



Theme: Next Generation Chemistry

Job Title	NMR Facilities Manager
Project	
Location	Harwell
Grade and salary	£33,500 - £41,000 per annum
Hours	Full time
Contract type perm/FTC duration	5 Years' fixed term contract
Reporting to	Prof Ben Davis, Prof Andrew Baldwin
Vacancy reference	10262

Introduction

The [Next Generation Chemistry](#) theme at the Rosalind Franklin Institute brings the techniques of organic chemistry to bear on living systems. By investigating natural mechanisms using chemical approaches, scientists can generate fresh insights into complex biology.

Professor Ben Davis leads the Next Generation Chemistry theme. For nearly two decades, his research group at Oxford University has focused on improving our chemical understanding of biomolecular structure and function – particularly in proteins and carbohydrates. The manipulation of these biomolecules had a host of potential biotechnological applications, including the development of new disease therapeutics.

The Role

The [Rosalind Franklin Institute](#) (the Franklin) is a national Research Centre, funded by the UK government through UK Research and Innovation, dedicated to bringing about transformative changes in life science through interdisciplinary research and technology in the physical science.

As a technical specialist within the Next Generation Chemistry theme of the Franklin, you will help establish, maintain and develop the underpinning analytical infrastructure and instrumentation that is essential to all the work in the Theme with a particular emphasis on NMR. You will contribute and advise on the diverse scientific projects, training researchers in the use of equipment, contributing to data analysis, and overseeing equipment operation and maintenance.

Our ongoing expansion in this area also offers significant opportunities for independent research, including the possibility of a role as an independent group leader under our Franklin Investigator program.

A primary task will be managing NMR spectrometers. Your role will entail establishing effective NMR and MS methods for small and large molecule characterization and mechanism, amongst others, and establishing and exploiting the joint use of NMR, MS and other biophysical methods for characterization of biomolecules and of ligand-biomolecule interactions.

You will also work with key partners in this area such as those in our High-Throughput Discovery team, Diamond's XChem team, as well as a diverse academic and industrial partners as well as other complementary facilities on the Harwell Campus and partner institutions/universities.

Your remit will expand along with the Institute's activity and equipment, to support all work in sythetics, medicinal and chemical biology including our broad ambitions for diverse NMR applications in Phase 2 of the Franklin, especially those associated with pathology.

Accordingly, your tasks will increasingly encompass diverse methods and novel equipment in collaboration with out dedicated technicians.

You will have freedom to explore diverse research areas and will have the opportunity to work with diverse groups in the Franklin, including the NMR Director for the Franklin, Prof. Andrew Baldwin. In this context you will latitude to explore joint links with external university partners, obtain on-going training and you will be encouraged to both lead and support research.

Responsibilities

You will:

- Ensure maximum uptime of all analytical equipment in your remit (especially NMR), by ensuring you are fully trained, implementing and following maintenance schedules, troubleshooting and fixing problems either directly or via vendors, maintaining spares and stocks, and related duties.
- Take responsibility for health and safety, working with local SHE advisers, ensuring that work in the infrastructures and laboratories is conducted safely and in accordance with HSE statutory, regulatory and institute regulations, incorporating changes in safety legislation as relevant.
- Ensure all equipment in your remit consistently performs optimally, by developing and executing calibration protocols and schedules.
- Develop and implement standard operating procedures for all routine experiments required by the scientific projects in the Institute, to simplify access for non-expert scientists
- Where appropriate provide training or access to training for hands-on users (or 'super-user') from Franklin groups. It is envisaged that a community of pro-active users will lead to the maximum usage times.
- Organise and manage access to maximise productivity of the relevant research projects of the user community at the Franklin and on the Harwell Campus. This will involve consideration of schedules of access outside of typical working hours.
- Manage interaction with vendors, including training, service contracts, coordinating repairs, arranging for stocks and spares, and any other related tasks you identify.
- Manage interactions with relevant services accessed at partner institutions in this area, where these seem appropriate, relevant and/or complementary.
- Coordinate the Franklin activity relevant to this activity with partners, especially Diamond and the Research Complex at Harwell.
- Contribute to the public engagement in science programme of the Franklin and partners.
- Any other duties that come up in the normal running of the facility and that can be reasonably requested of the post-holder.

Person specification

The table below includes the essential and desirable requirements needed in order to perform the job effectively. Candidates will be shortlisted based on the extent to which they meet these criteria.

	Essential	Desirable
Selection Criteria	<ul style="list-style-type: none"> • A relevant PhD qualification (or close to completion), or equivalent experience, in analytical/physical chemistry or biomolecular science. • Demonstrate ability to implement and use of various multinuclear 1D and 2D NMR methods for structure elucidation of molecules. • Experience with biomolecule (e.g., protein) NMR methods (e.g., NOESY) and characterization of biomolecule-ligand complexes. • Experience with analytical sample preparation laboratory features, such as hazardous chemicals, specialist gases, cryogens, fume hoods, glove boxes, centrifuges, vacuum equipment, and microscopes. • Experience with data interpretation and analysis with emphasis on spectral pre-processing, statistical analysis and molecular structure elucidation. • Experience in training and/or conveying key skills. • Experience with HSE legislation, risk assessments and COSHH. • Experience with IT maintenance. • Ability to document experiments and protocols thoroughly and concisely. • Ability to coordinate multiple aspects of work to meet deadlines. • Ability to work as part of a team as well as independently. • Ability to solve problems independently using innovative and flexible thinking. • Excellent organisational and communication skills. • Ability to travel occasionally for training or dissemination of your work. 	<ul style="list-style-type: none"> • Experience of NMR and MS maintenance and troubleshooting. • Practical experience with mass spectrometric instrumentation including chromatography, LC-MS and MS-based structure elucidation. • Experience with general laboratory equipment maintenance. • Experience with biophysical techniques such as SPR, ITC, fluorescence, etc. • Experience with general lab management. • Experience with electronic record keeping. • Experience with electronic data and database management. • Basic programming and scripting skills in Python or C++, especially those of relevance to the operating systems of NMR and MS machines. • Experience of working in an industry or other operational settings.

Staff Benefits

- 25 days holidays, plus Bank holidays, and Christmas holiday shutdown
- Generous pension scheme (employer's contribution currently up to 18%)
- Training and development opportunities for staff at all levels
- Bus pass discount scheme
- Access to employee discount platform
- Subsidised canteen
- Free on-site parking
- A beautiful campus location set in stunning Oxfordshire with social and sports clubs open to staff

Reflecting the world we live in

Our underlying aim is to produce the best science for research today, and this means resolutely embracing a diverse team, who have a wide range of experiences, skills and knowledge to push forward on the innovative work our institution delivers. Both our work and our institution are better for it.

For further information, [view our equality, diversity and inclusion policy](#).



Adventure - Our projects, by their nature, carry significant risk, combined with significant pay-off in scientific, economic, and patient benefits if successful. Risk is mitigated by engaging experts from across disciplines and working together to approach large challenges.

Engagement - Our projects are not conceived of or delivered by one organisation alone, they engage multiple partners across academia and industry and there is demonstrable support for their development by these communities.

Novelty - Our technologies will be novel in their application and design, offering tools to the academic and industrial communities which enable significant new research potential and economic benefit.

Utility - Our technologies will be sought after by both academic and industrial communities, and access will be opened to as wide as possible, ensuring that the research benefits are maximised.

Partnerships & Collaborations

Our Funders

The Institute operates as an independent charity, with funding provided by the UK government through [UK Research and Innovation](#), managed by [UKRI-EP SRC](#).

Our Partners

The Institute has been formed by a group of ten university partners from across the UK, Diamond Light Source, and the research council UKRI-STFC.

- University of Oxford
- University of Birmingham
- Diamond Light Source
- University of Cambridge
- University of Edinburgh
- Imperial College London
- Kings College London
- University of Leeds
- University of Manchester
- University of Southampton
- University College London (UCL)
- STFC-UKRI

Collaborations

Developing our technologies is best done hand in hand with the communities who will use them – we are keen to collaborate in the development stage of our technologies, to bring both test questions and technical expertise. [For more information on the types of collaborations that we are looking for at the Franklin please visit our collaborations webpage.](#)

Our Location

The Hub at Harwell

The heart of the Rosalind Franklin Institute is the new hub building located at [Harwell Campus](#). The 5300m2 hub building at Harwell will be a flagship new addition to the campus, with four storeys of world leading scientific capability, complementing existing facilities at Harwell and at the partner spokes. The hub is the focal point for the Institute, and the heart of life sciences at Harwell Campus. The world leading technology hosted at the hub is matched by the innovative design of the building itself – unique in its experimental capabilities.

Harwell Campus

Harwell Campus is Europe's largest Science and Innovation Campus. With a heritage of 75 years at the forefront of UK innovation and discovery, The Campus continues to drive scientific advancements to the benefit of the UK economy and to improve the human condition, centered around an open innovation community and culture. The contribution that Harwell makes to the UK is significant - leading in research and achieving commercial success in key global markets, including Life Sciences, Space, Energy, Supercomputing, AI and Big Data. With 6,000 people employed across +200 public, private, and academic organisations, and an estimated Gross Value Added (GVA) of over £1billion, Harwell provides job creation and economic growth that benefits the whole country.



Recruitment Process

How to apply

- To apply for our vacancies you need to create an account. To register please visit our [website](#)
- To browse all available employment opportunities at the Franklin please visit our current vacancies page [here](#)

Acknowledging your application

Once you have submitted your application you will receive an automatic email confirmation. You can check the progress of your application or change your contact details at any time by logging into your account. For any questions regarding applications please contact recruitment@rfi.ac.uk

Outcome of applications

We aim to provide an update on the status of your application within 6 weeks of the closing date of the vacancy. We may receive a large volume of applications for our vacancies, so it might not always be possible to respond individually to every application.

Applicants should refer to our [Candidate Privacy Policy](#)

Informal enquiries can be addressed to recruitment@rfi.ac.uk



Prof. Ben Davis
Science Director
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Prof. Andrew Baldwin
Head of Biomolecular NMR
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