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| Last updated: | <date> |

**JOB DESCRIPTION**

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| Post title: | **Research Fellow (Postdoctoral) in Microbiology/Microbiome** | | |
| Standard Occupation Code: (UKVI SOC CODE) | 2119 - Natural and social science professionals | | |
| School/Department: | School of Biological Sciences | | |
| Faculty: | Faculty of Environmental and Life Sciences | | |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | Dr. Fatima C. Pereira | | |
| Posts responsible for: |  | | |
| Post base: | Office/Non Office-based (see job hazard analysis) | | |

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| Job purpose |
| To undertake research in accordance with the specified research project under the supervision of the award holder. To undertake leadership, management and engagement activities. |

| Key accountabilities/primary responsibilities | | % Time |
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|  | To develop and carry out wet lab research investigating the communication between the gut microbiome and the host immune system, using microbial ecology techniques, microscopy, FACS, and next-generation sequencing | 55 % |
|  | To process and analyse microscopy and next-generation sequencing data | 20 % |
|  | Disseminate findings by preparing publication materials for referred journals, presenting results at conferences, or at meetings with project partners. | 5 % |
|  | Supervise the work of junior research staff. | 5 % |
|  | Carry out occasional undergraduate supervision, demonstrating or lecturing duties within own area of expertise, under the direct guidance of a member of departmental academic staff. | 5 % |
|  | To allocate 10 days a year (pro rata if part-time) to undertake training and continuing professional development (CPD), develop research identity and leadership skills in line with the Researcher Development Concordat. | 5 % |
|  | Any other duties as allocated by the line manager following consultation with the post holder. | 5 % |

| 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.  May be asked to serve on a relevant School/Department committee, for example research committee.  Collaborators/colleagues within the project “MetaBacImmun - In situ single-cell metabolic profiling of the microbiota and its control by the immune system”. |

| Special Requirements |
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| To attend 2 meetings with collaborator partners in Berlin, Germany, for the duration of the 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 Microbiology, Microbial Ecology or related area  Detailed understanding and knowledge of the gut microbiome composition and function  Detailed understanding and/or experience in techniques for microbial single-cell analysis | Experience in spatial analysis or single-cell analysis techniques (*e.g.* Fluorescence *in situ* hybridisation, fluorescence-activated cell sorting)  Experience in processing and analysing amplicon sequencing and/or metagenomics data  Experience in anaerobic microbial cultivation  Experience in handling histological sections (*e.g*. cryosectioning, immunostaining)  Demonstrate commitment to maintaining professional knowledge and awareness through continuing personal and professional development  Understanding of the Concordats relevant to research | Application, CV and Interview |
| Expected Behaviours | Able to apply and actively promote equality, diversity and inclusion principles to the responsibilities of the role.  Demonstrate the Southampton Behaviours and work with colleagues to embed them as a way of working within the team. |  | Application, CV and Interview |
| Planning and organising | Able to organise own research activities to deadline and quality standards |  | Application, CV and Interview |
| 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 |  | Application, CV and Interview |
| Management and teamwork | Able to supervise work of junior research staff, delegating effectively  Able to contribute to School/Department management and administrative processes  Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development |  | Application, CV and Interview |
| 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 |  | Application, CV and Interview |
| Other skills and behaviours | Understanding of relevant Health & Safety issues  Positive attitude to colleagues and students |  | Application, CV and Interview |
| Special requirements | Able to attend national and international conferences and meetings to present research results  On occasions (<10 days per year) and when necessary, work outside of the normal working day (with time off in lieu)  Be able to demonstrate good analytical practices and record taking |  | Application, CV and 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 |  |  |  |
| Extremes of temperature (eg: fridge/ furnace) |  |  |  |
| ## Potential for exposure to body fluids (faecal samples) | x |  |  |
| ## Noise (greater than 80 dba - 8 hrs twa) |  |  |  |
| ## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below:  solvents, liquids, biohazards such as biosafety level 2 organisms | x |  |  |
| Frequent hand washing |  |  |  |
| Ionising radiation |  |  |  |
| **EQUIPMENT/TOOLS/MACHINES USED** | | | |
| ## Food handling |  |  |  |
| ## Driving university vehicles(eg: car/van/LGV/PCV) |  |  |  |
| ## 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 |  |  |  |
| Repetitive pulling/pushing |  |  |  |
| Repetitive lifting |  |  |  |
| Standing for prolonged periods | x |  |  |
| 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 |  |  |  |
| Lone working | x |  |  |
| ## Shift work/night work/on call duties |  |  |  |