**Job Description**

**1. Job Details**

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| Job Title | PDRA in Macroalgae Biotechnology and Biorefinery | Job Family | Research |
| Line Manager | Reader in the Blue Economy | Grade range | 5 or 6 |
| Full Time/Part Time | Full Time (37hrs) | Duration of appointment | 2 years |

**2. Job Purpose**

To undertake laboratory studies on the bio-conversion of marine biomass to industrially relevant compounds including methane, hydrogen or intermediate products. This will include understanding the microbiological consortia during the whole process using metagenomic techniques. You will be experienced in laboratory analysis of compounds such as fatty acids, carbohydrates and proteins.

**3. Main Responsibilities**

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| *Role Description* | *Approx. % of time* |
| Devise and undertake experimental scale trials on the bioconversion of macroalgae. | 20 |
| Analyse and quantify energy and intermediate compounds. | 30 |
| Investigation of microbial consortia and cultured isolates for production of energy and intermediate compounds. | 30 |
| Development of peer reviewed publications and present at national/international conferences acting as an ambassador for SAMS. Write and contribute towards reports and deliverable outcomes. | 20 |
| Be pro-active in the application of SAMS Health and Safety Procedures. | Ongoing |

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**4. Planning and Organising**

* Plan and organise laboratory-based experiments.
* Organise, undertake and interpret sample analysis on a range of analytical equipment.
* Manage technicians to ensure efficient and high throughput of samples.
* Assess project resource requirements, where necessary, delegating maintenance and equipment purchases.
* Supervise students, developing their planning, organisational, written and technical skills.
* Plan publications and report writing strategies for projects, scope out target journals, writing manuscripts and organising publication in collaboration with co-authors.
* At a more senior grade you will identify and lead further funding applications in this field.

**5. Problem-Solving**

* Develop schedules and protocols for analysis.
* Apply knowledge from bioinformatics analysis of metagenomic data to design experiments targeting energy produced by organisms/genes/pathways.
* Solve problems that occur in the lab, seeking advice from specialists or relevant staff members when necessary. For example, an equipment or analytical fault.
* Present any encountered problems to partners diplomatically, having already discussed and determined potential solutions with relevant peers.
* At a more senior grade you will develop novel approaches to the field and will be deeply involved with pushing forward the frontiers of the discipline.

**6. Decision-Making**

* Prioritise work as necessary to achieve desired results.
* Determine the best/most appropriate course of action for research – seeking advice from peers and project partners where appropriate. For example, experimental design purposes and analytical equipment.
* Select appropriate techniques for undertaking laboratory work.

**7. Key Contacts/Relationships**

* Working with project lead and the other staff linked to the project.
* Liaise with other PDRAs, technical staff, facilities, and lab managers to ensure the smooth running and operation on equipment necessary to perform experimental work.
* SAMS Enterprise Project Manager responsible for delivery of the project.
* The project is being delivered for an external client; developing and maintaining a professional relationship with the client is a key relationship
* Represent SAMS/projects at national/international conferences and meetings.
* Interact and supervise technical staff, student, and interns to ensure their own personal and professional development.
* At a senior grade you will be comfortable to take the lead at meetings with any external client providing information and advice.

**8. Knowledge, Skills and Experience needed for the Job**

* PhD in subject related to feedstock bioconversion, bioremediation, biochemistry or microbiology.
* Fundamental understanding of experimental design, good lab practice, data handling and time/project management.
* Analytical skills including HPLC or GC running and troubleshooting.
* Metagenomic and/or bioinformatic experience.
* Microbiological cultivation experience.
* Good computer and presentation skills.
* At the higher grade you will have a track record consistent with developing an independent research career including first author publications and may have a track record of (small) grant captures or credible proposal development.

Candidates wishing to be considered for a Grade 6 position will be expected to provide evidence in their application of some of the following: more developed application of their experimental work, some supervisory responsibilities, able to use a variety of techniques and models – may also including tailoring these to suit project requirements. May be a specialist in own area, evidence development of new methods, processes and procedures. Track record of regular published outputs, showing a number at first author. Take an active role in contributing to identifying research opportunities and preparing bids.
Take an active role in the further development of own research trajectory and becoming established. Some evidence of conducting individual and / or collaborative research projects. Undertake the role of Co-Principal Investigator.

**9. Dimensions – Scope of role**

* Design and oversee experiments conducted by yourself, support scientists, and students.
* Complete all deliverables and publish research findings of consortium projects in high impact journals.
* Responsible for the safe running of various experimental laboratory trials, and for field trials at SAMS seaweed farm.
* Represent SAMS at national/international conferences.
* Provide support to ongoing interactions and dialogues with external commercial clients to explain progress and discuss results.

**10. Any other relevant information**

The post holder may be required to perform duties other than those given in the job description for the post. The particular duties and responsibilities attached to posts may vary from time to time without changing the general character of the duties or the level of responsibilities entailed**.** If the normal duties of the post include going to sea (apart from small boats e.g. RHIB's) the applicant must be able to obtain the ENG1 medical certification and complete the STCW 95 Personal Survival Techniques training.

[WHAT SAMS CAN OFFER YOU (please right click and select open in new tab)](https://sway.office.com/7GSAUexj0DJC3tZz?ref=Link)

Our Values and culture

We strive to be a world-class marine science enterprise that underpins regional, national, and international policy, and societal action to secure healthy and sustainable oceans.

As a workforce, we have a strong family and team culture, helping each other to achieve our goals.

Remuneration

We offer a generous salary and pension as well as employee benefits package. We also have a number of supportive policies to assist absence, family, and other leave types.

Career goals

SAMS provides a supportive learning and career growth environment for those looking for that next step in their career. We have routes to Lecturership, Reader, Associate Professor and Professor.

Provide you with a good start as you join SAMS

SAMS provides an excellent induction which is a great introduction to the organisation, the facilities, your department and team, and provides that support that you need over the early months joining a new organisation.

We will also provide you with office space, computing equipment and ensure this is ready for you on your first day of work. We are also open to discuss further small set up requirements that you might need.

Employee Benefits

In addition to a general remuneration package which includes a generous salary, pension, and sickness absence policy, we offer a number of employee benefits to our staff, some of which are listed below:

* Flexible & Hybrid working arrangements (2 days working from home, 3 days on-site – depending on nature of role)
* Purchase of additional annual leave – up to 20 days per annum
* Access to shopping discounts as well as local shop and leisure discounted memberships
* Cycle to work scheme
* Purchase of technology
* Payroll Giving
* Salary Sacrifice – pensions
* Access to wellbeing portals which provide support for mental health, nutrition and fitness and GP referral scheme
* Occupational health support
* Welfare support on site
* Access to free CBT sessions
* Sabbatical scheme
* A number of training and development courses to assist you with your career development – leadership, coaching and mentoring.

SAMS is part of the University of the Highlands & Islands and holds an Athena SWAN Bronze award. SAMS is currently working towards a silver award.

As an Academic Partner of UHI, SAMS is designated as an educational establishment and subject to the provisions of the Protection of Children (Scotland) Act. Certain roles may be subject to a satisfactory check by Disclosure (Scotland) as a condition of their appointment.

Applications must include CV and Cover Letter and should be sent electronically to recruitment@sams.ac.uk quoting Job Ref. ‘D14/22.AH’ in the subject line.

The closing date for applications **12th September 2022**

**Interviews will be held by mid/late September**

*Please note, we prefer to contact referees prior to interview*

Guidance for Applicants

***Applying from overseas***

Applications from outside the UK are welcomed; however, this role is available for sponsorship for candidates applying for Grade 6 – Senior Postdoctoral only. For Grade 5, you will already be required to have the rights to work in the UK.

There are also a number of independent visas candidates may be eligible to apply for. All the details can be found here [Work in the UK - GOV.UK (www.gov.uk)](https://www.gov.uk/browse/visas-immigration/work-visas)

There are costs associated with working in the UK such as visas, health surcharges which you may wish to check out if you become a shortlisted candidate.

Your application – what are we looking for?

We are looking for a full CV – please remember to document all your relevant work experience, listed with the most recent first. You should also include your educational achievements with you most recent qualification first.  You should include skills and competencies gained from previous employment or education. This should be specific to the job description.  Also, please include details of two referees who we may contact if invited for interview.

We enjoy reading cover letters and these are an important part of the application. In the letter, connect your past accomplishments with the requirements listed in the job description. Focus on your most relevant experience, qualifications, and skills. Where possible, quantify your accomplishments with facts and data.

 ***Useful links***

* [How to write a flawless cover letter](https://career-advice.jobs.ac.uk/cv-and-cover-letter-advice/how-to-write-a-flawless-cover-letter-in-2020/) (please right click and select open in new tab)
* [How to write a CV](https://www.reed.co.uk/career-advice/how-to-write-a-cv/) (please right click and select open in new tab)