As a flagship research center in nanoscience and nanotechnology, our mission is to open and explore new frontiers of knowledge at the nanoscale, and bring value to society in the form of new understanding, capabilities and innovation, while inspiring and providing broad training to the next generations of researchers.

Our 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: Research assistant

Research area or group: Advanced Electronic Materials and Devices

Description of Group/Project:

The Advanced Electronic Materials and Devices (AEMD) group focuses on the material sciences and technology aspects of novel electronic materials, with a strong emphasis on graphene as well as other 2D materials (MoS2). The group also works towards the development of technological applications based on these materials such as electronics, bioelectronics and biosensing, neural interfaces, etc.
The activities cut across different scientific aspects, from the fundamentals (the physics of devices and semiconductors) to materials (growth of graphene and MoS2 materials by CVD and MOCVD, surface functionalisation, advanced characterisation), through to devices (fabrication technology, nanofabrication) and applications (neural implants and biomedical technologies, biosensors, flexible electronics).

Main Tasks and responsibilities:

The researcher main role will be in the development of multifunctional devices for electrical and chemical recording. The researcher will receive expert training in graphene electronics technology for neural interfacing, thin-film technology and nanofabrication, growth and characterization techniques and neural data analysis.
The research assistant will specialize in multiple facets of neural interfaces development and validation. Specifically, the researcher will focus on (1) design and development of 2D materials based technology, (2) technology integration towards multifunctional probes (3) the validation of the technologies using in vitro and in vivo methodologies.

Requirements:

- **Education:**
   Master in Materials Science, Nanotechnology, Engineering, Chemistry, Physics, or equivalent degrees
- **Knowledge and Professional Experience:**
   Experience in electronics and electrochemistry
   Experience with micro/nanofabrication and characterization tools (AFM, TEM, SEM, etc.)
   Experience with neural interfaces
   Experience in programming (LabView, Python, C++, Matlab)
   Fluent English both spoken and written
- **Personal Competences:**
   Teamwork skills

Summary of conditions:

- Full time work (37,5h/week)
- Contract Length: 12 months
- Location: Bellaterra (Barcelona)
- Salary will depend on qualifications and demonstrated experience.
- Support to the relocation issues.
- Life Insurance.

Estimated Incorporation date: December 2024

How to apply:

All applications must be made via the ICN2 website 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: 16/10/2024

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.