

BIOMEDICAL SCIENCE FOR THE BENEFIT OF SOCIETY

"Postdoc – Decoding the genetics of young-onset diabetes"

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 that is supported both by a flexible and efficient administration and by high-end and innovative technologies.

In September 2026, the Centre for Genomic Regulation (CRG) received the renewal of the 'HR Excellence in Research' 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 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 looking for a postdoctoral researcher to lead the discovery of new genetic mechanisms of diabetes in two large whole-genome sequencing cohorts led by the host lab. The first comprises more than 1,300 index patients with a presumptive diagnosis of orphan monogenic diabetes; the second, assembled through the Spanish IMPACT-T2D consortium, comprises more than 1,000 patients with early-onset, non-obese type 2 diabetes. Together they offer an opportunity to find new causal variation mechanisms of disease, including non-coding genome defects.

The post will entail leading analysis of these datasets, working alongside colleagues who develop and apply advanced genomic tools to interpret the functional consequences of non-coding variation in human disease, providing opportunities to take findings through to mechanism.

About the lab

The laboratory in the Computational Biology and Health Genomics programme at CRG, in a collaborative environment with computational, human genetics, single-cell genomics and machine learning groups.

The lab combines genetics and genomics to understand how pancreatic β cells are programmed, and uses that knowledge to open therapeutic avenues. Recent work from the lab includes the discovery of a β-cell transcription–splicing axis driven by HNF1A, showing how a gene mutated in monogenic diabetes also plays a key role in polygenic type 2 diabetes (Bernardo et al., Cell Metab 2025). In related work the team uncovered a lncRNA promoter that acts as a cis-regulatory element to dial the transcription of HNF1A, and thereby safeguards the fidelity of a cell-specific transcription factor program (Beucher et al., Nat Cell Biol 2022; Ferrer, Nat Rev Mol Cell Biol 2024). Using mouse and human models, the team showed how point mutations in a single enhancer cause a severe pancreatic developmental defect (Miguel-Escalada et al., Dev Cell 2022).

Whom would we like to hire?

Professional experience

Must Have

- You have a PhD in statistical genetics, human genetics or a closely related field

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- You have proven experience in statistical genetics or in the analysis of human genome or exome sequence data, including quality control, variant calling and association or burden testing
- You are comfortable working in a Unix environment and programming in R, Python or an equivalent language
- You have a track record of independent scientific work, evidenced by first-author publications or preprints
- You are fluent in English

Desirable but not required/ Nice to have

- Experience with rare-variant analysis, or with the interpretation of non-coding variation
- Experience integrating genetic data with functional genomic data such as chromatin accessibility, transcriptomes or chromatin conformation
- Experience with workflow managers (Nextflow, Snakemake) and with high-performance computing environments
- Experience working with clinically annotated cohorts and with controlled-access human data

Education and training

- You hold a PhD in a quantitative or genomic discipline, obtained or expected before the start date

Languages

- You are fluent in English, written and spoken
- Spanish or Catalan are not required; the working language of the laboratory is English

Technical skills

- You are proficient in R, Python or an equivalent language, and comfortable with version control and reproducible analysis practices
- You have experience with standard genomic file formats and variant analysis toolchains

Competences

- Scientific independence, and the ability to carry a project from question to publication
- Rigour and care with data, including attention to quality control and reproducibility
- Clear written and spoken communication of quantitative results
- A collaborative disposition, and willingness to work across computational and experimental teams

The Offer – Working Conditions

- **Contract duration**: Technical and scientific activities contract linked to the project (estimated 24 months)
- **Estimated annual gross salary:** Salary is commensurate with qualifications and consistent with our pay scales
- **Target start date**: Flexible, estimated first trimester 2027

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.

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Application Procedure

All applications must include:

1. A motivation letter addressed to Jorge Ferrer.
2. A complete CV including contact details.
3. Contact details of two referees.

All applications must be addressed to Jorge Ferrer 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 15/01/2027

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 position is supported by the AXA Research Fund through the AXA Chair in Risk Prediction in Age-Related Diseases

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