

Candidate Information

Position:	Research Assistant
School/Department:	Institute for Global Food Security
Reference:	18/106916
Closing Date:	Wednesday 28 November 2018
Salary:	£27,831 - £32,236 per annum (potential to progress to £35,210 per annum through sustained exceptional contribution)
Anticipated Interview Date:	week commencing 10 December 2018
Duration:	until 31 March 2020

JOB PURPOSE:

To be an active member of the research team assisting in the planning and delivery of research led by Dr Katrina Campbell at the Institute of Global Food Security within the framework of the H2020 EU project Seafoodtomorrow. This research project is a European Program to ensure Nutritious, safe and sustainable seafood for consumers of tomorrow.

MAJOR DUTIES:

1. Undertake research to develop and validate immunological methods of analysis for xenobiotics and biological toxins including small molecular weight molecules and proteins e.g ELISA and microarrays
2. Undertake research to design and validate rapid molecular methods of analysis for authenticity testing of seafood products e.g. PCR and qPCR / biosensor methods
3. Carry out basic chemistry for the derivatisation of small molecular weight contaminants to enable coupling chemistry to be performed to proteins or chemical surfaces.
4. Perform immunisation programmes and/or cell culture techniques for antibody production
5. Carry out the characterisation of immunological reagents produced using immunological / biosensor / molecular methods for activity monitoring.
6. Conduct immunological and molecular analysis for target identification when required and undertake the critical evaluations & interpretation of the results.
7. Contribute to the design of both immunological and molecular methods to demonstrate single laboratory validation of developed or commercial methods for toxin, xenobiotics and authenticity testing in seafood products
8. Assist in the set-up of inter-laboratory proficiency tests for the validation of developed immunological and molecular methods of analysis as prototype kits
9. Present regular progress reports on research to members of the research group, project partners or to external audiences to disseminate and publicise research findings.
10. Write up results of own work and contribute to the production of research reports, publications and proposals.
11. May contribute to introductory courses, for example, on the use of research methods and equipment.
12. Carry out undergraduate supervision/demonstrating/teaching duties under direction.
13. Carry out any other duties designated by a line manager and which fall within the general ambit of the post.

Planning and Organising:

1. Plan own day-to-day activity within the framework of the agreed research programme.
2. Contribute to the planning of research projects, reports and publications etc usually 1-6 months in advance.
3. Read academic papers, journals and textbooks to keep abreast of developments.

Resource Management Responsibilities:

1. Ensure research resources are used in an effective and efficient manner.
2. Ensure health and safety protocols (COSHH) for use of materials are complete and records maintained up to date in compliance with licence requirements

3. Carry out maintenance and calibrations of instrumentation used in the laboratory where necessary
4. Provide guidance as required to support staff and any students who may be assisting with research.
5. Carry out routine administrative duties as requested, e.g. arranging research group meetings and assisting in the organisation of workshops for EU Project Partners

Internal and External Relationships:

1. Liaise with research colleagues and support staff on routine matters.
2. Make internal and external contacts to develop knowledge and understanding and form relationships for future collaboration.
3. Attend and contribute to relevant meetings.

ESSENTIAL CRITERIA:

1. 1st class or 2.1 Degree or equivalent in biochemistry, chemistry, molecular biology or analytical science or related discipline
2. Practical experience in immunological methods e.g. ELISA, LFD, microarrays, biosensors
3. Practical experience in molecular methods e.g. PCR, qPCR or NGS
4. Knowledge of sample preparation methods for food analysis e.g. extraction of low molecular molecules and nucleic acids (DNA/RNA)
5. Willingness to contribute to undergrad mentoring and support on research projects within the laboratory setting
6. Willingness to contribute to the School and project outreach activities in a professional manner
7. Evidence of strong interest in working in a dynamic research environment, and a strong self- motivation to succeed within a competitive research field
8. Strong analytical and problem solving skills
9. Ability to logically conceptualise and summarise the research findings and data
10. Ability to interact with research colleagues and support staff
11. Ability to analyse and communicate effectively.
12. Demonstrable intellectual ability.
13. Willing to conduct animal scientific procedures where necessary
14. Willing to travel to support the dissemination activities at meetings/workshops in Europe

DESIRABLE CRITERIA:

1. May be working towards a PhD or post graduate qualification.
2. Knowledge of method development and validation procedures
3. Interest in teaching, contribution to training staff and partners in techniques
4. Knowledge of report writing for funding bodies
5. Experience of outreach and networking
6. Previous experience in large multicentre international research projects
7. Experience of presenting results in front of peers, meetings or conferences
8. Experience of publishing research in journals or media.
9. A valid DHSSPSNI Licence to conduct animal scientific procedures