

# Position Offered: PREDOCTORAL RESEARCHER

Project: *DigiAcuaSOS: Application of digital tools and artificial intelligence techniques for the development of sustainable and precise aquaculture in the context of climate change*

**Technological and scientific fields:** Aquaculture, Digital tools for aquaculture, Computational biology, Bioinformatics, Massive data integration, Artificial Intelligence

**Location:** Cabanes, Castellón, Institute of Aquaculture Torre de la Sal (IATS), <https://iats.csic.es/>, <https://nutrigrup-iats.org/>

**Research Group/PI:** Nutrigenomics and Fish Growth Endocrinology Group, PI: Jaume Pérez Sánchez, <https://nutrigrup-iats.org/>; Co-PI: Juan Alberto Falcó Graciá

## PROJECT SUMMARY

Aquaculture is the fastest growing animal production sector in the world, but it faces threats such as production intensification, climate change and pollution. The diversity and confluence of factors involved widen the range of possible scenarios, requiring holistic and versatile solutions to address this complexity. One approach to meet this challenge is the implementation of new (micro)electronic and digital technologies, already available by the PI of this proposal, for the development of advanced tools with massive, automated and continuous capacity for the acquisition, recording, integration and analysis of multifactorial data, with the ultimate goal of improving the monitoring, management and forecasting of aquaculture production in real time.

## PROFESSIONAL PROFILE

### Minimum requirements:

- Degree in biology/biotechnology and knowledge of bioinformatics.
- Master's degree in Bioinformatics, Biostatistics or equivalent.
- English comprehension/writing skills and scientific motivation.

### Merits to be considered:

- Programming language skills (Python, R, SQL, Java).
- Knowledge of code control (Linux, Git, Nextflow, Nf-core).
- Experience in data analysis (omics and big data) and statistics.
- Web application development is a plus.

## WHAT IS OFFERED

An employment contract is offered, under the conditions described herein, for the development of a doctoral thesis and training in digital literacy applied to aquaculture. This specialized training will be official and will consist of a series of courses related to the tasks proposed in the project, concerning database design, statistical analysis and artificial intelligence, programming, use and management of computational resources and multi-omics integration. He/she will also carry out several stays of at least 3 months in national and international reference facilities, in addition to attending specialized congresses in aquaculture, hologenomics and bioinformatics.

### Contract conditions:

Predoctoral 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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