

## **Job Offer: Bioinformatician (Postdoc or Master's)**

**Institution:** Instituto de Investigaciones Biomédicas Sols-Morreale CSIC-UAM

**Location:** C/ Arturo Duperier 4, 28029 Madrid, Comunidad de Madrid, Spain

**Research Group / PI:** Machine Learning for Biomedical Imaging Analysis and Multi-Omics Integration, Dr. María Alieva

**Group Website:** [www.imAIgene-lab.com](http://www.imAIgene-lab.com)

### **Project Summary:**

At the Instituto de Investigaciones Biomédicas Sols-Morreale CSIC-UAM, we are developing an innovative project to analyze morphological alterations in tumor cells using advanced videomicroscopy techniques. These alterations include changes in cell migration, invasion, and proliferation, which are characteristic of more aggressive tumors. As these morphological features become increasingly relevant in cancer diagnostics, there is a growing need for advanced digital tools capable of handling the complexity of morphological data and image artifacts.

Our goal is to develop automated tools for processing and analyzing videomicroscopy data, utilizing artificial intelligence for tasks such as segmentation, tracking, and classification of individual cells. The project will also explore unsupervised learning techniques, dynamic network analysis, and temporal modeling to better understand tumor heterogeneity and its impact on tumor aggressiveness and therapy resistance.

### **Professional Profile:**

#### **Minimum Requirements:**

- Master's degree in Biomedicine, Bioinformatics, Computational Biology, Biostatistics, Data Science in Artificial Intelligence, Biomedical Physics, Big Data, Deep Learning, Image Analysis, or related fields.

#### **Desirable Qualifications:**

- Knowledge of English.
- Previous experience in image data analysis.
- Previous experience in Artificial Intelligence.

#### **What We Offer:**

- **Development Opportunity:** Engage in an interdisciplinary project, collaborating with computational and biomedical teams to implement advanced microscopy analysis tools.
- **Additional Training:** The hired candidate will undertake two three-month training stays with bioimaging specialist groups, totaling 40 ECTS. Additionally, the candidate will complete 90 ECTS in digital skills and 20 ECTS in complementary training in areas such as microscopy, spatial analysis, and data visualization.
- **Contract:** Permanent contract as a Senior Researcher associated with the Momentum Project, lasting 4 years, in accordance with Spanish Science Law. Gross annual salary between €37,000 and €41,000.

- **Start Date:** Before December 31, 2024.

**Application (Deadline: August 15):**

- Please send your CV and cover letter to [malieva@iib.uam.es](mailto:malieva@iib.uam.es)

We look forward to your application!