

Position Offered: POSTDOCTORAL RESEARCHER

Project: *Analysis and integration of massive sequencing and imaging data for the study of gene expression in eukaryotes.*

Technological and scientific fields: Computational Biology, Image Analysis and Computer Vision, Data Analysis and Integration, Artificial Intelligence, High-Performance Computing

Location: Valencia, Valencian Comunity, IBV <https://www.ibv.csic.es>

Research Group/PI: Gene Expression and RNA metabolism, Susana Rodríguez Navarro

PROJECT SUMMARY

The study of gene expression regulation has advanced significantly thanks to the massive acquisition of multiomic data. This progress relies on new methods and specialized software, posing a challenge for the training of scientists with digital skills. In functional studies, these data are combined with advanced microscopy techniques. Automating the analysis and integration of omic and microscopy data requires learning new techniques combined with artificial intelligence and high-performance computing. The project will develop a specialized profile in the integration of multiomic data and advanced microscopy analysis to further the understanding of gene expression.

PROFESSIONAL PROFILE

Minimum requirements:

PhD in Biomedicine or similar. Bachelor's Degree in Biology or similar. Basic knowledge of microscope confocal microscopy and live imaging.

Merits to be considered:

PhD in Biomedicine. Master's degree in Molecular Biology, Cell Signaling and Research, or a related field. Experience in molecular biology laboratories and working with microorganisms, especially yeast. Experience in epifluorescence and confocal microscopy, including in situ and in vivo immunofluorescence and real-time imaging (time-lapse), as well as techniques such as BiFC and FRAP. Experience in microscopy image analysis using software such as ImageJ/Fiji, ZEN Blue, LAS X, etc. Experience in molecular biology techniques such as PCR, RT-PCR, cloning, and biochemical techniques such as Western blot, etc. Experience in flow cytometry.

WHAT IS OFFERED

The project will train in digital skills for the integration of omic data and image analysis, increasing the researcher's competitiveness and innovation. The group has experience in obtaining and analyzing omic data and collaborates with international leaders. Training stays will be conducted for both data integration and image analysis through the integration of Arivis with artificial intelligence and high-performance computing. The IBV has the infrastructure and resources to support this learning. Additionally, the hired person will complete a total of 240 ECTS through stays, courses in multiomic integration, statistics, continuous training in digital skills, and training in ARIVIS software.

Contract conditions: 33 months remaining of the

Indefinite contract for a University Graduate associated with the Momentum Project of 4 years' duration according to Spanish science law. Gross annual salary (37.000 € - 41.000 €).

Start of contract: before 15 may 2026

PRINCIPAL INVESTIGATOR CONTACT

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