



Pontificia Universidad Católica de Chile
Facultad de Ciencias Biológicas



POSTDOC POSITION IN SINGLE-CELL BIOINFORMATICS



The Epigenetic Regulation group, led by [Dr. Marcela Sjöberg](#), is looking for a highly motivated and skilled bioinformatician to contribute to [PROJECT JAGUAR: Mapping Immune Cell Diversity Across Latin America](#), funded by the Chan Zuckerberg Initiative (CZI). A full-time postdoc position is available to investigate the impact of regional genetic diversity on immune cell gene regulation and to generate the first high-resolution atlas of immune cells in Latin America. This study will contribute data from ancestrally diverse donor tissue samples to the Human Cell Atlas (HCA), an international consortium that is creating comprehensive reference maps of all human cells, as a basis for understanding human health and diagnosing, monitoring and treating disease. <https://www.humancellatlas.org>. The representation of genetic data from samples of non-European ancestry is currently very poor and has major implications for our understanding of human health and immune-modulated diseases. The results of this study will uncover relevant information to health and disease conditions within the region and for the future application of precision medicine in this field locally.

Role description

This scientific endeavour needs an energetic and collaborative postdoc, prepared for:

- _ Working with large single-cell datasets.
- _ Determining appropriate methodologies to conduct multi-omic and cross-comparative analyses of genomic, proteomic, transcriptomic and epigenomic single-cell data.
- _ Applying and improving algorithms and/or machine learning models for the analysis of data.
- _ Contributing to the group's research programme under the guidance of the group leader.
- _ Conducting both individual and/or collaborative research with members of the JAGUAR team.
- _ Assessing research findings for the need/scope of further investigation and experimental validation.
- _ Translating advances in knowledge in the subject area into research activities (publications, software packages, conference presentations etc).
- _ Defining objectives and proposals for own or joint projects linked to the group's research.

Education and training

_ You should hold a PhD in Bioinformatics, Computational Biology, Biostatistics or alike with strong experience in statistics and NGS data analysis.

Professional experience

Essential

- _ You have good knowledge of analysing next-generation sequencing data.
- _ You have experience working with remotely distributed job systems.
- _ You have good knowledge of biological networks.
- _ You are proficient in at least one programming language (Python, Bash, R, Shell).
- _ You have experience with the use of HPC and a workflow management system (Snakemake/ Nextflow).

_You have advanced English writing and good oral communication skills.

Competences

_You have developed good organisation skills.

_You can work within a team to perform multi-omic data integration with other bioinformaticians.

_You have good oral and written communication skills.

Working conditions

_Contract duration: 2.5 years.

_Salary: commensurate with qualifications and equivalent with ANID postdoc pay scale.

_Start date: August 2023.

Application

All applications must be addressed to Dr. Marcela Sjöberg (masjoberg@uc.cl or msjoberg@bio.puc.cl) and must include:

1. A personal statement expressing why you are interested in this position and how it would fit your career goals.
2. A complete CV including contact details.
3. Contact details of two professional references.

Additional information

The Postdoctoral fellow should be willing to travel overseas for a period of 1-2 months for training and collaboration purposes to the **Wellcome Sanger Institute**.

Application deadline:

Please submit your application by **June 30th, 2023**.

Applications will be reviewed as received.

Don't miss the opportunity and apply soon to this competitive position. We provide a highly stimulating environment with ample space for international collaboration, substantial opportunity for training and unique professional career development opportunities!