The Barcelona Supercomputing Center - Centro Nacional de Supercomputación (BSC-CNS) is the leading supercomputing center in Spain. It houses MareNostrum, one of the most powerful supercomputers in Europe, and is a hosting member of the PRACE European distributed supercomputing infrastructure. The mission of BSC is to research, develop and manage information technologies in order to facilitate scientific progress. BSC combines HPC service provision and R&D into both computer and computational science (life, earth and engineering sciences) under one roof, and currently has over 500 staff from 44 countries.

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The Life Sciences Department at the BSC integrates the independent research of senior scientists that work on various aspects of computational biology, ranging from bioinformatics for genomics to computational biochemistry and text mining. The Valencia lab is involved in multiple projects in collaboration with experimental groups generating state-of-the-art genomics and epigenomics datasets, actively participating in the International Human Epigenome Consortium and with the general aim of enabling new approaches in personalized medicine. Current efforts involve integration of different types of omics data, with a particular emphasis on epigenomics. We are establishing methods to study genome architecture exploiting interdisciplinary tools such as machine learning and network theory.

The post holder will be able to develop an independent research programme within the broad topics mentioned above, in close collaboration with deep learning and bioinformatics experts within the BSC, as well as with experimentalists and clinicians, participating in various national and international consortia. Current collaborations include groups in Barcelona, Madrid, France and the UK, investigating human
variability and cellular heterogeneity, state-of-the-art chromosome capture approaches, multi-omics datasets and integrative systems biology modeling frameworks.

The Researcher will have access to a powerful HPC environment, and will establish collaborations with experts in different areas both at the local and international levels.

**Key Duties**

1. Integration of omics data using innovative approaches
2. Development of computational methods for the analysis and interpretation of transcriptomics and epigenomics datasets from healthy and disease states
3. Participate in national and international collaborative projects in which the Computational Biology Group is contributing expertise in the area of epigenomics and integrative data analysis

**Requirements**

- **Education**
  - PhD in Biomedicine, Bioinformatics or applied mathematics/physics with demonstrated experience in computational biology
- **Essential Knowledge and Professional Experience**
  - A minimum of 2 years of postdoctoral experience
  - Experience in IT environments
  - Experience working with genomics databases and NGS data
- **Competences**
  - Enthusiasm to develop new approaches
  - Capacity to explore new research lines
  - Fluency in spoken and written English
  - Good communication and presentation skills
  - Ability to work both independently and within a team

**Conditions**

- The position will be located at BSC within the Life Sciences Department
- We offer a full-time contract, a good working environment, a highly stimulating environment with state-of-the-art infrastructure, flexible hours, extensive training plan, tickets restaurant, private health insurance, fully support to the relocation procedures
- Salary: we offer a competitive salary commensurate with the qualifications and experience of the candidate and according to the cost of living in Barcelona
- Starting date: open

**Applications Procedure**

All applications must include:

- A motivation letter with a statement of interest, including two contacts for further references - COMPULSORY - Applications without this document will not be considered
Deadline

The vacancy will remain open until suitable candidate has been hired. Applications will be regularly reviewed and potential candidates will be contacted.

Diversity and Equal Opportunity Employment

BSC-CNS is an equal opportunity employer committed to diversity and inclusion. We are pleased to consider all qualified applicants for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability or any other basis protected by applicable state or local law.

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