

JOB DESCRIPTION TEMPLATE: (Euraxess labels)

Title (include department or project): Postdoc in Biomedical Data Science and Artificial Intelligence

Location : Barcelona

Reports to : Dr. Paula Petrone

Send applications to: Dr. Paula Petrone

Publish on (optional):

Description:

The Barcelona Institute for Global Health (ISGlobal) is a cutting-edge institute addressing global public health challenges through research, translation into policy and education. ISGlobal has a broad portfolio in communicable and non-communicable diseases including environmental and climate determinants, and applies a multidisciplinary scientific approach ranging from the molecular to the population level. Research is organized in the following main areas, Malaria and other Infectious Diseases, Maternal, Child and reproductive Health, Urban Health and environmental health, Climate & Non-Communicable Diseases. ISGlobal is accredited with the Severo Ochoa distinction, a seal of excellence of the Spanish Science Ministry.

What We Are Looking for

ISGlobal is seeking a motivated postdoctoral researcher to join the Biomedical Data Science Research Group of Dr. Paula Petrone at ISGlobal, created in the framework of the Severo Ochoa Program, with the vision of leveraging data analytics and artificial intelligence to improve health care outcomes. This is a unique opportunity for a motivated data scientist to contribute to the digital transformation of biomedicine and carry out research that has social impact and responds to unmet medical needs.

The postdoctoral researcher will develop novel research that applies **advanced data science, machine learning and deep learning to various different data modalities**. An ambition of this team is to implement predictive modelling as well as explainable AI methods to understand disease drivers leading to early disease diagnosis and the discovery of novel digital biomarkers in the **context of chronic liver disease**.

Previous experience in the deep learning field is highly desirable. Interest is additionally expressed for candidates with demonstrated experience in the biomedical field.

As part of the Biomedical Data Science Team, the selected candidate will have the opportunity to work in a highly multidisciplinary environment, working closely with computational, experimental and clinical collaborators in a creative, challenging and entrepreneurial environment. ISGlobal offers training workshops where the postdoctoral fellow will be able to develop technical and interpersonal skills which are important for a successful career. The Biomedical Data Science Team fosters team diversity and encourages the application of candidates from different backgrounds and genders.

This position will be supported by funding from the LIVERAIM project.

El número de GA es el 101132901 PROYECTO IHI LIVERAIM

Field research: (please, highlight the fields that define the position)

Computer science

Bioengineering

Environmental science

Mathematics

Medical sciences

Tags (general keywords): #computer vision, #medical imaging, #deep learning, #machine learning

Training and experience /Qualifications

Candidates are expected to:

Have a completed, or close to completion, PhD with strong analytics expertise in any of the following areas: Biomedical Sciences, Computer Science, Engineering, Mathematics, Statistics, Physics or related fields. Additional profiles will be considered if highly motivated researchers in other related disciplines decide to apply.

Experience developing algorithms or building data solutions, and integrating and managing datasets from multiple sources.

Solid programming experience in one or more general purpose programming language: Python, R, Scala.

Hands-on experience using one of the following deep learning libraries: Tensorflow, PyTorch or similar is desirable.

Having first-authored publications in peer-reviewed journals is desirable.

Be willing to work in an interdisciplinary team within a highly collaborative research institute.

Be willing to apply to individual fellowships to become an independent researcher and define new own lines of research.

Key Responsibilities

Development of machine learning & deep learning algorithms to augment clinical decision-making and guide the development of new therapies and diagnostics.

Carry out high-quality research independently.

Help develop robust model training and data infrastructure to support collaborative data science projects at ISGlobal.

Publish research results in scientific journals and in national and international conferences.

Auxiliary task

This job description reflects the present requirements of the **post but may evolve** at any time in the future as duties and responsibilities change and/or develop providing there is appropriate consultation with the post-holder.

This job description is not a definitive or exhaustive list of responsibilities but identifies the key responsibilities and tasks of the post holder. The specific objectives of the post holder will be subject to review as part of the **individual professional assessment process**.

The post holder will adhere to ISGlobal principles contained in **People management policy, including Equity, diversity and health safety**. The post holder will respect, and be accountable to ensure ISGlobal policies and procedures.

Language level

Be fluent in spoken and written English.

Conditions

Duration: 2 years

Starting date: **Immediately**

Contract: **Full Time**

Salary Range: Postdoc A the salary will be according to ISGlobal salaries scale and candidate's experience

During the crisis caused by COVID19, standard working conditions will be adapted to sanitary requirements.

Selection Process

The selection process is designed in two phases:

1 - Interview phase of a technical nature, with the team that requires the incorporation. To assess the person's skills and CV.

2 - Meeting with HR with the finalist(s) to finish assessing the profile and discuss contractual and institutional issues.

If needed, any technical test could be passed. A Psychological Competency Evaluation Test will be required for the structural or transversal positions.

In accordance with the OTM-R principles, a gender-balanced recruitment panel is formed for every vacancy at the beginning of the process. After reviewing the content of the applications, the panel will start the interviews, with at least one technical and one administrative interview. A profile questionnaire as well as a technical exercise may be required during the process.

How to apply:

Applicants must fill in the request form and include the following code reference position: **PD_LIVERAIM_May24**, attach the CV and a Cover Letter. Each attached document must be named with the candidate name and surname.

The receipt of applications will be open until a candidate is selected.

Only the applications submitted through the request form will be considered.

Only shortlisted candidates will be contacted.

Please contact paula.petrone@isglobal.org for questions about this position.

Diverse candidacies are welcome, that includes: gender, race, ethnicity, religion, age, sexual orientation, physical abilities, and political views.

In ISGlobal we are committed to maintaining and developing a work environment in which the values and principles of our organization are respected and equal opportunities between women and men be promoted in each of the areas in which we operate, not tolerating discrimination based on criteria such as age, gender, marital status, race, ethnicity, functional diversity, political leanings, religion, sexual orientation, gender identity or gender expression.

ISGlobal supports the initiative **#ScienceforUkraine**. Therefore, to sustain Ukraine's presence in the European Research Area and international scholarly community, candidates from Ukraine on all levels of scholarly career are welcome: students, PhD candidates, early career researchers and senior scholars.

We confirm our commitment towards the value of the diversity of our staff and student population and seek to promote peace, equity, diversity and inclusion as essential elements in contribution to improving health worldwide.