ANNOUNCEMENT OF OPENING OF AN INTERNATIONAL CALL FOR THE SELECTION OF A PhD HOLDER RESEARCHER UNDER DECREE-LAW NO. 57/2016 of 29 August, amended by Law 57/2017 of 19 July

Internal reference: Junior Researcher/Norte2030_*SCALE-ImmunoHUB2030*/IBMC/1408/2025

The IBMC opens an international call for the recruitment of a PhD holder under a non-fixed term work contract to carry out research duties within the project "Beyond ImmunoHUB: a complementary and multidisciplinary strategy to scale and sustain the impact of the IBMC-i3S ERA Chair in Immunology" (SCALE-ImmunoHUB2030), with reference NORTE2030-FEDER-01777300, which is financed by FEDER through the NORTE2030 Program, under notice NORTE2030-2024-11.

Scientific Area: Life Sciences

1. Project summary:

The ERA Chair project "An Immunological Hub of Excellence in Porto tailored to fulfil the ERA Priorities" (ImmunoHUB), based at IBMC-i3S, is supported by the European Union's Spreading Excellence and Widening Participation program. ImmunoHUB has laid the groundwork for IBMC-i3S to establish a leading platform for research and innovation in Immunology.

Building on this foundation, the SCALE-ImmunoHUB2030 project aims to fully implement the ERA Chair's broad objectives, generating transformative scientific, financial, and academic impact within the Infection, Immunity, and Regeneration (IIR) research program and across IBMC-i3S..

To advance the project, it is necessary to strengthen the human resources of the Advanced Light Microscopy scientific platform supporting the scientific activities of ImmunoHUB. Therefore, we are seeking for a highly motivated and skilled PhD-level researcher, to join our team as a **Bioimage Analyst**.

The successful candidate will play a key role in the quantitative analysis of complex biological imaging data generated through advanced microscopy techniques, including confocal, light-sheet, super-resolution, and electron microscopy. This role is essential for advancing cutting-edge biomedical research by transforming raw imaging data into meaningful scientific insights.

We are looking for candidates with a strong background in image processing algorithms, statistical analysis, and a solid understanding of biological systems. Excellent communication and collaboration skills are also essential.

Key responsibilities include:

- Designing, implementing, and optimizing robust image analysis pipelines using tools such as ImageJ/Fiji and Python.
- Quantifying and interpreting large-scale biological image datasets.
- Developing novel methodologies and integrating machine learning and deep learning techniques for advanced image processing.
- Ensuring rigorous documentation, reproducibility, and quality control.
- Providing expert consultation and training to researchers on experimental design and image analysis strategies.
- Contributing to the scientific community through presentations, publications and other dissemination activities.

2. Applicable legislation

- Decree-Law no. 57/2016 of 29 August, amended by Law 57/2017 of 19 July, which approved the doctorate hiring regime destined to stimulate scientific and technological employment for all knowledge areas (RJEC).
- Regulatory Decree Nr 11-A / 2017, of 29th December.
- Portuguese labor law.

3. The selection jury has the following composition:

Chair: Paula Sampaio, Members: Maria Azevedo, Nuno Alves, Teresa Summavielle, Substitute members: Pedro Moura-Alves, Isabel Silveira

4. Workplace:

IBMC/i3s – Rua Alfredo Allen 208, Porto, Portugal, Scientific Plataform Advanced Light Microscopy.

5. Professional category and monthly remuneration:

Monthly remuneration to be paid is that set by subheading a) nr.1 article 15 of RJEC and article nr 2 of the Regulatory Decree nr. 11-A/2017, corresponding to level 33 of the Tabela Remuneratória Única, approved by Order no. 1553-C/2008 of December 31st, i.e. 2.351,53 Euros , with the Junior Researcher category.

6. General requirements for the position are:

The competition is open to national, foreign, and stateless candidates who meet the following requirements::

- PhD in Engineering, Mathematics, Computer Science, Physics, Life Sciences, or related field.
- Proven experience in biological image analysis, including segmentation, tracking, registration, and quantification of microscopy data.
- Proficiency in programming languages commonly used for image analysis (e.g., Python with NumPy, SciPy, scikit-image, OpenCV; MATLAB; R).
- Solid knowledge of statistical analysis and its application to scientific data.
- Strong analytical thinking and problem-solving abilities.
- Excellent communication and collaboration skills.
- Fluency in written and spoken English.

Desirable Qualifications

- Proficiency with at least one major image analysis software (e.g., ImageJ/Fiji, CellProfiler, QuPath, Napari).
- Experience with machine learning and deep learning frameworks for biological image analysis (e.g., U-Net, StarDist, Cellpose), particularly in segmentation, classification, and feature extraction.
- Familiarity with various microscopy techniques (e.g., confocal, widefield, light sheet, super-resolution, electron microscopy).
- Knowledge of cloud-based analysis platforms and scalable computing environments.
- Experience in high-content screening, image-based phenotyping, and/or quantitative pathology.
- Experience of working in interdisciplinary life science research teams.

7. Selection Process and Evaluation Criteria

Pursuant to article 5 of RJEC, the evaluation of the scientific and curricular background of the candidates should focus on the activity of the last five years that the candidate considers most relevant. The five-year period may be extended by the jury, at the candidate's request, when justified by suspension of scientific activity for socially protected reasons, namely for reasons of parental leave, prolonged serious illness, and other situations of unavailability for work that are legally protected.

Selection will be based on the following evaluation criteria:

> Detailed CV (70%).
> The evaluation will focus on academic background, professional experience, technical and scientific skills, as well as scientific output, insofar as they are relevant to the duties associated with the position.
> Motivation Letter (20%):
> The letter should address the following points:
> Motivation to develop research in the project.
> Summary of previous research experience.
> Vision on how to contribute to bioimage analysis.
> Availability to start working.
> Interview (10%):
> Only candidates achieving a score of 70% or more on initial review will be short-listed for interview.

8. The final classification system for candidates is expressed on a scale from 0 to 100. Each member of the jury will rank candidates based on the selection criteria and a consensus list will be drawn up of candidate rankings.

Minutes of the proceedings, including the individual rankings of jury members, will be recorded and made available to candidates when requested.

9. The final decision of the jury will be ratified by the managing director of the institute, prior to final appointment.

10. Submission of aplication:
Applications should be written in English and include os documentos comprovativos das condições previstas para admissão a este concurso, nomeadamente:
a) PhD certification.
b) Motivation letter in English.
c) Full CV in Englishsam

Candidates shall submit their application filling in the required information and supporting documentation, in a digital form, in PDF format, at the following link:

https://dozer.i3s.up.pt/applicationmanagement/#/addapplications/fb48c015659d621b5679a495b2f550

between August 14, 2025 and September 4, 2025.

All candidates who formalize their applications in an improper way or fail to prove the requirements imposed by this tender are excluded from admission. In case of doubt, the panel is entitled to request any candidate to present further documentation supporting their statements..

False statements provided by the candidates shall be punished according to the law.

11. The list of candidates and their final rankings will be published on the institute website (www.ibmc.up.pt) under 'Open Positions', and the selected candidate will be notified by email.

12. After publication of the results, candidates have 10 working days to respond. The final rankings will be published 90 days after expiry of the application deadline on the institute website (www.ibmc.up.pt) under 'Open Positions'.

The contract is scheduled to begin, if possible, in October 2025 and has an estimated duration of 13 months, potentially extendable depending on the actual duration of the project.

13. This tender is exclusively destined to fill this specify vacancy and can be terminated at any time until approval of final candidate list, expiring with the respective occupation of said vacancy.

14. Non-discrimination and equal access policy:

The IBMC/i3S actively promotes a policy of non-discrimination and equal access, so that no candidate can be privileged, benefited, harmed or deprived of any right or exempted from any duty resulting from ancestry, age, gender, sexual orientation, marital status, family situation, economic status, education, origin or social status, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic or race origin, territory of origin, language, religion, political or ideological beliefs and union membership.

Candidates will be assessed using an open, transparent and merit-based recruitment (OTM-R) process, based on the guidelines laid down in the European Charter for Researchers and The Code of Conduct for the Recruitment of Researchers. The recruitment process will adhere to current data protection legislation.

15. . In the event that two candidates of equal scientific merit apply, applicants with proven disability will be given preference (D.L. nº 29/2001). To be considered, disabilities (including type and respective degree of impairment) should be declared upon initial application..

16. The panel has approved this announcement in meeting held on August 12, 2025.