout a genomic and proteomic approach (Contact Aires Oliva Teles: aoteles@fc.up.pt for further information).

CIIMAR groups aim to strengthen interdisciplinary approaches and encourage inter-laboratory programmes, and therefore the successful candidate will interact with experts in areas other than those strictly connected with molecular biology, such as nutrition, physiology, and behaviour.

Candidates should apply by sending a cover letter, curriculum vitae, reference contact information and copies of academic certificates. Reference contact information should include current and past post-doctoral and PhD supervisors. All documents must be sent by e-mail, in PDF format, and with clear indication of the job reference and title for this particular position to: eafonso@ciimar.up.pt.

The opening of all this positions depends on the approval of FCT (Science and Technology Foundation)

The application deadline is **September 30th, 2008**.

The jury may request further information that may be judged necessary for a proper evaluation. The short listed candidates will be interviewed.

Vacant posts: 3

Type of contract: Fixed term

Country: Portugal

City: Porto

Company/institute: CIIMAR - Centro Interdisciplinar de Investigação Marinha e Ambiental

Application deadline: September 30th, 2008



2. Organization contact data

Organization/institute: Centro Interdisciplinar de Investigação Marinha e Ambiental - CIIMAR

Address:

Rua dos Bragas, n.º 289

Porto - 4050 - 123

Portugal

Email: eafonso@ciimar.up.pt

Website: <http://www.cimar.org>

3. Required education Level

Degree: PhD

Degree field: Biological sciences

4. Required languages

Language: English

Priority: High

Reading: Excellent

Writing: Excellent

Comprehension: Excellent

Conversation: Excellent

5. Required research experience

Main Research Field: Biological sciences

Research Sub-Field: Molecular Biology - Genomics

Years of Research Experience: 3 years

6. Selection Committee

Aires Oliva Teles (President of the Jury)

Emidio Gomes

Ian Johnston

Stephane Panserat

Jonathan Wilson

Agostinho Antunes