Candidate Information

Position:	Research Assistant (Cancer Nanotherapeutic)
School/Department:	School of Pharmacy
Reference:	19/107644
Closing Date:	Monday 22 July 2019
Salary:	£27,831 to £32,236 per annum (potential to progress to £35,210 per annum through sustained exceptional contribution)
Duration:	Until 29 February 2020

JOB PURPOSE:

To assist the research team to evaluate the *in vivo* efficacy of a pre-validated nanomedicine, designed for use in combination with radiotherapy, for the treatment of prostate cancer.

MAJOR DUTIES:

1. Support the research team in developing and executing research plans within the remit of the MRC CiC project with the aid of the PI.
2. Synthesis and physical characterisation of the targeted nanomedicine.
3. *In vivo* evaluation of the biodistribution and therapeutic efficacy of the nanomedicine.
4. Perform relevant analytical techniques e.g. FTIR, ICP-MS and mass spectrometry.
5. *Ex vivo* processing of tumour and normal tissues to establish changes in target gene expression and nanoparticle localisation.
6. Present regular progress reports on research to members of the research group, external audiences and to disseminate research findings.
7. Prepare, 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.

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. Build internal contacts and participate in internal networks for the exchange of information and to form relationships for future collaboration. Join external networks to share information and ideas.
2. Contribute to the School's outreach programme by establishing links with local community groups, industries etc.

ESSENTIAL CRITERIA:

1. Degree in Molecular Biology, Cancer Biology, Pharmaceutical Sciences or Biomedical Sciences.
2. At least 1 year's recent relevant research experience to include experience of *in vitro* techniques (e.g. clonogenic assays, DNA damage immunocytochemistry, Western Blot and qRT-PCR.
3. Experience in the synthesis and physical characterisation of nanoparticle formulations.
4. Knowledge of analytical techniques including FTIR, ICP-MS and mass spectrometry
5. Experience of assay design including feasibility and validation.
6. Wiliness to assist early career researchers to establish core assay technical competence.
7. Ability to carry out routine administrative tasks associated with the research projects and laboratory maintenance.
8. Ability to communicate effectively, both verbally and in writing.
9. Practical problem-solving skills, and independence of thought are required.
10. Knowledge of scientific literature pertaining radiotherapy in the treatment of prostate cancer. Also targeted nanomedicine approaches
11. Ability to present scientific arguments and data in a clear, concise and confident manner.
12. Ability to present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings
13. A calm and conscientious scientist, able to work in a disciplined manner within a team environment.

DESIRABLE CRITERIA

1. PhD in radiation biology or Cancer Biology with an emphasis on in vivo tumour models
2. Holds a valid UK Home Office licence, with experience of establishing a sub-cutaneous xenograft models.
3. Competency in in vivo routes of administration (e.g. i.v. administration, intra-tumoural).
4. Competency in use of relevant general anaesthetics.
5. Experience small animal radiation treatments
6. Experience of assisting in preparation of funding proposals and applications to external bodies.
7. Experience in supervision of undergraduate or postgraduate students.