

The mission of the Catalan Institute of Nanoscience and Nanotechnology (ICN2) is to achieve the highest level of scientific and technological excellence in Nanoscience and Nanotechnology. Its research lines focus on the newly-discovered physical and chemical properties that arise from the behaviour of matter at the nanoscale. ICN2 has been awarded with the Severo Ochoa Center of Excellence distinction for three consecutive periods (2014-2018 and 2018-2022 and 2023-2026). ICN2 comprises 20 Research Groups, 7 Technical Development and Support Units and Facilities, and 2 Research Platforms, covering different areas of nanoscience and nanotechnology.

**Job Title:** Senior Postdoc (NanoANAEMIA)

**Research area or group:** Nanobioelectronics and Biosensors Group

**Description of Group/Project:** The Nanobioelectronics and Biosensors Nanobioelectronics and Biosensors Group at ICN2 is focused on the discovery and technological development of cutting-edge nanotechnology towards diagnostics, food and safety and environmental applications. The group exploits phenomena that occur at the nanoscale in order to generate simple and novel biosensing platforms. They hold a wide expertise in cells, pathogens, DNA, proteins and small molecules detection using both optical and electrochemical approaches.

The main objective of Merkoçi group is to design nanotech devices that can be used even by non-professional people for fast diagnostic at home or doctor's office, control of food quality, safety and security applications where either an emergency exists or an alternative method toward the sophisticated and expensive laboratory instrumentation is being required.

Senior Postdoctoral Researcher contract for 20 months in the framework of the project "Multiplexed nanobiosensor for the instantaneous diagnosis and classification of anaemia at the point of care (NanoANAEMIA)" (PLEC2021-007727).

**Main Tasks and responsibilities:** The researcher will be in charge of supervising and performing the following tasks: a) Selecting the most promising bioreceptors for the detection of the biomarkers indicated by the partners; b) Design, develop, and test the nanobiosensors for each biomarker; c) To develop a nanoshearing protocol to reduce the unspecific binding and interference issues; d) Test and validate the optimized nanobiosensors in complex matrix; e) Develop a multiplexed microfluidic system for the detection of all the biomarkers and a smartphone-based readout platform/app in collaboration with the partners.

**Requirements:**

- **Education:** PhD in Biotechnology, Materials Science, Chemistry, or related disciplines
- **Knowledge:** High level in English
- **Professional Experience:** Demonstrable previous experience as postdoctoral researcher in electrochemical nanobiosensors, electrical engineering, and point of care hardware/software development.
- **Personal Competences:** Ability to work with deadlines, Ability to be creative, proactive in research ideas and activities, excellent communication skills and ability to work within a research group including collaboration with other international teams.

### Summary of conditions:

- Full time work (37,5h/week)
- Contract Length: 20 months
- Location: Bellaterra (Barcelona)
- Salary will depend on qualifications and demonstrated experience.
- Support to the relocation issues.
- Life Insurance.

Estimated Incorporation date: April.

### How to apply:

All applications must be made via the ICN2 website <https://jobs.icn2.cat/job-openings/512/senior-postdoc-nanoanaemia-nanobioelectronics-and-biosensors-group> and include the following:

1. A cover letter.
2. A full CV including contact details.
3. 2 Reference letters or referee contacts.

Deadline for applications: 31/03/2023

### Equal opportunities:

ICN2 is an equal opportunity employer committed to diversity and inclusion of people with disabilities.

ICN2 is following the procedure for contract of people with disabilities according with article 59 of the Royal Decree 1/2015, of 30 of October.