

JOB DESCRIPTION



Job Title: Higher Scientific Officer (Malaria Transmission Facility)
Department: Infection Biology Department
Faculty/Professional Service: Infectious and Tropical Diseases
Location: LSHTM, Keppel Street London
Reports to: Line managed by Colin Sutherland. Accountable to Mojca Kristan
Responsible for: N/A
Full Time/Part Time/Casual: Full time, 1.0 FTE
Hours (if less than full time): N/A
Grade: Grade 5
Overall Purpose of the job: We are seeking to appoint a Higher Scientific Officer to work as a member of the Malaria Transmission Facility (MTF) team. The post holder will support the malaria transmission facility and associated researchers and is primarily responsible for carrying out day to day routine research activities supervised by the Malaria Transmission Facility Manager, and under the guidance of the Transmission Facility Scientific Steering Group. These would include parasite culturing and/or mosquito rearing, experimentation, development and implementation of standard operation procedures, maintenance of samples and stocks and ensuring that shared equipment and shared facilities in the laboratories operate effectively. The role is a practical laboratory-based role, and the post holder will be expected to contribute to the technical excellence and successful performance of experiments. The post holder will also be responsible for providing procurement, stock checking and ensuring health and safety compliance. The successful applicant will have a degree in a biological science or equivalent experience, experience of working in malaria transmission, either parasitology and/or entomology, assay development, troubleshooting and practical problem-solving skills, strong ability in analysis of primary laboratory data and presentation of results, demonstrable experience in managing and organising resources in the context of a working laboratory or facility. For a complete list of job duties and responsibilities please see below.

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

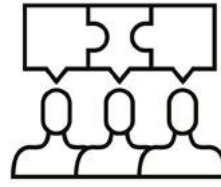
Our values establish how we aspire to achieve our mission both now and in the future - demonstrating what it means to work and study at LSHTM. Please visit our [LSHTM Values page](#) for further information.



**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 Shunmay Yeung)

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 Jayne Webster)

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

Main Duties and Responsibilities

Research Support

Support specified laboratory-based research projects, ensuring the most appropriate techniques or use of equipment, and enabling existing or new technical skills to be refined or applied.

- Conduct experimental mosquito infections
- Maintain colonies of different mosquito species and strains
- Establish and maintain asexual parasite and gametocyte culture of *P. falciparum*
- Quality control and troubleshooting of transmission experiments
- Develop and refine SOPs and training material for transmission experiments
- Draft reports for LSHTM and external partners
- Provide technical advice, training and guidance to colleagues and students including those at overseas partner laboratories
- Ensure the equipment is appropriately maintained, e.g. routine maintenance and cleaning
- Ensure the transmission laboratory (429) is appropriately maintained
- Keep up to date with advances in research techniques and in technologies in order to provide advice

Laboratory Management

- Help develop and maintain a system for cataloguing, storing and accessing research materials, strains and samples as agreed with the Research Governance and Integrity Office (RGIO). This will include a freezer, fridge, and chemical cupboard logs
- Ensure appropriate compliance with legislation relating to storage, transportation, modification and destruction of samples
- Support laboratory-based research on gametocytes and mosquito-stages of malaria parasites
- Ensure the basic cleanliness of the laboratory, and organisation of resources and equipment

Finance/Ordering

- Ensure adequate supplies and order standard consumables as required for the purposes of supporting the laboratory (this may include: communal reagents, media, blood, serum, gases etc)
- When required, obtain and compare quotes for new procurement and ensure necessary approvals
- Procure and arrange shipment of consumables to partner organisations, including relevant documentation

Safety

- Ensure adherence to all health and safety duties as outlined in the Arrangements for Bio Risk Management as outlined by the School's Health and Safety Department
- As appropriate, keep records, such as pathogen inventories, GM records, Human Tissue Act records, Poisons Records
- Ensure that SOPs and risk assessments are followed in the laboratories used for all MTF activities

Training

- Provide, to LSHTM staff and students and to our collaborators, expert

advice on malaria transmission experiments, including malaria parasite culture and entomology

- Assist in setting up and demonstration of practical classes as required and prepare the required teaching and training materials
- Contribute towards the provision of laboratory support for MSc and other teaching projects relevant to the research
- Induct new laboratory users, including students and visitors
- Provide guidance and constructive feedback to researchers regarding their experimental design
- Provide advice on data analysis and interpretation

Equipment

- Liaise with Laboratory Managers and other relevant colleagues to ensure maintenance and servicing of equipment to ensure scientific standards are maintained
- Managing shared group equipment within the laboratory space, including freezers
- Provide technical specifications for new equipment purchases for the MTF group

Other

- Attend and contribute to laboratory meetings, including those with research teams
- Proactively contribute to Transmission Facility team meetings
- Undertake other reasonable duties as required
- If required, make the facility accessible to external visitors and recover costs. This may include external advertising, maintaining a website or other enquiry forms
- The person is expected to keep up-to-date with technologies and build relationships with researchers, to enable the Department and Faculty to have access to the latest technologies

Additional Information

- The post may require occasional travel both domestic and international

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	<ul style="list-style-type: none"> • A degree in a biological science or equivalent experience 	E
	<ul style="list-style-type: none"> • MSc and/or PhD in Biological/Medical Sciences 	D
Experience	<ul style="list-style-type: none"> • Experience of working on malaria transmission, either parasitology and/or entomology 	E
	<ul style="list-style-type: none"> • Assay development, troubleshooting and practical problem-solving skills 	E
	<ul style="list-style-type: none"> • Strong ability in analysis of primary laboratory data and presentation of results 	E
	<ul style="list-style-type: none"> • Demonstrable experience in managing and organising resources in the context of a working laboratory or facility 	E
	<ul style="list-style-type: none"> • Experience of teaching practical classes 	D
Knowledge	<ul style="list-style-type: none"> • Experience of health and safety in a research facility and being able to work within these guidelines 	E
	<ul style="list-style-type: none"> • Working knowledge of completing and following risk assessments and SOPs 	E
General	<ul style="list-style-type: none"> • Commitment to promoting Diversity, Equality, and Inclusion within their work environment 	E
	<ul style="list-style-type: none"> • Ability to work independently and as part of a team 	E
	<ul style="list-style-type: none"> • A safety qualification 	D
	<ul style="list-style-type: none"> • Publication record 	D

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: April 2024

Salary and Conditions of Appointment

The post is fixed term until 30 November 2025 and is full-time, 35 hours/week, 1.0 FTE. The post is funded by The Wellcome Trust and is available from 7 May 2024. The salary will be on the Professional Services salary scale, Grade 5 scale in the range £38,282 - £43,947 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.

Applications from candidates who require sponsorship to work in the UK will be considered alongside other applications but due to the salary threshold changes effective 4 April 2024 applicants under certain circumstances may not qualify for sponsorship. Applicants who do not currently have the right to work in the UK will have to satisfy UK Visas & Immigration regulations before they can be appointed.

Further information about Sponsorship and eligibility to work in the UK, can be found on the government immigration rules page

