



centre nacional d'anàlisi genòmica  
centro nacional de análisis genómico



## “Spatial Genomics – Computational Biologist”

### *Centro Nacional de Análisis Genómico (CNAG-CRG)*

#### The Institute

The Centro Nacional de Análisis Genómico (CNAG-CRG) is one of the largest Genome Sequencing Centers in Europe. CNAG-CRG researchers participate in major International Genomic Initiatives such as the International Cancer Genome Consortium (ICGC), the International Human Epigenome Consortium (IHEC), the International Rare Diseases Research Consortium (IRDiRC) and the European Infrastructure for life-science information (ELIXIR), as well as in several EU-funded projects.

It is integrated with the Centre for Genomic Regulation (CRG), 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 '[HR Excellence in Research](#)' logo 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 [European Charter for Researchers](#) and the [Code of Conduct for the Recruitment of Researchers](#) (Charter and Code).

[Please, check out our Recruitment Policy](#)

#### The role

We are hiring a Computational Biologist to lead projects in immuno-oncology and immuno-therapy. We aim to delineate mechanisms of immune cell infiltration and plasticity in tumors to provide an accurate patient prognosis and a precise prediction of therapy success (patient eligibility). We are looking for an enthusiastic computational scientist, motivated to improve our understanding of immune cell function in tumors and to positively impact on cancer patient lives. Together, we aim to bring single-cell and spatial genomics applications into clinical use and to advance pathology assessment with high-dimensional genomics readouts (next-generation pathology).

The candidate will be integrated in the Single Cell Genomics Team, a highly collaborative, international work environment with well-experienced colleagues in single-cell and spatial data generation and analysis. The projects the candidates will be involved in aim to understand the molecular and cellular basis of immuno-therapy action through the application of multi-omics single-cell and spatial technologies on clinical samples. Your tasks include the analysis of multi-modal single-cell and spatial data and the development of statistical methods to integrate multi-omics, spatial and clinical patient information.

We are looking for highly motivated and a creative thinking individual who is interested in working in an environment where the technical sophistication of single-cell and spatial technologies meets innovative approaches for interpreting data and generating new knowledge. We require the ability for working in a multi-disciplinary team on collaborative projects. We encourage application from all career stages and prioritize applications from under-represented minority groups.



centre nacional d'anàlisi genòmica  
centro nacional de análisis genómico



## About the team

The Single Cell Genomics Team at the CNAG-CRG is dedicated to advance genome research of single cells. The mission of the group is the implementation of latest single-cell and spatial sequencing technologies and their application in a research and translational contexts. The group focuses on the systematic integration of transcriptional and epigenetic data from individual cells to elucidate causalities underlying phenotype formation in health and disease. We successfully established protocols to quantify gene expression and open chromatin of hundred-thousands of isolated single cells (10x Chromium X, 10x Chromium Connect, MissioBio Tapetri, etc) or in tissues (Nanosttring CosMx, BGI Stereo-seq, 10x Visium).

Our newly developed computational pipelines include methods to deconvolute tissue composition and to track transcriptional dynamics. Our international team joins computational, technical and biological knowledge in order to promote creative thinking while establishing best practices in single-cell and spatial research. The group combines collaborative research, development activities and follows research lines on the generation of human cell atlases and immuno-oncology. We are member of the Human Cell Atlas Project and the LifeTime Initiative. Web: <http://www.cnag.cat/teams/genome-research-unit/single-cell-genomics-team>

## Whom would we like to hire?

### Professional experience

#### Must Have

- You have experience in single-cell data analysis.
- You have excellent knowledge of Computational Biology.

### Education and training

- You have completed a Master or PhD in Bioinformatics, Mathematics, Statistics or similar.

### Languages

- You are fluent in English.

### Technical skills

- You are highly competent in Python, Perl or R.

### The Offer

- **Contract duration:** 3 years
- **Estimated annual gross salary:** Salary is commensurate with qualifications and consistent with our pay scales
- **Target start date:** 01/06/2023

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.



centre nacional d'anàlisi genòmica  
centro nacional de análisis genómico



## Application Procedure

All applications must include:

1. A motivation letter addressed to Dr Holger Heyn.
2. A complete CV including contact details.
3. Contact details of two referees.

All applications must be addressed to Dr. Holger Heyn and be submitted online on the CRG Career site - <http://www.crg.eu/en/content/careers/job-opportunities>

## 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 People department will send a Job Offer, specifying the start day, salary, working conditions, among other important details.

**Deadline:** Please submit your application by April 15<sup>th</sup>, 2023

**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 [following form](#).

This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement N° BCLLatlas-810287).



HR EXCELLENCE IN RESEARCH

European Research Council

