



SANT PAU
Campus Salut
Barcelona



Institut
de Recerca
Sant Pau



Postdoctoral Position in

Methylation analyses and omics integration

We are seeking highly motivated and talented Postdoctoral Researchers wishing to further develop their scientific career in the area of **Omics of Cardiovascular Disease** to join our team in **Institut de Recerca Sant Pau, Barcelona**.

The postdoctoral researchers will work within the framework of the ambitious Horizon Europe project UNSOLVED-CARDS (Horizon-HLTH-2026-01-DISEASE-11), coordinated by our Institution, which explores shared and sex-specific mechanisms underlying cardiovascular diseases (CAD, stroke, and AAA) to develop targeted therapies and personalized risk prediction tools. We expect the selected Researchers to have a leading role in the project and its future publications.

We are looking for candidates to lead the methylome-wide analyses, examining the effects of methylation on large populations of cardiovascular disease patients. The successful applicant should be self-motivated, with the ability to work independently as well as in collaborative projects, have excellent written and oral communication skills, and be able to interact effectively and work productively in a team. We are **particularly interested in candidates with a bioinformatics/statistics background who are well acquainted with data analysis and programming and are passionate about research** in general and cardiovascular research in particular. Expertise in methylome analyses will be appreciated.

The position will be jointly hosted by the Genetics of Complex Disease and the Stroke Pharmacogenomics and Genetics groups and will be co-supervised by Dr Maria Sabater Lleal and Dr Israel Fernández Cadenas.

Key Responsibilities & Research Scope:

- Organization of the database and biobanking of genomic and tissue samples
- Bioinformatic analysis of methylation data through EWAS (epigenome-wide association analyses)
- Multi-omic analysis with GWAS (Genome Wide Association) and proteomics meQTLs, pQTM (Protein Quantitative Trait Methylation)
- Sex stratification analysis
- Central role in the management of the whole project
- Leading role in manuscript writing, presentation to scientific meetings and dissemination to broader audiences

Candidate Profile & Requirements:

Essential Requirements:

- PhD in Biotechnology, Biochemistry, Biomedicine, Bioinformatics, biostatistics, or a related discipline.
- Doctoral Degree in fields related to omic analyses
- Fluent in oral and written scientific English.

Key Technical Skills & Desired Experience:

- Ability to work in a team. Previous experience in collaborative research projects or consortia will be valued.
- Demonstrated experience in omic analyses
- R and Python programming skills
- Expertise in R and Python programming and use of omic analytical tools
- Data management, critical thinking, and interpretation capacity

We offer:

- Participation in a European Horizon ambitious project
- Full-time position for 4 years.
- Gross annual salary: ~€35,000 (commensurate with institutional salary scales).
- Dynamic, multidisciplinary, and international research institute (Institut de Recerca Sant Pau), a supporting and stimulating research environment located in the center of Barcelona
- Starting date: January 2027

How to apply:

Interested candidates should send their application by email to **msabater@santpau.cat** and **ifernandezc@santpau.cat** with the subject line: "*Postdoc Application - UNSOLVED-CARDS*".

Please attach:

1. A comprehensive **Curriculum Vitae (CV)** including publication record.

2. A **Cover Letter** describing your research background, technical skills, and motivation for this project.
3. Contact information for **two academic/professional referees**.