RESEARCH ASSISTANT / FELLOW
SCHOOL OF NATURAL AND COMPUTING SCIENCES

Closing date: 21 June 2024
Interview date: TBC
Reference number: NCS234R
INTRODUCTION

This role will be based in the Department of Chemistry within the School of Natural & Computing Science. ** The position is associated with a research project funded by the Engineering and Physical Science Research Council (EPSRC) as part of their ‘New Horizons’ call. The project is a collaboration between Lancaster University, the University of Aberdeen and Manchester University exploring combined enzymatic and heterogeneous catalysis.

JOB DESCRIPTION

MAIN PURPOSE OF THE ROLE:

This exciting role is part of an academic collaboration between the University of Aberdeen, Lancaster University and Manchester University and is funded by EPSRC. The successful candidate will join the project mid-way through the overall project and build upon the results obtained in the early part of the research. The successful candidate will be a research assistant and perform a mixture of enzymatic catalysis, heterogeneous catalysis and combined enzymatic/heterogeneous catalysis (i.e., simultaneous enzymatic and heterogeneous catalysis). The enzymatic catalysis aims to upgrade molecules commonly produced from biomass to more valuable compounds. The heterogeneous catalyst aims to regenerate the co-factor that forms a key part of the enzymatic process. The project will utilise a range of analytical techniques including HPLC and NMR and so practical experience of these techniques is important. The candidate will also be responsible for ensuring research is conducted in an organised and safe manner (i.e., in keeping with expected health & safety guidelines).

KEY RESPONSIBILITIES:

- Protein expression and purification to obtain the relevant enzymes
- Conduct enzymatic catalysis experiments under controlled conditions
- Prepare and test suitable heterogeneous catalysts
- Conduct combined enzymatic and heterogeneous catalyst tests under controlled conditions
- Analysis of reactant conversion and product formation by HPLC & NMR
- Ensuring all laboratory tasks are completed in accordance with expected health & safety standard

CANDIDATE BACKGROUND

Applicants must hold a degree and/or MSC in the field of chemistry, biochemistry or chemical engineering alongside a track record of high-quality research publications. For applications to Research Fellow they must hold a PhD. Applicants should have existing experience of enzyme catalysis (protein expression, purification, enzyme catalysed reaction screening). As the project also involves heterogenous catalysis prior experience of this field is also highly valuable (i.e., preparing/handling catalysts, testing of catalysts). The project will routinely utilise analytical techniques such as HPLC and NMR so the applicant should have theoretical and practical experience of these techniques.

Updated October 2022
Salary will be at Grade 5, £31,396 per annum for a Research Assistant holding an MSc.

Salary will be at Grade 6, £37,099 per annum for a Research Fellow holding a PhD.

Any appointment will be made subject to satisfactory references and probation period.

For further information on various staff benefits and policies please visit www.abdn.ac.uk/staffnet/working-here

This role is based in the UK and as such the successful candidate will be required to live and work in the UK.

For a Research Assistant holding an MSC, this post does not meet the minimum requirements for visa sponsorship under the Skilled Worker Route. We are therefore unable to consider applicants for this post that require sponsorship to work in the UK.

For a Research Fellow holding a PhD, should you require a visa to undertake employment in the UK you will be required to fulfil the minimum points criteria to be granted a Certificate of Sponsorship under the requirements of the Skilled Worker visa. At the time an offer of appointment is made, you will be asked to demonstrate that you fulfil the criteria in respect of qualification and competency in English. For research and academic posts, we will consider eligibility under the Global Talent visa.

Please do not hesitate to contact Lucy Redmayne, HR Adviser (e-mail: lucy.redmayne@abdn.ac.uk) for further information.

The candidate appointed to this post may be eligible for homeworking on an occasional or regular basis. For more information, please refer to our Homeworking Policy.

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**AT A GLANCE**

**SALARY:**
Grade 5, £31,396 per annum
Grade 6, £37,099 per annum

**HOURS OF WORK:**
37.5 hours per week

**CONTRACT TYPE:**
Funding limited until 15 May 2025

**LOCATION:**
Aberdeen
# PERSON SPECIFICATION

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<td><strong>Education/Qualifications</strong></td>
<td>• Must hold a degree and/or MSC in the field of chemistry, biochemistry or chemical engineering</td>
<td>• For Research Fellow, must hold a PhD in the field of chemistry, biochemistry or chemical engineering</td>
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<td><strong>Work and Other relevant experience (including training)</strong> e.g. Specialist knowledge, levels of experience, supervisory experience, research</td>
<td>• Experience of enzyme catalysis (protein expression, purification, enzyme catalysed reaction screening)</td>
<td>• Experience of preparation of heterogeneous catalysts</td>
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<td>• Experience of testing heterogeneous catalysts</td>
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<td>• Experience of quantitative analysis with HPLC &amp; NMR</td>
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<td><strong>Personal qualities and abilities</strong> e.g. initiative, leadership, ability to work on own or with others, communication skills</td>
<td>• Ability to design, implement and conduct research independently</td>
<td>• Experience of preparing manuscripts for publication in peer reviewed journals</td>
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<td>• Excellent communications skills so results can be shared between project partners</td>
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<td><strong>Other</strong> e.g. special circumstances (if any) appropriate to the role such as unsocial hours, travelling, Gaelic language requirements etc.</td>
<td>• Willing to travel and undertake research at project partner facilities where necessary</td>
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The University of Aberdeen is a broad based, research intensive University, and we put students at the centre of everything we do. Outstanding in a wide range of discipline areas, Aberdeen is credited for its international reach and commercialisation of research ideas into spin out companies. The University has over 16,000 matriculated students and 3,600 staff representing 130 nationalities. We encourage bold thinking, creativity and innovation, and we nurture ambition with many opportunities for professional and personal development in an inclusive learning environment which challenges and inspires.

**CURRENT CONTEXT**

The University continues to uphold the principals of the foundational purpose. We remain committed to delivering positive change both locally and globally. We work together and with our partners in an interdisciplinary way, catalysing world-leading research in our areas of strength: Energy Transition; Social Inclusion and Cultural Diversity; Environment and Biodiversity; Data and Artificial Intelligence; and Health, Nutrition and Wellbeing. We are investing in our future and have committed £100m to upgrading our campus, including the new fully digitised Science Teaching Hub, the regeneration of the historic King’s Quarter and a new Business School building. Our commitment to our students, campus and community has led to us being named a Top 20 UK institution in two major league tables\(^1\) and 4\(^{th}\) in the UK for overall student satisfaction\(^2\).

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\(^1\) The Times and Sunday Times Good University Guide 2023 and the Guardian University Guide 2023

\(^2\) National Student Survey (NSS) 2022

Updated October 2022
ABERDEEN 2040
On our 525th anniversary as a University we launched Aberdeen 2040, our strategic vision for the next 20 years. Four strategic themes will shape our learning and discovery, underlined by 20 commitments we have made against each theme:

- **Inclusive**
  We welcome students, staff and partners from all backgrounds, organisations and communities. We value diversity.

- **Interdisciplinary**
  We innovate in education and research by generating, sharing and applying new kinds of knowledge. We learn together.

- **International**
  We connect with others and extend our networks and partnerships around the world. We think across borders.

- **Sustainable**
  We understand and nurture our environment, and take care of our resources, including our people and finances.
  We work responsibly.

**OUR EDUCATION**
Recognised as the Scottish University of the Year in the Times and Sunday Times Good University Guide 2019, we remain true to our roots as an ancient Scottish university, combining breadth and depth in our degree programmes and drawing strength from the quality of our research. Our flexible curriculum encourages students to grow as independent learners and therefore to thrive as graduates in the diverse workplaces of the future. Our education is open to all and we are setting ambitious targets to further widen access.

**OUR RESEARCH**
Researchers at the University of Aberdeen have been at the forefront of innovation and excellence throughout the centuries, generating insights in medicine, science, engineering, law, social sciences, arts and humanities. This research has contributed to five Nobel prizes as well as other awards such as the Queen’s Anniversary prize. Our research is intellectually rigorous working within our established areas of excellence as well as new methods of enquiry. We will continue to generate new knowledge addressing economic and societal issues with ambition and imagination, ensuring that it is globally excellent and locally relevant.

**INTERNATIONAL**
Aberdeen is increasing its international presence, positioning the University as a global organisation and building on established global partnerships around the world, including Qatar, China, North America, Europe. We feature in the top 50 institutions worldwide for international students³.
IMPACT
In 2020 the University signed the United Nations Sustainable Development Goals accord, solidifying our commitment to developing the world in a sustainable way. In 2022 we were listed in the global Top 100 for 8 of these goals.4

Our highly cited work in zero-carbon technology and global outlooks makes us Scotland’s best institution for environmental research.5

THE SCHOOL OF NATURAL AND COMPUTING SCIENCES

The School of Natural and Computing Sciences is a vibrant and dynamic centre, internationally renowned for excellence both in teaching and research. It currently comprises four academic units, namely: Chemistry, Computing Science, Mathematics and Physics. Hosting over 95 academic and research staff, 60 research students, 120 postgraduate taught students and 690 undergraduates; it is a close knit and friendly community, based on the main campus at King’s College. Launching in September 2021, the Aberdeen Institute of Data Science and Artificial Intelligence, South China Normal University is a collaboration between the University of Aberdeen and South China Normal University (SCNU) to deliver three 4 year undergraduate degree programmes in China closely based on the content of the existing BSc (Hons) Computing Science degree (and variants) at Aberdeen. The Institute builds on an existing 2+2 articulation programme in Computing Science and Software Engineering with SCNU. Data Science & Artificial Intelligence have been recognised as a priority for the University as part of its ‘Aberdeen 2040’ strategy, and the School is looking to significantly increase its strengths in these and related areas. The School’s strategic focus lies across the themes of Artificial Intelligence (AI) and Trust, Identity, Privacy and Security (TIPS), and we particularly encourage candidates who work at the

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4 Times Higher Education Impact Rankings 2022
5 QS World University Rankings 2022

Updated October 2022
intersection of theory and application within these areas to apply. Within AI, application domains include cybersecurity, energy, food technology and healthcare, while theoretical research encompasses human/machine collaboration, natural language technologies and explanation, as well as machine learning and multi-agent systems. The TIPS theme focuses on computational trust and reputation systems; cybersecurity; provenance; and blockchain technologies - with application areas including healthcare and the digital economy.

**ABERDEEN AND ABERDEENSHIRE**

Scotland’s third largest city, Aberdeen sits on the coast between the mountains of Aberdeenshire and the stunning North Sea coastline. The Aberdeen City region is a can-do place that is actively investing, at scale, in its future.

Renowned as a Global Energy Hub, Aberdeen is a vibrant, entrepreneurial region, home to a unique mix of business opportunities and specialist skills across various sectors including energy, technology, life sciences and food & drink. More than 20% of Scotland’s top businesses are located in this region which is taking great strides to ensure that it continues to compete on a world stage. Investments of more than £10 billion of public and private infrastructure is due to be delivered before 2030, marking an exciting time to be part of a genuine world-class location.

Built from sparkling local granite Aberdeen has earned the name of the Silver City. As the energy capital of Europe, Aberdeen nevertheless retains its old-fashioned charm and character making it an attractive place in which to live, work and study. Due to its global business and international energy industry credentials, Aberdeen is well served by local and national transport infrastructure with excellent rail networks that run both North and South of Scotland and the rest of the UK. It also acts as an international travel hub. Flying time to London is just over one hour with regular daily flights and serves international travel to European centres such as Amsterdam (Schiphol) and Paris (Charles de-Gaulle) as well as flights to other European destinations.

The City and the surrounding countryside provide a variety of urban, seaside and country attractions. Aberdeen has first class amenities including [His Majesty’s Theatre](#), [Music Hall](#), [Art Gallery](#), [the P&J Arena](#), [Museums](#), and [Beach Leisure Centre](#). The City is framed by its accessible beach front which is within a short walk of the city centre and there are an array of activities available across the region such as hill walking; mountaineering; sailing; surfing; salmon, trout and sea fishing; golf; sailing; surfing and windsurfing. The surrounding countryside, known as Aberdeenshire, is also one of Scotland’s most appealing regions. Royal Deeside and the Cairngorms National Park are within easy access of the city, and there are a variety of towns and villages scattered along the coastline.

The city and the surrounding area have ranked consistently highly in nationally recognised quality of life surveys, coming out top 10 as one of the best places to live in Scotland in 2020 in the annual Bank of Scotland survey.

To find out more visit [www.visitabdn.com](http://www.visitabdn.com)
EQUALITY AND DIVERSITY

The University values and celebrates a diverse working and learning environment and recognises the richness this brings, both in terms of contributing to the success of the University and creating safe and inclusive cultures. The University welcomes applications from individuals with diverse lived experiences.

The University supports flexible working, including hybrid working arrangements, and has policies in place to facilitate this where it is appropriate. The policies can be found at https://www.abdn.ac.uk/staffnet/working-here/flexible-working--5607.php. The University is committed to progressing gender equality across all its functions and has been a proud member of the Advance HE Athena Swan Charter, achieving an institutional Bronze award, one Silver departmental award for the School of Psychology and eleven departmental Bronze awards.

LGBTQ+ equality is championed through the University’s membership of the Stonewall Diversity Champions Programme, where the University has achieved a Silver award in the Workplace Equality Index.

The University has progressed work to eradicate gender-based violence and is proud to be a signatory to the EmilyTest Charter.

The University is signed up to Advance HE’s Race Equality Charter, affirming the University’s commitment to the Charter’s aim of improving the representation, progression and success of staff and students who identify as belonging to a racialised group. The University launched its Antiracism Strategy in 2022, representing a bold framework for progress on race equality. Recognising the importance of addressing the under-representation of racialised groups in the senior team, the University’s new Recruitment and Selection Policy embeds specific positive action measures to address this.

The University is delighted to be accredited as a Disability Confident employer and strives to ensure that disabled staff and students have the opportunity to work and study in an inclusive, accessible and supportive environment. The University’s Wellbeing Strategy commits it to progressing work to tackle stigma related to mental health and action to promote and improve health and wellbeing for staff and students.

Candidates who are British Sign Language (BSL) users can contact us directly by using contact SCOTLAND-BSL.

The University’s work on equality, diversity and inclusion is supported by a range of networks and engagement activities, designed to provide safe spaces and raise awareness of the support available and the steps everyone can take to create inclusive campuses. www.abdn.ac.uk/staffnet/governance/equality-and-diversity-277
HOW TO APPLY

Online application forms are available at www.abdn.ac.uk/jobs

The closing date for receipt of applications is **21 June 2024**

Should you wish to make an informal enquiry please contact:

Dr Alan McCue, Senior Lecturer
a.mccue@abdn.ac.uk

Please do not send application forms or CVs to Dr McCue.

**Please quote reference number NCS234R on all correspondence.**