



OPPORTUNITY

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Reference: 0545-24

Grade: 7

Salary: £33,232 per annum, depending on experience

Contract Type: Fixed Term until 30th September 2025

Basis: Full Time

Job description

Job Purpose:

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

Magnetosomes of magnetotactic bacteria (MTB) are magnetic nanomaterials with exceptional properties such as; narrow size distribution, ferrimagnetic behaviour, allow for one-step functionalisation and are coated by an organic layer that prevents self-aggregation, which makes them extremely attractive for many nanobiotechnology and nanomedicine sectors. However, their real-world application is hindered by the poor availability, due to the difficulty of growing MTB to high cell densities.

To address this challenge, this project aims to investigate the mechanisms that limit productivity of both, biomass and magnetosomes, by evaluating the influence of environmental factors on cell growth a magnetosome quality attributes. This information will be used to develop improved magnetosome bioprocessing methods. In addition, innovative applications of magnetosomes will be developed.

Applicants that have not yet been awarded their PhD but are near submission or have recently submitted their PhD are welcomed to apply. The offer of employment will be made as Research Assistant on level 7 of the University grade structure. This post is available to start immediately with a tenure until 30 September 2025.

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.
- ▶ Analyse and interpret data.
- ▶ Apply knowledge in a way which develops new intellectual understanding.
- ▶ Disseminate research findings for publication, research seminars, etc.
- ▶ Supervise students on research related work and provide guidance to PhD students where appropriate to the discipline.
- ▶ 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
Education and qualifications	<ul style="list-style-type: none"> ▶ First degree in a bioscience, biotechnology or microbiology or related area 	Application form
Experience	<ul style="list-style-type: none"> ▶ Excellent written English evidenced through publications or similar. ▶ Demonstrable experience in microbiology and bioprocessing. ▶ Experience in the use of some or all of the following is desirable: hplc, flow cytometry, TEM, confocal microscopy; microbial fermenters, elemental analyser (i.e. ICP). ▶ High level analytical capability. ▶ Ability to communicate complex information clearly. ▶ Fluency in relevant models, techniques or methods and ability to contribute to developing new ones. 	Application form and interview
Aptitude and skills	<ul style="list-style-type: none"> ▶ Ability to assess resource requirements and use resources effectively. ▶ Understanding of and ability to contribute to broader management/administration processes. ▶ Contribute to the planning and organising of the BBSRC research project. ▶ Decide in consultation with the principal investigator as appropriate, on the most appropriate way of undertaking 	Application form and interview

	Essential	Method of assessment
	<p>the specified research activities.</p> <ul style="list-style-type: none"> ▶ Decide in consultation with the principal investigator as appropriate how to analyse and interpret the data from the specified research activities. ▶ Decide in consultation with the principal investigator as appropriate what knowledge to draw on and how to apply it to develop new intellectual understanding. ▶ Decide in collaboration with co-authors which aspects of the research findings to include in a presentation or a publication and how to convey the findings. ▶ 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. ▶ Co-ordinate own work with project collaborators internally and externally. ▶ Liaise with research staff and support staff on research-related matters. ▶ Give presentations and/or contribute to presentations at project meetings with other project collaborators. ▶ Give presentations and/or contribute to presentations at national and/or international conferences. ▶ Referee articles for peer-reviewed academic journals. 	

	Essential	Method of assessment
	<ul style="list-style-type: none"> ▶ Maintain contact with (including membership of) appropriate professional bodies. ▶ Liaise with the relevant external research community via seminars and conferences. ▶ Ensure compliance with health and safety in all aspects of work. 	

	Desirable	Method of assessment
Education and qualifications	<ul style="list-style-type: none"> ▶ PhD (or equivalent doctoral qualification, eg EngD) in microbiology, biotechnology or related area. Previous postdoctoral experience is not essential. 	Application form
Experience	<ul style="list-style-type: none"> ▶ Experience with microbial fermenters/ bioreactors. ▶ Experience with the use of automated high throughput platforms such as plate readers. ▶ Experience in metabolomics will be an asset. ▶ Previous expertise in microbiology of magnetotactic bacteria and/or magnetosome bioprocessing will be valuable. ▶ Ability or potential to contribute to the development of funding proposals in order to generate external funding to support research projects. 	Application form and interview
Aptitude and skills	<ul style="list-style-type: none"> ▶ Excellent verbal communication skills and the ability to deal with a wide range of people. ▶ Ability to organize own work with minimal supervision. 	Application form and interview

University values

All staff are expected to demonstrate/promote the University's values and expectations, which are an integral part of our strategy and underpin the culture of the University. In addition, our leaders are expected to be accountable, help to execute strategic visions of the University and share and set clear expectations that inspire those around them.

Values + Behaviours

				
Innovation	Collaboration	Ambition	Inclusion	Integrity
We strive for excellence within ourselves and others, providing solutions to new and existing challenges.	We work best when we are collaborative, working together to contribute to the Aston community.	We strive together for improvement and innovation looking ahead to see the bigger picture.	We treat everyone in our community equally and how they would like to be treated.	We are open, honest and fair. We take ownership of the way we work and how we treat each other.

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 recruitment@aston.ac.uk.

Contact information

Enquiries about the vacancy:

Name: Alfred Fernandez-Castane

Job Title: Senior Lecturer

Email: a.fernandez-castane1@aston.ac.uk

Enquiries about the application process, shortlisting or interviews:

Recruitment Team via recruitment@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: [Benefits and Rewards | Aston University](#)

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: You should ensure that you meet the eligibility requirements, including meeting the [English language standards](#). If you do not meet the eligibility criteria, any application for a work visa would be unsuccessful. Please see UKVI guidance for further information on eligibility, knowledge of English requirements and approved test centres <https://www.gov.uk/tier-2-general>

With the end of free movement for EU/EEA/Swiss nationals from 1 January 2021, the UK's new immigration system applies to all non-UK/Irish nationals who require a visa.

Where an individual is subject to UK immigration control, they will require a visa to work in the UK.

The following individuals do not need a visa for the UK, but do still have to prove their right to work before employment can commence:

- **British Citizens or Irish Nationals**
- **EU/EEA/Swiss nationals with Settled or Pre-settled status under the EU Settlement Scheme**
- **Non-EEA nationals with Indefinite Leave to Remain/Settlement in the UK**

The main routes available for those who need a visa to work in the UK are **Skilled Worker**, **Global Talent** and the **Graduate Route**.

You can find further information about each of these visa routes on our candidate immigration page.

If you will conduct research in your role, you may need to apply for and obtain ATAS clearance before Aston can issue a Certificate of Sponsorship for your visa application. Please see below for further details.

Academic Technology Approval Scheme (ATAS):

If you will conduct research in your role and you apply for a Skilled Worker or Temporary

Worker GAE visa, you may need to apply for and obtain ATAS clearance before Aston can issue a Certificate of Sponsorship for your visa application.

This process can take at least 6 weeks to process, and Aston will consider this when confirming your expected start date. Processing times will increase between April and September and can longer to complete.

There is no fast-track option available. ATAS certificates will be processed in order of receipt.

You can find more information about ATAS on our candidate immigration page.

Before you start and Right to Work

90-day entry vignette

If you have applied for your visa outside of the UK, you will receive a vignette in your passport which is usually valid for 90 days. Please make sure to travel to the UK within the 'valid from' and 'valid to' dates on this visa. If you entered the UK before or after these dates, you would not 'activate' the visa and you would need to leave and re-enter the country.

You will also receive a decision letter confirming details about your immigration permission and where to collect your Biometric Residence Permit.

Cost of Living - Estate and Letting Agents

There are numerous Estate and Letting Agents in and around Birmingham that can help you find suitable accommodation. The Midland Landlord Accreditation Scheme provides a list of professional agencies and landlords who have applied with them for accreditation. Whilst accreditation is not a guarantee of quality, it provides some reassurance about the standard of the service they provide.

You can also use property search websites such as Rightmove or Zoopla.

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>

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