Research Assistant (Marie-Curie Early Stage Researcher and Full-Time PhD Student)
Institute of Medical Sciences

Closing date: 10 April 2017
Interview date: TBC
Reference number: IMS060R
Introduction

The University of Aberdeen is offering a unique opportunity for an Early Stage Researcher to undertake full-time research, leading to a PhD in the framework of the project in PROTECTED (PROTECTION against Endocrine Disruptors; Detection, mixtures, health effects, risk assessment and communication). The Early Stage Researcher/PhD student will be funded for 3 years through the prestigious Marie Skłodowska-Curie Actions (MSCA) Innovative Training Network (ITN) programme which is an initiative by the EC to foster academic-industrial collaboration in the frame of an innovative and entrepreneurial PhD training program. (see http://protected.eu.com/)

PROTECTED is a Marie Skłodowska-Curie Innovative Training Network (MCSA-ITN) with the primary research aim to create an innovative expertise required to manage the human and environmental impacts of endocrine disruptors (EDs) and their mixtures in the food chain, and environment. In total, 15 Early Stage Researchers (ESRs) will be appointed by the PROTECTED consortium for 36 months each and all will be expected to complete PhDs.

Description

PROTECTED aims to develop expertise and protective capabilities against Endocrine Disruptors (EDs). EDs and their mixtures are a modern day health concern leading to failing ecological systems, poor agricultural production and health effects such as obesity, cancer and infertility. While analytical methods have advanced enormously, focus has been mainly on synthetic chemicals, overlooking emerging EDs and real-life multiple substance exposure. A new generation of creative, entrepreneurial and innovative early-stage researchers equipped with skills to assess and understand the real-life risk of complex mixtures of EDs and trained to convert resulting knowledge and ideas into accessible tools and services for the long-term control of potential ED risk is urgently needed. The PROTECTED Innovative Training Network [ITN] proposes a holistic approach by providing 15 individual, personalised research projects with exposure to scientific, innovative and entrepreneurial training mobility across the ITN. The intersectorial network is comprised of 12 training sites at academia, research centres, a bioassay technology SME, a QSAR technology SME, water provider, and animal feed supplier. Together they cover multiple disciplines including analytical science of food, feed, and environment, epidemiology, risk assessment, social science and toxicology. This combined expertise enables a highly focused program for developing novel tools and concepts and training for the detection, analysis and improved risk assessment of EDs, especially mixture effects. Methodology will include emerging technologies; multiplexed analysis, mixture modelling, mechanistic and exposure studies, explants and cell or whole organism bioassays. The project will provide a unique and high level of training for a new generation of specialists with transferable skills and enhanced career perspectives. These specialists will ultimately aid the efficient development of future control strategies for improved health.
Main purpose of the role:

In an exciting development, the University of Aberdeen’s unique SAFeR (Scottish Advanced Fetal Research) cohort of fetus and placenta samples (with associated data from normal pregnancies 7-20 weeks of gestation) will be used by the ESR/PhD student to answer 3 major knowledge gaps with regard to human fetal exposure and endocrine disruptor (ED) bioactivity: (i) the levels of selected EDs in 200 (100/sex) human fetal liver and placenta sample pairs; (ii) the levels of endogenous circulating and or intra-liver steroidal hormones; (iii) Since human fetal oestrogen levels are much higher than animal/in vitro systems, fetal liver and placenta will be used for quantification of ED bioactivity (xenosensor and endocrine receptor modulating activity) by AHR activation at other PROTECTED partners. Combinations of endogenous fetal steroid hormones and ED mixtures will be investigated using the full panel of assays available to PROTECTED. The relationships between endogenous steroid hormones, ED levels and ED bioactivities with fetal growth indices and expression of key transcripts of developmentally important tissues (plasma steroids, gonads, liver, thyroid gland, adrenal gland, placenta) will be investigated. SAFeR cohort data, together with post-natal human cohort (HUMIS) data and that from farm animals (the latter two datasets generated by other ESR/PhD students in PROTECTED) will be integrated in a mechanistic network to elucidate potential risks post by developmental exposure to complex ED mixtures.

Key responsibilities:

Research Assistant (Marie-Curie Early Stage Researcher and full-time student)

- To register full-time for a PhD with the School of Medicine, Medical Sciences and Nutrition at the University of Aberdeen.
- To manage and carry out an independent PhD research project in close collaboration Professor Fowler’s group and collaborators.
- To actively participate in research and training activities within the Professor Fowler’s group.
- To contribute to preparation of reports
- To contribute to writing articles for scientific journals
- To disseminate research results in the scientific community (via international conferences) and in the non-scientific community (via outreach and public engagement).
- To engage in additional training events and secondments within the PROTECTED network.

Candidate background

- 1st class or 2.1 Honour Degree or equivalent in Biology, Developmental Biology, Anatomy, Physiology, Pharmacology, Toxicology, or related discipline.
- Demonstrable knowledge of human and animal developmental biology.
- Demonstrable knowledge of anatomy, molecular biology, proteomics and transcriptomics.
- Be eligible and qualified for enrollment in the PhD programme at University of Aberdeen.
- Be willing and able to perform secondments or participate in training programs at the facilities of other consortium members such as Ulster, Norway, France, Chile, Belgium, Spain and The Netherlands.
- **Be willing to dissect and analyse human fetal and human placental tissues.**
- Be in the first 4 years (full-time equivalent) of their research careers and not yet have been awarded a doctorate. This 4-year period is measured from the date of obtaining the degree which would formally entitle to embark on a doctorate.
You must not have resided or carried out your main activity (work, studies, etc.) in the UK for more than twelve months in the three years immediately prior to your recruitment.

For more information on MSCA-ITN, visit: [http://ec.europa.eu/research/mariecurieactions/index_en.htm](http://ec.europa.eu/research/mariecurieactions/index_en.htm)
Terms of appointment

Salary will be paid at the rate of £28,993 per annum and you will also receive a monthly mobility allowance.

As this post is funded by the EU commission it will be available for a period of three years starting on 1 June 2017. **As part of your employment you must undertake a PhD.** This appointment will be made subject to the usual terms and conditions of employment of the University.

*This post is not on the current “shortage occupation” list and does not meet the minimum qualification requirements as issued by the Border and Immigration Agency therefore it will not qualify for a work permit. Unfortunately we are unable to consider applications from candidates for this post who require a work permit to work in the UK.*

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](http://www.abdn.ac.uk/staffnet/working-here)
## Person specification

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<th>Education/Qualifications</th>
<th>Essential</th>
<th>Desirable</th>
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<td>Academic, technical and professional education and training</td>
<td>- 1st class or 2.1 Honour Degree or equivalent in Biology, Developmental Biology, Anatomy, Physiology, Pharmacology, Toxicology, or related discipline</td>
<td>- MSc in biological/biomedical discipline</td>
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<td>- Be in the first 4 years (full-time equivalent) of their research careers and not yet have been awarded a doctorate.</td>
<td>- Presented work at conferences</td>
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<th>Work and Other relevant experience (including training)</th>
<th>Essential</th>
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<td>eg Specialist knowledge, levels of experience, supervisory experience, research</td>
<td>- To have carried out a laboratory project as part of their undergraduate degree</td>
<td>- Laboratory experience in biological/biomedical sciences</td>
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<th>Personal qualities and abilities</th>
<th>Essential</th>
<th>Desirable</th>
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<td>eg initiative, leadership, ability to work on own or with others, communication skills</td>
<td>- Ambitious and highly motivated.</td>
<td>- Enthusiasm to develop an independent research career</td>
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<td>- Evidence of good intellectual skills.</td>
<td>- Strong organisational skills</td>
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<td>- Ability and motivation to work independently as well as collaboratively in an interdisciplinary team</td>
<td>- Ability to meet targets</td>
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<td>- Ability to think independently</td>
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<td>- Excellent attitude and commitment to work.</td>
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<td>- Excellent oral and written communication skills</td>
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<th>Other</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>- Be willing to dissect and analyse human fetal and human placental tissues</td>
<td>- Willingness to work non-standard hours if necessary</td>
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<td>- Must not have resided or carried out your main activity (work, studies etc) in the UK for more than 12 months in the 3 years immediately prior to your selection for this post</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 is structured into Academic Colleges:

- The College of Life Sciences and Medicine
- The College of Physical Sciences
- The College of Arts and Social Sciences
- The Business School

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 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 10 April 2017

Should you wish to make an informal enquiry please contact
Professor Paul Fowler, Director of the Institute of Medical Sciences
01224 437528
p.a.fowler@abdn.ac.uk

Please do not send application forms or CVs to Professor Fowler

Please quote reference number IMS060R on all correspondence

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