Job Description – Senior Fellow (STEM), Astrobiology Research Group

Senior Fellow
1 FTE
Permanent, AC3/AC4
Walton Hall, Milton Keynes-based

The Role

The post-holder will be welcomed into an interdisciplinary research group investigating the feasibility of life beyond the Earth, and the associated social, legal and economic implications. They will undertake a self-directed research programme that will sit within the remit of the Group’s research and will result in significant outputs and impact. Their programme will demonstrate effective use of the Open University’s laboratory facilities and will be aligned with the principles of engaged research. The post-holders will be expected to generate income through research grants and/or collaboration with industry.

Key responsibilities

- To deliver on an independent research programme that is aligned with the strategic priorities of the Astrobiology Research Group;
- To take a leadership role in applying for external research funding;
- To undertake research that is internationally excellent and leads to high-impact publications;
- To attract and supervise postgraduate students;
- To be an active member of the Group, attending regular research group meetings and share knowledge with junior members of the team;
- To participate in, and host, seminars and workshops aimed at sharing research outcomes, fostering interdisciplinary collaborations and enhancing the reputation of the Group;
- To initiate and sustain activities that enhance the impact of research activities;
- To contribute expertise and scientific ideas to research projects, methodologies and teaching areas, as appropriate;
- To carry out administrative tasks associated with this work, such as risk assessments, workload planning, career development and staff appraisals);
- To undertake professional development as an academic researcher;
- To have a strong commitment to the principles and practice of equality and diversity;
- To participate in the national and international science community and learned societies;
- To undertake other duties, as directed by their Line Manager.

Person Specification

Skills and experience
Essential:
- PhD in, or recent experience in microbiology, geochemistry, Planetary/Earth Sciences or a related discipline;
- Experience of working as part of a research team;
- An excellent track record of independent research, as shown by highly-cited or high impact REF-eligible publications;
- A demonstrable record of obtaining external funding, commensurate with career stage;
- Experience as a Principle or Co-Investigator on research grants;
- A demonstrable track record of communicating research results through conference presentations;
- Ability to plan and prioritise own workload and work to agreed deadlines;
- Good oral and written communication in a variety of contexts, including the ability to offer and receive constructive criticism;
- Experience of analysing problems and working creatively to develop innovative and workable solutions;
- Experience of supervising PhD or MSc students.

Desirable:
- Experience of working across discipline boundaries or in interdisciplinary teams.
- Evidence of public engagement or impact-related activities.
- Evidence of collaborating with industry or policy stakeholders.
- Active membership or contributions to groups, boards of committees within their organization or externally.
- A good record of demonstrable research impact, commensurate with stage of career.
- A demonstrable experience of administrative and managerial responsibilities in research.
About the Astrobiology Research Group

Research England has recently awarded the Open University Astrobiology Research Group an Expanding Excellence in England grant worth £6.7 million. This will allow the Group to expand to bring together expertise in technology, international development and governance to address the scientific and governance challenges associated with the advancement of astrobiology and related space exploration missions. This will result in a multi-disciplinary research environment with members spanning three Faculties: The Faculty of Science, Technology, Engineering and Mathematics, the Faculty of Business and Law, and the Faculty of Arts and Social Sciences.

The primary aims of this multi-disciplinary group will be as follows:
1. furthering the understanding of the limits of life and potentially habitable environments in the Solar System;
2. identifying chemical and geochemical signatures that could be used as evidence of life;
3. investigating the survivability of microorganisms and their biosignatures;
4. educating and engage with the space sector, policymakers and the public in the UK and ODA countries;
5. examining critically the governance and ethical implications of astrobiology-related space missions to develop and enhance governance frameworks.

The OU Astrobiology Research Group is committed to building an inclusive research environment. The Group supports flexible working arrangements, within the limits of the post, and particularly welcomes applications from groups traditionally under-represented in STEM.
About the Unit

Faculty of Science, Technology, Engineering & Mathematics
The Faculty of Science, Technology, Engineering and Mathematics (STEM) is comprised:

- School of Computing & Communications
- School of Environment, Earth & Ecosystem Sciences
- School of Engineering & Innovation
- School of Life, Health & Chemical Sciences
- School of Mathematics & Statistics
- School of Physical Sciences
- Knowledge Media Institute
- Deanery including teams supporting Curriculum, Research and Enterprise, Laboratory Infrastructure and Faculty Administration

“We aspire to be world leaders in inclusive, innovative and high impact STEM teaching and research, equipping learners, employers and society with the capabilities to meet tomorrow’s challenges”

The Faculty of STEM consists of 2500 staff including 1,800 Associate Lecturers. The Faculty delivers over 185 modules across undergraduate and postgraduate curriculum, supporting nearly 19,000 students (full time equivalents) which is 29% of the OU total.

The Faculty generates more research income (circa £17M) than any other Faculty in the University, supported by a comprehensive laboratory infrastructure.

We are proud of our distinctive values and capabilities underpinning our aspiration:

We are inclusive:
- We transform people’s lives, ensuring STEM education is openly accessible to many thousands of students from diverse backgrounds – our students express high satisfaction with their study experience.
- We engage the public in exciting citizen science and engineering, including through free open educational resources, multi-platform broadcasting, outreach to inspire the next generation and with programmes to encourage more women into STEM.

We are highly innovative:
- We are at the forefront of innovative developments in teaching practical science and engineering at a distance, through simulated and remote access laboratories and practical experimentation.
- Our high-quality teaching and curriculum are informed by world-leading research, strong links with professional bodies and communities of practitioners, as well as by scholarship focused on continuously improving our STEM pedagogy.

We deliver significant social and economic impact:
- We provide STEM higher education at a scale and reach unsurpassed in the UK, with a sizeable international reach and further growth potential.
- We inject transferable STEM skills and knowledge direct into the workplace for immediate employee and employer benefit, as students combine study while working.
• The employability value of our courses is underpinned by accreditation from leading STEM Professional Bodies and Learned Societies, as well as partnerships and sponsorship with leading employers.

• Our high quality, applied and academically relevant teaching and research addresses real-world issues, delivering impact for industry and society, including addressing pressing STEM skill-shortages across the UK.