



centre nacional d'anàlisi genòmica  
centro nacional de análisis genómico

# Structural Genomics – PhD student

## Job Offer

### CNAG – The Institute

The Centro Nacional de Análisis Genómico (CNAG) is one of the largest Genome Sequencing Centers in Europe.

The CNAG Consortium aims to carry out large-scale projects in DNA/RNA analysis for the improvement of quality of life in collaboration with the Spanish, European and International Research Community. CNAG researchers participate in major International Genome Initiatives such as the Human Cell Atlas (HCA), the International Cancer Genome Consortium (ICGC), the International Human Epigenome Consortium (IHEC), the International Rare Diseases Research Consortium (IRDiRC), the European Reference Genome Atlas (ERGA) and the European Infrastructure for life-science information (ELIXIR), as well as in several EU-funded projects.

CNAG occupies approximately 1,400 square meters of laboratory and office space and operates 4 Illumina instruments (3 NovaSeq6000 and 1 MiSeq) and 2 large Oxford Nanopore Technologies sequencers (1 PromethION 24 and 1 GridION Mk1) that produce more than 7 Tbases of sequencing data per day. The sequencing operation is supported by an extensive informatics infrastructure: 15 petabyte of data storage, 10.000 computing cores and an internal 56 Gb/s network. The operation is certified ISO 9001 and accredited ISO 17025 and serves to deliver standardized, high-quality data for research and clinics. CNAG has highly developed single-cell operation equipped with a 10x Chromium X, 10x Chromium Connect, MissionBio Tapetri for individual cell analyses and for tissue analysis a Nanostring CosMx, 10x Visium, Stereo-seq, and VUTARA VXL.

The CNAG has more than 100 professionals, structured in different units such Bioinformatics, Sequencing, Single-cell, Research, and Corporate Management.

### The Role

The Structural Genomics Group headed by Marc A. Martí-Renom and hosted at the CNAG and the Genome Biology Program of the CRG is seeking a PhD student for its project HoloGen, a MSCA Doctoral Network that will train the next generation of researchers in the emerging field of hologenomics. Microorganisms living in and on animal hosts impact nearly every biological process, and hologenomics aims to uncover how hosts and microbes interact. Understanding these interactions will transform fields spanning from basic biology to applied science in agrobiolology, biomedicine, and more.

HoloGen brings together experts from 18 partners across Europe (universities, research institutes and industries), and will combine expertise in symbiosis biology, microbial ecology, computational biology, and more. The network will offer the successful candidates an unprecedented learning environment, including a common training program and research visits to both academic and industry partners. For more information, see <https://www.hologen-network.eu>

The applicant is made aware that:

- **The MSCA mobility rule applies to this position: the applicant must not have resided or carried out their main activity (e.g., studies, work, research) in Spain for more than 12 months in the 3 years immediately prior to the call deadline.**

The application for a PhD position at CNAG is at the same time an application for admission to a PhD program at the Universitat de Barcelona (<https://www.ub.edu/portal/web/biology/doctoral-programmes>).

We are looking for a highly motivated and creative thinking individual who is interested in working in an environment where the technical sophistication of structural genomics technologies meets innovative approaches for interpreting data and generating new knowledge. We require the ability for working in a multi-disciplinary context on collaborative projects.

Please, visit our web site at <http://marciuslab.org> to see our work and all publications from the group.

## Whom would we like to hire?

- Bachelor's degree AND master's degree in genomics/genetics or related fields
- Good organizational, prioritizing, communication and interpersonal skills.
- Good spoken and written English.

It would be nice to have:

- Experience with imaging and NGS technologies.

## Specific tasks:

- Development of computational approaches to multiplex imaging.
- Application of existing methods for image analysis.
- Analysis of NGS datasets.

The successful candidate is expected to enter a plan for the progress of the work towards a PhD degree during the first months of the appointment, with a view to completing a doctorate within the PhD scholarship period (4 years).

## The Offer

- **Contract duration: 4 years**
- **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.

We offer and promote a diverse and inclusive environment and welcomes applicants regardless of age, disability, gender,

nationality, race, religion or sexual orientation.

We are committed to reconcile a work and family life for our employees and are offering the opportunity to benefit from annual leave and flexible working hours.

## Application Procedure

All applications must include:

- Motivation letter (maximum 1 page). Please note that applications that lack a motivation letter clearly stating why the candidate is qualified and motivated for this project will be disregarded.
- A complete CV including contact details.
- Contact details of two referees.
- Certified copies of academic diplomas and certificates. (i.e. Diploma, transcript. Diploma supplement for both bache-lor and master). Diplomas, transcripts and diploma sup-plements that are not in Norwegian or English must be up-loaded in the original language. An English translation of these documents must also be attached.
- Additional relevant documentation of professional knowledge (for example, list of scientific works). If it is difficult to judge the applicant's contribution for publications with multiple authors, a short description of the applicant's contribution must be included.

All applications must be addressed to Dr. Marc A. Marti-Renom – [martirenom@cnag.eu](mailto:martirenom@cnag.eu) / [mireya.fernandez@cnag.eu](mailto:mireya.fernandez@cnag.eu)

**Deadline:** Please submit your application by 30/11/2024

**Interview:** Shortlisted candidates may be invited for interview at CNAG during October - November 2024

Please, see all our job opportunities in the Career site of CNAG website: <https://www.cnag.cat/jobs>

**Consortium CNAG**

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