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**Job Description**

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| **Job title** | Research Associate |
| **Department/School** | Physics |
| **Job family** | Education and Research |
| **Grade** | 7 |
| **Reporting to** | Prof Tim Birks and Dr Jim Stone |
| **Responsible for** | Day-to-day assistance with supervision of PhD students is expected. |
| **Location** | University of Bath premises. The successful candidate will also be expected to spend some time at the Queens Medical Research Institute in Edinburgh. |

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| **Background and context** |
| The job is based in the Centre for Photonics and Photonic Materials at the University of Bath, and involves close collaboration with several interdisciplinary academic partners. The research is in pursuit of separate projects applying fibre photonics to medicine and astronomical instrumentation, but the techniques employed are closely related. The successful candidate must be prepared to work in a cleanroom environment to perform optical fibre fabrication, and to work at partnering organisations in a clinical environment. |

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| **Job purpose** |
| To carry out research into the design and fabrication of novel optical fibres for use (on separate projects) in medicine and astronomical instrumentation. The job will involve fabricating optical fibres, prototyping photonic devices based on these fibres and working with collaborators and (where relevant) the healthcare industry to ensure newly-developed technology is exploited. |

| **Main duties and responsibilities** | |
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| Responsible to the PI/CI for: | |
| **1** | Conduct individual and/or collaborative research projects. Contribute to the design and execution of the project e.g. timetabling and meeting project milestones; participating in regular discussions with collaborative partners. Generate, collect and analyse existing data related to the project using qualitative and/or quantitative techniques. Translate research outcomes to a clinical environment where appropriate. |
| **2** | Writing up results of research and contributing to the publication of results in high-quality peer-reviewed academic literature. |
| **3** | Disseminating results of research project as appropriate to the discipline through activities such as   * overseas research visits * conference presentations * public engagement activities |
| **4** | Participate in departmental/group meetings and prepare and deliver presentations/seminars to project team, internal and external stakeholders or funders. |
| **5** | Assist with the supervision of postgraduate students and undergraduate project students and the assessment of student knowledge. |
| **6** | Continually update knowledge and understanding in field or specialism to inform research activity. |
| **7** | Identify sources of funding and provide assistance with preparing bids to funding bodies. Develop ability to secure own funding e.g. travel grants. |
| **8** | Contribute to the development of research objectives and proposals for own or joint research projects, with assistance of a mentor, if required. |
| **9** | Disseminate knowledge of research advances to inform departmental teaching. |
| **10** | Be willing to work in a cleanroom environment to perform optical fibre fabrication, and to work at partnering organisations in a clinical environment. |
| You will from time to time be required to undertake other duties of a similar nature as reasonably required by your line manager. You are required to follow all University policies and procedures at all times and take account of University guidance. | |

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**Person Specification**

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| **Criteria** | **Essential** | **Desirable** |
| **Qualifications** |  |  |
| A PhD degree in optics/photonics, or equivalent significant relevant experience and professional qualification | √ |  |
| **Experience/Knowledge** |  |  |
| Demonstrated significant depth and breadth of specialist knowledge of experimental fibre optics to contribute to the research projects and to the development of departmental research activities | √ |  |
| Practical experience of optical fibre fabrication and/or fibre tapering |  | √ |
| Ability to work with experts across disciplines | √ |  |
| Ability to complete research tasks on time | √ |  |
| Sustained record of publication in high quality, peer reviewed journals, or equivalent research outputs | √ |  |
| **Skills** |  |  |
| Ability to prepare research proposals, to conduct individual research work and to disseminate results |  | √ |
| Ability to organise and prioritise own workload to meet required deadlines | √ |  |
| Ability to write research reports and to effectively disseminate outcomes | √ |  |
| Excellent oral, interpersonal and written communication skills | √ |  |
| Proficiency in appropriate techniques (as appropriate to projects) | √ |  |
| **Attributes** |  |  |
| Commitment to working within professional and ethical codes of conduct | √ |  |
| Innovation and developing creative solutions | √ |  |
| Translational focus | √ |  |
| Commitment to excellence in research | √ |  |
| Enthusiasm and self-motivation | √ |  |
| Tenacity – working to achieve own and team objectives and to overcome obstacles | √ |  |
| Ability to be an effective team worker | √ |  |
| Commitment to safe working practices | √ |  |