4 Year PhD Studentship available for September 2019

Department: Health Sciences

Supervisors:
Prof Anna Hansell, University of Leicester
Dr Catherine Pashley, University of Leicester
Dr Emma Marczylo, Public Health England
Prof Alex Elliot, Public Health England

Entry requirements:
Applicants are required to have a background in one or more of the following areas: molecular biology, genomics, bioinformatics, epidemiology, biology/biochemistry with a UK Bachelor Degree 2:1 or better, and preferably also a similar MSc qualification, or similar and will be expected to have good statistical analysis skills. The University of Leicester English language requirements apply where applicable: https://le.ac.uk/study/research-degrees/entry-reqs/eng-lang-reqs

Project Title: A real-time molecular epidemiological investigation into the contribution of fungal spores to seasonal asthma spikes

Project Description:
This is a Medical Research Council (MRC) Toxicology Unit Integrative Toxicology Training Partnership (ITTP) Capacity Building studentship.

Asthma is a common long-term lung disease associated with avoidable complications, deaths and substantial costs to the NHS and society. While there is a lot of research on the pollen and asthma, around 37% of asthma sufferers also report that fungi can trigger or worsen their symptoms. Different fungi release their spores into the air at different times of the year, generating seasonal fluctuations, but the impact of this on asthma exacerbations is unknown.

This multidisciplinary project will first involve laboratory sequencing and quantitative PCR techniques to identify key fungal species in air. These will then be related in statistical analyses to health data on General Practice and Hospital visits for asthma in the same region as the air sampling. The project will lead to important advances in knowledge about the role fungi play in asthma as well as the different types of fungi present in the air at different times of the year.

The student will develop expertise in the critical appraisal of scientific literature, microscopy, molecular biology (in particular microbial metagenomics by NGS & qPCR), toxicology, real-time syndromic surveillance and epidemiology, human cohorts, and in vitro assays.
As an ITTP studentship, the student will participate in MRC Toxicology PhD student training as well as being part of the University of Leicester training programme and benefit from Public Health England (PHE) PhD student training.

The studentship will be based at the Centre for Environmental Health and Sustainability at the University of Leicester, the PHE Centre for Radiation, Chemical and Environmental hazards (CRCE) on the Harwell campus in Didcot and will also involve a short-term placement at the PHE real-time syndromic surveillance unit in Birmingham.

**Funding details:**

Medical Research Council (MRC) Toxicology Unit Integrative Toxicology Training Partnership (ITTP) Capacity Building studentship

The funding will provide a tuition fee waiver at UK/EU rates and a stipend of £15,009 per annum

**References**


**How to apply:**

You should submit your application using our [online application system](#).

Apply for a PhD in Health Sciences

In the funding section of the application please indicate you wish to be considered for an **ITTP Studentship**

In the proposal section please provide the name of the supervisor and project you want to be considered for.

**Project / Funding Enquiries:**

Anna Hansell ([ah618@leicester.ac.uk](mailto:ah618@leicester.ac.uk)), University of Leicester

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Application enquiries to [pgradmissions@le.ac.uk](mailto:pgradmissions@le.ac.uk)

Closing date for applications **24 April 2019**