

Position Offered: PREDOCTORAL RESEARCHER

Project: *Broad transformation of CSIC Digital Capabilities through dedicated AI support from BCBHub*

Technological and scientific fields: Artificial Intelligence, High-Performance Computing, Edge Computing, Data Analysis and Integration, Ethical Aspects of AI, Green Algorithms

Location: Paterna, Comunidad Valenciana, I2SYSBIO, <https://www.uv.es/instituto-biologia-integrativa-sistemas-i2sysbio/es/instituto-biologia-integrativa-sistemas-sysbio.html>

Research Group/PI: Genomics of Gene Expression, Ana Conesa, <http://conesalab.org/>

PROJECT SUMMARY

The project aims to address the needs for improvement, standardization, and FAIRification of the bioinformatics tools of the CSIC Bioinformatics Community and the workflows of their Bioinformatics Services. A detailed study and implementation of workflow control applications (Netwflow, n-flare, Snakemake), containerization systems (Docker, Singularity, Conda), and the most suitable parallelization for the tools will be carried out. Solutions will be developed for the incorporation of artificial intelligence functionalities into them and intelligent systems for training, monitoring, and publication.

PROFESSIONAL PROFILE

Minimum requirements:

- Higher degree in Computer Science or Engineering with a Master's degree in Bioinformatics, Biotechnology, Molecular Biology or similar.
- English proficiency.

Merits to be considered:

- Knowledge of programming languages used in Bioinformatics such as R, Perl, Java
- Previous experience in Bioinformatics
- Basic knowledge of biology.
- Knowledge of Systems Administration and machine learning methods

WHAT IS OFFERED

Incorporation into the PhD program in Information Technologies, Communications, and Computing at the University of Valencia, with a training package of 240 credits that includes two stays abroad and attendance at international courses and conferences. The program offers extensive and diverse training in the field of bioinformatics, led by top researchers in this area within CSIC. This training includes elements of artificial intelligence, analysis of genomic and molecular data, development of user-friendly software for the scientific community, and standardization of workflows. Additionally, the candidate will be integrated into the Computational Biology and Bioinformatics Connection (BCB), which will allow them to get to know and interact firsthand with the entire scientific community of CSIC in BCB. Specifically, the person will develop their thesis by integrating into a research center in Systems Biology and Bioinformatics, which is multidisciplinary and international in nature, comprising engineers, biotechnologists, bioinformaticians, biologists, physicists, and mathematicians.

Contract conditions:

Predocctoral Researcher contract of 4 years' duration. Gross annual salary of 23,871.33 €.

Start of contract: before 31 December 2024

PRINCIPAL INVESTIGATOR CONTACT

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