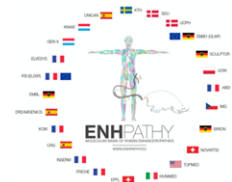


12/07/2021



# 1 PhD position in the ENHPATHY Innovative Training Network (Marie Skłodowska-Curie MSCA- ITN Project 860002)



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Where to apply

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Application Deadline: September 30th – Europe/ Barcelona

## COMPANY

Centre de Regulacio Genomica

## E-MAIL

jorge.ferrer@crg.eu



## Hiring/Funding Organisation/Institute

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**ORGANISATION/COMPANY**

Centre de Regulacio Genomica

**COUNTRY**

Spain

**ORGANISATION TYPE**

Research organization

**CITY**

Barcelona

**WEBSITE**

[Centre for Genomic Regulation Website \(crg.eu\)](http://Centre for Genomic Regulation Website (crg.eu))

**STREET**

Carrer del Dr. Aiguader, 88, 08003  
Barcelona

**E-MAIL**

jorge.ferrer@crg.eu

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**ORGANISATION/COMPANY**

Centre for genomic regulation

**LOCATION**

Spain › Barcelona

**RESEARCH FIELD**

Biological sciences  
Computer science  
Medical sciences

**TYPE OF CONTRACT**

Temporary

**RESEARCHER PROFILE**

First Stage Researcher (R1)

**JOB STATUS**

Full-time

**APPLICATION DEADLINE**

September 30 - Europe/Barcelona

**HOURS PER WEEK**

35

**EU RESEARCH FRAMEWORK PROGRAMME**

H2020 / Marie Skłodowska-Curie  
Actions

**MARIE CURIE GRANT AGREEMENT NUMBER**

860002

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ENHPATHY: training the new generation of researchers on the molecular basis of human enhanceropathies.

One position is available for a 2-year PhD program funded by the Marie Skłodowska-Curie Innovative Training Network (ITN) ENHPATHY. Candidates with bioinformatics, genomics and/or molecular and cellular biology backgrounds are encouraged to apply. The host lab offers opportunities to extend this period for one or two years to complete a full PhD thesis in the Centre for Genomics Regulation and Universitat Pompeu Fabra.

ENHPATHY is a multidisciplinary science consortium created in the frame of the Marie Skłodowska-Curie actions (MSCA)-ITN-ETN European Training Networks call and regrouping 12 academic and 3 non-academic European organisations in the continuum of basic, translational and clinical research on enhancers and associated diseases.

Most of what we now know about mutations that cause Mendelian disease has focused on the analysis of mutations that disrupt protein-coding gene. The successful applicant will develop a project 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 project will use genome editing tools in stem-cells that are then differentiated to beta cells,. It will also deploy tools that model enhancer activity and mutations in episomal contexts. The project will provide opportunities for learning to analyze large scale sequencing datasets from these experiments. For applicants who already have a background in programming and statistics, it is possible to apply for a PhD project that is full or largely based on computational genomic analysis of high-throughput datasets, including single cell genomics, also focused on understanding enhancer mutations in disease.

The host lab is located in 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. The host lab aims to understand the basis of gene regulation in pancreatic beta cells, and to deploy 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) and 6 experimental scientists, some of which carry out experimental and computational work.

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 (Gaulton et al, Nature Genetics 2010, Pasquali et al, Nature Genetics 2014, Miguel Escalada et al, Nature Genetics 2019), built maps of the developing pancreas that helped uncover disease mutations and mechanisms of development (Cebola Nat Cell Biol 2015,

Weedon et al Nature Genetics 2014), and characterized noncoding RNAs and their possible role in diabetes (Moran et al, Cell Metab 2012, Akerman et al Cell Metab 2017, Beucher et al, Biorxiv, 2021).

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, or ENPATHY, the training network that funds this position.

**Benefits:**

1. Students will be employed by the host organization for the duration of their PhD
2. They will receive a competitive salary and travel allowance
3. They will benefit from an extensive training program in research and transferable skills
4. As part of an international network, they will participate in joint activities within the program (retreats, training workshops, summer schools and conference) and visit other organizations within the

**Eligibility criteria:**

1. Applicants can be of any nationality
2. They must fulfil the mobility rule, i.e. have resided or carried out their main activity (work, studies, etc.) in the country of the host organization for no more than 12 months in the 3 years immediately before the recruitment date
3. They must also fulfill the Early Stage Researchers (ESRs) rule, i.e. be within their first four years of their research careers at the date of recruitment by the host organization and have not been awarded a doctoral degree
4. They must hold a Master's degree (MSc) in biology, biochemistry, bioinformatics, biophysics, biotechnology, medicine or any other related discipline
5. A high proficiency in spoken and written English is required

**Selection process:**

The selection process will include initial shortlisting of highest ranked applicants, these will be invited for an interview. Selected candidates will also have a chance to discuss individually with members of the team, and will be interviewed by scientists from Enhpathy and CRG.