

## Candidate Information

<b>Position:</b>	Research Assistant
<b>School/Department:</b>	School of Medicine, Dentistry and Biomedical Sciences
<b>Reference:</b>	25/112453
<b>Closing Date:</b>	Monday 7 April 2025
<b>Salary:</b>	£33,785 per annum
<b>Anticipated Interview Date:</b>	Thursday 17 April 2025
<b>Duration:</b>	12 months

### JOB PURPOSE:

To investigate the role of different genetic factors in governing radiation responses, with a focus on high-throughput methods such as CRISPR screening. This research assistant will work as part of an interdisciplinary team seeking to understand the physical and biological determinants of intrinsic sensitivity to radiation therapy.

This project will build on ongoing work within the group, analysing the result of both targeted CRISPR knockouts and high-throughput CRISPR screen data, performing targeted experiments to validate putative novel targets, and designing follow-on CRISPR screening studies. This information will be analysed in conjunction with computational models developed within the group to build more accurate predictions of radiation sensitivity.

The post-holder will be based within the computational radiobiology group within the PGJCCR.

### MAJOR DUTIES:

1. Work as part of the computational radiobiology group within the PGJCCR, contributing to the development of an improved understanding of individual radiosensitivity.
2. Analyse results of previous studies of CRISPR knockouts and screening studies in radiation sensitivity.
3. Perform targeted experiments to validate novel targets identified in these studies.
4. Design and implement new high-throughput CRISPR studies to provide new insights into radiobiological responses.
5. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.
6. Work as part of a collaborative team of cell biologists, physicists and bioinformaticians to ensure progression of the project and contribute to the achievement of project milestones.
7. Write up results in a timely manner and take a leadership role in writing research manuscripts for publication in high quality journals. To maintain data files appropriate for Institutional Data Repository.
8. Carry out routine administrative tasks associated with the research project/s to ensure that project/s are completed on time and within budget. These might include organisation of project meetings and documentation, financial control, risk assessment of research activities.
9. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines.

### ESSENTIAL CRITERIA:

1. Degree in relevant subject, including biology, biomedical science, physics or a related discipline.
2. Specific, relevant research expertise.
3. Experience in laboratory studies of radiation response.
4. Experience in the use of CRISPR in targeted knockouts and high-throughput screens.
5. Experience with bioinformatics analysis of biological datasets.
6. Evidence of proactive organisational capabilities.
7. Sufficient breadth and depth of specialist knowledge in the discipline and of research methods and techniques to work within established research programmes.

8. Ability to communicate complex information clearly.
9. Ability to build contacts and participate in internal and external networks.
10. Demonstrable intellectual ability.
11. Ability to assess and organise resources.

**DESIRABLE CRITERIA:**

1. 1st Class undergraduate degree.
2. Masters degree in subject relevant to research area.
3. Evidence of scientific writing skills.
4. Evidence of experience working in interdisciplinary team.
5. Publication of paper(s) in quality journals to a level commensurate with research experience.
6. Evidence of participation in training/mentoring of students or junior staff.
7. Commitment to professional development, as evidenced by Scientific memberships.