

Information on Postgraduate Research Scholarship - Ref: VCS-ES-04-17

Faculty: Faculty of Engineering and Science

Department: Life and Sports Sciences

Lead Supervisor: Dr Agnieszka Jaworowska

Project Title: Lipopolysaccharide – a triggering factor of inflammatory responses in obesity

Project Description:

The PhD student will join an interdisciplinary team with research experience in population-based studies on diet, obesity and the metabolic complications, molecular methods to study immunity, and analytical chemistry.

Excessive adipose tissue accumulation is associated with the overproduction of pro-inflammatory cytokines resulting in chronic low-grade inflammation, which is considered a major etiologic factor in the pathogenesis of obesity induced metabolic dysfunctions (such as diabetes, atherosclerosis, and insulin resistance). As emerging evidence seems to link obesity and its associated metabolic complications with infectious agents we propose that bacterial infection and/or metabolic endotoxaemia may serve as a trigger of inflammatory responses in obesity. The aim of the project is to investigate the role of lipopolysaccharide (LPS) in triggering inflammatory responses in obesity and to establish the factors increasing LPS levels in circulation. Understanding the connection between the immune and metabolic systems is crucial to the development of strategies to prevent or decrease the adverse effects of obesity on health. This project will involve dietary data collection, anthropometrical measurements, biochemistry, molecular biology and analytical techniques.

The candidate should have a degree in biochemistry, human nutrition, biology, biomedicine or related discipline. The candidate should demonstrate a keen interest in the relationship between diet, nutrition and health as well as good laboratory skills. Experience with bioanalytical assays and working with bio-fluids is an advantage.

Duration: 3 years, Full-Time Study

Bursary available (subject to satisfactory performance):

Year 1: £14,553 Year 2: In line with RCUK rate Year 3: In line with RCUK rate
In addition, the successful candidate will receive a contribution to tuition fees equivalent to the university's Home/EU rate, currently £4,195, for the duration of their scholarship. International applicants will need to pay the remainder tuition fee, currently £8,305, for the duration of their scholarship. This fee is subject to an annual increase.

For further information contact: *Dr Agnieszka Jaworowska*
E-mail: A.Jaworowska@greenwich.ac.uk

Closing date for applications: midnight (UTC) on 2 August 2017

Person Specification of Essential (E) or Desirable (D) requirements:	
Criteria:	E or D
Education and Training:	
<ul style="list-style-type: none"> 1st Class or 2nd class, First Division (Upper Second Class) 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 	E
<ul style="list-style-type: none"> 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, 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:	
<ul style="list-style-type: none"> Previous experience of undertaking research (undergraduate or taught masters dissertation) 	E
<ul style="list-style-type: none"> Keen interest in the relationship between diet, nutrition and health (immune response) 	E
<ul style="list-style-type: none"> Degree in biochemistry, biomedical sciences, human nutrition, biology, biomedicine or related discipline 	E
<ul style="list-style-type: none"> Experience in molecular biology, analytical chemistry techniques and dietary data collection 	D
<ul style="list-style-type: none"> Previous experience working with biological fluids such as serum, plasma or saliva 	D
<ul style="list-style-type: none"> Previous experience of undertaking research at Master's level 	D
<ul style="list-style-type: none"> Previous published research 	D
Personal Attributes:	
<ul style="list-style-type: none"> Understands the fundamental differences between a taught degree and a research degree in terms of approach and personal discipline/motivation 	E
<ul style="list-style-type: none"> Able to, with minimal supervision, complete independent work successfully 	E
<ul style="list-style-type: none"> Ability to work in an interdisciplinary team 	E
<ul style="list-style-type: none"> Excellent communication skills 	E
Other Requirements:	
<ul style="list-style-type: none"> This scholarship may require Academic Technology Approval Scheme approval for the successful candidate if from outside of the EU/EEA 	E
<ul style="list-style-type: none"> The scholarship must commence by 30 November 2017 	E

Making an application:

Please read this information before making an application. Information on the application process is available at: http://www2.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 (Ref VCS-ES-04-17)** – included in the personal statement section together with your personal statement as to why you are applying
- **a CV including 2 referees** at least one of whom is an academic referee
- **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.