

JOB DESCRIPTION



Job Title: Malaria Research Technician
Department: Infection Biology
Faculty/Professional Service: Infectious and Tropical Diseases
Location: Keppel Street, London
Reports to: Line manager: Julian Muwanguzi, Laboratory Manager (Malaria CL 3) Accountable to: Professor David Baker (Malaria Principal Investigator)
Full Time/Part Time/Casual: Full-time
Grade: PSP Grade 4
Overall Purpose of the job: We are seeking an enthusiastic Malaria Research Technician to support the research projects based in the Malaria Laboratories. The successful applicant will join a multi-disciplinary research environment and learn a variety of molecular and cellular biology techniques. The position will include a 0.5 FTE research assistance role with one of the principal investigators (PIs), Prof David Baker's team working on the biological function of cyclic nucleotide signalling in malaria parasite and drug discovery. Training in all relevant techniques will be provided, but in the longer term the post will involve training new staff members and students in the use of these techniques and the required experimental approaches. In addition to research and training, the post holder will be working closely with the Malaria CL3 Laboratory Manager to provide general logistics support for lab users of the Cat 3 Malaria culture facility to ensure research can continue uninterrupted. Applicants will have an undergraduate degree in the field of biological sciences, proven relevant experience with molecular and cell biology techniques, with excellent organisational, written, and numeric skills. The post is full-time, on a fixed-term contract for two years from the start date, with potential extension depending on availability of funding. The appointment is available immediately. The salary will be on the Professional Scale Grade 4, range £33,111-£37,298 per annum (inclusive of London Weighting). The post will be subject to the LSHTM terms and conditions of service.

General Information

The London School of Hygiene & Tropical Medicine (LSHTM) is one of the world's leading public health universities.

Our mission is to improve health and health equity in the UK and worldwide; working in partnership to achieve excellence in public and global health research, education and translation of knowledge into policy and practice.

Staff and students are committed to helping create a more healthy, sustainable and equitable world for everyone, because we believe our shared future depends on our shared health.

We embrace and value the diversity of our staff and student population and seek to promote equity, diversity and inclusion as essential elements in contribution to improving health worldwide. We believe that when people feel respected and included, they can be more creative, successful, and happier at work. While we have more work to do, we are committed to building an inclusive workplace, a community that everyone feels a part of, which is safe, respectful, supportive and enables all to reach their full potential.

To find out more please visit our [Introducing LSHTM page](#).

Our Values

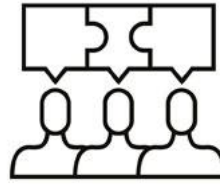
Our values establish how we aspire to achieve our mission both now and in the future - demonstrating what it means to work and study at LSHTM. Please visit our [LSHTM Values page](#) for further information.



**Act with
integrity**



**Embrace
difference**



**Work
together**



**Create
impact**

FACULTY/DEPARTMENT INFORMATION

Faculty of Infectious and Tropical Diseases

The vision of the Faculty of Infectious and Tropical Diseases is to deliver outstanding contributions to reduce the evolving disease burden related to infections and global health inequity. The range of disciplines represented is broad, including all laboratory-based research at LSHTM's London campus, and encompassing a "bench to boardroom" portfolio with research approaches from fundamental biology through clinical research to impact on policy and practice. It is headed by Alison Grant, who is **Professor of International Health**. The spectrum of diseases studied is wide; our main research interests include vector-borne diseases especially malaria; respiratory diseases including tuberculosis and bacterial pneumonia; enteric infections; HIV and other sexually transmitted infections; neglected tropical diseases including trachoma, leishmaniasis, schistosomiasis and trypanosomiasis; vaccine development and evaluation; and the prevention of blindness. The Faculty is organised into three research departments comprising: Clinical Research, Disease Control, and Infection Biology. Interdisciplinary research is a major strength, and we encourage collaboration between scientists in different research areas. The Faculty has close links with colleagues and collaborators in more than 100 countries. Our teaching programme includes MSc courses which are module in structure, both intensive taught in London and by distance learning; a variety of short courses and an [active doctoral programme](#) (PhD and DrPH). For further information on the Faculty see [here](#).

Department of Clinical Research (Head: Professor David Moore)

The Department of Clinical Research addresses infectious diseases of major public health importance in developing countries. Activities include trials of new therapies, vaccines and educational interventions; the development of new diagnostic tests; studies to elucidate the

immunological and molecular correlates of pathogenesis and protective immunity, and to identify genetic polymorphisms conferring protection or susceptibility to infectious diseases; health services research which aims to identify the most efficient and cost-effective way to deliver health care; and health policy analysis. In addition to our many overseas collaborations, we have close links with the Hospital for Tropical Diseases, in purpose-built accommodation on the main UCL Hospital campus, five minutes walk from the School. The Wellcome Trust Bloomsbury Centre for Global Health Research is based in the Department, and supports Clinical Fellows at all levels, most of whom are based overseas.

The Department's main research interests include HIV and related infections; in particular, the interaction between HIV infection and tuberculosis, and other sexually transmitted diseases; malaria; trachoma; leprosy; diagnostic tests for resource limited settings; eye health; disability; and travel medicine.

Department of Disease Control (Head: Professor Mary Cameron)

The Department of Disease Control is a multidisciplinary, cross-cutting department, operating in a global context and committed to excellence in research, innovation, learning and engagement. We have an outstanding reputation for internationally competitive research and teaching excellence, with demonstrable impact in the control of diseases, worldwide. Our diverse scientific staff comprises entomologists, epidemiologists, mathematical modellers, geographers, public health engineers, hygiene specialists, social scientists, engineers, statisticians and clinical scientists. We also have a strong team of project administrators, coordinators, managers, and communication specialists, who provide expert support to our research programmes in the UK and overseas. We are a highly collaborative Department, with extensive partnerships and collaborations with researchers from many countries and organisations around the world, as well as internally, with multiple School Departments. Our work cuts across several School Centres such as the Vaccine Centre, the Malaria Centre, Centre for Evaluation and the MARCH Centre.

Our staff play influential roles as consultants and key advisors to organisations including the WHO, CDC, Malaria Consortium, Public Health England, Department of Health, DFID, Bill and Melinda Gates Foundation, the Royal Society, Research Councils, Academy of Medical Sciences, the World Bank, Governments and private sector manufacturers and innovators, amongst many others. Our range of expertise provides us with an impressive set of tools for addressing the control of diseases that are insect-borne, water-borne or associated with poor hygiene – mostly in low- and middle-income countries. Much of our research is directed at current health policy issues and addressing gaps between policy and practice.

Department of Infection Biology (Head: Professor Martin Hibberd)

The Department of Infection Biology brings together pathogen molecular biology and immunology and infection research across the School. The Department benefits from state of the art facilities and strong collaborations, many of which are with partners in disease endemic countries.

We study the molecular biology and genetics of pathogens and interaction with their hosts, to improve understanding and control of infectious diseases and to understand the complex and dynamic ways by which pathogens modulate virulence and interact with the human host. Such a holistic approach will vastly increase the scope for the rationale of design of long-term intervention strategies to reduce the burden of infectious disease. In recent years such a mission has been significantly enhanced by the availability of whole genome sequences. The Department is involved in several pathogen genome projects, and post genome studies which facilitate understanding of complex parasites. The interpretation and exploitation of this basic information is the platform for numerous new avenues of research on pathogenesis, epidemiology and the evolution of virulence.

Our research in immunology and infection centres on analysis of the host response to infection at the molecular, cellular and population levels. The goals are to develop a greater

understanding of basic mechanisms of immunological protection versus pathology, and to apply this knowledge to the development of immunological interventions and the identification of correlates of immune status. Our work involves application of state of the art cellular and molecular approaches to the in vitro analysis of pathogen-host cell interactions, to in vivo studies in models, and to the study of immunity at the population level in disease endemic areas. We also conduct translational research for the development and evaluation of diagnostic approaches to identify disease foci and monitor drug resistance

Teaching

LSHTM offers 20 one year full-time taught programmes leading to the Master of Science (MSc) degree of the University of London and the Diploma of the London School of Hygiene and Tropical Medicine (DLSHTM). The Faculty of Infectious and Tropical Diseases runs or contributes substantially to nine of these MSc programmes. In addition, the Faculty is responsible for the three-month Professional Diploma in Tropical Medicine and Hygiene and the Professional Diploma in Tropical Nursing. The Faculty also offers a range of specialist short courses lasting usually one or two weeks. LSHTM offers a further six MSc programmes by Distance Learning, with the Faculty responsible for the MSc Infectious Diseases.

Research Training

The School offers two doctoral training programmes. The MPhil/PhD degrees are designed for those who wish to go on to a full time research career. The DrPH is directed towards those who expect their careers to be more in the practice of public health.

Project information

This post is primarily research-based providing ongoing assistance to funded research projects based in the malaria laboratories. This will include a 0.5 FTE research assistance role with one of the principal investigators (PIs), Prof David Baker's team working on the biological function of cyclic nucleotide signalling in malaria parasite and drug discovery. Training in all relevant techniques will be provided, but in the longer term the post will involve training new staff members and students in the use of these techniques and the required experimental approaches. In addition to research and training, the post holder will be working closely with the Malaria CL3 Laboratory Manager to provide general logistics support for lab users of the Cat 3 Malaria culture facility to ensure research can continue uninterrupted.

Main Duties and Responsibilities

The research component of the post will involve experimental work in the area of molecular/cell biology. Examples of techniques to be used include:

- PCR, plasmid construction and DNA cloning in *E. coli*
- Gel electrophoresis and western blotting
- Cultivation, transfection and transmission of malaria parasites
- Enzyme activity assays, drug assays including use of tritium-labelled reagents
- Fluorescence and light microscopy
- Flow cytometry

Other responsibilities:

- 1) Assist the Malaria Cat 3 Lab manager with day-to-day operations within the Cat 3 lab, including ordering, unpacking and maintaining stock levels of consumables and equipment and help with lab organisation.

- 2) Assist the Malaria Cat 3 Lab manager with training of new staff and students in cultivation and handling of the Cat 3 pathogen Plasmodium spp. and updating laboratory protocols.
- 3) Work closely with the scientists in the lab to be able to provide up to date technical expertise, advice and training in core equipment and core techniques.
- 4) Participate in general rota for basic lab duties such as preparation of reagents, equipment maintenance, autoclaving and disposal of laboratory waste and general housekeeping duties.
- 5) Contribute to organisation of biological samples and cryopreserved parasite stocks
- 6) Contribute to the safe running of the malaria laboratories and report any incidents/near misses
- 7) Participate in training sessions as required
- 8) Attend the School occasionally at the weekend for a short period (on a rota basis) to maintain key parasite cultures.

Generic duties and responsibilities of all LSHTM employees

This job description reflects the present requirements of the post but may be altered at any time in the future as duties and responsibilities change and/or develop providing there is consultation with the post-holder.

The post-holder will carry out any other duties, tasks or responsibilities as reasonably requested by the line manager, Dean of Faculty, Head of Department or Head of Professional Service.

The post holder will be responsible and accountable for ensuring all LSHTM policies, procedures, regulations and employment legislative requirements are adhered to including equality and diversity and health and safety.

This job description is not a definitive or exhaustive list of responsibilities but identifies the key responsibilities and tasks of the post holder. The specific objectives of the post holder will be subject to review as part of the individual Performance and Development Review (PDR).

PERSON SPECIFICATION

This form lists the essential and desirable requirements needed by the post holder to be able to perform the job effectively.

Applicants will be shortlisted solely on the extent to which they meet these requirements.

Competency	Evidence	E / D
Education, Qualifications and Training	• Degree in the field of biological sciences	E
	• Contributions to scientific publications	D
Experience	• Research experience with techniques used in molecular and cell biology	E
	• Experience with cell culture	E
	• Experience with performing laboratory-based experiments and assays	E
	• Experience with P. falciparum cultivation and experimental work	D
	• Experience in managing a research facility	D
	• Experience with data analysis	D
	• Experience of presenting experimental results	D
General	• Committed to LSHTM's principles of Equity, Diversity and Inclusion	E
	• Proven organisational skills in the laboratory	E
	• Proven ability to interact with team members and collaborators	E

E-Essential: Requirement without which the job could not be done

D-Desirable: Requirements that would enable the candidate to perform the job well

Date compiled: June 2024

Salary and Conditions of Appointment

The post is fixed term for 24 months and full-time 35 hours per week, 1.0 FTE. The post is funded 50% by the Faculty of Infectious Tropical Diseases and 50% by David Baker grants for a period of two years from the start date, with the possibility of extension. The salary will be on the Professional Services Grade 4 salary scale in the range £33,111 - £37,298 per annum (inclusive of London Weighting).

The post will be subject to the LSHTM terms and conditions of service. Annual leave entitlement is 30 working days per year, pro rata for part time staff. In addition to this there are discretionary "Wellbeing Days." Membership of the Pension Scheme is available.

LSHTM has a Hybrid Working Framework, which alongside agreed service requirements, enables teams to work more flexibly (if the role allows), promoting a greater wellbeing and work/life balance.

Application Process

Applications should be made on-line via our [jobs website](#). Applications should also include the names and email contacts of 2 referees who can be contacted immediately if appointed. Online applications will be accepted by the automated system until 10pm of the closing date. We regret that late applications cannot be accepted. Any queries regarding the application process may be addressed to jobs@lshtm.ac.uk.

The supporting statement section should set out how your qualifications, experience and training meet each of the selection criteria. Please provide one or more paragraphs addressing each criterion. The supporting statement is an essential part of the selection process and thus a failure to provide this information will mean that the application will not be considered. An answer to any of the criteria such as "Please see attached CV", "Yes" or "No" will not be considered acceptable and will not be scored.

Please note that if you are shortlisted and are unable to attend on the interview date it may not be possible to offer you an alternative date.

Asylum and Immigration Statement

LSHTM will comply with current UKVI legislation, which requires all employees to provide documentary evidence of their legal right to work in this country prior to commencing employment. Candidates will be required to email a copy of their passport (and visa if applicable) to HR prior to their interview and if appointed will be asked to bring the original documents in to be copied and verified before their start date.

This role does not meet the minimum requirements set by UKVI to enable sponsorship under the skilled worker route. Therefore we cannot progress applications from candidates who require sponsorship to work in the UK.