Position Offered: UNIVERSITY GRADUATE

Project: *Omic technologies and new computational challenges*

Technological and scientific fields: 1. High computational throughput. 2. Computational biology. 3. Data analysis and integration 4. Artificial intelligence

Location: Alcalá de Henares, Comunidad de Madrid, Ci2A

Research Group/PI: Bioinformatics and omics technologies laboratory/ Jaime Pignatelli Garrigós

PROJECT SUMMARY

In recent years, omics technologies have become common practice in the field of neuroscience. In brain tissue, multiple cell types coexist and interact, defined not only by their function but also by their anatomical position and their connection with other cells in other brain regions. For this reason, the Ci2A bioinformatics unit was created, as an NGS and bioinformatics analysis service specialized in the study of the brain, both in its anatomy and cellular diversity, as well as in its functionality. This represents a challenge within bioinformatics when developing the necessary algorithms to identify each of the cell types that make up a tissue and develop analysis methods that allow analyzing the processes that occur within them in basal conditions or in pathological states. The aim is to fine-tune the analysis of single-cell experiments and spatial transcriptomics of different regions of the brain to study in depth the different cell types that make up the heterogeneity of brain tissue and the interconnections between them.

PROFESSIONAL PROFILE

Minimum requirements:

- Biology, Biotechnology, biomedicine or related University graduate

Merits to be considered:

- Computational knowledge: R, Phyton, Matlab,…
- English level B2 or superior
- Master degree on bioinformatics

WHAT IS OFFERED

The hired person will be trained in the use of different NGS technologies and in the use of specialized software for bioinformatics analysis, through training courses by the unit and by specialized companies: Illumina, Curio Bioscience, etc. The person hired will enjoy training stays abroad and will be part of Core Technologies for Life Sciences (CTLS), a global scientific-technological services association. Participation in periodic meetings of the working group and in national and international conferences specialized in the field of NGS and bioinformatics.

Contract conditions:

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 31 December 2024

PRINCIPAL INVESTIGATOR CONTACT

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