

LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE
(University of London)

FACULTY OF INFECTIOUS AND TROPICAL DISEASES

INFECTION BIOLOGY DEPARTMENT

Higher Scientific Officer (Malaria Transmission Facility)



GENERAL INFORMATION

The London School of Hygiene & Tropical Medicine

The London School of Hygiene & Tropical Medicine (LSHTM) is renowned for its research, postgraduate studies and continuing education in public and global health.

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.

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.

History

Founded in 1899 at the London Docks, LSHTM is now based in Bloomsbury, where it has two main sites at Keppel Street and Tavistock Place, and additional sites in The Gambia and Uganda. Today, our staff, students and alumni work in government, academia, international agencies and health services across the world. Learn more about the history of LSHTM.

Research

Research income has grown to more than £180 million per year from national and international funding sources including UK government and research councils, the European Union, the Wellcome Trust, Gates Foundation and other philanthropic sources.

Our diverse research talents, skills and experience underpin our position as a leader in public and global health. These range from the molecular to the global, the theoretical to the applied, the analytical to the political. Our staff are conducting research in more than 100 countries.

Staff community

We have 3,300 staff based all around the world with core hubs in London and at the MRC Units in The Gambia and Uganda, which joined LSHTM in February 2018. Our outstanding, diverse and committed staff make an impact where it is most needed - deploying research in real time in response to crises, developing innovative programmes for major health threats, or training the next generations of public and global health leaders and researchers.

Partnerships

Working in partnership is central to achieving our mission. Our strategic collaborations in the UK and across high-, middle- and low-income countries deliver health and socioeconomic benefits across the world, especially in the most disadvantaged communities.

LSHTM is also a member of the M8 Alliance of Academic Health Centers, Universities and National Academies, the Association of Schools of Public Health in the European Region, and the Consortium of Universities for Global Health.

Education

We deliver research-led educational programmes to future health leaders, managers and researchers across the world. We have more than 1,200 face-to-face Master's and Doctoral students, 3,000 studying by distance learning, and 1,000 each year on short courses and continuous professional development. Our free online courses are studied by more than 270,000 participants globally.

Excellence in research and education

We perform strongly in various global university league tables. In the ShanghaiRanking's Global Ranking of Academic Subjects 2020 we placed 3rd in public health (1st in the UK). In the 2020 CWTS Leiden Ranking LSHTM is ranked the UK's top university for the proportion of academic research with women listed as authors, and third in Europe for publishing open access research.

In the US News Best Global Universities Ranking 2021, we ranked 3rd in the world for public, environmental & occupational health, 4th in the world for infectious diseases, 11th in the world for social sciences & public health, and 12th best University in the UK overall. We ranked 27th for medicine in the 2019 QS World University Rankings.

In 2017, the inaugural Center for World University Rankings by Subject placed LSHTM first in the world for tropical medicine research, second for parasitology and seventh for infectious diseases, public, environment and occupational health, and social sciences and biomedical.

LSHTM was named University of the Year 2016 by Times Higher Education and awarded a Queen's Anniversary Prize for Higher and Further Education in 2017 in recognition of our response to the 2014 Ebola epidemic in West Africa. LSHTM does not appear in the Times Higher Education World University Rankings as universities are excluded if they do not teach undergraduates.

We seek to foster and sustain a creative and supportive working environment based upon an ethos of respect and rigorous scientific enquiry. We embrace and value the diversity of our staff and student population and seek to promote equality as an essential element in contribution to improving health worldwide.

LSHTM is one of around 20 specialist institutions that receive institution specific funding from the Office for Students (OfS). This funding recognises the additional costs that LSHTM incurs because of its unique range of teaching, specialist facilities, and the scale of its contributions to national and international agencies.

Faculty of Infectious and Tropical Diseases

The Faculty of Infectious and Tropical Diseases encompasses all of the laboratory-based research in the School as well as that on the clinical and epidemiological aspects of infectious and tropical diseases. It is headed by Alison Grant, who is Professor of International Health. The range of disciplines represented in the faculty is very broad and inter-disciplinary research is a feature of much of our activity. The spectrum of diseases studied is wide and there are major research groups with a focus on malaria, tuberculosis, HIV/AIDS and other sexually transmitted diseases, vaccine development and evaluation, and vector biology and disease control. The Faculty is organised into three large research departments comprising: Clinical Research, Disease Control, and Infection Biology. There is close interaction between scientists in different research teams. The Faculty has strong overseas links, which provide a basis for field studies and international collaborations in developed and developing countries. The teaching programme includes MSc courses, taught in-house and by distance learning, which are modular in structure, a variety of short-courses and an active doctoral programme (PhD and DrPH). For further information on the Faculty see: <http://www.lshtm.ac.uk/itd/index.html>.

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

Teaching

The School offers 19 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, the Professional Diploma in Tropical Nursing and offers a range of specialist short courses lasting usually one or two weeks. The School 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.

JOB DESCRIPTION

Job Title:	Higher Scientific Officer (Malaria Transmission Facility)
Department:	Infection Biology
Faculty:	Infectious and Tropical Diseases
Location:	Keppel Street, London
FTE:	1.0
Grade:	PSP5
Accountable to:	Line Manager: Gisela Henriques, Laboratory Manager (Malaria CL3) Accountable to: Maria Luisa Simoes - Facility Transmission Manager

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
- Establish and maintain asexual parasite and gametocyte culture
- Quality control and troubleshooting of transmission experiments
- Develop and refine SOPs and training material for transmission experiments
- 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
- 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
- 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

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 Manager 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 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 facility
- 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

PERSON SPECIFICATION

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

ESSENTIAL CRITERIA:

1. A degree in a biological science or equivalent experience
2. Ability to work independently and as part of a team
3. Experience of malaria transmission, either parasitology and/or entomology
4. Assay development, troubleshooting and practical problem-solving skills
5. Strong ability in analysis of primary laboratory data and presentation of results
6. Demonstrable experience in managing and organising resources in the context of a working laboratory or facility
7. Experience of health and safety in a research facility and able to work within these guidelines
8. Working knowledge of completing and following risk assessments

DESIRABLE CRITERIA

1. Experience of teaching practicals
2. MSc and/or PhD in Biological/Medical Sciences
3. A safety qualification

SALARY AND CONDITIONS OF APPOINTMENT

The post is funded by The Wellcome Trust until 30 November 2025 and is available from 1 September 2022. The post is full-time, 35 hours per week (1.0 FTE). The Salary is on the Professional Services salary scale Grade 5 in the range £35,377 - £40,611 per annum (inclusive of London Weighting). Annual leave entitlement is 30 working days per annum inclusive. In addition to this there are discretionary "Wellbeing Days". Membership of the Pension Scheme is available. The post is based in London at the London School of Hygiene & Tropical Medicine.

APPLICATIONS

Applications should be made online via our website at <http://jobs.lshtm.ac.uk>. Online applications will be accepted by the automated system until 10pm on the closing date. 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" will not be considered acceptable.

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

The School 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. 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 at: <https://www.gov.uk/guidance/immigration-rules/immigration-rules-appendix-skilled-worker>