

CALL PROT. NO./REP. No. ##protocol##

DEADLINE: 07/10/2024

Call for applications for the award of no. 1 research fellowship - Alma Mater Studiorum - University of Bologna - DEPARTMENT OF VETERINARY MEDICAL SCIENCES with selection by qualifications and interview

HAVING REGARD TO L. 240/2010, art. 18, DL 19/2012

HAVING REGARD TO the Regulation for the institution of post-graduate research fellowship pursuant to art. 18 of Law no. 240 of 30 December 2010 enacted by Rector's Decree no. 136/2020 of 05/02/2020 and subsequent amendments and additions.

HAVING REGARD TO the resolution of the Department Council of 09/09/2024 concerning the activation of no. 1 research fellowship

HAVING REGARD TO the availability of

ALTRIPN\_2023AQUAUP\_CIUILLI\_S\_01\_CUPJ53C24000730006 funds to finance the research fellowship.

The Director of the Department of VETERINARY MEDICAL SCIENCES

invites applications for no.1 research fellowship for a duration of 12 months on the topic:

**Title:** In vitro assessment of biological proprieties of functional extracts from macroalgae

**Tutor:** SARA CIULLI

**Duration:** 12 months

**Maximum start date:** 01/03/2025

**SSD:** MVET-03/A

For all matters not covered by this call for applications, please refer to the Regulations for the award of Research Fellowships and the relevant legislation in force.

Subject of the research grant

Selection for an enthusiastic postgraduate researcher with a passion for interdisciplinary science and a desire to engage in high-impact research. This role will focus on the application of fish cell culture techniques to assess the biological properties of bioactive products extracted from cultured and harvested seaweed. The position is part of the project “Aquafeed Upgraded: Enhancing Immune Function of Fish with Seaweed-modified Functional Compounds (AquaUP)”, funded by the Ministry of Education and co-funded by the European Union under the Sustainable Blue Economy Partnership (SBEP) programme. More details about the project are available at <https://bluepartnership.eu/projects/aquafeed-upgraded-enhancing-immune-function-seaweed-modified-functional-compounds>. The selected candidate will work under the supervision of Prof. Sara Ciulli at the Fish Products Unit, Department of Veterinary Medical Sciences, University of Bologna located at Cesenatico (UOS Cesenatico). Prof. Ciulli's research covers various aspects of infectious diseases and immunology of fish and shellfish, offering candidates the opportunity to develop expertise in different areas and through the use of different methodological approaches including cell cultures, molecular biology (e.g. real time PCR), histology and gene expression analysis.

Project objectives

The project aims to investigate functional compounds obtained from seaweed by innovative methods, for use in aquatic feeds to enhance growth, immune response and resistance to infectious diseases in fish. To promote fish health, bioactive functional ingredients, such as those stimulating the immune system, can be incorporated into aquatic animal feeds. Seaweed is a promising and sustainable candidate for aquatic animal feeds due to their rapid growth rate, carbon sequestration

properties and provision of biomass without the need for fertilisation. In addition, seaweed can be a rich source of nutrients for fish feed. Several studies have explored the effects of native algal compounds on fish immune function, on the other hand, research on the functionality of seaweed-derived compounds is still in its early stages of development. Furthermore, the use of unrefined algal form is limited by the presence of anti-nutritional compounds, such as high levels of non-starch polysaccharides, phytase and tannins, which reduce nutritional digestibility and negatively affect fish health and aquaculture productivity. The University of Bologna will lead Work Package 4 (and contribute to other WPs) of the project, which aims to assess in vitro the inflammatory, anti-inflammatory, immune properties and antiviral/biocidal activity of compounds extracted from seaweed using novel biorefining techniques.

#### Work Activities and Training Plan

The assessment of immunomodulatory, antimicrobial, antioxidant and prebiotic properties, necessary for the screening and identification of functional compounds derived from seaweed, will be carried out in vitro using fish cell cultures. In vitro cell cultures are an efficient screening tool for assessing the functionality of novel bioactive molecules, as they allow for cost-effective and precise control and manipulation of experimental conditions. The biological properties of bioactive compounds will be assessed through the study of cell morphology (microscopy, immunohistochemistry), gene expression of selected immune markers (real time PCR) and in vitro viral growth assays in cell culture (virology). AquaUP is a collaborative project involving several partners, including NIBIO and NORCE (Norway), the University of Bologna (Italy), Wageningen University & Research (The Netherlands), Maynooth University and University College Cork (Ireland), together with industrial collaborators from the partner countries. This will provide the candidate with the opportunity to network with other European research institutes. The selected candidate will play a crucial role in the project, in particular in WP4 activities, by conducting in vitro tests (cell cultures) to assess the biological properties and immunomodulatory activities of innovative macroalgae extracts.

Title of project: Aquafeed Upgraded: Enhancing Immune Function with Seaweed Modified Functional Compounds [AquaUP]

Duration: 12 months

Salary: € 19.000,00 net

Type of contract: Postgraduate research fellowship (Italian Law: Legge n. 240 of 30/12/2010 art. 18 paragraph 5, lett. f e and subsequent amendments and additions)

Technical-scientific information can be obtained from Prof. Sara Ciulli, Department of Veterinary Medical Sciences, University of Bologna, Cesenatico (FC) Email: sara.ciulli@unibo.it

#### Amount

The amount of the grant is € 19,000.00 and is subject to the tax and social security regime provided for by law. The amount granted is to be considered inclusive of any costs associated with the performance of the research activity envisaged by the project.

The premium for the accident insurance policy is deducted from the first instalment of the grant in progress at the time the call for applications is issued.

#### Application procedure

Applications may be submitted in the following ways:

1. By Certified Electronic Mail to dimevet.dipartimento@pec.unibo.it, indicating in the subject line of the e-mail the following wording: candidatura per n. 1 Borsa di Ricerca, tutor Prof.ssa Sara Ciulli, no later than 07/10/2024, at 11.30 a.m. CEST/UTC+2. Compliance with the deadline is proven by the date and time of receipt of the PEC. Send the duly completed and signed application form and any other required documents in .pdf format, together with a scan of a valid identity document.
2. By e-mail to dipscmedvet.amministrazione@unibo.it, indicating in the subject line of the e-mail the following wording: candidatura per n. 1 Borsa di Ricerca, tutor Prof.ssa Sara Ciulli,

no later than 07/10/2024, at 11.30 a.m. CEST/UTC+2. Compliance with the deadline is proven by the date and time of receipt of the email. Send the duly completed and signed application form and any other required documents in .pdf format, together with a scan of a valid identity document.

Applications sent after the deadline or containing errors in the information requested, as indicated above, will not be taken into consideration.

#### Participation requirements

- University degree **in classes L38, L13, L32, LM9, LM86, LM42, LM6** or an **equivalent qualification** or a degree in accordance with the teaching system prior to Italian Ministerial Decree 509/99 and subsequent amendments and additions, or equivalent qualifications obtained at foreign universities whose suitability is ascertained by the Selection Committee;
- not be over 39 years of age on the date of expiry of the call for applications;
- not have been the beneficiary of other research fellowships at this University in accordance with these Regulations, the duration of which, together with the duration of the grant being selected, exceeds a total of 12 months.

Participation in the procedure for the awarding of research fellowships pursuant to these Rules is precluded to persons who are related, up to and including the fourth degree of kinship, to a tenured professor or researcher belonging to the structure deciding or to the structure at which the activities are to be performed, or to the Rector, the General Director or a member of the Board of Directors of the University.

.....  
The requirements must be satisfied upon the deadline established by this call for applications. Candidates are admitted conditionally; exclusion from the selection process, for failure to meet the requirements, may be ordered at any time, even after the selection process has taken place, by reasoned decision and notified to the person concerned.

#### Preferential qualifications

#### ..... Incompatibility

##### Fellowships may not be combined

- with research fellowships and other study or research scholarships awarded for any purpose, except those granted by national and foreign institutions for the purpose of integrating, with periods abroad, the specific activity envisaged by the work programme carried out by the holder.
- with any subordinate employment relationship permanent or fixed-term duration, without prejudice to the possibility of the fellow being placed on unpaid leave by the employer.

The fellow is required to declare, under his/her own responsibility, the non-existence of any cumulation or incompatibility and to promptly notify any such occurrence.

When submitting the application to take part in the selection procedure, the fellow is required to declare that he/she has been the recipient of any previous research grants at this University.

The fellow may carry out self-employment activities, subject to written notification to the awarding structure and on condition that such activities are declared by the structure itself to be compatible with the exercise of the research activity, do not entail a conflict of interest with the specific research activity carried out by the fellow and do not prejudice the University in relation to the activity carried out.

The Fellowship for postgraduate research activities does not in any way constitute a subordinate employment relationship and does not give rise to rights regarding access to University roles.

#### How to apply

##### Applicants must submit

1. the application form attached, dated and signed
2. a CV in European format, dated and signed
3. double-sided copy of a valid identity document (ID card or passport)

4. a declaration substituting the certificate (self-certification), issued in accordance with Presidential Decree 445/2000 in relation to the possession of evaluable qualifications, drawn up in accordance with the attached model (Annex C);  
Applicants in possession of a qualification obtained abroad must enclose with their application an Italian translation of the foreign qualification, accompanied by a self-declaration concerning the conformity of the translation with the original.  
The foreign qualification may be declared admissible by the examining board, for the sole purpose of participation in the selection.  
The successful candidates, if they have obtained their qualification in a country outside the European Union, must submit to the Structure, in the same manner as for the submission of the application for admission, the official translation with Declaration of Value of the foreign qualification by the competent Italian diplomatic or consular representations in the country in which the qualification was obtained, in accordance with the regulations in force, within 30 days of notification of the outcome of the selection, as formalised by a decree of approval of the acts. The research grant will be forfeited if the documents are not received by the Structure within this deadline.
5. Declaration in lieu of affidavit pursuant to DPR 445/2000, drawn up in accordance with the attached model (Annex D)
6. Any other document, title or publication useful for the selection
7. List on plain paper of the documents and titles submitted as an attachment to the application, dated and signed.

#### Selection procedures and assessment methods

The selection of applications is carried out by an Examining Board, appointed pursuant to Article 7 of the Regulation for the activation of research fellowships.

Selection is based on the evaluation of the qualifications and curriculum vitae submitted by each candidate, with the attribution of the relative points, and on a subsequent interview aimed at ascertaining the candidate's aptitude for carrying out the research topic covered by the fellowship. Before proceeding to the evaluation, the Examination Committee shall establish the overall score to be awarded, which, in any case, may not exceed 100 points.

Points will be awarded as follows:

(a) curriculum vitae and merit qualifications of the candidates, according to the criteria specified below, up to a maximum of 40 points. - practical laboratory experience related to the fields covered by the call for applications: maximum 20 points; - other qualifications (such as degree scores, publications, seminars): maximum 20 points. b) interview up to a maximum of 60 points. The minimum overall score for passing the selection is 60/100.

Once the evaluation of the qualifications and the curriculum vitae has been completed, the outcome of which is communicated directly to the interested parties, the Commission proceeds to the interview aimed at ascertaining the candidate's aptitude to carry out the research subject of the fellowship.

The date and platform for the online interview are communicated directly to the interested parties. On the basis of the scores awarded, the Commission will draw up a final merit list of suitable candidates and identify the winner. If two candidates receive the same scores, preference will be given to the younger candidate.

This list of suitable candidates will be valid for a maximum of one year and may be used exclusively for the same research requirements indicated in the call for applications.

#### Awarding of the grant

Upon receipt of the documents relating to the selection, the Director of the Structure shall approve it by means of his/her own decision.

**The name or identification code of the winner fellow and the list of successful candidates will be communicated directly to the interested parties by 24/10/2024.**

The signing of the declaration of acceptance of the fellowship by the winner must take place within the deadline established in the Director's decision and implies the unreserved acceptance of the conditions of the call for applications and the University regulations. Failure to accept the fellowship within the prescribed deadline shall result in its automatic forfeiture in accordance with the provisions of Article 8 of the Regulation for the institution of research fellowships for postgraduate research activities. It also implies a declaration, under one's own responsibility, that one does not incur any of the prohibitions and incompatibilities envisaged by the call for applications and the Regulations for the award of University of Bologna Research Fellowships. The ranking will be used according to the order in which it is drawn up and, in the event of renouncement or non-acceptance within the terms communicated by the winner's structure, or early termination of the fellowship, it may be assigned to another candidate. In this case, the order of the final merit list shall in any case be followed, in accordance with the provisions of the Regulation for the institution of research fellowships for postgraduate research activities (art. 7).

#### Rights and duties of research fellowship holders

Fellowship holders are required to carry out the research activity for which the fellowship is intended in accordance with the training programme drawn up by the tutor and under her supervision. Please refer to the provisions of Article 9 of the Regulation for the award of Research fellowships for Post-graduate Research Activities.

#### Head of the Procedure:

Pursuant to the provisions of Article 5 of Law no. 241 of 07/08/1990 and subsequent amendments, the person responsible for the administrative procedure of this selection is ELISABETTA CHIUSOLI

#### Processing of personal data

Pursuant to art. 13 of the General Data Protection Regulation (Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016), candidates are hereby informed that the processing of personal data supplied by them when taking part in the competition or in any case acquired for that purpose by the Alma Mater Studiorum - University of Bologna is aimed solely at the performance of the competition activities and will be carried out by the persons in charge of the competition procedure, including by the selection board, at the Alma Mater Studiorum - University of Bologna, with the use of procedures, including computerised procedures, in the manner and within the limits necessary to pursue the aforementioned purposes, including in the event of any disclosure to third parties. The provision of such data is necessary in order to verify the participation requirements and the possession of qualifications, and failure to provide such data may preclude such verification. Applicants are entitled to the rights set out in Articles 15 et seq. of the aforementioned Regulation 2016/679, in particular, the right to access their personal data, to request their rectification, cancellation, restriction of processing, as well as to object to their processing, by addressing their requests to the Alma Mater Studiorum - University of Bologna at [privacy@unibo.it](mailto:privacy@unibo.it).

Data subjects who consider that the processing of personal data relating to them is in breach of the provisions of the Regulation have the right to lodge a complaint with the Authority (Garante), as provided for by art. 77 of the Regulation itself, or to take legal action (art. 79 of the Regulation).

The data controller is the Alma Mater Studiorum - University of Bologna (registered office: via Zamboni n. 33, 40126 - Bologna, Italy; e-mail: [privacy@unibo.it](mailto:privacy@unibo.it); PEC: [scriviunibo@pec.unibo.it](mailto:scriviunibo@pec.unibo.it)).

The contact details of the Data Protection Officer are: registered office: via Zamboni n. 33, 40126 - Bologna, Italy; e-mail: [dpo@unibo.it](mailto:dpo@unibo.it); PEC: [scriviunibo@pec.unibo.it](mailto:scriviunibo@pec.unibo.it).

For further information, please consult the relevant information notice, published at [www.unibo.it/privacy](http://www.unibo.it/privacy).

On date,

THE DIRECTOR OF THE DEPARTMENT  
PROF. PIER PAOLO GATTA