

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 values are Commitment, Collaboration and Transformation.

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 Support Technician

**Research area or group:** Nanomedicine Group

**Description of Group/Project:**

The Nanomedicine Lab aims to generate and disseminate fundamental knowledge in the field of nanomedicine by bringing together nanotechnology, bioengineering, pharmacology and their translation to advanced, clinically-relevant therapeutics and diagnostics.

Our aim is the development of novel, safe and effective therapeutics based on nanoscale components and their combinations, used as either the 'drug' or the 'transport system'. Such components include DNA, RNA, viruses, stem cells, radionuclides, liposomes, graphene, 2D-heterostructures, carbon nanotubes and other nanomaterials (quantum dots, fullerenes, carbon nanohorns).

The research efforts taking place within the Nanomedicine Lab have been cross-cutting disciplines, bridging the gap between fundamental nanomaterial engineering and medicines development towards the realisation of advanced therapeutic modalities.

Our mission is to pioneer the cutting-edge and emerging discipline of nanomedicine by bringing advanced materials and nanoscale platforms to the clinic.

The main lines of research in Nanomedicine Lab include:

- Nanomaterials as transport systems for therapeutic and diagnostic applications against cancer and neurodegenerative disease
- Translation of graphene and 2D materials in the clinic
- Discovery of novel liposome and vesicle systems to be used as components of therapeutics in oncology and neurology
- Neurotechnology based on flexible, thin-film technologies for therapeutic applications in oncology and neurology

The Nanomedicine Lab has strong links with the Center for Nanotechnology in Medicine at the Faculty of Biology, Medicine and Health of The University of Manchester.

### **Main Tasks and responsibilities:**

The Research Support Technician will offer support to all members of the Nanomedicine Lab in the following topics: i) nanomaterial fabrication, in particular graphene, ii) nanomaterial characterization, iii) tissue (e.g. brain) mimicking systems for study of materials and devices.

### **Key Responsibilities, Accountabilities or Duties, include:**

- Perform specific experimental research towards the goal and deliverables of the projects involved
- Optimise protocols and fabricate tissue (brain) mimicking systems, based on hydrogels
- Contribute to the synthesis and characterisation of nanomaterials used by the Nanomedicine Lab
- Carry out and assist the research staff and students with standard experimental protocols
- Assist the research staff and students in maintenance and operation of laboratory equipment
- Assist in the smooth running of the laboratory, including general tasks related to lab organization, operation and equipment maintenance
- Collate and store accurate records using paper and computer-based systems and the preparation of data for inclusion in lab books, presentations and publications
- Assist with monitoring general consumable stock levels and procurement of consumables and equipment. Collect delivery of goods and store in accordance with local and statutory guidelines
- Maintain a hardcopy or electronic lab book
- Work in compliance with relevant Health and Safety Regulation, Data Protection and Institution's Policy Legislation and Regulations

### **General Responsibilities, Accountabilities or Duties, include:**

- Contribute to the Nanomedicine Lab progress by providing feedback and input to experiments and their execution
- Carry out risk assessments for the preparation and use of reagents, chemicals, equipment and procedures by self and others in Nanomedicine Lab as requested
- Any other reasonable duties commensurate with the post that may be reasonably requested
- Expected to participate in Nanomedicine Lab scientific activities (lab meetings, seminars, etc.)

### **Requirements:**

#### **Essential Knowledge, Skills and Experience:**

- Master degree in Material Science, Chemistry, or relevant subject field
- Practical experience in laboratory techniques related to nanomaterial synthesis and characterisation
- Experience working with specific IT software/packages: Office, ImageJ, Origin, etc.
- Knowledge of and compliance with relevant Health and Safety regulation, Standard Operating Procedures, Data Protection
- Proficiency in English, oral and written
- Ability to work in a team and independently
- Ability to communicate effectively and politely with staff and students
- Ability to clearly present information verbally, electronically and on paper
- Ability to follow instructions with minimal supervision
- Ability to work under pressure while maintaining high standards and good reproducibility of results
- Ability to use own initiative when appropriate and be proactive in approach to work
- Willingness to undertake any necessary training
- Willingness to develop research skills

**Desirable Knowledge, Skills and Experience:**

- Experience in working in the higher education sector or academic environment
- Practical experience in biological research laboratory techniques: basic cell culture, flow cytometry, microscopy (optical, confocal), plate-reader based cell assays
- Experience in researching scientific literature and contribute with writing of scientific summaries and reports

**Summary of conditions:**

- Full time work (37,5h/week)
- Contract Length: 10 months with the possibility to extend the contract
  
- Location: Bellaterra (Barcelona)
- Salary will depend on qualifications and demonstrated experience.
- Support to the relocation issues.
- Life Insurance.
- Work-Life Balance and Flexibility with flexible work schedules
- 28 holidays per year
- Flexible compensation plan: tax advantages contracting some products (health insurance, childcare, training, among others.)
- Training activities: languages, mentoring programme, wellbeing programme.
- International environment

Estimated Incorporation date: March 2025

**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: 7 March 2025

**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.