



## NOTICE OF OPENING OF AN INTERNATIONAL CALL FOR THE SELECTION OF A PhD HOLDER RESEARCHER UNDER DECREE-LAW NO. 57/2016

**Internal code: Researcher/EU\_Illiance/i3S/1107/2025**

A call is opened for the position of a PhD holder, for an unfixed term work contract to carry out research duties within the project “**MOBILISING AGENDAS FOR BUSINESS INNOVATION**” – 2022-Co5IO101-02 - Agenda Illiance (Bosch, projeto nº 46) - PPS4 – OLI health, with reference C644919832-00000035, financed by PRR - Plano de Recuperação e Resiliência and by Fundos Europeus NextGenerationEU, through the incentive system «Agendas para a Inovação Empresarial».

**Scientific Area:** Life and Health Sciences

### 1. Project summary and work plan

This project aims at the design, technical development, prototyping, and final validation of an innovative solution for the regular monitoring of health and well-being data of individuals that can be monitored in a specific environment. In particular, it intends to develop a technological platform for detecting and monitoring diseases and tracking health and well-being conditions. The necessary data monitoring will be carried out using imaging, video, an electronic nose for volatile compounds, molecular assessment, and an analysis module that provides useful information for the user's health through multimodal signal analysis supported by machine learning/artificial intelligence techniques.

In this project, the hired individual will be integrated into a consortium of companies developing the ILLIANCE Agenda of the Recovery and Resilience Plan (PRR). ILLIANCE is a complex ecosystem of integrated projects aimed at addressing the goal of carbon neutrality in the building sector, which accounts for 40% of global CO<sub>2</sub> emissions. The adopted approach focuses on developing complementary technologies associated with three core pillars: health, comfort, and sustainability. The functional structure of ILLIANCE, developed with an integrated specialization approach, focuses on the design, development, and industrialization of new technologies in the areas of: Electrification of the economy and exploration of sustainable and/or renewable electric energy (e.g., heat pumps); Green hydrogen as an energy source (e.g., H<sub>2</sub> hybrid combustion equipment); New models and smart technological platforms for energy management; Intelligent solutions for efficiency, functionality, and building performance.

Continuous monitoring is essential for implementing this paradigm. Hereditary cancer syndromes are rare diseases affecting up to 10% of individuals with this type of neoplasia. The genetic variations associated with hereditary cancers are still poorly understood, making it difficult to monitor at-risk individuals. If not properly diagnosed or monitored, many asymptomatic patients may develop highly aggressive tumors, leading to premature death and significantly impacting the health and quality of life of their families. However, many cancers linked to hereditary syndromes can be prevented, and survival rates improved if asymptomatic patients are carefully monitored for organs vulnerable to disease, or if cancerous or precancerous lesions

INSTITUTO  
DE INVESTIGAÇÃO  
E INOVAÇÃO  
EM SAÚDE  
UNIVERSIDADE  
DO PORTO

Rua Alfredo Allen, 208  
4200-135 Porto  
Portugal  
+351 226 074 900  
info@i3s.up.pt  
[www.i3s.up.pt](http://www.i3s.up.pt)



are treated early. In this context, tracking individuals at increased cancer risk represents a specific and important scenario for prevention, early diagnosis, and curative treatments.

The work plan will include identifying, validating, and discovering molecular markers that can be incorporated into disease monitoring panels. The hired researcher is expected to organize and execute the project activities related to the construction of cohorts for marker validation and prototype testing.

## 2. Applicable Portuguese legislation

Decree No. 57/2016, of August 29 – Legal Framework for Scientific Employment (RJEC) – in its current version.

Portuguese Labor Code, in its current wording.

## 3. Jury

Chairman: João Vinagre; Other Members: Paula Soares, Valdemar Máximo; Substitute: Arnaud Paula.

## 4. Workplace

i3S - Rua de Alfredo Allen, 208 Porto, research group Cancer Signaling and Metabolism.

## 5. Professional category and monthly remuneration

Junior Researcher

€ 2.351,53, corresponding to index 33 of the Tabela Remuneratória Única, whose application is intended for PhD holders with reduced post-doctoral experience or without a post-doctoral scientific curriculum.

## 6. Obligatory Requirements for admission

- a) PhD in Biomedical Sciences or related areas;
- b) FELASA C Certification;
- c) Demonstrated Experience in monitoring and evaluation of patients within cohorts of different types of neoplasms, participations in international networks or consortia and tangible outputs of their participation (to be described in the motivation letter);
- d) First author of at least 3 articles published in journals;
- e) Track record of relevant publications or ongoing studies in the field of **cancer biomarkers** (to be addressed in the motivation letter);
- f) Proficiency in molecular and cell biology techniques, including but not limited to:
  - Determination of sample metabolic profile using NMR Spectroscopy;
  - Plasmid cloning techniques;
  - Application of CRISPR-Cas9 technology *in vitro* for generating genetically modified cell lines;
  - Experience in cell analysis by Seahorse technology (measuring oxygen consumption and extracellular acidification rates);
- g) Active participation and dissemination in scientific meetings (e.g., oral presentations, posters);
- h) Proficient in written and spoken English;

i) Availability to start the contract on 01/09/2025.

**Preferential (not mandatory but valued)**

- a) Experience in the following:
- Cell culture and maintenance of diverse types of cells;
  - Transfection techniques and RNA interference;
  - Gene expression (RT-qPCR) and Protein expression (Western Blot, Co-immunoprecipitation) analysis;
  - Sanger Sequencing;
  - Assessment of cell signaling pathways, viability, proliferation and apoptosis;
  - Detection of reactive oxygen species;
  - Confocal Microscopy Techniques, immune histochemistry, and immune cytochemistry;
- b) Publications in international peer-reviewed journals and participation in research projects;
- c) Experience in the supervision and mentoring of graduate and postgraduate students;
- d) Experience in raising competitive research funding;
- e) Good teamwork and interpersonal skills.

**7. Evaluation of the applications and publication of the results**

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.

**Weight of the different curricular valuation criteria:**

- a) Detailed Curricula (70 %);
- b) Motivation Letter in English (20 %):
- Motivation to develop research in the area of the project;
  - Availability to start duties on 01/09/2025;
- c) Interview - *facultative* (10%).

If the jury decides to obtain further clarifications and additional information about the curricular elements presented, the 2 (two) best candidates classified on the basis of the curriculum may be called for an interview.

Candidates who submit their application incorrectly or fail to meet the required qualifications for this competition will be excluded from admission. The jury reserves the right to request any candidate, in case of doubt, to provide supporting documents for their statements.

False statements made by candidates will be sanctioned in accordance with the law.



The jury will draw up minutes of its meetings, which can be consulted at the candidate's request within 10 working days after the selection results are released.

The jury deliberates by means of a reasoned vote according to the evaluation criteria, with no abstentions allowed, and draws up a list of excluded and admitted candidates, ordered by respective classification.

All candidates are notified of the selection results by email. After notification, candidates have 10 working days to comment.

In the 90 days following the deadline for submission of applications, the jury's final decision is communicated to the candidates. Subsequently the institute Director, who is also responsible for the final decision of hiring, will ratify the decision of the jury.

This call is intended exclusively to fill the indicated position on offer and may be canceled before the final ranking list of candidates is ratified by the Director. Accordingly, the position will no longer be available.

## **8. Submission of applications**

Applications must include all the documents proving that they fulfill the admission requirements, namely:

- a) Copy of certificate or diploma;
- b) Detailed Curriculum Vitae;
- c) Motivation Letter in English;
- d) FELASA C Certification;
- e) Other documentation relevant for the evaluation of qualifications in a related scientific area.

The submission of applications is digital, in pdf format, from 11/07/2025 to 24/07/2025, in the following link:

<https://dozer.i3s.up.pt/applicationmanagement/#/addapplications/671ba7ba15c0148ed0fbe154443ac7bf>

## **9. Start and duration of the contract**

The anticipated start date of the contract is 01/09/2025 and is subject to budget availability. The expected duration of the contract will be 4 months, eventually extendable, and cannot in any case extend beyond the project's end date, currently set for 31/12/2025.

## **10. Non-discrimination and equal access policy**

i3S actively promotes a policy of non-discrimination and equal access. No applicant shall be privileged, benefited, prejudiced, or deprived of any right or exempted from any duty on the basis of ancestry, age, gender, sexual orientation, marital status, family situation, economic situation, education, origin or social condition, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological beliefs, or trade union membership.

INSTITUTO  
DE INVESTIGAÇÃO  
E INOVAÇÃO  
EM SAÚDE  
UNIVERSIDADE  
DO PORTO



Rua Alfredo Allen, 208  
4200-135 Porto  
Portugal  
+351 226 074 900  
info@i3s.up.pt  
[www.i3s.up.pt](http://www.i3s.up.pt)



Within the framework of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, i3S adopts the Open, Transparent and Merit-based (OTM-R) principles for the recruitment of researchers, with the aim of conducting fair and transparent recruitment processes, bringing equal opportunities to all candidates.

#### **11. Applicants with disabilities**

Under the terms of Decree-Law 29/2001, of February 3, the candidate with a disability is given preference in equal ranking, which takes precedence over any other legal preference. Candidates must declare under oath their degree of disability, the type of disability and the means of communication/expression to be used in the selection process, under the terms of the aforementioned decree.