



BIOMEDICAL SCIENCE FOR THE BENEFIT OF SOCIETY

#### "BIOINFORMATICS DEVELOPER - BIODIVERSITY CELL ATLAS DATABASE"

Centre for Genomic Regulation (CRG)

#### The Institute

The Centre for Genomic Regulation (CRG) is an international biomedical research institute of excellence, based in Barcelona, Spain, with more than 400 scientists from 44 countries. The CRG is composed by an interdisciplinary, motivated and creative scientific team which is supported both by a flexible and efficient administration and by high-end and innovative technologies.

In April 2021, the Centre for Genomic Regulation (CRG) received the renewal of the <u>'HR Excellence in Research'</u> Award from the European Commission. This is a recognition of the Institute's commitment to developing an HR Strategy for Researchers, designed to bring the practices and procedures in line with the principles of the <u>European Charter for Researchers</u> and the <u>Code of Conduct for the Recruitment of Researchers</u> (Charter and Code).

# Please, check out our Recruitment Policy

### The role

The CRG is recruiting a Bioinformatician with experience in genomics pipeline development and database infrastructure. The position will entail developing computational pipelines for the processing of novel and existing single-cell transcriptomic datasets from diverse species across the tree of life, as well as developing a comparative cell atlas database. The candidate will be a part of a highly interdisciplinary team that includes computational, evolutionary, and molecular biologists in different groups at CRG (including the Bioinformatics Unit), and this project will be developed in very close contact with groups at EMBL-EBI (Hinxton, UK) and at the Earlham Institute (Norwich, UK).

## About the team

Cells are the fundamental units of life – underlying cooperative functions in multicellular organisms and complex temporal life cycles in microbial eukaryotes. In recent years, the rapid advance in single-cell genomics technologies, combined with the growing availability of whole-genome sequences, opened up the opportunity to systematically map cell types in diverse organisms.

The goal of the Biodiversity Cell Atlas is to articulate a community effort to build whole-organism cell atlases across the diversity of life, working in a phylogenetically informed way, supported by high-quality genomes, and using shared standards that make comparisons across diversity possible. This coordinated effort should boost our understanding the evolution and diversity of life at cellular resolution: from gene regulatory programs, through cell type molecular profiles, to biological interactions between species.

At CRG, and together with EBI and the Earlham Institute, we are developing the computational infrastructure to host a multi-species database for the Biodiversity Cell Atlas initiative. This will enable the interactive exploration of cell type molecular maps, gene co-expression profiles across evolution, comparison of cell types across species, and more.

For further information, you can directly email <a href="mailto:arnau.sebe@crg.eu">arnau.sebe@crg.eu</a>











# **Professional experience**

## **Must Have**

- Experience working with genomics data
- Experience developing bioinformatics pipelines
- Proficiency in Python, R, and Linux.

### Desirable but not required

- Experience in relational databases (e.g. SQL)
- Experience in single-cell data analysis
- Experience in webserver development
- Experience in comparative genomics

## **Education and training**

A bachelor/master's degree in bioinformatics, Computer Science or related disciplines

### Languages

· You are fluent in English

### **Technical skills**

- Advanced R and Python programming
- Containers (e.g. Docker, Singularity)
- Workflow management systems, particularly Nextflow

### **Competences**

- Highly developed organization and coordination skills
- Dedication, motivation, and rigor in scientific pursuits
- Capacity to work both independently and as part of a team

### **The Offer - Working Conditions**

- **Contract duration:** Technical and scientific activities contract linked to the project (estimated until 15/10/2026)
- **Estimated annual gross salary:** Salary is commensurate with qualifications and consistent with our pay scales.
- Target start date: May 2024

We provide a highly stimulating environment with state-of-the-art infrastructures, and unique professional career development opportunities. To check out our training and development portfolio, please visit our website in the training section.

We offer and **promote a diverse and inclusive environment** and welcomes applicants regardless of age, disability, gender, nationality, ethnicity, religion, sexual orientation or gender identity.

The **CRG** is committed to reconcile a work and family life of its employees and are offering extended vacation period and the possibility to benefit from flexible working hours.

## **Application Procedure**

All applications must include:

- 1. A motivation letter addressed to Dr Sebe-Pedros
- 2. A complete CV including contact details.
- 3. Contact details of two referees.







All applications must be addressed to Dr Sebe-Pedros and be submitted online on the CRG Career site - <a href="http://www.crg.eu/en/content/careers/job-opportunities">http://www.crg.eu/en/content/careers/job-opportunities</a>

### **Selection Process**

- **Pre-selection**: The pre-selection process will be based on qualifications and expertise reflected on the candidates CVS. It will be merit-based.
- Interview: Preselected candidates will be interviewed by the Hiring Manager of the position and a selection panel if required.
- Offer Letter: Once the successful candidate is identified the Human Resources department will send a Job Offer, specifying the start day, salary, working conditions, among other important details.

Deadline: Please submit your application by April 30, 2024

The contract founded by the Moore Foundation.



**Suggestions:** The CRG believes in **ongoing improvement** and promotes a **culture of feedback**. This is one of the reasons we have in place, at your disposal as a candidate, a mechanism to gather your suggestions/complaints concerning your candidate experience in our recruitment processes. Your feedback really matters to us in our aim at creating a **positive candidate journey**. You can make a difference and help us improve by letting us know your suggestions through the <u>following form</u>.



