Research Assistant ESR6 (Marie-Sklowdowska Curie Early Stage Researcher)
School of Medicine, Medical Sciences and Nutrition

Closing date: 17 October 2020
Interview date: To Be Confirmed
Reference number: IMS201R
Introduction

The University of Aberdeen is offering a unique opportunity for an Early Stage Researcher to undertake full-time research, in the framework of the PROTECTA consortium (Pathogen-Informed Resistance to Oomycete Diseases in Ecosystems, Agriculture and Aquaculture). The Early Stage Researcher/PhD student will be funded for 2 years through the prestigious Marie Skłodowska-Curie Actions (MSCA) Innovative Training Network (ETN) programme H2020-MSCA-ETN-813195.

PROTECTA is a Marie Skłodowska-Curie Innovative Training Programme (MSCA-ETN) programme and bringing together 10 Beneficiaries and 9 partner organisations from throughout Europe. PROTECTA will employ 15 early stage researchers across the consortium, three of which will be based at the University of Aberdeen.

The main objective of PROTECTA is to advance our understanding of the pathogenicity of oomycetes in diverse pathosystems, and to exploit this knowledge to develop tools for disease control and crop protection. The PROTECTA Training Programme will train the ESRs in cutting-edge inter-sectoral scientific and transferable skills to prepare them for future careers as research leaders and innovators. We are looking for young scientists (ESRs) with an excellent potential to become leaders in their chosen fields, and we will provide multidisciplinary inter-sectoral scientific training through individual PhD projects. A comprehensive four-step training programme has been developed which will utilize the experience and expertise of the partner laboratories in genomics, quantitative proteomics, computational biology, molecular biology, biochemistry, genetics, breeding, microbiology, cell biology, ecology, plant pathology, disease control, technology transfer, entrepreneurial skills, product development and management, with the direct involvement of both academic and industrial partners.
Job description

Main purpose of the role:

The oomycetes are a distinct lineage of eukaryotic microbes that resemble fungi in filamentous growth and absorptive nutrition, but are genetically related to the heterokont (brown) algae. Like the fungi, oomycetes have a worldwide distribution and are destructive and highly adaptable pathogens. Hosts include major crop plants, natural forests, farmed fish, insects, amphibians and even humans. Late blight continues to be a major threat to potato production worldwide, and is one of the top five pathogens currently threatening global food security. New and (re)emerging oomycete diseases are also increasing threats to natural ecosystems, agriculture and aquaculture. Members of the genus Saprolegnia are aggressive pathogens of salmonid fish that first emerged in the 1870s in Scottish rivers. A recent rise in intensive fish farming underpins the re-emergence of saprolegniosis as a serious threat to European aquaculture. With continuing pressure on agriculture and aquaculture to meet global food security and biodiversity preservation issues, it is timely to develop new sustainable disease control measures that are durable, support natural ecosystems and allow for a reduction in chemical pesticides. PROTECTA will go beyond the current focus of plant pathogenic species to develop durable disease control and will perform large-scale analysis of oomycetes that infect plants, fish, crayfish, insects, fungi and other oomycetes. PROTECTA is divided into 4 research work packages and 4 training, coordination, communication and exploitation work packages. WP6 involves the biochemical analysis of oomycete effectors and their host targets, which will deliver fundamental, comparative research on the presence and expression of effectors within the oomycete lineage. ESR6 will be involved in the biochemical analysis of oomycete effectors and their host targets. The aim is to elucidate the functions of effectors from several studied oomycete species as well as determining the nature of immune responses and/or effector targets in potato, salmonids and fungal or oomycete hosts. ESR6 will be part of the Aquaculture disease group and the specific project will be 'Functional characterisation of effector proteins from S. parasitica and S. diclina.'

Secondments: Université Toulouse III Paul Sabatier (France); Oxford University, UK; Fish Vet group, UK.

Key responsibilities:

Research Assistant (Marie-Curie Early Stage Researcher)

- To manage and carry out a research project in close collaboration with partners in PROTECTA.
- To actively participate in research and training activities and secondments within the PROTECTA network.
- 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).

At a glance

Salary:
Salary for 2 years will be paid at the rate of £29,012 per annum and you will also receive a monthly mobility allowance.

Hours of work:
Full Time 37.5 hours per week.

Contract type:
This post is externally funded by European Commission and is available from 1 November 2020 to 31 July 2022 with the possibility of a further extension.
Candidate background

- 1st class or 2.1 Honour Degree or equivalent in or equivalent in Biochemistry, Microbiology, Biotechnology, Molecular Biology or related discipline.
- Demonstrable knowledge of biochemistry, microbiology and molecular biology.
- Be eligible and qualified for enrolment 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.
- 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

Terms of appointment

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

Should you require a visa to undertake paid employment in the UK you will be required to fulfil the minimum points criteria to be granted a Certificate of Sponsorship and Tier 2 visa. As appropriate, at the time an offer of appointment is made you will be asked to demonstrate that you fulfil the criteria in respect of financial maintenance and competency in English. Please do not hesitate to contact Natalie Reid, HR Adviser on +44 (0)1224 437066 or email n.reid@abdn.ac.uk for further information.

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

## Education/Qualifications

**Academic, technical and professional education and training**

- 1st class or 2.1 Honour Degree or equivalent in biochemistry, microbiology, molecular biology, biotechnology, or related discipline
- Be in the first 4 years (full-time equivalent) of their research careers
- MSc in biochemistry, microbiology, molecular biology, biotechnology or related discipline
- Presented work at conferences.
- Publication record

## Work and Other relevant experience (including training)

eg Specialist knowledge, levels of experience, supervisory experience, research

- To have carried out a laboratory project as part of their undergraduate degree
- Laboratory experience in biochemistry, microbiology, molecular biology or biotechnology sciences. Knowledge and experience of protein overexpression and purification techniques.

## Personal qualities and abilities

eg initiative, leadership, ability to work on own or with others, communication skills

- Ambitious and highly motivated
- Evidence of good intellectual skills
- Ability and motivation to work independently as well as collaboratively in an interdisciplinary team
- Ability to think independently
- Excellent attitude and commitment to work
- Excellent oral and written communication skills
- Willingness to actively participate in research and other training as part of PhD, University requirements, and requirements of the PROTECTA consortium
- Be willing and able to perform secondments or participate in training programs at the facilities of other consortium members.
- Enthusiasm to develop an independent research career
- Strong organisational skills
- Ability to meet targets

## Other

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

- Must meet eligibility criteria for the European Commission’s Marie Curie Initial Training Network.
- Must not have lived in the UK for more than 12 months in the last 3 years.
- Flexible approach towards work.
- Willingness to work non-standard hours if necessary.
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 application 17 October 2020

Should you wish to make an informal enquiry please contact
Professor Pieter van West, Chair in Oomycete Biology
01224 437327
p.vanwest@abdn.ac.uk

Please do not send application forms or CVs to Professor van West

Please quote reference number IMS201R on all correspondence

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