



BIOMEDICAL SCIENCE FOR THE BENEFIT OF SOCIETY

## “PhD Studentship - Regulatory Genomics and 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 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](#)' 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 invite applications for a PhD student position to develop a project focused on understanding transcriptional regulatory mutations that cause human diabetes.

The successful applicant will be funded during the initial two years by ENHPATHY, a Marie Skłodowska-Curie Innovative Training Network (ITN). ENHPATHY includes 12 academic and 3 non-academic European organisations that offer training projects in transcriptional regulation, enhancers, and human disease. ENHPATHY and the host institution CRG offer a rich complementary training program that supports acquiring a variety of hard and soft skills, as well as opportunities for secondments in other labs in the training network. The applicant will form part of the retreats, training workshops, summer courses, and conferences organized by ENHPATHY. Given that the two-year post is not expected to fund the entire duration of the PhD project, the host lab will fund the salary for at least one additional year.

The PhD project will attempt to understand why mutations in some transcriptional enhancers cause human disease. It will focus on human mutations pancreatic beta cell enhancers that cause diabetes. The candidate can choose one of two possible projects. One will use genome editing tools to introduce mutations in stem-cells, which are then differentiated to beta cells. It will also model enhancer activity and mutations in episomal contexts. The project and training programme will provide opportunities for learning to analyze large scale sequencing datasets from these experiments. Another option for applicants who already have a background in programming and statistics, is to apply for a PhD project that is fully or largely based on computational genomic analysis of high-throughput datasets, including single cell genomics, but also focused on understanding enhancer mutations in disease.

#### About the lab

The Regulatory Genomics and Diabetes lab studies the basis of gene regulation in pancreatic beta cells, and deploys this knowledge to discover genetic causes and treatments for human diabetes. It is a multidisciplinary team that currently includes 4 computational scientists with varied interests (human genetics, genetics of gene regulation, regulatory genomics, network biology) and 6 experimental scientists.





Relevant published work from the team can be found in <https://www.crg.eu/es/programmes-groups/ferrer-lab#block-block-2>. The lab has led studies that used regulatory maps in pancreatic islets to show how genetic regulatory DNA variants influence type 2 diabetes, built maps of the developing pancreas that helped uncover disease mutations and mechanisms of development, and characterized noncoding RNAs and their possible role in diabetes.

The team is funded by, and forms part of, international consortia such as ESPACE, an EU-funded Human Cell Atlas project to define single cell genomic profiles of pancreatic cells, and ENPATHY. It is funded by an Advanced ERC grant and the Spanish Ministry of Science.

### Whom would we like to hire?

#### Professional experience

##### Must Have

- You have some research experience in molecular biology, cell biology, or computational data analysis
- Fellowship requirements:
  - Be within 4 years of the research career, and not have received a doctoral degree
  - You cannot have resided or held their main activity (work, study) in Spain for more than 12 months in the 3 years before the recruitment date. You may be of any nationality

#### Education and training

- You hold a MSc (or equivalent experience) in cell & molecular biology, biotechnology, bioinformatics, or related fields

#### Languages

- You are fluent in English

#### Competences

- You have highly developed organization skills
- You have dedication, motivation, and rigor in scientific pursuits
- You have ability to pay attention to detail

#### The Offer – Working Conditions

- **Contract duration:** 2 years fellowship with possibility of extension for at least 1 year to complete the project.
- **Estimated annual gross salary:** Salary is commensurate with qualifications and consistent with our pay scales.
- **Target start date:** As soon as possible.

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.

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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. Jorge Ferrer.
2. A complete CV including contact details.
3. Contact details of two referees.

All applications must be addressed to Dr. 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 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 September 30<sup>th</sup>, 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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