

## **JOB DESCRIPTION**

**JOB ROLE:** Postdoctoral Research Assistant

**JOB PURPOSE:** The post will involve the study of cell signalling processes in diatoms and other algae, designing and conducting experiments using a range of model organisms. The post will involve fluorescent microscopy, genetic manipulation and cell physiology approaches. Bioinformatic approaches will also be used for comparative genomics and molecular phylogenetics. The post will require data analysis and preparation of peer-reviewed scientific manuscripts for publication. The post will also involve engagement with the wider scientific community, including presentation of research findings at workshops and conferences

**ACCOUNTABILITY Reporting to:** Dr Glen Wheeler, Senior Research Fellow

### **Essential experience/skills/qualifications:**

- PhD or comparable experience in Algal/Plant Biology, Cell Biology, Microbiology, Molecular Biology, Microbial Ecology, or related fields.
- Proficiency in molecular biology techniques, including PCR, RNA and DNA extraction and functional gene characterization.
- Experience in cell biology and/or physiology
- Analysing and interpreting datasets generated through molecular biology and cell biology physiology approaches.
- Experience and interest in writing research publications.
- Highly motivated to conduct 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 algal physiology and molecular biology, including genetic manipulation.
- Microscopy/live-cell imaging, ideally with experience of epifluorescent and confocal microscopy.
- Expertise in cell signalling, including use of fluorescent reporters.
- Leading the writing of scientific manuscripts for peer-reviewed publications.
- Expertise in managing a research project to a successful conclusion.

### **Key responsibilities and skills**

1. To undertake research, as follows:

- 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. To collaborate with and assist other members of the team:

- 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. To contribute to research-focussed teaching:

- Including assisting in the supervision of student projects and in the development of student research skills.
- Where relevant, contributing to MRes practicals as part of the wider research group.