Candidate Information

Position:	Research Fellow (Prostate Cancer UK - Biologist)
School/Department:	Pharmacy
Reference:	21/109188
Closing Date:	Thursday 7 October 2021
Salary:	£34,304 - £36,382 per annum
Anticipated Interview Date:	Wednesday 20 October 2021
Duration:	Available until 31 October 2024

JOB PURPOSE:

To be an active member of the Coulter research group, with the goal of conducting hypothesis-driven research and developing as an outstanding research scientist, while placing an emphasis on personal and scientific integrity. This position will involve establishing a novel implantable medical device for use in combination with radiotherapy. This multi-disciplinary project, funded by Prostate Cancer UK, spans the fields of pharmaceutical engineering, radiobiology and medical device development, with the successful candidate responsible for assessing in vitro and in vivo biological efficacy.

MAJOR DUTIES:

1. Develop and execute research plans within the remit of the Prostate Cancer UK project with the aid of the PI and co-investigators.
2. Synthesis and characterisation of nanoparticle based radiosensitisers.
3. Evaluate biocompatibility of degradation products and implant cargo.
4. Design 2 and 3-dimentional cell-based assays to demonstrate intervention efficacy.
5. Develop new phantoms replicating physiologically relevant tissue.
6. Present regular progress reports on research to members of the research group, external audiences and to disseminate research findings.
7. Prepare, often in consultation with supervisor, material for IP protection and publication. If appropriate present at national/international conferences.
8. Assist grant holder in the preparation of funding proposals and applications to external bodies.
9. Carry out routine administrative tasks associated with the research project and laboratory maintenance.
10. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines. Development of a literature base.
11. Development of a literature base.

Planning and Organising:

1. Plan for specific aspects of research programmes. Timescales range from 1-3 months in advance and contribute to research group planning.
2. Plan for the use of research resources, laboratories and workshops where appropriate.
3. Plan own day-to day activity within framework of the agreed research programme.
4. Plan up to 6 months in advance to meet deadlines for journal publications and to prepare posters, presentations and/or papers for conferences.
5. Coordinate and liaise with other members of the research group over work progress.

Resource Management Responsibilities:

1. Ensure research resources are used in the most effective and efficient manner.
2. Provide guidance as required to support staff and any students who may be assisting with research.

Internal and External Relationships:

1. Liaise on a regular basis with colleagues and students.
2. Build internal contacts and participate in internal networks for the exchange of information and to form relationships for future collaboration.
3. Join external networks to share information and ideas.
4. Contribute to the School's outreach programme by establishing links with local community groups, industries etc.

ESSENTIAL CRITERIA:

1. Have or about to obtain a PhD in radiation biology, cancer biology, pharmaceutical sciences or biomedical sciences.
2. 3 years recent relevant experience in standard radiobiological assays (e.g. clonogenic assays, DNA damage assays, micro-nuclei assays).
3. Relevant experience in assessing in vitro biocompatibility and efficacy.
4. Competent with standard microscopy and analytical techniques e.g. ICC, IHC, ICP-MS, flow cytometry (not exclusive).
5. Competent in the design and successful execution of small animal in vivo studies.
6. Previous experience working with nanoparticles.
7. Experience in preparation, often in consultation with supervisor, of material for IP protection, publication and presentations at national/international conferences.
8. Demonstrable experience of final year undergraduate student supervision. Willingness to assist early-stage PhD students establish core assay technical competence.
9. Ability to carry out routine administrative tasks associated with the research projects and laboratory maintenance.
10. Ability to communicate effectively, both verbally and in writing.
11. Practical problem-solving skills, and independence of thought.
12. Proven ability to present scientific arguments and data in a clear, concise and confident manner.
13. Demonstrable experience in presenting regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.
14. Composed and conscientious scientist, able to work in a disciplined manner within a team environment.

DESIRABLE CRITERIA:

1. PhD with a focus on either controlled release implant systems and/or radiation biology.
2. 2 – 3 years relevant post-doctoral experience.
3. Experience of drug delivery systems and/or medical device preparation and characterisation.
4. Hold a valid UK home office personal licence (PIL).
5. Knowledge of assessing in vivo immunological responses.
6. Experience of assisting in preparation of funding proposals and applications to external bodies.
7. Experience in supervision of postgraduate students.
8. Evidence of independent assay development.