

Candidate Information

Position:	Belfast Association for the Blind Lecturer in Ophthalmic Data Science
School/Department:	Centre for Public Health
Reference:	20/108305
Closing Date:	Wednesday 26 August 2020
Salary:	£41,526 - £51,034 per annum.
Anticipated Interview Date:	Monday 28 September 2020

JOB PURPOSE:

To undertake research in the analysis of large medical and epidemiological datasets in the area of Ophthalmology / Vision Science, to assist in statistical aspects of the research activities of the Centre for Public Health and the Wellcome-Wolfson Institute for Experimental Medicine in the School of Medicine, Dentistry & Biomedical Sciences, to teach at undergraduate and postgraduate level, and to contribute to School administration/outreach activity.

MAJOR DUTIES:

Teaching:

1. Develop teaching methods, design course units and deliver teaching and assessment activities including lectures, coursework, practicals, and fieldwork according to own area of subject specialism.
2. Deliver tutorials and lectures as a part of ongoing Medical Statistics teaching and developing teaching material on best practices in data management and reproducible research.
3. Provide support and guidance to postgraduate students learning relevant programming languages.
4. Develop approaches to teaching and learning, which are appropriate for the subject area and reflect developing practice.
5. Contribute to the enhancement of quality teaching within the subject, School and / or Faculty.
6. Develop and advise others on learning and teaching tasks and methods.
7. Contribute to the design of innovative teaching programmes.

Research:

1. Develop the research activities of the School by sustaining a personal research programme in ophthalmic data science through the analysis of large multi-dimensional data sets (including Electronic Care Records, epidemiological, imaging and / or multi-omics data), using both statistical and modern Machine Learning approaches.
2. Initiating, managing and undertaking data science research in a school-wide, collaborative basis in accordance with a specific project plan in the appropriate research teams.
3. Sustain a high quality publication record by publishing in refereed journals and presenting at conferences to assist individual research and so that the School's research profile is enhanced.
4. Develop research proposals and funding bids in collaboration with others.
5. Direct, coach and develop research staff, where appropriate.
6. Ensure that research projects are completed on time and within budget.
7. Contribute to statistical consultancy within the School of Medicine Dentistry and Biomedical Science.

Administration/Contribution to the Community:

1. Contribute to the School's outreach strategy by developing external links.
2. Develop links with relevant industries and external bodies to encourage technology transfer opportunities and create opportunities for future research projects.
3. Provide pastoral care to students within area of research to ensure, as far as practicable, that all relevant issues are dealt with in a timely, sympathetic and effective manner.
4. Carry out designated School functions, including, for example, participation in relevant committee work.

Planning and Organising:

1. Plan for and set teaching and research objectives over a number of years.
2. Plan and manage own teaching and tutorials as agreed with Centre Director / Head of School.
3. As module leader, co-ordinate with others (such as support staff or academic colleagues) to ensure student needs and expectations are met.
4. Design/update modules in line with School's teaching strategy.
5. Plan for the use of teaching and research resources, laboratories and workshops as appropriate.
6. Prepare research proposals for submission for external funding.

Resource Management Responsibilities:

1. Mentor colleagues with less experience and advise on personal development.
2. Depending on the area of work, could supervise the work of others, for example in research teams and projects.
3. Manage own teaching, research and administrative demands with appropriate supervision.
4. Assist in the development of skills and competence in others (for example through the supervision of research students).
5. Manage use of resources for research and teaching.
6. Participate in judgements regarding the use of resources within their research project/school.
7. Act as mentor for students in capacity of personal tutor.

Internal and External Relationships:

1. Communicate complex and conceptual ideas to students as well as to peers using high level skills and a range of media.
2. Member of the School Board and other committees relevant to administrative duties.
3. Collaborate with other academics within School.
4. Participate in and develop networks, for example to identify sources of funding, contribute to student recruitment, act as website editor, secure student placements, market the institution, facilitate out-reach work, generate income, obtain consultancy projects, or build relationships for future activities.
5. Contribute to the School's outreach programme by establishing links with local community groups, industries etc.

ESSENTIAL CRITERIA:

1. Primary or higher degree in mathematics, statistics or a cognate subject.
2. PhD in a biomedical science, biology, epidemiology or a related discipline in which there has been a substantial data and statistics component.
3. A minimum of three years recent experience, at postdoctoral level, of the application of statistical and Machine Learning approaches to the analysis of health/healthcare or biomedical data and, in particular, experience of Ophthalmic Data Science.
4. Experience in performing statistical analysis using relevant statistical packages such as SPSS, STATA, SAS or the R software environment.
5. Recent, relevant publications in peer reviewed/refereed journals that are high quality and are commensurate with stage of career.
6. Recent experience of working collaboratively with people from cognate medical or biomedical research areas related to vision science/Ophthalmology.
7. Research profile which complements the research priorities and strengths of the School of Medicine, Dentistry and Biomedical Sciences.
8. Experience of giving presentations at national and international meetings and conferences.
9. Teaching experience at University level.
10. Relevant academic administrative/management experience commensurate with stage in career.
11. Sound reasoning ability and balanced judgement.
12. Ability and commitment to advance the research and teaching goals of the School and to advance the subject of Medical Statistics / Data Science through research, leadership, and education. Ability to strengthen the School's national and international research networks.
13. Articulate and fluent oral and written communication skills with the ability to communicate complex information effectively.
14. Good presentation skills.
15. Ability to present research and represent Queen's University to the wider academic and non-academic community, nationally and internationally.
16. Evidence of being a good team player with the ability to lead and get the best from others.
17. Commitment to working in line with Queen's Values.
18. Clear commitment to interdisciplinary working with the ability to develop effective internal and external research and practice links.

19. Motivated to avail of the opportunity to build an interdisciplinary research programme of international standing.
20. Able to undertake overseas travel, when and where appropriate, to present at international conferences and to visit international collaborators in order to enhance global research.

DESIRABLE CRITERIA:

1. Completed PGCHET / HEA (or equivalent).
2. Experience of supervising research activities of other Postdoctoral Fellows or Postdoctoral Students.
3. Evidence of having obtained funding from government or private charitable agencies to support independent research.
4. Experience in the design and delivery of data science related teaching material.
5. Contribution to a wider range of community outreach programmes/ initiatives to promoting the subject area of Medical Statistics/Data Science.
6. Experience in the development and management of research teams.
7. Proven capacity and enthusiasm for collaborating with the teaching and research activities of cognate disciplines.
8. Proven ability to work with industry to commercialise research.