

Candidate Information

Position: Research Fellow
School/Department: Patrick G Johnston Centre for Cancer Research
Reference: 21/108657
Closing Date: Monday 29 March 2021
Salary: £33,797 to £40,322 per annum
Anticipated Interview Date: Wednesday 28 April 2021
Duration: Available until 31 May 2023 or for 2 years, whichever is soonest.

JOB PURPOSE:

To work with the Upper Gastrointestinal Cancer Translational Research Group led by Dr Richard Turkington at the Patrick G Johnston Centre for Cancer Research. The aim of this work will be to develop a biomarker capable of predicting progression of Barrett's Oesophagus (BO) to Oesophageal Adenocarcinoma (OAC). The incidence of oesophageal adenocarcinoma (OAC), has risen by 50% in the UK in the last 25-30 years and five-year survival is 15%, highlighting the need for better preventative/early diagnosis strategies. Barrett's oesophagus (BO) is the precursor of OAC and endoscopic surveillance of BO patients is commonly practised, aiming to diagnose cancer early and improve outcomes. However, current strategies are over-diagnosing low-risk non-progressive disease, while under-diagnosing high-risk life-threatening lesions. Using one of the largest BO population-based data and tissue resources available worldwide, this project will develop a molecular signature that may be applied in clinical practice to stratify BO patients according to cancer risk, leading to changes in patient management to maximise benefit and reduce harms. The project involves performing a nested case-control study of Northern Ireland Barrett's Register (NIBR) BO patients diagnosed between 1993 and 2016 with biopsy proven intestinal metaplasia. Cases will be BO patients who developed HGD/OAC more than 12 months after initial BO diagnosis and will be matched (on age, sex, year of BO diagnosis) to a BO control who has not developed HGD/OAC. The index BO biopsy and an interim biopsy will be obtained through NI Biobank. Following pathological assessment of both biopsies for presence of BO, combined DNA/RNA extraction will be performed on a single biopsy from 200 case-control pairs followed by profiling using the Illumina TruSeq™ RNAexome panel by Almac Diagnostic Services.

MAJOR DUTIES:

1. To design, develop and execute experiments related to the above project under the supervision of Dr Richard Turkington in order to obtain reliable data, then evaluate and interpret the results using methodologies and other techniques appropriate to the area of the research.
2. To present regular progress reports on research to members of the research project team and, as appropriate, to other internal or external audiences to disseminate and publicise research findings.
3. Initiate and maintain collaborative links with various project partners.
4. To work as part of a collaborative team of oncologists, public health researchers, molecular biologists and bioinformaticians to ensure optimal progression of the project at all times and to contribute to the achievement of project milestones.
5. To write up results in a timely manner and take a leadership role in writing research manuscripts for publication in high quality journals.
6. To maintain data files appropriate for Institutional Data Repositories.
7. The appointed individual will be encouraged to formulate, write and submit grants for fellowship awards, project and travel support.
8. To attend and present new experimental data at national and international meetings as appropriate.
9. To assist with the supervision of postgraduate students, honours or summer students on mini-projects, which will help develop supervisory skills.
10. To carry out routine administrative tasks associated with the research project/s to ensure that project/s are completed on time and within budget.

11. To read academic papers, journals and textbooks and keep up to date with developments in own specialism and related disciplines and to maintain awareness of the context of the research project.
12. Any other reasonable duties including public engagement and outreach activities, within the general ambit of the post and competence of post holder.

Planning and Organising:

1. Plan own day-to-day activity within framework of the agreed research programme.
2. Plan up to a year in advance to meet deadlines for journal publications and to prepare presentations and papers for conferences.
3. Coordinate and liaise with other members of the research group over work progress.

Resource Management Responsibilities:

1. Support the development and training of support staff and students by making available their research experience and expertise.
2. Take shared responsibility for the upkeep of laboratory equipment and replenishment of consumable stocks and exercise due diligence when using equipment.

Internal and External Relationships:

1. Communicate appropriately with lab colleagues the latest research findings/results.
2. Develop contacts with other groups within the research community at Queen's and look to identify potential cross-discipline collaborations.
3. Work collaboratively with external academic/industrial partners.
4. Join national and international scientifically relevant societies.

ESSENTIAL CRITERIA:

1. Have or be about to obtain a PhD in molecular oncology or a related subject.
2. Three years relevant research experience.
3. Experience in molecular and cellular biology techniques including tissue culture, drug sensitivity assays, PCR/cloning, RNA interference and immunoblotting.
4. Experience in research ethics and governance procedures.
5. Must have published paper(s) in quality journals to a level commensurate with research experience.
6. Evidence of proactive organisational capabilities.
7. Ability to contribute to broader management and administrative processes.
8. Contribute to the School's outreach programme by links with industry, community 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. Team worker, highly motivated, supportive of junior colleagues within the group.
12. Ability to assess and organise resources.

DESIRABLE CRITERIA:

1. 1st Class undergraduate degree.
2. Evidence of scientific writing skills.
3. Evidence of participation in training/mentoring of students or junior staff.
4. Ability to build contacts and participate in internal and external networks and research presentations.