Queen Mary
University of London



Job pack

Message from the President and Principal



Thank you for your interest in this role and in Queen Mary University of London. Working at Queen Mary means being part of a unique, world-class global University with a long, proud and distinctive history.

Our founding institutions, the London Hospital Medical College, St Bartholomew's Medical College, Westfield College and Queen Mary College, were founded to provide hope and opportunity for the less privileged and otherwise under-represented.

Today, we remain true to the vision of our founders by continuing to improve lives locally, nationally and internationally through the seamless combination of our world-leading strengths in education and research.

The Queen Mary community – our staff, students and alumni – is the heart and soul of our University. We are proud to provide an inclusive and nurturing environment so that staff and students from all backgrounds can develop, flourish and achieve their full potential.

I look forward to welcoming you to our unique University and working with you to realise our ambitions.

Professor Colin Bailey, President and Principal

qmul.ac.uk

Athena Swan Silver Award
Gender Charter
Diversity & Equality
Queen Mary

Our strategy 2030

In 2019, Queen Mary University of London launched a bold new Strategy with the vision to open the doors of opportunity. By 2030, we will be the most inclusive university of its kind, anywhere. We are doing this by building on our existing cultural diversity to create a truly inclusive environment, where students and staff flourish, reach their full potential and are proud to be part of the University. Continuing our long tradition of commitment to public good, we will generate new knowledge, challenge existing knowledge, and engage locally, nationally and internationally to create a better world.

We have five core values that will help us to reach this goal:

We are **inclusive**, supporting talented students and staff regardless of their background, and engaging with our local and global communities.

We are **proud** of the difference we can all make when we work collectively.

We are **ambitious**, fostering innovation and creativity, disrupting conventional thought, and responding with imagination to new opportunities.

We are **collegial**, promoting a strong community through openness, listening, understanding, co-operation and co-creation.

We are **ethical,** acting with the highest standards, and with integrity, in all that we do.

To enable our staff to flourish and to reach their full potential throughout their employment at Queen Mary, we offer a range of benefits:

Staff benefits

- Annual leave – the full-time annual leave annual entitlement is 30 working days (not including bank holidays).
- Season ticket loan scheme
- Pension scheme
- Reward and recognition schemes
- Staff Networks
- Cycle to work scheme
- Qmotion sport fitness centre
- Employee Assistance Programme
- Family friendly policies
- Flexible working practices

Job description

Job details	
Job title	Postdoctoral Research Associate
School/Dept/Institute Centre/Faculty	Centre for Translational Medicine and Therapeutics
Reports to	Senior Lecturer
Grade and salary*	Grade 4, £39,187 - £42,993 per annum
Hours per week	**35**
Appointment period	12 months
Current location	Charterhouse Square (WHRI) Campus in London
Work activity type	Research only

About Queen Mary University of London

Ranked joint 7th in the UK for the quality of its research in the 2021 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.

About The Faculty of Medicine and Dentistry

The Faculty of Medicine and Dentistry offers international excellence in research and teaching and supports clinical service for a population of unrivalled ethnic diversity in East London and the wider Thames Gateway. At the forefront of medical research and education, with research themes in cancer, cardiovascular medicine, inflammation, trauma and population health. Queen Mary is in the top 10 universities in the UK for medicine and dentistry and 7th in the world for research citations for medicine in the QS World University Rankings by Subject 2025. In the Complete University Guide 2026, we are ranked first in London for dentistry and second in London for medicine.

Working with six NHS Trust partners in East London, the Faculty is central to delivering impact on health-related challenges for local and global populations; it has a strong commitment to public engagement through its pioneering science education centre in Whitechapel, The Centre of the Cell. The Faculty is firmly embedded in our East End and global communities, and through education and research we are committed to improving the health outcomes, the wellbeing, and the prosperity of those we serve through a strategy focused on Better Health for All.

Job context

The post is funded by Barts Charity and hosted within the laboratory of Dr Maria Fragiadaki. The lab is in the Centre for Translational Medicine and Therapeutics, based at the John Vane Science Centre within the William Harvey Research Institute (WHRI) on the Charterhouse Square campus. The position is for 12 months initially, with potential to extend beyond the initial 1 year.

The WHRI is a world-leading research environment dedicated to innovative therapeutic discovery and translational medicine. The postholder will work within a highly collaborative, multi-disciplinary team of biologists, clinicians, and laboratory scientists focusing on renal disease pathophysiology, while actively collaborating with wider Queen Mary, the Barts Cancer Institute (BCI) and the Joint Vascular Campus Services networks. Specifically, access to the QMUL spatial biology Hub and Genome Centre is available, which hosts dedicated Spatial Biology expertise, such as spatial transcriptomics technologies (10x Genomics Visium).

Job purpose

To undertake research investigations in collaboration with and under the supervision of Dr Maria Fragiadaki (Principal Investigator) to realise the objectives and development of the research programme funded by Barts Charity: *"Dissecting the Anti-Inflammatory Impact of JAK Inhibition in Autosomal Dominant Polycystic Kidney Disease (ADPKD): Using Spatial Transcriptomics to Dissect Pathophysiology."*

Main duties and responsibilities

1. Contribute towards the ADPKD research programme at all stages by executing the project's three core aims: mapping spatially distinct inflammatory/fibrotic niches across disease stages in the $Pkd1^{nl/nl}$ model, deriving spatially resolved transcriptional signatures of aggressive vs. indolent disease, and building a reusable translational spatial analysis framework.

2. Responsible, under the general guidance of Dr Maria Fragiadaki, for undertaking specific bioinformatics and spatial transcriptomics research activities, with a particular focus on contrasting cyst-adjacent microenvironments against preserved parenchymal regions.

3. Provide the Principal Investigator with comprehensive weekly written updates detailing the progress of the spatial transcriptomics analysis of ADPKD, ensuring clear and effective communication of key milestones and findings.

4. Prepare reports of research results for public presentation. This includes contributing to high-impact manuscripts acknowledging Barts Charity, and presenting data at leading conferences such as American Society of Nephrology (ASN) Kidney Week, ERA/EDTA, and UK Kidney Week.

5. Conduct empirical research using 10x Genomics Visium and public single-cell RNA sequencing datasets. Relate derived transcriptional signatures directly to organ-level structural features including structural cyst burden and total kidney volume (TKV).

6. Develop, in collaboration with the Principal Investigator, a robust, reusable computational pipeline and validated spatial marker sets that can be translated to wider models of chronic kidney disease (CKD), human tissue samples, and alternative organ systems.

7. Collate, QC, and analyse multi-stage spatial and transcriptomic data as requested by the Principal Investigator.

8. Maintain appropriate databases and code repositories. Ensure all raw and processed datasets are deposited into public repositories (e.g., GEO, EDRN) immediately post-QC, complete with comprehensive metadata and DOIs for global citability.

9. Undertake literature and database searches for the research project. Ensure that all computational workflows and scripts are developed as open-source assets hosted on GitHub, complete with detailed README files and reproducible Jupyter/R Markdown notebooks.

10. Work closely with colleagues and external networks to co-host research webinars (e.g., with Kidney Research UK) and build/host interactive spatial tissue atlases on the laboratory website to maximize data reuse in preclinical research and biomarker discovery.

11. Keep up to date with subject-related and appropriate academic/professional matters, particularly advancements in spatial deconvolution, computational renal pathology, and global polycystic kidney disease research.

12. Provide oversight/support for, and assist in the supervision of, student projects, training lab members in accessing and utilizing the open-source spatial framework.

13. To show a professional attitude to matters of digital data hygiene, version control, and computing cluster safety, observing all institutional data governance regulations.

14. To ensure that all research is undertaken according to good research practice, FAIR data principles, and University research protocols to support Barts Charity's goals of accelerating discovery science into translational patient benefit.

***Please note that PhD candidates who have not yet received their PhD award, including candidates who have completed their oral exam and are in the process of corrections, will be appointed with a salary within the junior training zone (Grade 4 spinal points 25-26). The salary will increase to the appropriate point upon receipt of a copy of the formal award letter or award certificate.**

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 accurately reflects the duties and responsibilities of the role at the time the job description was written. These duties and responsibilities may change over time without significantly impacting on the character of the role, the overall level of responsibility, or its grade.

Depending on strategic or operational needs, the jobholder may in the future be required to work for another existing or new organisational unit and/or at a different site within Queen Mary. This may be on a temporary or indefinite basis and may involve a change in line management and / or regularly working at more than one site.

Citizenship

The Faculty of Medicine and Dentistry is committed to an action plan that supports the cultivation of a diverse and nurturing staff and student community, at the heart of which sits the commitment to equality of opportunity and equity in our processes and structures.

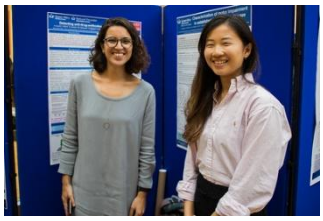
It is the expectation of all staff that they undertake citizenship responsibilities within the Faculty. As part of the appraisal and probation process, your line manager will discuss the expectations of you to lead or participate in citizenship projects/initiatives as set out in the Faculty's EDI Strategy. These responsibilities will be commensurate with the seniority of the role and the expertise and experience of the individual

Person specification

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.

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

Qualifications	Essential	Desirable
PhD (or close to completion) or research qualification/experience equivalent to PhD level in Bioinformatics in Kidney Disease or related subject	☒	☐
Educated to degree level BSc and/or MSc in a relevant field, bioinformatics, computations biology or genomics or a related quantitative field applied to Kidney Disease	☒	☐
Qualifications in Space Ranger, Loupe Browser and R or Python	☒	☐
Demonstrated competency working within Linux/Unix environments and utilizing High-Performance Computing clusters for large-scale genomic data processing	☐	☒
Experience/Knowledge		
Relevant knowledge and experience in Spatial transcriptomics bioinformatics analysis, within major organs, such as kidney or heart	☒	☐
Understanding of the research process and knowledge of appropriate research protocols	☒	☐
Experience in planning and delivery of own work allocation, to agreed timescales and quality standards	☒	☐
Experience of the research environment	☒	☐
Experience of collaborative team working to achieve a common goal/objective	☒	☐
Proficiency in maintaining detailed, accurate and up to date records	☒	☐
Experience in report-writing, utilising appropriate styles/approaches to suit the audience	☒	☐
Experience in collating, maintaining and deploying datasets to produce, interpret and present data reports and analysis.	☒	☐
Skills/Abilities		
Effective report-writing, written and verbal communication skills. Able to adapt style/approach appropriately to suit the audience. Effective team working with a collaborative style.	☒	☐
Proven ability to maintain accurate and up to date records	☒	☐
Ability to organise and prioritise own work and organise research within the project timetable	☒	☐
Experience of using Microsoft Office packages (Word, Excel, Outlook and PowerPoint)	☒	☐
Able to identify appropriate solutions from a set of principles and/or prior experience rather than from a specific set of procedures	☒	☐





Able to apply appropriate judgement in a range of non-routine work situations and prioritise appropriately under pressure	☒	☐
Advanced IT, numeracy and analytical skills with a high level of accuracy and attention to detail	☒	☐
Other		
Prior experience specifically modelling and or analysing Autosomal Dominant Polycystic Kidney disease or renal cystic microenvironment	☐	☒
Self-motivated and able to work with and without close supervision	☒	☐
Organised and methodical, and able to use own initiative where appropriate	☒	☐
Ability to maintain confidentiality when handling sensitive data	☒	☐
*The ability to meet UK 'right to work' requirements.	☒	☐

* The University has a legal responsibility to ensure that all potential employees can provide documentary evidence of their legal right to work in the UK prior to commencing employment.

Visa Sponsorship

For those who do not have a right to work in the UK, the University is a UKVI licensed sponsor and is able to issue a Certificate of Sponsorship (CoS) to successful candidates who are offered skilled roles and meet the eligibility criteria. The CoS enables candidates to apply for a Skilled Worker visa. Further information on the Skilled Worker visa can be found via: www.gov.uk/skilled-worker-visa

Global Talent Visa Route

The Global Talent visa is an alternative route to sponsorship, directly applied for by the applicant. It is open to those wishing to work in the UK and who are a leader or potential leader in the fields of academia or research, arts and culture, and digital technology. Further information on the Global Talent Route can be found via: https://www.gov.uk/global-talent

For additional information on both visa sponsorship and non-sponsorship visa routes, please visit the UK Visas and Immigration website: https://www.gov.uk/browse/visas-immigration/work-visas

Academic Technology Approval Scheme (ATAS)

Academics and Researchers applying for Skilled Worker visas and Sponsored Researchers applying for Government Authorised Exchange visas who will be undertaking research activities, at PhD level or above, in the one of the ATAS listed subject areas will be required to obtain an ATAS certificate before they can apply for a visa to work in the UK.

Exemptions will exist for nationals from the EEA, Australia, Canada, Japan, New Zealand, Singapore, South Korea, Switzerland and USA and those applying for Global Talent Visas. For further information on this, please visit the UK Visas and Immigration website: https://www.gov.uk/guidance/find-out-if-you-require-an-atas-certificate.






EDI Initiatives

Queen Mary is committed to advancing Equality, Diversity and Inclusion (EDI). We hold a Silver Institutional Athena SWAN award for advancing gender equality and champion a number of EDI initiatives across the University. We also offer a number of development programmes including Springboard, Aurora and B-MEntor.

We are committed to championing EDI relating to all protected characteristics and other underrepresented and marginalised groups under the Equality Act 2010. We offer 'Introducing Inclusion' training for staff to give them an understanding of EDI related issues and provide them with the tools needed to champion inclusivity and embed best inclusive practice in all the work they do. EDI is built into everything we do at Queen Mary, and is championed through a well-established governance structure. If you are interested in learning more about Equality, Diversity and Inclusion at Queen Mary and how to get involved then please contact hr-equality@qmul.ac.uk.

Flexible Working

Queen Mary is proud of the diversity of its staff and students. We encourage inclusive practices in everything that we do, to ensure that everyone who works here feels valued and enabled to have a positive working experience. We are therefore open to considering applications from candidates wishing to work flexibly, balanced against business need. Our Flexible Working Policy includes examples of some of the flexible working arrangements that could be considered. If you feel that this is something that may be of benefit to you, please do ask.

Family Friendly Policies

Queen Mary recognises the commitments that staff have to their family and the importance of work-life balance. To support this Queen Mary offers a range of family friendly policies with enhanced rates of pay available for family-related leave, following a qualifying period of service

Further Information

Details about the school can be found at:

www.qmul.ac.uk/whri

Informal enquiries should be made to:

Name: Maria Fragiadaki

Tel:

Email: m.fragiadaki@qmul.ac.uk

Please note that we advertise our salaries on a range to indicate the trajectory of progression that can be made. Appointments are usually made at the start of the salary range. The Queen Mary salary structure includes automatic pay progression within the published grades, subject to service, funding and performance. In addition to this, there are performance related annual pay review schemes in place.



