

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

### 1 Research Fellowship (BI) for PhD Student

1 Research Fellowship(s) (BI) is(are) open at the **FCiências.ID – Associação para a Investigação e Desenvolvimento de Ciências**, for the project/R&D institution “MATRIHEALTH - Extracellular matrix in health and disease”, financed by private international funding entity, under the following conditions:

1. **Scientific Area:** 110000-MEDICAL AND HEALTH SCIENCES; Molecular and cellular biology
2. **Requirements for admission:** National, foreign and stateless candidates holders of the MASTER's degree in Biological Sciences, Biomedical Sciences or related areas, that have an average of at least 16 out of 20 in the Bachelor's degree and 17 out of 20 in the Master's degree and have at least 1 year of research experience after the completion of the Master's degree, may apply for this fellowship. Additionally, the candidate must have: a) Know-how and practical experience in skeletal muscle biology and associated diseases; b) Experience in the following groups of laboratory techniques: I. animal cell culture, II. processing of cells and tissues for immunohistochemistry and Western blot, III. microscopy and/or bioimaging techniques, IV. basic techniques of molecular biology (e.g. PCR, RT-qPCR) and V. experience of working with the animal model *Mus musculus* (colony maintenance, manipulation of animals); c) Good level of English, good organization skills and team work ability.
3. **Additional optional skills and qualifications:** Knowledge about stress response mechanisms and damage in the context of diseases, as well as mechanisms associated with the remodeling of the extracellular matrix, are desirable.
4. **Contracting requirements:** Presentation of the academic qualifications and/or diplomas. Enrolment in PhD in the Doctoral Program of Biology, Faculty of Sciences, University of Lisbon
5. **Work plan:** Lama2-related congenital muscular dystrophy (LAMA2-CMD), the most common congenital muscular dystrophy, is caused by mutations in the LAMA2 gene, encoding the  $\alpha 2$  chain of the laminin a structural component of the extracellular matrix. Most studies on LAMA2-CMD focus on skeletal muscle, a tissue that is severely affected when LAMA2 is absent or reduced. However, LAMA2 is also found in other organs, including the heart, but the impact of LAMA2 deficiency on this organ is less studied. Using a mouse model for LAMA2-CMD, the host laboratory and collaborators showed that this disease begins in the uterus with the overactivation of JAK-STAT3 signaling and a reduction in the pool of muscle stem cells (MuSCs) and myoblasts in skeletal muscle, suggesting that deficiency in LAMA2 may affect cell proliferation and/or death. This project aims to identify the primary mechanisms underlying LAMA2 deficiency in skeletal muscles and determine whether the heart muscle is equally affected. The identification of the primary defect is expected to provide new therapeutic targets for LAMA2-CMD, a currently incurable disease.
6. **Legislation framework:** Research Fellowship Holder Statute, in accordance with Law 40/2004, of 18 August, in its current version and the FCT Regulation for Research Studentships and Fellowships, in its current version (Reg. 950/2019 published in DR on 16<sup>th</sup> December: <https://dre.pt/application/file/a/127230968>, or at the FCT website: <https://www.fct.pt/apoios/bolsas/regulamento.phtml.pt>), and FCiências.ID Fellowship Regulation, as approved on 12<sup>th</sup> May 2020 (available at [Regulamento de Bolsas de Investigação Científica da FCiências.ID](https://www.fciencias.id/regulamento-de-bolsas-de-investigacao-cientifica-da-fciencias.id)).

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7. **Place of work:** The work will be developed at the Developmental and Evolutionary Morphogenesis (DEM) group of the Centre for Ecology, Evolution and Environmental Changes (CE3c) under the scientific supervision of Professor Ana Rita Carlos and Solveig Thorsteinsdottir.
8. **Fellowship duration:** This position is initially opened for 6 months due to start in April 2022. The fellowship contract may be potentially renewed for 24 months, in accordance with the provisions of Regulation of Research Fellowships from the Foundation for Science and Technology, I.P and FCIências.ID Fellowship Regulation.
9. **Monthly allowance:** The fellowship amounts to € 1144,64 € per month, according to [table values](#) of the FCIências.ID Fellowship Regulation.. The fellowship holder will have a personal accident insurance and can ensure the right to social security through adherence to the voluntary social insurance scheme, if not covered by any other social protection scheme, pursuant to *Código dos Regimes Contributivos do Sistema Previdencial de Segurança Social*. The fellowship will be paid monthly by bank transfer.
10. **Evaluation and selection process:** Candidates will be assessed by the quality of their CV and skills (60%), motivation letter (10%) and letter of motivation (30%).
11. **Selection Committee:** President: Rita Zilhão; Effective members: Solveig Thorsteinsdottir, Ana Rita Carlos; Alternate member: Gabriela Rodrigues.
12. **Publication/notification of results:** All the candidates will be notified by e-mail, sent by the call holder, with the selection meeting minutes enclosed.
13. **Deadlines:** This call for applications is open from 28/02/2022 to 08/03/2022 .
14. **Application:** Applications should be sent via e-mail to [arcarlos@fc.ul.pt](mailto:arcarlos@fc.ul.pt), by attaching the following documents:
  - a. Curriculum vitae - **CV may be provided in PDF or through the [CIÊNCIAVITAE](#) system**;
  - b. Certificate of completion of previous degree;
  - c. A document containing complete information on knowledge in skeletal muscle biology and associated, as well as experience in the following techniques: I. animal cell culture, II. cell and tissue processing for immunohistochemistry and Western blot, III. microscopy and/or bioimaging techniques, IV. basic techniques of molecular biology (e.g. PCR, RT-qPCR) and V. working experience with the animal model *Mus musculus* (maintenance of colonies, handling of animals);
  - d. Motivation letter.
15. **Time limits for the appeal procedure:** In case of negative decision, the candidates have 10 business days, after the date of announcement of the results of the candidates evaluation, to pronounce their disagreement in accordance with the *Código do Procedimento Administrativo*. Appeals against the final decision may be submitted to the Administration Board of FCIências.ID ([fciencias.id@fciencias-id.pt](mailto:fciencias.id@fciencias-id.pt)) within 15 business days after the notification date

**Note 1:** The documents that prove the entitlement of the academic qualifications and diplomas, or the proof of registration in the academic degree or diploma requested on the call, can be dismissed during the application period and replaced by a declaration on their honour from the applicant. Their delivery is mandatory for the fellowship contractualization.

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**Note 2:** Please note that - higher education degrees and diplomas awarded by foreign higher education institutions need to be recognized by a Portuguese higher education institution, pursuant to the [Decree-Law nr. 66/2018](#) (August 16) and the [Ministerial Order nr. 33/2019](#) (January 25). The presentation of the recognition certificate is mandatory for contract signature. More information can be obtained at: <https://www.dges.gov.pt/en/pagina/degree-and-diploma-recognition>.