

NMR and MRI lab manager at the Research Group Molecular Imaging for Precision Medicine in Barcelona

Introduction to the vacant position:

The Molecular Imaging for Precision Medicine is looking for an NMR/MRI lab manager to join our team. Our NMR lab counts with two commercial benchtop NMR spectrometers (Oxford Instruments), a prototype benchtop NMR spectrometer to accommodate planar microfluidic devices (Oxford Instruments), a preclinical 3T MRI scanner (Bruker), a HyperSense polariser and a home-built PHIP setup. By the beginning of 2025, the NMR lab will also include a preclinical 7T MRI scanner with cryoprobe (Bruker), an additional commercial DNP polariser and a Polaris PHIP polariser (NVision), and a benchtop EPR spectrometer. The NMR lab at IBEC is surrounded by and has access to the NMR facility of the University of Barcelona, which is fully equipped with high-resolution vertical bore NMR spectrometers.

Main tasks and responsibilities:

Reporting to the Group Leader of the Molecular Imaging for Precision Medicine group, the post holder will be responsible for the operational management of the facility, incl. supporting the researcher's projects, financial oversight, people management and teaching, reporting, health and safety, equipment maintenance and service providers contact.

The ideal candidate will be an NMR/MRI Physicist or Chemist with a strong background in NMR and MRI. Experience in hyperpolarization techniques, such as Dynamic Nuclear Polarization (DNP) and/or Parahydrogen-Induced Polarization (PHIP) are a plus. The candidate should also have a passion for mentoring and training students. Moreover, the selected candidate will be responsible for providing high-quality support to facility users, offering expert advice on experimental design, setup, data acquisition, and analysis to ensure successful outcomes.

This role is ideal for a highly organized, detail-oriented individual who can effectively manage their workload and approach problem-solving with initiative. Strong communication and interpersonal skills are essential to succeed in this position, ensuring clear and supportive interactions with the team and facility users.

An initial 1-year full-time contract will be offered, with potential to transition into an indefinite contract.

Requirements for candidates:

- Ph.D. in Physics, Chemistry, or a related field with a focus on NMR/MRI.
- Extensive experience with MRI and MRSI.
- Skilled in handling NMR and/or MRI spectrometer hardware and electronics. Competence in command-line operations, shell scripting, and/or programming is necessary, along with software development skills. Proficiency with tools such as TopSpin and/or ParaVision is essential.
- Practical experience with lab/facility management, which could include handling day-to-day operations, supervising team members, overseeing procurement processes, or managing budgets.
- Strong understanding of health and safety regulations, with proven experience implementing these standards in a laboratory setting.
- Ability to assess and prioritize tasks effectively, especially under time constraints and when working towards deadlines.
- Strong problem-solving skills and the ability to troubleshoot complex technical issues.
- Excellent communication and interpersonal skills.
- Experience in working within multidisciplinary and collaborative research environments.
- High level of English

Advantageous:

- Experience with hyperpolarization methods, particularly DNP and PHIP.
- Experience with in vitro and/or in vivo studies of MRI and/or hyperpolarized MRI.
- International experience.

How to apply:

Interested applicants should send their CV, cover letter and the contact of two referees to: imarco@ibecbarcelona.eu. Applications will be reviewed on a rolling basis, and candidates will be considered until the position is filled.