

Candidate Information

Position:	Research Fellow, Patrick G Johnston Centre for Cancer Research
School/Department:	Patrick G Johnston Centre for Cancer Research
Reference:	23/111126
Closing Date:	Monday 14 August 2023
Salary:	£36,333 - £39,592 per annum.
Anticipated Interview Date:	Thursday 24 August 2023
Duration:	Available until 31 May 2025

JOB PURPOSE:

Available immediately until 31st May 2025, the successful applicant will work with Dr Emma Kerr to define the metabolic mechanisms of colorectal drug resistance using in vitro and in vivo model systems. The position will involve working as part of a CRUK funded research programme based within the PGJCCR colorectal cancer research network, collaborating with local and international experts.

The successful candidate will work to define metabolic mechanisms of resistance to colorectal cancer therapies, funded by Cancer Research UK. Utilising KRAS mutant colorectal model systems and state-of-the-art metabolic techniques, the successful applicant will profile metabolic responses to therapy and identify novel metabolic targets to improve therapeutic response.

Specifically, this project will focus on profiling KRAS mutant CRC models in vitro and in vivo, therefore an understanding of KRAS biology would be an advantage.

MAJOR DUTIES:

1. To design, develop and execute studies related to the project under the supervision of Dr Emma Kerr in order to obtain reliable data, then evaluate and interpret the results using methodologies and techniques appropriate to the area of the research.
2. Generate and maintain colorectal cancer models, specifically from genetically engineered mouse models of cancer.
3. Develop and characterise drug resistant 3D CRC models.
4. To regularly present results to the research group as part of routine peer review.
5. Initiate and maintain collaborative links with project partners.
6. To write up results in a timely manner and take a leadership role in writing research manuscripts.
7. To present regular progress reports on research to members of the research group and to external audiences to disseminate and publicise research findings.
8. To formulate, write and submit grants for fellowship awards, project and travel support.
9. To attend and present new experimental data at national and international meetings.
10. Assist grant holder in the preparation of funding proposals and applications to external bodies.
11. May be required to carry out undergraduate supervision within the post holder's area of expertise and under the guidance of a member of academic staff.
12. Assist with the supervision of postgraduate students or summer students on mini-projects, which will help develop their own supervisory skills.
13. 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.
14. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines.
15. Any other reasonable duties within the general ambit of the post.

ESSENTIAL CRITERIA:

1. Hold or about to hold a PhD in cancer biology, molecular biology or a related discipline.
2. Significant relevant research experience with publication record commensurate with experience.

3. Experienced in 2D and 3D culture model systems in vitro.
4. Experience in generating drug resistant models of cancer.
5. Experience with genetic manipulation of cancer models (DNA/RNA/CRISPR).
6. Experience handling and analysing human tissue and management of HTA records.
7. Ability to contribute to broader management and administrative processes.
8. Contribute to the School's outreach programme by links with industry, patient advocacy groups etc.
9. Sufficient breadth and depth of specialist knowledge in the discipline and of research methods and techniques to work within established research programmes.
10. Ability to communicate complex information clearly.
11. Ability to build contacts and participate in internal and external networks.
12. Demonstrable intellectual ability.
13. Ability to assess and organise resources.
14. Team worker, highly motivated, supportive of junior colleagues within the group.
15. Interest in driving focussed research programme.
16. Must be willing to work irregular hours when necessary for the progress of the research project.
17. Must be willing to work with in vivo models of cancer following the guidelines of the Animals (Scientific Procedures) Act 1986.
18. Must be prepared to travel for technical training as appropriate to collaborators within the UK.

DESIRABLE CRITERIA:

1. Active Personal Licence holder (DoH or HO).
2. 1st Class undergraduate degree in biochemistry, or related discipline.
3. Scientific memberships eg. AACR, EACR.
4. Experience in metabolic analysis techniques e.g. Seahorse.
5. Experience in processing murine tumour samples.
6. Experience in using bioinformatic analysis platforms.
7. Evidence of involvement in successful programmes and grant applications.
8. Presentations at national/international meetings.