

Position Offered: POSTDOCTORAL RESEARCHER

Project: *Development and improvement of computational tools and platforms for understanding the function, structure and evolution of genomes*

Technological and scientific fields: Data Analysis and Integration; Big data and information processing technologies, Computational Biology; High Performance Computing Cloud Computing; Artificial Intelligence, Climate change and biodiversity; Digital tools for agriculture, livestock and aquaculture

Location: Barcelona, Catalonia, Instituto Botánico de Barcelona, www.ibb.csic.es

Research Group/PI: Evolutionary and Functional Genomics, Josefa González, www.gonzalezlab.eu

PROJECT SUMMARY

The project focuses on the development of new algorithms and enhancement of available computational tools for integrative data analysis with the aim of gaining a deeper understanding of genome function, structure and evolution. The project also includes the development of a scalable, reproducible, user- friendly platform capable of integrating, analysing and storing genomic, epigenomic, structural and functional data from model and non-model species.

PROFESSIONAL PROFILE

Minimum requirements:

- Doctorate in Biology, in Cell Biology, in Genetics, in Biotechnology, in Bioinformatics, in Computer Sciences, or similar disciplines
- Proficiency in English

Merits to be considered:

- Ability to work in a command line environment, including UNIX/Linux-based systems as well as Windows command prompt. Knowledge of programming in scripting languages, including R, Python and Perl. Knowledge of machine learning and other AI approaches.
- Experience with generating and analyzing NGS data: From filtering, mapping, sorting, etc; to more complex downstream analysis. Knowledge of NCBI tools and databases: Experience downloading, uploading and finding raw and processed data.
- Knowledge of Graphic design, including Adobe Illustrator and Photoshop for figures creation and image edition. Knowledge in data visualisation and graphical user interface.

WHAT IS OFFERED

The candidate will develop research in close collaboration with Conexión GENOMA research groups, including short research stays in their laboratories across Spain. A research stay at a local private company is also planned. Besides the training stays, the training program will include several activities including courses in digital competences and soft skills for a total of 240 ECTS.

Contract conditions:

Indefinite contract for a Postdoctoral Researcher associated to the Momentum Project of 4 years' duration according to Spanish science law. Gross annual salary (41.000 € - 52.000 €).

Start of contract: before 31 December 2024

PRINCIPAL INVESTIGATOR CONTACT

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Financiado por
la Unión Europea
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