UNIVERSITY OF WEST LONDON
The Career University

Job Description

Job title	Postdoctoral Research Associate
School / department	School of Medicine and Biosciences
Grade	Research PDRA-B, P32
Line manager	Prof Hermine Mkrtchyan
Responsible for (direct reports)	N/A
Date of creation or review	02/06/2025

Main purpose of the job

Postdoctoral Research Associate – Genomics and Microbiome Sciences Centre for Innovation in Genomics and Microbiome Sciences (CIGMiS), University of West London

We are pleased to invite applications for a Postdoctoral Research Associate to join the Centre for Innovation in Genomics and Microbiome Sciences (CIGMiS) at the University of West London. CIGMiS is a centre of excellence dedicated to addressing complex, system-wide questions in microbiome science to improve public health outcomes. Our research spans from fundamental discovery to translational science, supporting the development of new technologies, therapeutics, and evidence-based policy change.

This post offers a unique opportunity to contribute to an international, multidisciplinary consortium project investigating the emergence and evolution of key pathogens and antimicrobial resistance (AMR) using a systems-based approach. The successful candidate will collaborate closely with colleagues at the University of Newcastle, as well as research partners in Vietnam and the Philippines. The role includes overseas travel to both partner countries as part of the research programme.

We are seeking an enthusiastic and experienced researcher with expertise in genomics and bioinformatics, large-scale data analysis, and systems modelling. The post holder will play an integral role in experimental design, sequencing, data interpretation, manuscript preparation, project coordination, and the training of students and international partners. They will also engage actively with external collaborators.

Essential criteria include:

- A PhD in a relevant discipline (e.g., microbiology, genomics, bioinformatics)
- Proven experience in Oxford Nanopore Technologies (ONT) sequencing and bioinformatics
- A track record of research in microbiome science, metagenomics, whole genome sequencing, big data analysis, machine learning, and AI

In return, we offer:

- A generous salary and market-leading pension scheme
- Excellent health and wellbeing services
- An excellent annual leave entitlement, in addition to public holidays
- Additional paid closure over the Christmas period

As an equal opportunity employer, we are committed to creating an inclusive and supportive working environment. We welcome applications from all sections of the community, regardless of age, disability, ethnicity, gender identity, religion or belief, sexual orientation, or socioeconomic background. All appointments are made on the basis of merit.

Key areas of responsibility

- Design and implement experiments involving Oxford Nanopore Technologies (ONT) sequencing.
- Analyse short and long read sequencing data, including whole genome sequencing and metagenomics using a range of appropriate bioinformatics tools.
- Contribute to big data analysis and systems modelling to identify transmission routes of priority pathogens and support the development of AI-based approaches to enhance the integration of genomic and epidemiological metadata for epidemic, pandemic and AMR prediction.
- Prepare manuscripts for publication, ensure adherence to project timelines, share and publicise data.
- Contribute to the training and capacity building of international partners and postgraduate students.
- Proactively identify sources of research funding opportunities and contribute to the development and submission of competitive funding proposals.

In addition to the above areas of responsibility the post-holder maybe required to undertake any other reasonable duties relating to the broad scope of the position, commensurate with the post, and in support of the University.

Dimensions / background information

The University of West London (UWL) is widely recognised for its commitment to advancing human health and wellbeing, as well as for fostering an excellent research environment. Over the past five years, the University has made significant investments in cutting-edge equipment, enabling the pursuit of world-leading research. By working collaboratively with a range of external partners, UWL provides strong leadership and support across a broad spectrum of research activities, including the coordination of projects funded by Innovate UK, UKRI, and various charitable and international funding bodies. UWL is dedicated to supporting all staff and cultivating a nurturing and inclusive research culture.

UWL has been ranked the **best modern university in London** by the *Complete University Guide 2023*. In addition, the University was named **University of the Year for Student Experience and Teaching Quality** in *The Times and The Sunday Times Good University Guide 2023*, with editors highlighting UWL's consistent performance and ability to achieve exceptional levels of student satisfaction.

School of Medicine and Biosciences continues to deliver high-quality, internationally recognised research through strategic academic and industry partnerships and competitive international collaborations. The school places a strong emphasis on fostering multidisciplinary research across a range of scientific domains.

The **Centre for Innovation in Genomics and Microbiome Sciences (CIGMiS)** undertakes research aimed at addressing complex, systems-level questions in microbiome science. Its work spans fundamental investigations, such as elucidating the genetic makeup of microbiomes and pathogens and their interactions to applied research, including the development of novel therapies, technological and methodological innovations, and contributions to public health policy.

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Person Specification

	Criteria	Essential or Desirable[1]	Demonstrated[2]		
			Application	Interview	Test / Exercise
Qualifications and/or membership of prof. bodies	PhD in Genetics, Bioinformatics, AI/ML	Essential	x	x	
Knowledge and experience	Knowledge and experience of ONT sequencing	Essential	x	x	
	Whole genome sequencing and metagenomics data analysis	Essential	x	x	
	Use of appropriate bioinformatics tools	Essential	x	x	
	Big data analysis and systems modelling, AI & ML	Essential	x	x	
Specific skills to the job	Communication skills	Essential	x	x	
	Preparing manuscripts	Essential	x	x	
	Good level of independence and creativity	Essential	x	x	
	First author of high-quality refereed journal publications	Essential	x	x	
General skills	Team working	Essential	x	x	
	Training International partners and PhD students	Essential	x	x	
	Develop research objectives and proposals	Essential	x	x	
Other	This is a 34 month contract	Essential	x	x	

Disclosure and Barring Scheme Is a DBS Check required: DBS (This post does not require a DBS check)

Before making a selection, please refer to the University's Disclosure and Barring Checks Guidance for Staff and Criminal Convictions, Disclosures and Barring Staff Policy and Procedure. If a DBS check is required for the role, a **Check Approval Form** will need to be completed.

[1]**Essential Criteria** are those, without which, a candidate would not be able to do the job. Applicants who have not clearly demonstrated in their application that they possess the essential requirements will normally be rejected at the shortlisting stage.

Desirable Criteria are those that would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements, to determine which applicants to shortlist.

[2] **Demonstration:** Select the Recruitment Process stage at which the candidates will have to demonstrate that they meet the criteria. Criteria which have to be demonstrated at application stage should be mentioned in the Recruitment Information Pack as Pre-Selection/Killer Questions, Shortlisting Questions or Shortlisting Criteria. Other criteria should be evaluated and tested at interview stage (e.g. through interview questions) or through additional tests, exercises or presentations. Criteria can (and should) be demonstrated at multiple stages.