

**Reference:** R210102

**Salary:** Grade 7, £29,176 per annum (pro-rata)

**Contract Type:** Fixed Term (3 months)

**Basis:** Part Time (0.5 FTE)

**Closing Date:** 23.59 hours BST on Monday 10 May 2021

**Interview Date:** Thursday 27 May 2021

# Research Assistant

Candidate brief



# Job description

## **Job Purpose:**

To create and contribute to the creation of knowledge by undertaking a specified range of activities within an established research programme and/or specific research project.

Magnetosomes are an exciting class of magnetic nanomaterials that are extracted from magnetotactic bacteria and can be used in biomedicine and biocatalysis. Importantly, the use of rapid, cost-effective and quantitative technologies for magnetosome characterisation will underpin the development of industrially-relevant magnetosome applications. This project combines the biotechnologies in magnetosome biomanufacturing from Aston University and experts in technology development for nanomaterials characterisation at nanoFCM, a SME that designs and develops nano-flow cytometry (nFCM) instruments. The aim of the project is to study the feasibility of using nFCM for the characterisation of magnetosome preparations. A key focus will be the optimisation of instrument and parameter configuration as well as the validation of datasets using commercial nanoparticles. Results will be compared with commonly used characterisation techniques.

## ***Main Duties and Responsibilities***

The responsibilities may include some but not all of the responsibilities outlined below.

- ▶ Develop research objectives and proposals for own or joint research, with assistance of a mentor if required.
- ▶ Contribute to writing bids for research funding.
- ▶ Collaboration with co-authors which aspects of the research findings to include in a presentation or a publication and how to convey the findings.
- ▶ Analyse and interpret data.
- ▶ Apply knowledge in a way which develops new intellectual understanding.
- ▶ Disseminate research findings for publication, research seminars.
- ▶ Supervise students on research related work and provide guidance to PhD students where appropriate to the discipline.
- ▶ Give guidance, support and advice to students on research related work including PhD and MEng students and decide the most appropriate method of providing this supervision.
- ▶ Contribute to developing new models, techniques and methods.
- ▶ Undertake management/administration arising from research
- ▶ Contribute to Departmental/School research-related activities and research-related administration
- ▶ Collect research data; this may be through a variety of research methods, such as scientific experimentation, and literature reviews
- ▶ Present research outputs, including drafting academic publications or parts thereof, for example at seminars and as posters.
- ▶ Provide guidance, as required, to support staff and any students who may be assisting with the research
- ▶ Deal with problems that may affect the achievement of research objectives and deadlines

## **Additional responsibilities**

- ▶ Engage in continuous personal and professional development in line with the demands of the role, including undertaking relevant training and development activities to develop themselves and support the development of others.
- ▶ Ensure and promote the personal health, safety and wellbeing of staff and students.
- ▶ Carry out duties in a way which promotes fairness in all matters and which engenders trust.
- ▶ Promote equality of opportunity and support diversity and inclusion as well as working to support the University's environmental sustainability agenda and practices.

# Person specification

	Essential	Method of assessment
<b>Education and qualifications</b>	A good honours degree in a biological, chemical or, or process engineering discipline.	Application form
<b>Experience</b>	<p>Extensive experience of nanomaterials characterisation.</p> <p>High level analytical capability.</p> <p>Ability to communicate complex information clearly.</p> <p>Fluency in relevant models, techniques or methods and ability to contribute to developing new ones.</p>	Application form and interview
<b>Aptitude and skills</b>	<p>Ability to work effectively in a team and with project partners.</p> <p>Ability to contribute to the planning of research projects.</p> <p>Ability to deliver research objectives, deliverables and milestones in a timely manner.</p> <p>Excellent verbal and written communication skills with the ability to liaise with partners.</p> <p>Ability to assess resource requirements and use resources effectively.</p> <p>Understanding of and ability to contribute to broader management/administration processes.</p> <p>Contribute to the planning and organising of the BBSRC-funded Business Interaction Voucher research project.</p> <p>Consult with the principal investigator as appropriate, on the most appropriate way of undertaking the specified research activities</p> <p>Consult with the principal investigator as appropriate how to analyse and interpret the data from the specified research activities</p>	Application form and interview

	Essential	Method of assessment
	<p>Decide in consultation with the principal investigator as appropriate what knowledge to draw on and how to apply it to develop new intellectual understanding</p> <p>Co-ordinate own work with project collaborators (NanoFCM)</p> <p>Liaise with research staff and support staff on research-related matters</p> <p>Maintain contact with (including membership of) appropriate professional bodies</p> <p>Liaise with the relevant external research community via seminars and conferences</p> <p>Ensure compliance with health and safety in all aspects of work.</p>	

	Desirable	Method of assessment
<b>Education and qualifications</b>	A PhD (or equivalent doctoral qualification, eg EngD) in Biochemical Engineering, Biotechnology or a related area.	Application form
<b>Experience</b>	<p>Experience in the use of some or all of the following is desirable: flow cytometry; X-Ray; TEM; DLS; microbial fermenters; magnetic separation and; analytical biochemistry (i.e. ICP, GC-MS).</p> <p>Experience with microbial fermenters/ bioreactors</p> <p>Experience with biomanufacturing and characterisation of magnetic nanoparticles</p> <p>Ability or potential to contribute to the development of funding proposals in order to generate external funding to support research projects</p> <p>Previous expertise in magnetosome purification and/or application will be an asset.</p>	Application form and interview

# How to apply

You can apply for this role online via our website <https://www2.aston.ac.uk/staff-public/hr/jobs>. Applications should be submitted by 23.59pm on the advertised closing date. All applicants must complete an application form, along with your CV.

Any CV sent direct to the Recruitment Team and Recruiting Manager will not be accepted. If you require a manual application form then please contact the Recruitment Team via [jobs@aston.ac.uk](mailto:jobs@aston.ac.uk).

## Contact information

### Enquiries about the vacancy:

Name: Dr Alfred Fernandez-Castane

Job Title: Lecturer in Chemical Engineering

Email: [a.fernandez-castane1@aston.ac.uk](mailto:a.fernandez-castane1@aston.ac.uk)

### Enquiries about the application process, shortlisting or interviews:

Recruitment Team via [jobs@aston.ac.uk](mailto:jobs@aston.ac.uk) or 0121 204 4500.

## Additional Information

Visit our website <https://www2.aston.ac.uk/staff-public/hr> for full details of our salary scales and benefits  
Aston University staff enjoy

**Salary scales:** <https://www2.aston.ac.uk/staff-public/hr/payroll-and-pensions/salary-scales/index>

**Benefits:** <https://www2.aston.ac.uk/staff-public/hr/Benefits-and-Rewards/index>

**Working in Birmingham:** <https://www2.aston.ac.uk/birmingham>

**Employment of Ex-Offenders:** Under the Rehabilitation of Offenders Act 1974, a person with a criminal record is not required to disclose any spent convictions unless the positions they applying for is listed an exception under the act.

**Eligibility to work in the UK:**

### Post-Brexit transition period / EU Settlement Scheme

The post-Brexit transition period ended on 31 December 2020. If you are an EU/EEA citizen and you were a resident in the UK before 31 December 2020, you and your family members (including non-EU citizens need to apply to the EU Settlement Scheme to continue to live, work and study in the UK beyond 30 June 2021. The deadline for applying to the EU settlement scheme is 30 June 2021. You can apply via the Government webpage <https://www.gov.uk/settled-status-eu-citizens-families>

Irish Nationals do not need to apply for settlement as they retain the right to work in the UK.

## **New immigration system for EU/EEA and Swiss Nationals who were not resident in the UK before 31 December 2020**

A new immigration system has been introduced for people arriving in the UK from EEA countries with effect from 1 January 2021. In addition to those who have always required a visa, EU citizens moving to the UK to work will need to get a visa in advance. You can find more information on the following website. Candidates should check their eligibility to enter or remain in the UK in advance of making any job application via the UKVI website <https://www.gov.uk/browse/visas-immigration/work-visas>. Before applying you should ensure that you meet the requirements. If you do not meet the eligibility criteria, any application for a work visa would be unsuccessful.

If you require a visa to work in the UK the most common types of visa are:

### **Skilled Worker Visa**

<https://www.gov.uk/skilled-worker-visa>

### **Global Talent Visa**

If you are a leader or potential leader in one of the following fields you may be eligible to apply for a Global Talent Visa:

- Academia or Research
- Arts and Culture
- Digital Technology

Please click the following link for further information and to check your eligibility for this visa.

<https://www.gov.uk/global-talent>

**Equal Opportunities:** Aston University promotes equality and diversity in all aspects of its work. We aim to ensure, through our admissions policies for students, and our staff recruitment and selection processes that we encourage applications from all groups represented in the wider community at a local, national and international level.

The University will endeavour not to discriminate unfairly or illegally, directly or indirectly, against student or potential students, staff or potential staff. This commitment applies to all functions of the University and to any stage of an individual's career.

An Equal Opportunities Monitoring Form is included within the application form. Data you provide on the Equal Opportunities Monitoring Form will be included in a general database, for statistical monitoring purposes, enabling the University to monitor the effectiveness of its Policy, Codes of Practice and Guidelines on Equal Opportunities in Employment. Individuals will not be identified by name.

**Data Protection:** Your personal data will be processed in compliance with the Data Protection Act 2018 and the General Data Protection Regulation ((EU) 2016/679) ("GDPR"). The University's Data Protection Policy and Privacy Notices, including the Job Applicant Privacy Notice can be found at <https://www2.aston.ac.uk/data-protection>. Your application will only be used to inform the selection process, unless you are successful, in which case it will form the basis of your personal record with the University which will be stored in manual and/or electronic files. Information in statistical form on present and former employees is given to appropriate outside bodies.



Full details of our terms and conditions of service and associated policies and procedures are available online at <https://www2.aston.ac.uk/staff-public/hr/policies>

