Research Fellow in Antibody Technologies

INSTITUTE OF MEDICAL SCIENCES,
SCHOOL OF MEDICINE, MEDICAL SCIENCES AND NUTRITION

Closing date: 14 July 2023
Interview date: To Be Confirmed
Reference number: IMS272R
INTRODUCTION

The Scottish Biologics Facility based at the University of Aberdeen is an international hub for recombinant antibody generation and uses latest cutting-edge protein engineering technologies for the development of antibody based novel therapeutics, rapid diagnostics, imaging agents and research tools (www.abdn.ac.uk/sbf).

We are seeking a highly motivated individual to be part of an exciting research programme developing recombinant antibodies to create quantitative, rapid field tests for accurate detection of harmful biotoxins in shellfish meat. Part of a multi-partner consortium consisting of academics and representatives from the shellfish industry, this project is supported by the Seafood Innovation Fund and specifically focuses on the generation and characterisation of a suite of novel, recombinant antibodies against a panel of highly relevant shellfish toxins; those responsible for amnesic, paralytic and diarrhoetic shellfish poisoning.

Aquaculture in the UK is essential for food security, and production is expected to double in the next two decades. The shellfish industry employs >3,000 people with a revenue in excess of £40 million per annum. One of the challenges to this industry is the impact of toxic blooms of algae, commonly known as harmful algal blooms (HABs), which contaminate the shellfish, posing a risk to human health and an economic challenge to the shellfish producers. Currently, protection of public health relies on an official monitoring programme administered by the Food Standards Agency which consists of regular testing of shellfish for specific toxins. However, there is no commercial field test for quantitative analysis of these toxins.

The project consortium consists of The Scottish Biologics Facility UoA, Robert Gordon University, Centre for Environment Fisheries and Aquaculture Science, Lateral Dx Ltd, West Country Mussels, Cromarty Mussels, Sustainable Aquaculture Innovation Centre, Food Standards Agency, Food Standards Scotland, Association of Scottish Shellfish Growers and the Scottish Shellfish Marketing Group. The project will develop lateral flow devices for the detection of amnesic and diarrhoetic shellfish toxins in the field. The lateral flow tests will be read by a calibrated reader to provide the actual concentration of toxin in the shellfish meat, empowering the producer and processors to make informed critical decisions on harvesting/mitigation strategies. This capability will transform commercial viability, reduce risk, and increase confidence in shellfish products.

JOB DESCRIPTION

MAIN PURPOSE OF THE ROLE:

A full-time research fellow post funded through the Seafood Innovation Fund is available to support the research team based at the Scottish Biologics Facility to develop recombinant monoclonal antibodies targeting amnesic and diarrhoetic shellfish toxins. These antibodies will become part of quantitative, rapid field tests for the accurate detection of harmful biotoxins for the shellfish farmers.
KEY RESPONSIBILITIES:

- Plan, perform, record and report on experimental work as directed by the line manager
- Contribute to experimental design and data analysis and dissemination by publication and conference presentation.
- Maintain and expands knowledge and experience through CPD.
- Establishes and maintains links with colleagues and external contacts through active participation in research.
- Participate fully in activities related to the laboratory activities of Scottish Biologics Facility

CANDIDATE BACKGROUND

We are seeking a highly motivated individual at an early stage of their career with a goal of a long-term future in an academic/industrial research setting and a strong interest in protein engineering and molecular biology. The successful applicant will have a PhD (or final stages of write up) in Microbiology/Molecular Biology/Biochemistry or related subject. Previous working experience in a biotechnology or pharmaceutical company setting would be seen as an advantage.
TERMS OF APPOINTMENT

Salary will be at the appropriate point on the Grade 6, £36,333 - £41,931 per annum, and negotiable with placement according to qualifications and experience.

Consideration will be given to applicants who are nearing the completion of their PhD, who will be appointed a Grade 5 Research Assistant, £34,314 per annum, and assimilated to Grade 6 upon successful completion of their 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.

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 Grant Rae, HR Adviser (e-mail: grant.rae@abdn.ac.uk) for further information.

Due to the nature of the requirements of this post, homeworking is not considered appropriate.

AT A GLANCE

SALARY:
Grade 6
£36,333 - £41,931

HOURS OF WORK:
Full-time, 37.5 hours per week

CONTRACT TYPE:
Funding-limited 1 Aug 2023 to 31 Oct 2024

LOCATION:
Aberdeen
### PERSON SPECIFICATION

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<th>Education/Qualifications</th>
<th>ESSENTIAL</th>
<th>DESIRABLE</th>
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<tr>
<td>Academic, technical and professional education and training</td>
<td>• PhD degree and experience in Molecular Biology/Genetics/Biotechnology or related subject</td>
<td>• Previous training in drug discovery or recombinant antibody generation</td>
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<th>Work and Other relevant experience (including training)</th>
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<td>e.g. Specialist knowledge, levels of experience, supervisory experience, research</td>
<td>• Experience in molecular cloning and microbiological techniques • Knowledge of recombinant monoclonal antibodies, their generation and uses</td>
<td>• Previous experience in antibody engineering • Biochemical purification and characterisation of recombinant proteins using immunoassays</td>
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<th>Personal qualities and abilities</th>
<th>ESSENTIAL</th>
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<td>e.g. initiative, leadership, ability to work on own or with others, communication skills</td>
<td>• Good IT and communication skills • Ability to work to deadlines and record data accurately • Independent thinking, but also able to work in a team • Ability to contribute to research publications and conference talks • Time management skills</td>
<td>• Leadership qualities and project management skills</td>
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<th>Other</th>
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<td>e.g. special circumstances (if any) appropriate to the role such as unsocial hours, travelling, Gaelic language requirements etc.</td>
<td>• Able to work outside normal working hours if required</td>
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University of Aberdeen

open to all and dedicated to the pursuit of truth in the service of others

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 tables¹ and 4th in the UK for overall student satisfaction².

¹ The Times and Sunday Times Good University Guide 2023 and the Guardian University Guide 2023
² National Student Survey (NSS) 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**
Recogocised 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 students\(^1\).

\(^1\) Times Higher Education World University Rankings 2021
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\(^5\).

\(^4\) Times Higher Education Impact Rankings 2022
\(^5\) QS World University Rankings 2022
The School of Medicine, Medical Sciences and Nutrition

The School (https://www.abdn.ac.uk/smmn/index.php) encompasses all of the disciplines that underpin today’s medicine, including biomedical sciences, health sciences, nutrition and medical, medical science and dental education and these are organised into five Institutes. The largest school in the University, the SMMSN has five Institutes: the Institute of Medical Sciences (IMS), the Institute of Applied Health Sciences (IAHS), the Rowett Institute, the Institute of Education in Healthcare and Medical Sciences (IEHMS) and the Institute of Dentistry, comprising all of our undergraduate and postgraduate programmes and our own graduate entry Dental School.

Staff are line managed and research opportunities are supported through our institutes which work together in an integrated and coordinated way to deliver research and teaching across the School, details of which can be found on their websites as below.

- The Institute of Applied Health Sciences https://www.abdn.ac.uk/iahs/
- The Institute of Medical Sciences http://www.abdn.ac.uk/ims/
- The Rowett Institute http://www.abdn.ac.uk/rowett/
- The Institute of Education in Healthcare and Medical Sciences https://www.abdn.ac.uk/IEHMS/
- The Institute of Dentistry https://www.abdn.ac.uk/dental/ https://www.abdn.ac.uk/dental/

Within the IMS, our scientists are working towards the creation of effective therapies for patients with a range of debilitating and life-threatening conditions. Current research areas include: arthritis and musculoskeletal medicine; cell developmental and cancer biology; immunity, infection and inflammation; metabolic and cardiovascular health; microbiology and translational neuroscience.

Within the IAHS, research is focused on improving health and health care delivery. It is home to a multidisciplinary grouping of around 100 university academic staff who conduct population and clinically-orientated health research and hosts the Health Services Research Unit (HSRU) and Health Economics Research Unit (HERU), both funded by the Chief Scientist’s Office (CSO) of the Scottish Government.

As well as being the organisational home to the teaching scholarship staff and responsible for oversight of the UG and PGT programmes offered by the School, the IEHMS promotes and supports excellence in medical education through research and development, with a focus on conceptually and theoretically robust research and development which has strong potential for reaching international recognition. The highly regarded University of Aberdeen MBChB programme and several postgraduate programmes including a Masters in Clinical Education are delivered by IEHMS.

The Dental Institute runs an undergraduate BDS programme and a growing suite of masters programmes for professional development.

We have a number of specialist Centres representing areas of particular research strength and capacity within the School all of which are willing to support colleagues on projects in their areas. More information is available at the following websites.

Updated October 2022


- The Centre for Healthcare Education Research and Innovation (https://www.abdn.ac.uk/cheri/)
- The Centre for Health Data Science (https://www.abdn.ac.uk/achds/)
- The Aberdeen Cardiovascular & Diabetes Centre (https://www.abdn.ac.uk/acdc/) and
- The Aberdeen Centre for Arthritis and Musculoskeletal Health (https://www.abdn.ac.uk/acamh/)

The School is home to over 800 staff and 2000fte students. It is located on the Foresterhill site, shared with our main clinical partner, NHS Grampian, with whom we work in close collaboration at primary and secondary care levels.

This is one of the largest integrated healthcare delivery, training and research sites in Europe and has rich assets including state-of-the-art academic (research and teaching) and clinical buildings. Excellent infrastructure is also provided through core facilities for biomedical science including flow cytometry, proteomics, microscopy and genome sequencing, support for data health science projects and clinical trials.

The last major academic capital development was the opening of the Rowett Institute, occupied in March 2016, whose staff undertakes nutrition research to help improve people’s lives through the prevention of ill-health and disease. Their new £40M building has provided the University of Aberdeen with a facility with unique capabilities for human nutrition and metabolic research.
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
EQUALITY AND DIVERSITY

The University values a diverse working environment and recognises the benefits this can bring. The University is keen to receive applications from individuals from across all of the equality protected characteristics (age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, sexual orientation).

The University supports opportunities for flexible working for a range of reasons and has policies in place to facilitate this. The policies can be found at https://www.abdn.ac.uk/staffnet/working-here/flexible-working--5607.php.

The University’s commitment to gender equality has been recognised through the achievement of an Athena SWAN Bronze award at an institutional level and across all its subject areas. The University is also a Stonewall Diversity Champion to further LGBT+ equality.

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 minority ethnic staff and students within higher education.

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

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.

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 14 July 2023

Should you wish to make an informal enquiry please contact:

Dr Soumya Palliyil, Head of Scottish Biologics Facility
Soumya.palliyil@abdn.ac.uk

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

Please quote reference number IMS272R on all correspondence

Updated October 2022