

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 19 Research Groups, 7 Technical Development and Support Units and Facilities, and 2 Research Platforms, covering different areas of nanoscience and nanotechnology.

Job Title: Postdoctoral Researcher

Research area or group: NanoBiosensors and Bioanalytical Applications Group

Description of Group/Project: NanoB2A group focuses on the development of novel nanobiosensor devices based on plasmonics, nanoplasmonics and silicon-based photonics principles, including surface biofunctionalization, microfluidics for automatic fluid delivery and complete lab-on-a-chip integration for point-of-care devices. The application of the nanobiosensor devices in real clinical diagnostics and environmental control is one of the Group's main objectives. The Job is framed within a recent national granted project PLEC2021-007739 entitled Nanophotonic Biosensor for the Diagnosis and clinical management of bacterial infections at the Point of Care. The job will be essentially related to implementing the optical platform developed in the group for the defined target bioapplications, especially focusing on the research line of biofunctionalization and bioassays development. If you are interested in joining to a young, dynamic and highly multidisciplinary team, with a highly innovative research project, this could be your opportunity.

Main Tasks and responsibilities:

The postdoctoral researcher will be involved in building a POC nanophotonic biosensor for multiplexed disease biomarkers diagnostics with outstanding performance and user-friendly operation.

This includes tasks related to the design and engineering of a lab-on-a-chip system incorporating novel multiplexed nanophotonics sensors and innovative polymer microfluidic solutions, evaluation, nanophotonic chip characterization, microfluidics, and integration of required optical and electrical subsystems.

Requirements:

- **Education:** Ph Degree in Physics or Engineering (Optical, Electrical, Telecommunications or similar)
- **Knowledge and Professional Experience:**
 - Background in photonics sensors or biosensors.
 - Knowledge of experimental optical setups implementation.
 - Experience in electronics and software design. Knowledge of microfluidics will be positively considered.
 - Excellent level of English (Fluent in writing and speaking) is required.
- **Personal Competences:** Highly motivated, enthusiastic, proactive, and responsible. Good communication and organization skills.

Summary of conditions:

- Full time work (37,5h/week)
- Contract Length: Temporary (end of project)
- Location: Bellaterra (Barcelona)
- Salary will depend on qualifications and demonstrated experience.

- Support to the relocation issues.
- Life Insurance.

Estimated Incorporation date: as soon as possible

How to apply:

All applications must be made via the ICN2 website <https://jobs.icn2.cat/job-openings/608/postdoctoral-researcher-nanobiosensors-and-bioanalytical-applications> and include the following:

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

Applications will be continuously reviewed.

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.