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| Last updated: | 22/10/2020 |

**JOB DESCRIPTION**

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| Post title: | **KTP Associate** | | |
| Academic Unit/Service: | Electronics and Computer Science | | |
| Faculty: | Faculty of Engineering and Physical Sciences (FEPS) | | |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | Principal Investigator | | |
| Posts responsible for: | N/A | | |
| Post base: | Non Office-based (see job hazard analysis) | | |

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| Job purpose |
| To undertake research in accordance with Knowledge Transfer Partnership (KTP) with Nuclera Nucleics under the supervision of the award holder and senior manager at Nuclera. To support the project through publication of the research, presentation at conferences, patenting IP, and product development activities. |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | Within the framework of the KTP project, develop new technologies around integration of sensing modalities into a proprietary liquid handling technology to enable rapid printing of long-strand DNA. Develop and test the new sensors. | 75 % |
|  | Collaborate on research and product development with other partners are required | 5 % |
|  | Regularly report results within the partner organisation. Ensure that any inventions are patented. Disseminate finings through appropriate channels, for example learned journals, presenting results at conferences, industry exhibitions | 10 % |
|  | Carry out administrative tasks associated with the project, for example risk assessment of research activities, organisation of project meetings and documentation, reporting to Innovate UK. Implementation of procedures required to ensure accurate and timely formal reporting and financial control. | 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 grant holder Prof Morgan.  The post will be expected to work as part of interdisciplinary team taking responsibility in collaboration with other Research Fellows and PhD students. This may involve both leading and taking a lead from other PDRAs  The post holder will be required to regularly report on progress through written and oral presentation to the consortium |

| Special Requirements |
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| To attend national and international conferences for the purpose of disseminating research results.  Deliver technology to partners for deployment  *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 | First degree in engineering or physical science  PhD in Physical Sciences or Engineering or equivalent professional qualifications and experience  Experience in building, testing and characterising biosensors in any form (eg optical, electrochemical, magnetc).  Good knowledge of microfluidics and integration of sensors into systems  Understanding and interest in biotechnology and synthetic biology  Good knowledge of Lab on Chip technologies. | Development of new optical or electrical sensing modalities and integration into microfluidic systems.  Skills and knowledge in optics miniaturisation  Knowledge of C/C++ and Java | CV and interview |
| Planning and organising | Able to organise own research activities to deadline and quality standards  Demonstrate ability to work on own initiative and independently. |  | 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 |  | CV and interview |
| Management and teamwork | Able to supervise work of junior research staff, delegating effectively  Able to contribute to management and administrative processes  Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development | Project management experience | 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  Proven ability in English language both written and verbal. |  | CV and interview |
| Other skills and behaviours | Understanding of relevant Health & Safety issues  Proactive in promoting a working environment that is inclusive and engaging; recognising the value diversity brings. |  | CV/Interview |
| Special requirements | Able to attend national and international conferences to present research results |  | 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) |  |  |  |
| ## 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 |  |  |  |
| 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 |  |  |  |
| ## Shift work/night work/on call duties |  |  |  |