



Lecturer in Interdisciplinary Systems Biology

Institute of Medical Sciences

School of Medicine, Medical Sciences and Nutrition

Closing date: 16 December 2019

Interview date: To Be Confirmed

Reference number: IMS188A



Introduction

Lecturer in Interdisciplinary Systems Biology

We are seeking to appoint a Lecturer in Systems Biology with interdisciplinary research interests in the broad area of cell and molecular approaches in the medical sciences. The candidate will be trained in the physical sciences, but have a strong and growing track record of applying their physics and mathematics expertise to drive innovation and understanding in the biological sciences using systems biology approaches. This systems biology expertise will be evidenced by a track record of published research in this area, and evidence of a capacity for innovation and collaboration in interdisciplinary approaches across the medical sciences.

Applications are particularly welcome from candidates who have applied systems biology approaches in one of the following areas; immunology; genetics or genome sciences; cancer; developmental biology, microbiology; cell and molecular biology; neuroscience. The successful appointee will have the capacity to synergise with existing areas of research interest across the School of Medicine, Medical Sciences and Nutrition, and able to evidence a record of interdisciplinary approaches and collaboration.

The successful candidate will be based within the Institute of Medical Sciences (IMS) (<http://www.abdn.ac.uk/ims/>), where we have internationally recognised strengths through research in microbial host-pathogen interactions, immunology, regenerative medicine in musculo-skeletal science and arthritis, cardiovascular and metabolic health, cell and developmental biology, genome biology and cancer, and translational neuroscience including neurodegeneration.

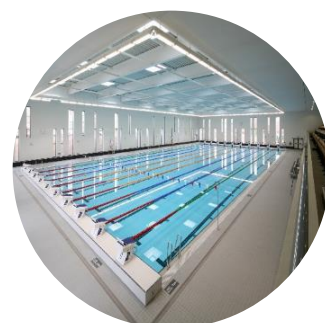
Located adjacent to the IMS on the health science campus, the Rowett Institute has internationally recognised strengths in obesity and metabolic health, gut health including immunology and the microbiome, life course and population health. The appointee will be able to demonstrate an ability and potential to apply their research at the interface with one or more of these areas of strength and focus across the IMS and Rowett.

The IMS <https://www.abdn.ac.uk/ims/> provides modern laboratory space with access to excellent Core Facilities (next-generation sequencing, imaging, cytometry, proteomics ND analytical chemistry) to support outstanding research. Located on one of the largest integrated healthcare campuses in Europe and adjacent to a large teaching hospital and associated specialist academic and clinical facilities, the IMS is an ideal base from which to carry out translational research. The appointee to this position will benefit from the staffing and infrastructure associated with the IMS and will be ideally positioned to collaborate with colleagues from the NHS and from our world-leading Institute of Applied Health Sciences.

The Foresterhill health sciences campus is planning a major expansion of its already significant knowledge transfer incubator space, with a new Bio-Therapeutics Hub for Innovation, funded by the Aberdeen City Region Deal and led by the development body Opportunity North East. These facilities will be attractive to candidates with interests in knowledge transfer and commercialisation of their research.

The appointee will bring expertise and innovation to create bridges across our internationally renowned laboratory-based discovery science in the IMS and the Rowett Institute, and the world-leading population studies in the Institute of Applied Health Sciences.

Collaborations with colleagues in NHS Grampian are made easier by being on the same healthcare site. These clinical links provide significant depth to our research and ensures patient-centred relevance and clinical translation through the state-of-the art clinical research facilities.



Job description



Main purpose of the role:

We wish to appoint an excellent scientist with an academic record of applying their physics and mathematics expertise to the medical and biological sciences using systems biology approaches. The post is aimed at applicants who can work at the interface between mathematical modelling and theoretical inference, and the medical molecular specialties including developmental biology, providing a theoretician bridge between our areas of core strength that include neuroscience, host-pathogen interactions, cancer, metabolic health including cardio-vascular disease, immunology, regenerative medicine in musculo-skeletal science, cell and developmental biology, genome biology, cancer and translational neuroscience including neurodegeneration.

Applicants will be expected to establish a research programme in their chosen field at the interface with one of the areas of IMS and Rowett research strength. They will have a proven ability to innovate through collaborative interactions, and an excellent and rapidly developing publication and collaboration record.

They will have a record of delivering high quality scientific output and publications commensurate with their stage of career and indicative of a trajectory of growing achievement, and be expected to build a research portfolio through collaboration commensurate with the part-time nature of this post, including, where opportunity presents, securing external funding in collaboration with colleagues across the School and University, and externally.

A contribution to the teaching portfolio within the School would be expected and candidates should demonstrate a capacity to deliver excellence in education at undergraduate and postgraduate levels evidenced by some previous experience in teaching delivery.

At a glance

Salary:

Grade 7 (£41,526 - £49,552 per annum)

Hours of work:

Full-Time

Contract type:

Substantive

Key responsibilities:

Lecturer in Interdisciplinary Systems Biology

- Build a funded programme of collaborative and independent research.
- Publish research in high quality, high impact journals.
- Win external, peer reviewed grants both as lead applicant and collaborator.
- Collaborate across the School portfolio of research.
- Act as supervisor and co-supervisor to research students and undertake UG and PG teaching as required.
- Establish links with colleagues in the IMS, the Rowett Institute and across the School.
- Establish links with NHS clinicians to promote new research collaborations
- Build other external research collaborations
- Initiate, develop and grow the interdisciplinary research profile of the School and broader University to contribute to our aim of establishing an international reputation in interdisciplinary science.
- Plan, design, develop and deliver teaching at undergraduate and postgraduate levels as appropriate.

Candidate background



We seek outstanding research scientists who wish to establish a research programme within the collaborative and vibrant environment of the IMS

The vision for this post is to enhance interdisciplinary medical biosciences research at the interface with one or more of core research strengths including host-pathogen interactions, metabolic health, developmental biology, diabetes, cancer, genome sciences, obesity, cardio-vascular research, neuroscience and regenerative medicine, and to strengthen these areas.

Candidates must have a PhD in a physical science with an established academic profile and a record of contributing to University research, and a proven ability to attract funding commensurate with career stage, publish papers in high quality journals, make collaborative research links across disciplines and evidence research excellence commensurate with their stage of career. Experience of teaching at undergraduate and postgraduate level including research student supervision would be an advantage.



Terms of appointment

Salary will be at the appropriate point on the Grade 7 salary scale (£41,526 - £49,552 per annum) and negotiable with placement according to qualifications and experience.

Any appointment will be made subject to satisfactory references .

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

This post does not meet the minimum requirements as issued by UK Visas & Immigration (UKVI) to qualify for an employer-sponsored visa. We are therefore unable to consider applications from candidates for this post who require sponsorship to work in the UK.



Person specification

	<i>Essential</i>	<i>Desirable</i>
Education/Qualifications Academic, technical and professional education and training	<ul style="list-style-type: none"> • <i>PhD in a relevant discipline.</i> 	<ul style="list-style-type: none"> • <i>A Higher Education teaching qualification commensurate with stage of career</i>
Work and Other relevant experience (including training) eg Specialist knowledge, levels of experience, supervisory experience, research	<ul style="list-style-type: none"> • <i>Experience of interdisciplinary interactions in fields of medical sciences research relevant to the core research strengths of the School of Medicine, Medical Sciences and Nutrition.</i> • <i>A record in attracting research funding commensurate with career stage</i> • <i>An evidenced ability to collaborate across the physical sciences-medical/biological sciences interface.</i> • <i>A strong and developing academic research track record commensurate with a Lecturer-level appointment.</i> • <i>Ability to make collaborative research links including with NHS colleagues</i> • <i>Evidence of research output in the form of high-quality peer reviewed publications commensurate with career stage and indicative of a trajectory of growing achievement</i> 	<ul style="list-style-type: none"> • <i>Some experience of teaching Undergraduate and Postgraduate students</i> • <i>Experience of supervision of higher degrees</i>
Personal qualities and abilities eg initiative, leadership, ability to work on own or with others, communication skills	<ul style="list-style-type: none"> • <i>Evidence of research innovation.</i> • <i>Have a high level of analytical capability and an enquiring, critical approach to work</i> • <i>Aptitude for teaching</i> • <i>Excellent written and verbal communication skills</i> • <i>Good interpersonal skills with the ability to interact constructively with a wide range of colleagues</i> • <i>Proven organisational abilities, including evidence of effective</i> 	

time-management and negotiating skills.

- *Ability to work as part of a team as well as on own*
- *Ability to think creatively and innovatively and impart enthusiasm for subject*

Other

eg special circumstances (if any) appropriate to the role such as unsocial hours, travelling, Gaelic language requirements etc.

The University



Founded in 1495, Aberdeen is Scotland's third oldest University and the fifth oldest in the UK. Ranked within the world top 160 in the recent Times Higher Education Rankings 2019 and named Scottish University of the Year in the Times and Sunday Times Good University Guide 2019, Aberdeen is 'open to all and dedicated to the pursuit of truth in the service of others'. the 'global University of the north', and has been named Scottish University of the Year in the Times and Sunday Times Good University Guide 2019.

Aberdeen is a broad based, research intensive University, which puts students at the head of everything it does. It has significant academic strengths and potential across a wide variety of disciplines. Outstanding in a wide range of discipline areas across the entire research spectrum, Aberdeen has also been credited for its international reach and its commercialisation of research ideas into spin out companies.

The University has over 14,000 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, inspires and helps every individual to reach their full potential.

The University combines a distinguished heritage with a forward looking attitude. In the past few years, the University has encouraged creativity in its academic staff, broken new ground with an innovative curriculum, and developed state-of-the-art facilities including the new Sir Duncan Rice Library and the Aberdeen Sports Village and Aquatics Centre. In looking to the future, the University seeks to enhance its reputation as one of the world's leading Universities by moving forward with ever more ground breaking research; ensuring students have an intellectual and social experience second to none; and capitalising upon the dual role as one of the major institutions of the north and as a cornerstone of regional economic and cultural life.

School of Medicine, Medical Sciences and Nutrition



The School (<https://www.abdn.ac.uk/smmsn/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 Medical, Dental Sciences (IEMDS), 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 for Medical and Dental Sciences <https://www.abdn.ac.uk/iemds/>
- The Institute of Dentistry <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 IEMDS 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 Dental Institute runs an undergraduate BDS programme and a growing suite of master's 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.

- The Centre for Healthcare Education Research and Innovation (<https://www.abdn.ac.uk/acdc/>)
- 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 2000 fte 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. Currently, the NHSG is carrying out an exciting £164 million building development creating The Baird Family Hospital and The Aberdeen and North Centre for Haematology, Oncology and Radiotherapy (ANCHOR) Centre Project, scheduled for completion in 2021.

The city and the region

Aberdeen and Aberdeenshire

Aberdeen is world renowned for the key part it plays in Europe's energy industry and the region is both the agricultural heartland of Scotland and a hub of the food and drink industry,

With the population approaching 230,000, Aberdeen is big enough to provide all the advantages of city life, yet compact enough to enjoy the more intimate atmosphere usually associated with small towns.

Aberdeenshire is 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.

Aberdeen and Aberdeenshire cater for a wide range of tastes in sporting and cultural activities.

To find out more about Aberdeen and Aberdeenshire go to www.visitabdn.com



How to apply



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

The closing date for receipt of applications is 16 December 2019

Should you wish to make an informal enquiry please contact:

Professor Siladitya Bhattacharya, Head of School of Medicine, Medical Sciences and Nutrition

s.bhattacharya@abdn.ac.uk

01224 438447

Or

Professor Paul Fowler, Director of Institute of Medical Sciences

p.a.fowler@abdn.ac.uk

01224 437528

Please do not send application forms or CVs to Professors Bhattacharya or Fowler.

Please quote reference number IMS188A on all correspondence

The School of Medicine, Medical Sciences and Nutrition welcomes a diverse working environment and recognises the benefits this can bring. The School is keen to receive applications from individuals from across all of the equality protected characteristics (race, gender, disability, gender reassignment, age, sexual orientation, religion/belief, pregnancy/maternity, marriage/civil partnership).

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 here:

<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. The University is also a Stonewall Diversity Champion to further LGBT equality and a Disability Committed Employer recognising our commitment to supporting disabled staff and students.

<https://www.abdn.ac.uk/staffnet/governance/equality-and-diversity-277.php>