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| Last updated: | 17 June 2020 |

**JOB DESCRIPTION**

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| Post title: | **Research Fellow in Enhanced Rock Weathering** | | |
| School/Department: | School of Ocean and Earth Science | | |
| Faculty: | Faculty of Environmental Life Sciences | | |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | Prof. Rachael James, Dr Christopher Pearce | | |
| Posts responsible for: | None | | |
| Post base: | Non Office-based | | |

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| Job purpose |
| To undertake research in accordance with the specified research project under the supervision of the award holder as part of the Leverhulme Centre for Climate Change Mitigation (LC3M). |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | Use geochemical techniques to quantify rates of carbon dioxide removal associated with enhanced rock weathering in agroecosystems in the USA, Malaysia and UK. | 60 % |
|  | Regularly disseminate findings by taking the lead in preparing publication materials for referred journals, presenting results at conferences, or exhibiting work at other appropriate events. | 20 % |
|  | To maximise the impact of this research through dialogue and collaborative work with members of LC3M. | 10 % |
|  | Carry out administrative tasks associated with specified research funding, for example risk assessment of research activities, organisation of project meetings and documentation. Implementation of procedures required to ensure accurate and timely formal reporting and financial control. | 5 % |
|  | Supervise the work of Masters and PhD students. | 5 % |
|  | Any other duties as allocated by the line manager following consultation with the post holder. |  |

| Internal and external relationships |
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| Direct responsibility to holder of research award or academic supervisor.  May have additional reporting and liaison responsibilities to external funding bodies or sponsors.  Collaborators/colleagues in other work areas and institutions. |

| Special Requirements |
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| To be available to participate in fieldwork as required by the specified research project.  To attend national and international conferences for the purpose of disseminating research results.  *Applications for Research Fellow positions will be considered from candidates who are working towards or nearing completion of a relevant PhD qualification. The title of Research Fellow will be applied upon successful completion of the PhD. Prior to the qualification being awarded the title of* ***Senior Research Assistant*** *will be given.* |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | PhD or equivalent professional qualifications and experience in Geochemistry.  Detailed understanding and knowledge of weathering processes.  Extensive practical experience in chemical analysis of environmental samples, including sample collection, preparation, chemical processing, and relevant analytical techniques. | Knowledge of techniques for carbon dioxide removal.  Experience of analysis of stable and radiogenic isotopes in environmental samples.  Experience of geochemical modelling. | CV /interview/ references |
| Planning and organising | Able to organise own research activities to deadline and quality standards. | Able to design a fieldwork programme and adapt it as required. | Interview/ references |
| Problem solving and initiative | Able to develop understanding of complex problems and apply in-depth knowledge to address them.  Able to develop original techniques/methods. |  | Interview/ references |
| Management and teamwork | Able to supervise work of technical and junior research staff, delegating effectively.  Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development. |  | Interview/ references |
| Communicating and influencing | Communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audience.  Able to present research results at group meetings and conferences.  Able to write up research results for publication in leading peer-viewed journals.  Work proactively with colleagues in other work areas/institutions, contributing specialist knowledge to achieve outcomes. |  | CV/ interview/ references |
| Other skills and behaviours | Understanding of relevant Health & Safety issues. |  | Interview/ references |
| Special requirements | Able to attend national and international conferences to present research results.  Having the flexibility to work unusual hours on occasion, depending on the availability of the geochemical facilities.  Willingness and ability to travel and undertake fieldwork in the UK, USA and Malaysia. | Full driving license. | CV/ interview |

**JOB HAZARD ANALYSIS**

**Is this an office-based post?**

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| Yes | If this post is an office-based job with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete the section below. |
| No | If this post is not office-based or has some hazards other than routine office (eg: more than use of VDU) please complete the analysis below.  Hiring managers are asked to complete this section as accurately as possible to ensure the safety of the post-holder. |

## - HR will send a full PEHQ to all applicants for this position. Please note, if full health clearance is required for a role, this will apply to all individuals, including existing members of staff.

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| **ENVIRONMENTAL EXPOSURES** | **Occasionally**  (<30% of time) | **Frequently**  (30-60% of time) | **Constantly**  (> 60% of time) |
| Outside work | X |  |  |
| Extremes of temperature (eg: fridge/ furnace) |  |  |  |
| ## Potential for exposure to body fluids |  |  |  |
| ## Noise (greater than 80 dba - 8 hrs twa) |  |  |  |
| ## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below: |  |  |  |
| Frequent hand washing |  |  |  |
| Ionising radiation |  |  |  |
| **EQUIPMENT/TOOLS/MACHINES USED** | | | |
| ## Food handling |  |  |  |
| ## Driving university vehicles(eg: car/van/LGV/PCV) | X |  |  |
| ## Use of latex gloves (prohibited unless specific clinical necessity) |  |  |  |
| ## Vibrating tools (eg: strimmers, hammer drill, lawnmowers) |  |  |  |
| **PHYSICAL ABILITIES** | | | |
| Load manual handling | X |  |  |
| Repetitive crouching/kneeling/stooping | X |  |  |
| Repetitive pulling/pushing |  |  |  |
| Repetitive lifting |  |  |  |
| Standing for prolonged periods |  |  |  |
| Repetitive climbing (ie: steps, stools, ladders, stairs) |  |  |  |
| Fine motor grips (eg: pipetting) |  | X |  |
| Gross motor grips |  |  |  |
| Repetitive reaching below shoulder height |  |  |  |
| Repetitive reaching at shoulder height |  |  |  |
| Repetitive reaching above shoulder height |  |  |  |
| **PSYCHOSOCIAL ISSUES** | | | |
| Face to face contact with public | X |  |  |
| Lone working | X |  |  |
| ## Shift work/night work/on call duties |  |  |  |