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| Last updated: | <date> |

**JOB DESCRIPTION**

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| Post title: | **Research Fellow** |
| School/Department: | Chemistry |
| Faculty: | FEPS |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research pathway |
| Posts responsible to: | Dr. Dipanjan Bhattacharya |
| Posts responsible for: |  |
| Post base: | Office-based/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.  |

| Key accountabilities/primary responsibilities | % Time |
| --- | --- |
|  | To develop and carry out an area of personal research.  | 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. | 10 % |
|  | Contribute to the writing of bids for research funding. | 10 % |
|  | Investigate models and approaches to test and develop them. | 0 % |
|  | Collaborate/work on original research tasks with colleagues in other institutions. | 0 % |
|  | 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. | 10 % |
|  | Supervise the work of junior research staff. | 2 % |
|  | 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 % |
|  | Any other duties as allocated by the line manager following consultation with the post holder. | 3 % |

| Internal and external relationships |
| --- |
| Direct responsibility to holder of research award or academic supervisor.  |

| Special Requirements |
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| 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 in Physics, Bio-photonics (spectroscopy, optics, imaging), biophysics or optical engineering or related fields.
* Prior experience in optics.
* Prior experience in instrumentation, and electronics to develop microscopic technology or image analysis.
* Publication record illustrating first author high impact research publications in experimental research in top tier journals in the field of microscopy, physics, optics, photonics, and biophysics.
 | * Prior experience in bioimaging, live cell imaging or image analysis.
* Prior experience with medical images, microscopy images, or any type of biomedically relevant images
* Track record of developing microscopy image analysis pipelines using existing python codes for image analysis and/or deep learning.
* Established track record of collaboration between two or more teams.
 | CV |
| Planning and organising | Able to organise own research activities to deadline and quality standards | Experience working in an interdisciplinary environment requiring organisation / collaboration with individuals from various backgrounds. Experience and desire to submit abstracts within deadlines. | CV and interview |
| Problem solving and initiative | Able to develop understanding of complex problems and apply in-depth knowledge to address themAble to develop original techniques/methods | Ability to solve problems efficiently whilst still being able to think ‘outside of the box’ and demonstrate creativity in work. Experience in methodology development and optimisation. | CV |
| Management and teamwork | Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development | Experience of managing an interdisciplinary project and liaising between individuals from different scientific backgrounds. Experience managing / helping other research projects. | CV |
| Communicating and influencing | Communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audienceAble to present research results at group meetings and conferencesAble to write up research results for publication in leading peer-viewed journalsWork proactively with colleagues in other work areas/institutions, contributing specialist knowledge to achieve outcomes | Experience presenting research at national and international conferences.Experience presenting research in several formats for different audiences: presentations, posters, publications, educational videos etc. Outreach experience communicating research findings to a lay audience, including children and young adults. Experience communicating findings to individuals from a variety of backgrounds: scientists, patients, public, press.  | CV |
| Other skills and behaviours | Understanding of relevant Health & Safety issuesPositive attitude to colleagues and students | Creativity and adaptability in research. Demonstrate resilience and problem-solving in the face of adversity. |  |
| Special requirements | Able to attend national and international conferences to present research results | Experience and desire to present research at national and international conferences.  |  |

**JOB HAZARD ANALYSIS**

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

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| [x]  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) | x |  |  |
| ## 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 | x |  |  |
| 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 |  |  |  |
| 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) |  |  |  |
| Gross motor grips |  |  |  |
| Repetitive reaching below shoulder height | x |  |  |
| 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  |  |  |  |