



The Vall d'Hebron Research Institute (VHIR) is a public sector institution that promotes and develops the research, innovation and biosanitary teaching of the Vall d'Hebron University Hospital. Through the excellence of our research, we identify and apply new solutions to the health problems of society and we contribute to spread them around the world.



HIR EXCELLENCE = RESEARCH

In April 2015, the **Vall d'Hebron Research Institute (VHIR)** obtained the recognition of the European Commission **HR Excellence**.

This recognition proves that VHIR endorses the general principles of the European Charter for Researchers and a Code of Conduct for the Recruitment of Researchers (**Charter & Code**).

VHIR embraces Equality and Diversity. As reflected in our values we work toward ensuring inclusion and equal opportunity in recruitment, hiring, training, and management for all staff within the organization, regardless of gender, civil status, family status, sexual orientation, religion, age, disability or race.

Postdoctoral Researcher in Cardiovascular Diseases

Cardiovascular Diseases Research Group, VHIR

Vall d'Hebron Research Institute (VHIR) is a public sector institution, located in Barcelona (Spain) that promotes and develops innovative biomedical research at the University Hospital Vall d'Hebron. The Cardiovascular Diseases Research Group generates knowledge on the mechanisms of heart diseases and proposes new diagnostic and therapeutic tools to be applied in patients with cardiomyopathies.

Our group is looking for candidates to apply to several postdoctoral grants (Sara Borrell contracts, etc) within the **Cardiovascular Diseases Research Group**. More information about our group can be found at: <http://www.vhir.org/portal1/grup-presentacio.asp?s=recerca&contentid=186804&idrefer=186805>.

JOB DESCRIPTION

Education and qualifications:

Required:

- PhD in Biology, Biochemistry, Pharmacy, Biomedicine, Veterinary Medicine or a related discipline, obtained later than January 1st, 2018 (according to the conditions established in the Sara Borrell contracts).
- Not having received a previous Sara Borrell contract.
- Good communication skills and fluency in spoken and written English.

Desired:

- *Accredited to work with experimental animals (as the "Training Course in Laboratory Animal Sciences for Scientists responsible for the design or conduct of animal experiments").*
- Strong sense of responsibility, initiative, self-motivation and social skills as key personal abilities.
- Ability to work independently.
- Good publications records.
- Research stages abroad



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Experience and knowledge:

Required:

- Good knowledge on animal physiology, especially in the cardiovascular system.
- Good molecular biology background and experience in molecular biology techniques (Western Blot, PCR, immunofluorescence, etc).

Main responsibilities and duties:

- To develop his/her own translational research project to solve an unmet clinical issue in cardiology. This includes conducting the appropriate experiments (both in in vivo and in vitro animal models), data measurement and interpretation, and statistical analyses.
- To join the research team and collaborate and support other research members in the development of their projects.
- To generate a fruitful discussion within the group

Labour conditions:

- Full-time post-doctoral position: 40h/week.
- Starting date: Immediate following publication of the grant resolution.
- Gross annual salary: Between 30.000 and 35.000 € (according to VHIR labour regulations and the conditions established by the grant holder (as those established in the Sara Borrell contracts, AES2022)).
- Contract: 3 years, and linked to the following project:
 - **Project title:** *Effects of air pollution on the development of arrhythmias, study of mechanisms, and potential strategies for prevention.* (project funded by Instituto de Salud Carlos III, Ministerio de Ciencia, Innovación y Universidades).
 - **Project Summary:**
The global aim of the study is to evaluate the potential role of air pollution in triggering arrhythmias with detrimental effects on health, particularly in vulnerable patients such as those with heart failure. We also seek to



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assess the potential mechanisms involved in the association between air pollution and arrhythmias, and evaluate the impact of implementing interventions addressed to diminish exposure and/or target specific mechanisms. The project embraces a clinical study including patients with heart failure, where the exposure to air pollution will be related to the incidence of arrhythmias, and an experimental study including rats exposed to diesel exhaust particles, in which arrhythmia inducibility, heart rate variability, infarct size after coronary occlusion, and action potential characterization will be assessed after air pollution exposure in combination or not with life-style interventions (exercise, omega-3 fatty-acid enriched diet). The study of mechanisms will include the assessment of oxidative stress and fibrosis, and calcium dynamics in isolated cardiomyocytes. The post-doctoral researcher will be assigned to the experimental project, with the possibility of collaborating in the clinical study if interested. Therefore, the position represents a unique opportunity to work in a truly translational project with social and clinical impact, which will allow the applicant to work in a broad range of in vivo and in vitro techniques and methodologies to study different aspects of the cardiovascular system.

What can we offer?

- Incorporation to Vall d'Hebron Research Institute (VHIR), a public sector institution that promotes and develops the biomedical research, innovation and teaching at Vall d'Hebron University Hospital (HUVH), the biggest hospital of Barcelona and the largest of Catalan Institute of Health (ICS).
- A scientific environment of excellence, highly dynamic, where high-end biomedical projects are continuously developed.
- Continuous learning and a wide range of responsibilities within a stimulating work environment.
- Personal training opportunities.
- Flexible working hours.
- 23 days of holidays + 9 personal days.
- Flexible Remuneration Program (including dining checks, health insurance, transportation and more).

How to apply:

Applicants should submit a full Curriculum Vitae, including a list of publications, and a cover letter with the reference "**VHIR-RRHH-FOR-003_vs01_POST-DOC-CARDIOLOGY**", before March 27th, 2022, to the following email address: antonio.rodriquez.sinovas@vhir.org.

VHIR-RRHH- FOR-003_vs01_POST-DOC-CARDIOLOGY