Job Profile
Person Specification

Job Details

Job Title:	QMUL20500 - Senior Lecturer/Lecturer in Computational Biology (Teaching & Research)
School / Institute:	Blizard Institute, School of Medicine and Dentistry
Reports to:	Centre Lead, Genomics and Child Health
Grade:	Grade 7	**Full Time**
Appointment period:	Indefinite
Current Location:	Whitechapel

Job Context

The School of Medicine and Dentistry (SMD) is a significant constituent of Queen Mary University of London. It is organised into 6 separate Institutes, of which the Blizard Institute is the largest, with personnel of c550, financial turnover of c£60 million per annum; and research expenditure of over c£20 million per annum. We are also host to ~ 850 PGT and PGR students. The Institute is organised into 6 separate Centres, which though complementary and following the Institute strategic plan also have Centre-specific objectives and requirements.

Our work in both education and research integrates basic science, clinical research and translational research activity across areas encompassing cell biology, genomics, immunobiology, neuroscience and population health. A major recent initiative has been the collaboration with other schools and institutes of Queen Mary University of London to expand and enhance our undergraduate biomedical programmes, offering students broad opportunities to study in an exciting environment of world-leading medical research.

In addition to the usual academic staff of a university, the Institute also employs a significant number of clinical academic staff who are intrinsic to the delivery of clinical practice, primarily within Barts Health NHS Trust, but also in other NHS Trusts (e.g. Homerton). This clinical dimension adds a significant degree of complexity, bringing with it, for example, a requirement to understand NHS workings, clinical career and training paths and GMC/medical Royal Colleges/DoH regulations and requirements in the employment and training of clinical staff.

Ranked in the top 10 in the 2014 Research Excellence Framework, Queen Mary University of London, is one of the UK's leading research-intensive higher education institutions, delivering world class education and knowledge transfer across a wide range of subjects in the Humanities and Social Sciences, Medicine & Dentistry and Science & Engineering.

Job Purpose

Genomic Medicine Research at the Blizard encompasses genetic variant discovery, single cell genomics, gene function and diagnostics/prognostics in rare Mendelian and common diseases and epigenetics. Genomic Medicine runs across several other institutes of the School of Medicine. An important objective of this theme is to increase critical mass by maximizing opportunities with life sciences and building a sustainable inter-institute bioinformatics group; it is equally important that it is served by a first class genome centre that in addition to providing state of the art facilities outsources as appropriate and works closely with Genomics England.

This post is for an academic at Senior Lecturer/Lecturer level in the Centre for Genomics and Child Health, to contribute to the growing initiative in genomics research and education. The Centre is one of five research centres within the Blizard Institute, part of Queen Mary University of London. The Centre for Genomics and Child Health constitutes a critical mass of clinical and non-clinical scientists whose research encompasses genomics to address the biology of health and human (Mendelian and complex) disease. It has a translatable link to many clinical diseases, particularly those important in childhood. In addition to contributing to basic and translational research, the Centre

has an important role in undergraduate and postgraduate training. It also has a strong interface with Barts Health clinical specialties including paediatrics, diabetes, gastroenterology, haematology and pathology.

We are looking for an academic with experience and interest in computational biology in the context of genomics. We are particularly looking for someone who will complement current research directions increasing our critical mass in this subject area. Currently there are unrivalled opportunities to exploit:

1.   Genomic Regulation
2.   The genetic basis of complex common or rare human diseases
3.   Functional genomics including transcriptomics, epigenomics

We welcome applicants who wish to focus on lab-bench based experimental model systems as well as computational approaches. The Lecturer will contribute to the intellectual life of the Institute and wider institution and research field of computational biology. They will make contributions to student education and experience through curriculum development and the delivery of teaching activities in the subject area.

The Senior Lecturer will contribute to the intellectual life of the School / Institute and wider institution and research field of genomics and biology. They will make contributions to student education and experience through curriculum development and the delivery of teaching activities in the subject area of genomics and biology.

In line with the University of London standards for the conferment of the title of Senior Lecturer the post-holder will:

- Making important research contributions to the field;
- Advance the research subject through publications, creative works or other forms of performance;
- Delivering quality teaching including making innovations in key aspects of teaching and learning;
  Contributing to the administration of School/Institute and/or university teaching and research activities;
  Maximise opportunities for public engagement in the subject;

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Main Duties & Responsibilities

Research & Scholarship

1. Conduct original research into complex problems, ideas, concepts and theories to obtain new knowledge;
2. Publish original research of a quality that is nationally/internationally excellent in renowned, relevant, specialist and generalist outlets/media in a manner appropriate to the research, academic discipline, QMUL strategies and funding requirements;
3. Engage with the research community at an appropriate level, e.g. via conferences, advisory or editorial bodies, research funders, referring and research reviews;
4. Contribute to the overall research strategy of the School / Institute and Faculty;
5. Develop personal research funding strategy and make quality bids for funding and manage and awards appropriately with collaborators within QMUL and beyond;
6. Use research to engage in a broad range of activities that influence society, economy, industry, government or public policy;
7. Contribute to a research group's aims to successfully recruit and develop PhD students in line with the School / Institute and QMUL strategies;
8. Recruit, guide and develop personally assigned PhD students to the successful completion of their research programme.

Student Experience & Education

9. Make innovations in teaching and learning through the development of teaching materials, forms of pedagogy, or appropriate teaching collaborations;
10. Organise, design and deliver teaching and assessment as required by the School / Institute, Faculty and QMUL; this will include delivering lectures, classes and seminars in core and specialist subjects with due regard to best practice and the overall teaching strategy in the School / Institute;
11. Act as a Personal Tutor providing effective support to students, including referring to specialist services as appropriate, and proactively identifying engagement issues at an early stage.
12. Actively contribute to curriculum development and the review of courses in accordance with the teaching and learning strategy of the School / Institute, Faculty and QMUL.

Public Engagement & Impact

13. Contribute to public engagement initiatives and activities which generate mutual benefit, influencing internal and external priorities and practice;
14. Participate in the School's / Institute's outreach plans, developing links with, for example, industry or community partners in the UK and/or overseas;
15. Contribute to the successful development of partnerships with other higher education institutions, government bodies and industry for the benefit of student education and experience in the School / Institute and Faculty.

Leadership & Collegiality

16. Foster collegiality through role-modelling and fulfil School / Institute responsibilities as agreed with the Head of School / Institute Director, or other senior colleagues;
17. Support and manage any junior colleagues and their career development through line management, coaching, mentoring and appraisals as appropriate;
18. Make constructive contributions, e.g. at meetings and seminars, to the School / Institute and QMUL, as well as wider relevant bodies, such as learned societies, where relevant;
19. Engage in the wider QMUL agenda (e.g. Equality & Diversity; Sustainability; Internationalisation; Widening Participation; Interdisciplinary and Staff Development) in line with QMUL strategies and policies.

The above list of responsibilities is not exhaustive and the jobholder may be required to undertake other duties commensurate with the level of the role, as reasonably requested by their line manager.

This job description sets out the duties of the post at the time it was drawn up. Such duties may vary from time to time without changing the general character of the duties or level of the responsibility entailed. Such variations are a common occurrence and cannot in themselves justify a reconsideration of the grading of the post.

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This table lists the essential and desirable requirements needed in order to perform the job effectively. Candidates will be shortlisted based on the extent to which they meet these requirements.

Requirements	Essential / Desirable
Qualifications	
PhD in Computational Biology, and / or relevant professional qualification and / or equivalent professional experience	E
Higher education teaching accreditation, at Associate Fellow or Fellow level, or ability to obtain accreditation	D
Knowledge, Skills and Experience	
Appropriate track-record of high quality research in the field of computational biology and bioinformatics at a national and ideally international level, including publications in renowned journals.	E
Clear and ambitious plans for future research	E
Ability in developing research proposals, bidding for and securing external research funding, and subsequent effective award management skills	E
Evidence of the development and delivery of research-led teaching and assessment at undergraduate and postgraduate level	E
Some experience in teaching at undergraduate and/or postgraduate level in large or small group settings with the demonstrable ability to deliver teaching at both levels with some guidance	E
Understanding of student support needs and able to provide guidance, signposting to specialist services where appropriate	E
Proven ability to foster and maintain relationships and effectively resolve tensions and difficulties in a positive manner	E
Ability to communicate new and complex information effectively, both verbally and in writing, engaging the interest and enthusiasm of the target audience. This includes lecturing students, presentation of work at group meetings and conferences and public engagement activities.	E
High level computational coding skills	E
Good IT skills at the level required to undertake teaching, professional practice, leadership and management duties	E
Meet the University of London standards, as relevant to the role, for the conferment of the title of Senior Lecturer.	E

Essential/Desirable:
E = Essential: Requirements without which the job could not be done.
D = Desirable: Requirements that would enable the candidate to perform the job well.