JOB DESCRIPTION

JOB ROLE: Post-doctoral Research Assistant position 1 (bacterial genetics/physiology)

JOB PURPOSE: This ERC funded post will investigate factors governing bacterial pathogenicity towards algae. The post will involve designing and conducting co-culturing experiments with model bacterial and algal cultures. Working together with a dedicated research technician, and with bioinformatics support, the successful candidate will employ forward and/or reverse genetics with a model marine (Roseobacter) bacterium. There are also opportunities for developing and applying novel environmental sampling approaches in the field.

ACCOUNTABILITY Reporting to: Dr Katherine Helliwell, Senior Research Fellow

Essential experience/skills/qualifications:

- PhD or comparable experience in Microbiology, Molecular Biology, Bacterial Genetics, Microbial Ecology or related fields.
- Proficiency in molecular biology techniques, including PCR, RNA and DNA extraction and bacterial genetic modification/functional gene characterization.
- Experience in analysing and interpreting large 'omics datasets (such as RNA-seq/proteomics, Tn-Seq, metabarcoding).
- Experience and interest in writing research publications.
- Highly motivated to do fundamental scientific research to a high standard
- Demonstrated ability to work independently and as part of a team.
- Strong communication skills and ability to work effectively in a highly collaborative research environment.
- Excellent English language skills (both oral and written).

Desirable experience/skills/qualifications:

- Experience of Roseobacter genetic modification/gene knockout approaches, cloning/plasmid design, plasmid preparation.
- Microscopy/live-cell imaging, ideally with experience using light, epifluorescence and confocal microscopy.
- Knowledge of algal-bacterial interactions.

Key responsibilities and skills

1. <u>To undertake research, as follows:</u>
    - Designing and conducting laboratory experiments to test defined research questions.

- Analysing and interpreting the results of own research and generating original ideas based on outcomes.
- Using new research techniques and methods.
- Using initiative and creativity to identify areas for research, developing new research methods and extending the research portfolio.
- Using creativity to analyse and interpret research data and draw conclusions on the outcomes.
- Dealing with problems which may affect the achievement of research objectives and deadlines.
- Writing up research work for publication.
- Developing research objectives and proposals for own or joint research.
- Making presentations at national and international conferences and similar events.
- Ensure data management, storage, and sharing of project data in compliance with relevant standards and protocols.
- Carry out tasks in compliance with Health and Safety and other relevant regulations in line with MBA policies.
- Undertake any other tasks identified as being within the job holders capabilities.

2. <u>To collaborate with and assist other members of the team:</u>
    - Including attending regular group meetings, and engaging in constructive discussions, providing support and feedback to colleagues. Sharing knowledge and expertise with students and other postdocs in the group.
3. <u>To contribute to research–focussed teaching:</u>
    - including assisting in the supervision of student projects and in the development of student research skills.
    - Where relevant, contributing to MRES practical's as part of the wider research group.