Information on Postgraduate Research Scholarship - Ref: VCS-NRI-02-25

Faculty:	FES-NRI	**Department:**	Food and Market
Lead Supervisor:	Stacey Duvenage		
Project Title:	Cultural Surveillance of Antibiotic Resistant Enterobacterales: A One Health Approach to Tracking Antimicrobial Resistance from Farm to Community		
Project Description:	Antimicrobial resistance (AMR) is a critical global health challenge, threatening sustainable development and public health. This PhD project is part of the funded **IOSAR (Integrative One Health Surveillance for Antimicrobial Resistance)** programme, which aims to track AMR from farm to community through a One Health lens. The successful candidate will use a combination of traditional microbiological and next generation sequencing methods to investigate the transmission of AMR bacteria (ARB) across interconnected microenvironments—poultry farms, fresh produce systems, and wastewater treatment plants—over a one-year period. The project will involve: • **Microbial culturing and identification** of *Escherichia coli* and ESBL-producing *Enterobacterales* from on-farm water, soil, fresh produce, animal waste, and community wastewater. • **Phenotypic resistance testing** and selection of isolates for **whole genome sequencing (WGS)** to identify antibiotic resistance genes (ARGs) and their genomic context. • **Comparative analysis** of ARB and ARG prevalence across sample types and farming practices. • **Integration of microbiological, genomic, climatic, and antimicrobial usage data** to inform targeted interventions. This studentship offers a unique opportunity to contribute to a high-impact, transdisciplinary project aligned with the UK's 20-year AMR strategy and the One Health Joint Plan of Action. The project combines laboratory and computational approaches to address the environmental dimension of AMR and support sustainable, equitable food systems.		
Duration:	3 years, Full-Time Study		

Bursary available (subject to satisfactory performance):
Year 1: £20,780 (FT) Year 2: and 3: In line with UKRI

In addition, the successful candidate will receive a contribution to tuition fees equivalent to the university's Home rate, currently £5,006 (FT) for the duration of their scholarship. International applicants will need to pay the remainder tuition fee for the duration of their scholarship.

This fee is subject to an annual increase.

Person Specification of Essential (E) or Desirable (D) requirements:	
Criteria:	**E or D**
Education and Training:	
• 1st Class or 2nd Class, First Division (Upper Second Class, 2:1 Honours degree) honours degree or a taught Master's degree with a minimum average of 60% in all areas of assessment (UK or UK equivalent) in a relevant area to the proposed research project (Microbiology, Biological Sciences, Biomedical Sciences, Environmental Science, or a related discipline).	**E**
• For those whose first language is not English and/or if from a country where English is not the majority spoken language (as recognised by the UKBA), a language proficiency score of at least IELTS 6.5 (in all elements of the test) or an equivalent UK VISA and Immigration secure English Language Test is required, if your programme falls within the faculty of Engineering and Science a language proficiency score of at least IELTS 6.5 overall with a minimum of 6.0 in all elements of the test or an equivalent UK VISA and Immigration secure English Language Test is required. Unless the degree above was taught in English **and** obtained in a majority English speaking country, e.g. UK, USA, Australia, New Zealand, etc, as recognised by the UKBA.	**E**
Experience & Skills:	
• Previous experience of undertaking research (e.g. undergraduate or taught master's dissertation)	**E**
• Practical experience in microbiological culturing and isolation techniques	**E**
• Familiarity with antimicrobial susceptibility testing and phenotypic resistance profiling	**D**
• Experience with MALDI-TOF or other microbial identification methods	**D**
• Experience with Whole Genome Sequencing for bacterial isolate classification.	**D**
• Willingness to participate in on-farm sampling and environmental surveillance across multiple sites.	**E**
• Interest in One Health, AMR epidemiology, and sustainable food systems.	**E**
Personal Attributes:	
• Understands the fundamental differences between a taught degree and a research degree in terms of approach and personal discipline/motivation	**E**
• Able to, under guidance, complete independent work successfully and manage time effectively across lab, field, and desk-based tasks.	**E**
• Ability to work collaboratively across disciplines and with diverse stakeholders	**E**
• Strong written and verbal communication skills	**E**
Other Requirements:	
• This scholarship may require Academic Technology Approval Scheme approval for the successful candidate if from outside of the EU/EEA	**E**
• The scholarship must commence before 1 December 2025	**E**
Closing date for applications:	***midnight UTC on 15th Oct. 2025***

For further information contact:	s.duvenage@gre.ac.uk or h.thompson@gre.ac.uk

Making an application:

Please read this information before making an application. Information on the application process is available at: https://www.gre.ac.uk/research/study/apply/application-process. Applications need to be made online via this link. **No other form of application will be considered**.

All applications **must include** the following information. **Applications not containing these documents will not be considered.**

- **Scholarship Reference Number (VCS-NRI-02-25)**– included in the personal statement section together with your personal statement as to why you are applying
- **a CV including 2 referees** *
- **academic qualification certificates/transcripts and IELTs/English Language certificate if you are an international applicant or if English is not your first language or you are from a country where English is not the majority spoken language as defined by the UK Border Agency** *

**upload to the qualification section of the application form. Attachments must be a PDF format.*

Before submitting your application, you are encouraged to liaise with the Lead Supervisor on the details above.