"Post-doctoral Research Position – single cell RNA Analysis"

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), the Human ell Atlas, 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 have an opening for a Post-doctoral Researcher through the EU-funded project PeCan (Parameterisation of large scale cancer models for personalised therapy of triple negative breast cancer). The PeCan project uses forward genetic strategies (CRISPR-Cas9 deletions, CROP-seq) with single cell readouts to understand the action of key driver genes in triple negative breast cancer. Topics for the Post-doctoral Researcher will include bioinformatic analysis of single cell RNA sequencing experiments and interpretation of results. We are looking for a highly motivated and creative thinking person who is interested in working in an environment with high technical sophistication.
The selected candidate is also expected to participate in the PeCan network, collaborate with members from the PeCan project, support project reporting and writing of manuscripts.

About the team

The successful candidate will be integrated into the PeCan project of the Biomedical Genomics Group lead by Dr. Ivo Gut and Single Cell Genomics Team lead by Dr. Holger Heyn.

Dr. Ivo Gut is the CNAG-CRG director and head of the Biomedical Genomics Group. He coordinates the ERC Synergy project BCLL@las and the European Advanced Sequencing Infrastructure project (EASI-Genomics), funded by the European Commission. Dr. Ivo Gut participates in H2020 projects B-CAST, SPIDIA-4P, ELIXIR-ACCELERATE, SOLVE-RD, EJP-RD and EuCanCan. In addition, the CNAG-CRG participates in major Spanish initiatives in Personalized Medicine such as the PERIS projects MedPERCAN and URDCat, the 1,000 Catalan Genomes project, and the Navarra project on personalized medicine. The Biomedical Genomics Group focusses on furthering the understanding of diseases using different types of genomic data, novel statistical approaches and bioinformatics. Big data approaches are used to identify patterns on genome, transcriptome and epigenome level that correlate with a disease and the evolution across the

course of the disease. The objective is to answer questions that go beyond the initial hypotheses that underlay the studies to shed light on how genome sequence, structure and usage relates to disease, disease initiation, disease progression and disease mechanisms. The group also studies genomic features related to disease at different cellular levels. The disease areas range from rare to common disorders including cancer.

Web: https://www.cnag.crg.eu/teams/genome-research-unit/biomedical-genomics-group

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 single-cell sequencing technologies and their application in a research and translational context. The group focuses on the systematic integration of transcriptional and epigenetic data from individual cells to elucidate causalities underlying phenotype formation. We successfully established sequencing protocols to quantify gene expression and open chromatin of thousands of single cells. Our newly developed computational pipelines include methods to deconvolute tissue composition and track to transcriptional dynamics. Our international team joins computational, technical and biological knowledge in order to establish and apply best practices in single-cell research. The group combines collaborative research, development activities and follows research lines on the generation of human cell atlases and on translational cancer research. We are member of the Human Cell Atlas Project.

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 good knowledge of analysing next-generation sequencing data
- You have experience working with remote distributed job systems (e.g Slurm)

Education and training

- You hold a PhD in Bioinformatics, Mathematics, Statistics or similar

Languages

- You are fluent in English

Technical skills

- You have good knowledge of biological networks
- You are competent in R or Python

Competences

- You have highly developed organization skills
- You are good at communicating with other scientists
- You have a strong ability to multi-task

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The Offer – Working Conditions

- **Contract duration:** 2 years.
- **Estimated annual gross salary:** Salary is commensurate with qualifications and consistent with our pay scales.
- **Target start date:** October 2021.

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. Ivo Gut.
2. A complete CV including contact details.
3. Contact details of two referees.

All applications must be addressed to Dr. Ivo Gut 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 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 August 30th, 2021.

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.

HR EXCELLENCE IN RESEARCH

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