Research Fellow
School of Medicine, Medical Sciences and Nutrition

Closing date: 20 May 2019
Interview date: 31 May 2019
Reference number: ROW053R
Introduction

Neurobiology of Obesity and Type 2 Diabetes

Obesity and type 2 diabetes are among the global health care challenges of the 21st century. The University of Aberdeen has a 100 year history of ground-breaking science in nutrition and health, principally led by researchers within the Rowett Institute (RI). The primary cause of obesity is the consumption of more food than the body requires, calories that are then stored as fat. An understanding of the biological mechanisms regulating appetite, food choice and meal size is essential to successful prevention and treatment of obesity and type 2 diabetes. The brain represents the master coordinator of appetite, employing a number of interwoven neurological circuits to continually appraise and respond to changes in nutritional state. The neurocircuitry underpinning obesity and type 2 diabetes is the focus of Professor Lora Heisler’s research programme.

Professor Heisler is Chair in Human Nutrition and Head of the Obesity and Food Choice Theme at the RI. The overall aim of her research programme is to investigate the basic neurophysiology of appetite, body weight, and insulin action by examining the brain circuitry of neurotransmitter and neuropeptide systems. Professor Heisler’s laboratory utilises the latest technology to address the most pressing research questions with the ultimate aim of improving metabolic health.

A Research Fellow is sought to join her team.
Job description

Main purpose of the role:

We seek to recruit an experienced, highly motivated post-doctoral fellow committed to a career in research, providing consistent and continuous high level intellectual and practical input to a dynamic research group. You will have a PhD in Neuroscience, Physiology, Biochemistry or Pharmacology with experience in a relevant area. Particular skills and experience required include molecular biology, histochemistry and in vivo metabolic phenotyping. The successful candidate will be required to function as outstanding post-doctoral fellows, running independent projects leading to publications and presentations. The successful candidate will also be required to supervise more junior laboratory members.

Training will be provided to enable the successful candidate to extend and complement his/her existing skills.

In addition to the requirements above, the post holder will be required to train, manage and direct staff performing metabolic phenotyping.

Key responsibilities:

Research Fellow

- Responsible for planning and conducting research on a day-to-day basis, ensuring that it is completed efficiently, on time and to the highest of research standards.
- Generating and analysing data for presentations and publications.
- Maintaining excellent study plans and records of research.
- Take a leading role in the preparation of research papers for publication and presentation at conferences.
- Keep up-to-date with the current and relevant literature and methodologies in order to gain expert working knowledge of the topic under study.
- Assist with the general running and organisation of the research laboratory.
- Train staff in neurobiology of obesity research techniques.
- Assist with the running of metabolic phenotyping equipment.
- Assist in supervision of projects in the laboratory.
- Occasional requirement to work outside normal working hours.

In addition to the key responsibilities above, the post holder will perform a supervisory role in managing, training and directing staff performing metabolic phenotyping and oversee the use and running of related equipment.
Candidate background

Candidates should meet the following criteria

Knowledge
- PhD in a relevant subject area
- Background in neuroscience, molecular biology and histochemistry is required
- Knowledge of metabolic equipment and metabolic phenotyping

Skills
- Good communication skills, both written and oral.
- Ability to work independently and as part of a team, as required.
- Evidence of independent writing of papers and reports.
- Ability to think critically.
- Skills in the relevant research techniques (e.g., electrophysiology, immunohistochemistry, genotyping, metabolic phenotyping, microscopy, in situ hybridisation, tissue culture, TaqMan).

Experience
- Experience of phenotyping.
- Experience of metabolic phenotyping.
- Experience with electrophysiology.
- Experience in microscopy and confocal imaging.
- Experience in scientific publishing and in presenting material to scientific conferences is required.
- Ability to organise own workload, including forward planning.
- Ability to work to tight deadlines.
- Flexible approach.

Terms of appointment

Salary will be at the appropriate point on the Grade 6 salary scale and negotiable with placement according to qualifications and experience.

Any appointment will be made subject to satisfactory references and a 12 month probation period.

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

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<th><strong>Education/Qualifications</strong></th>
<th><strong>Essential</strong></th>
<th><strong>Desirable</strong></th>
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<tbody>
<tr>
<td>Academic, technical and professional education and training</td>
<td>PhD in a relevant subject area (e.g. Neuroscience, Physiology, Pharmacology, Biochemistry)</td>
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<th><strong>Work and Other relevant experience (including training)</strong></th>
<th><strong>Essential</strong></th>
<th><strong>Desirable</strong></th>
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<tr>
<td>eg Specialist knowledge, levels of experience, supervisory experience, research</td>
<td>Skills relevant to metabolic research techniques.</td>
<td>Electrophysiology experience</td>
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<td>Experience of metabolic phenotyping.</td>
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<td>Experience with histochemical and biochemistry techniques.</td>
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<td>Experience with microscopy and confocal imaging.</td>
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<td>Track record of scientific publishing</td>
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<td>Experience in presenting at scientific conferences</td>
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<th><strong>Personal qualities and abilities</strong></th>
<th><strong>Essential</strong></th>
<th><strong>Desirable</strong></th>
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<td>eg initiative, leadership, ability to work on own or with others, communication skills</td>
<td>Excellent written and oral communication skills.</td>
<td>A highly motivated, ambitious individual.</td>
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<td>Ability to work independently and as part of a team.</td>
<td>Enthusiastic team worker.</td>
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<td>Ability to think critically.</td>
<td>Ability to teach.</td>
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<td>Excellent record keeping.</td>
<td>Ability to obtain research funding.</td>
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<td>Ability to plan work load, forward plan and work to tight deadlines.</td>
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<td>Ability to lead, manage and train staff.</td>
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<td>Ability to oversee the use and upkeep of equipment.</td>
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<th><strong>Other</strong></th>
<th><strong>Essential</strong></th>
<th><strong>Desirable</strong></th>
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<td>eg special circumstances (if any) appropriate to the role such as unsocial hours, travelling, Gaelic language requirements etc.</td>
<td>Occasional requirement to work outside of normal working hours.</td>
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<td>Travel to present results at conferences or scientific meetings, which may require overnight stays.</td>
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The University

Founded in 1495, Aberdeen is Scotland’s third oldest University and the fifth oldest in the UK. Ranked within the world top 140 in the recent QS global league table, Aberdeen is the ‘global University of the north’.

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 120 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.
The School of Medicine, Medical Sciences and Nutrition include the disciplines that underpin today’s medicine and biomedical sciences. The School contains four Institutes, the Institute of Medical Sciences (IMS), the Institute of Applied Health Sciences (IAHS), the Rowett Institute and the Institute of Education in Medical and Dental Sciences (IEMDS), which comprise our undergraduate and postgraduate programmes and our graduate entry Dental School. Information can be found at http://www.abdn.ac.uk/smmsn/index.php

We are fortunate that all of these institutes have their own buildings built in the last ten years in close proximity on the Foresterhill site. The Foresterhill campus is the largest single site medical complex in Europe and is adjacent to the Aberdeen Royal Infirmary, Maternity and Children’s hospitals. This allows close collaboration with clinical colleagues and a joined up approach, so that work in the laboratory can be developed for eventual patient benefit and, through health services projects, the effectiveness of the treatments and interventions can be measured.

The most recent building to open on the site is the Rowett Institute, occupied in March 2016. Staff within the Rowett Institute undertake nutrition and health 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 health research.

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 focussed 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 undergraduate and post-graduate training 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.

We also have a number of specialist Centres, most notably the Medical Research Council Centre for Medical Mycology, led by Professor Gordon Brown, which is a world-leading centre tackling the global death toll from fungal disease.
The city and the region

Aberdeen and Aberdeenshire

Aberdeen is world renowned as the oil capital of Europe 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.VisitScotland.com

How to apply

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

The closing date for receipt of applications is 20 May 2019

Should you wish to make an informal enquiry please contact:

Professor Lora Heisler, Chair in Human Nutrition
01224 437446
lora.heisler@abdn.ac.uk

Please do not send application forms or CVs to Professor Heisler.

Please quote reference number ROW053R on all correspondence

The University pursues a policy of equal opportunities in the appointment and promotion of staff.