

University of Greenwich

JOB DESCRIPTION

Job Title:	Post-doctoral organic chemist/chemical ecologist	Grade:	AC1/2
Department:	Agriculture health and environment group , NRI	Date of Job Evaluation:	March 2017
Role reports to:	Professor of Plant Chemistry		
Direct Reports	None		
Indirect Reports:			
Other Key contacts:	NRI Staff including Senior Research Fellows, Research Fellows and Senior Scientists		
This role profile is non-contractual and provided for guidance. It will be updated and amended from time to time in accordance with the changing needs of the University and the requirements of the job.			

PURPOSE OF ROLE: To carry out organic chemical synthesis and analysis as part of a team working on application of chemical ecology for control of pests and diseases of crops, livestock and humans.

The post-holder's responsibilities will be to carry out identification and synthesis of natural products from insects, plants and animals as part of existing projects. They will be expected to contribute to applications for future funding to continue research, and to the preparation of research outputs including published papers. There will be opportunities for the post-holder to undertake teaching at MSc and undergraduate level. Candidates must have a good theoretical and practical background in chemistry with an interest in natural products. Specific training in synthesis of insect-produced chemicals will be provided.

KEY ACCOUNTABILITIES:

Team Specific:

- Synthesis of organic chemicals as part of the process of identification of novel natural products and for provision of material for biological evaluation in laboratory and field.
- Analysis of natural products using primarily gas chromatography and high performance liquid chromatography.
- Identification of the structures of novel natural products using mass spectrometry and other techniques.
- Development and evaluation of formulations for use of natural products in pest management.
- Collection of natural products by a range of sampling techniques including solvent extraction, aeration with solvent or thermal desorption and solid-phase microextraction.
- Assistance with rearing and maintenance of insects and plant materials as necessary.
- Co and lead-authorship of project reports, presentations and published papers.

- Teaching of organic chemistry at undergraduate and postgraduate level

Generic:

- Represent the University at project meetings with partners
- Take part in Faculty activities as required

Managing Self

- Maintain a professional presentation of self at all times through effective communication skills, good time management and respectful attitude to project colleagues and students.
- Work effectively and manage needs and priorities of different projects to deliver to targets and deadlines
- Be able to work as part of a team and independently
- Keep up with new relevant developments in the scientific literature.
- Communicate progress in chemical analysis and synthesis to members of the chemical ecology group.

Core Requirements

- Adhere to and promote the University's policies on Equality and Diversity and Information Security
- Ensure compliance with Health & Safety regulations
- Support and promote the University's Sustainability policies, including the Carbon Management Plan, and carry out duties in a resource efficient way, recognising the shared responsibility of minimising the university's negative environmental impacts wherever possible.

Additional Requirements:

- Travel to attend partner meetings and conferences and conduct research away from Medway Campus for short periods as occasionally required
- Membership of the University of Greenwich Early Career Research Initiative (as required)
- Undertake such other duties as may reasonably be required

KEY PERFORMANCE INDICATORS

- Identification and synthesis of natural products in sufficient quantities and of sufficient quality as required to meet the needs of each project.
- Ongoing familiarity with new developments in the relevant literature
- Contribution to funding applications, research outputs and publications
- Quality of teaching at graduate and post graduate level where relevant.

KEY RELATIONSHIPS (Internal & External):

- Maintain excellent relationships with NRI, Faculty and UoG colleagues, administrative and management staff and students and maintain and develop new links with external contacts within the commercial and public sector including those who are funders of research and enterprise both in the UK and overseas.
- Undertake training as instructed by Prof Hall and other staff at NRI and UoG.

PERSON SPECIFICATION	
Essential	Desirable
<p>Experience</p> <p>Prior training in synthesis and analysis of natural products</p>	<p>Experience</p> <p>Teaching of organic chemistry at graduate or postgraduate level</p> <p>Communication of chemistry results to wide range of stakeholders</p> <p>Work with insects, plants and related semiochemicals</p>
<p>Skills</p> <p>Ability to analyse natural products</p> <p>Ability to synthesise natural products</p> <p>Strongly motivated to contribute and develop research</p> <p>Able to work individually and in a team</p> <p>IT skills in standard Microsoft packages and use of packages for capture and processing of analytical data</p>	<p>Skills</p> <p>Good general writing skills, as demonstrated in published papers and reports</p>
<p>Qualifications</p> <p>PhD in organic chemistry or related subject</p>	<p>Qualifications</p> <p>Additional training or qualifications in techniques relating to organic chemistry (e.g GC-MS, LC-MS) or teaching</p>
<p>Personal Attributes</p>	

<p>We are looking for people who can help us deliver the values of the University of Greenwich.</p>	
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