

# JOB DESCRIPTION



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| <b>Job Title:</b>                          | Microscope Facility Manager and Laboratory Manager (Malaria CL2)  |
| <b>Department:</b>                         | ITD Central   |
| <b>Faculty:</b>                            | Infectious and Tropical Diseases  |
| <b>Location:</b>                           | Keppel Street, London   |
| <b>FTE:</b>                                | 0.8   |
| <b>Grade:</b>                              | PS6   |
| <b>Accountable to:</b>                     | Head of Research Laboratories, Ali Church   |
| <b>Rooms/laboratories responsible for:</b> | [Microscopy]: 239a; 226<br>[Malaria]; 343; 380  |
| <b>Groups responsible for:</b>             | [Microscopy]: All microscope users<br>[Malaria]: Baker, Beshir, Campino; Clark; Conway, Delves, Moon, Sutherland, Wassmer, van Ooij |
| <b>Named responsibilities:</b>             | LSHTM Responsible Person for Laser Safety<br>HTA Person Designated  |

## Purpose of the role

We are seeking a highly skilled and enthusiastic Microscopy Facility Manager who will also act as Laboratory Manager for the Malaria CL2 (ADCP Hazard Group 2) laboratory.

The Microscopy Facility Manager will provide a professional, effective and efficient technical and administrative management service for the Microscopy Facility, which sits within the Imaging and Cytometry Platform for Infection Biology of the Faculty of Infectious and Tropical Diseases (ITD). The post-holder will ensure that ITD has functional, modern microscopes and will work closely with Principal Investigators, staff and students across the Faculty, to understand their research needs and provide advice. This will include facilitating their use by multiple research groups, including those working with ADCP Hazard Group (HG) 2 and 3 pathogens. They are key to promoting a research community to innovate and learn new techniques. They will be the primary trainer for high-resolution microscopy and imaging, and provide expert training in image capture and data analysis. They will be responsible for ensuring microscopy data are securely stored. They are expected to undertake appropriate CPD to maintain current knowledge related to novel technology and microscopy approaches, and will work with senior colleagues to bring new technology to ITD as appropriate.

The Laboratory Manager is the accountable officer for all day-to-day activity within the lab(s) for which they are responsible, and ensures that all those working in the lab do so safely and within the agreed protocols and operating procedures. They are responsible for ensuring that the laboratories they manage are safe and efficient places to work, and operate in line with School policies and processes.

This role will be critical in the support of malaria research, and liaises with senior research leaders (PIs) to manage space, resources, rotas and training to ensure research can be carried out safely and effectively.

## General Information

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.

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

## Our Values

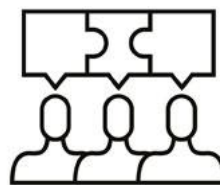
Our values establish how we aspire to achieve our mission both now and in the future - demonstrating what it means to work and study at LSHTM. Please visit our [LSHTM Values page](#) for further information.



**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

## 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.

## Main Duties and Responsibilities

### Management

#### In the microscopy facility

- Responsible for the day-to-day operations of Faculty-owned high-tech microscopes in the Imaging and Cytometry Platform for Infection Biology Faculty Facility and to ensure that all ITD imaging equipment runs smoothly (currently including a Zeiss LSM880 with Airyscan, a Nikon Eclipse Ti-2, a Nikon Eclipse Ti-E. We also have an additional LSM880 with Airyscan and a high throughput Zeiss Cell Discoverer 7/LSM900 located in our Schedule 5 laboratory. This post is not responsible for standard benchtop light microscopes.
- Work with research leaders (PIs) to ensure that their imaging and microscopy-related research needs are met. Which may include working with ACDP HG2 and HG3 pathogens and/or Schedule 5 pathogens.
- Arrange and co-chair Imaging and Flow Cytometry Focus group meeting with the Flow Cytometry Manager
- Be the primary point of contact for the ITD dedicated microscopy suite and manage interaction with other relevant services, such as Estates and external providers (see below).
- Help to manage data storage, interfacing with LSHTM Information Technology Services (ITS) to manage the volume of data).

#### In the CL2 Malaria Laboratory:

- Manage the day-to-day operations of the laboratory/ies that this post is responsible for (listed above).
- Work with research leaders (PIs) to ensure that their needs are met within the laboratory and that research can be supported.
- Manage supplies for the laboratories, e.g. plasticware and chemicals.
- Implement and maintain systems (e.g. stock management, sample databases, chemical databases etc) to ensure that the work within the laboratory is effective, safe and delivers value for money. This may include working to Good Laboratory Practice and Good Clinical Practice standards.
- Managing rota to ensure the effective management of the laboratory on a day to day basis, including: laboratory waste disposal; maintenance of lab coats; provision of sterile glass ware.
- Working with the Lab Manager (Malaria CL3) to ensure the safe and effective provision of a multi-user parasite culture facility.
- 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.

### General

- Ensure that all individuals working in the microscopy facility or laboratory have completed appropriate training, and are named on relevant licences.
- Coordinate communication of facility-specific information and notices to all microscope users and PIs – both in meetings and via other appropriate communication methods (email/noticeboard etc).
- Be primary point of contact for the laboratory/ies, and manage interaction with other relevant services –including Estates for maintenance, cleaning and fumigation (if required) and external providers where required (such as equipment servicing).
- Be responsible for ensuring adequate space for all lab users – staff, students and visitors.

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| <ul style="list-style-type: none"> <li>• Be responsible for maintenance and training for Faculty equipment within the lab (including , but not limited to, ChemiDoc, GelDoc, Spectramax iD5, Merck Integral 10, LM20 microfluidiser)</li> </ul> <p><i>If working with overseas colleagues/collaborators:</i></p> <ul style="list-style-type: none"> <li>• Ensure that samples collected in the field and archived and stored appropriately.</li> <li>• Ship materials to, and receive samples from, overseas collaborative projects.</li> <li>• Ensure appropriate compliance with legislation relating to storage, transportation, modification and destruction of samples.</li> </ul>   |
| <p><b>Training</b></p> <p>Microscopy:</p> <ul style="list-style-type: none"> <li>• Train the Facility's users in image acquisition and the use of analysis software</li> <li>• Deliver training to new and established individuals on the optimal and safe use of microscopy equipment and software, on a one-to-one basis.</li> <li>• Provide guidance and constructive feedback to researchers regarding their experimental design.</li> <li>• Provide expert advice on data analysis and interpretation, including quantitative analysis.</li> </ul> <p>Laboratory:</p> <ul style="list-style-type: none"> <li>• Training for lab users (including students and visitors) on all aspects of laboratory work, for example laboratory induction, implementation of new SOPs and preparation of risk assessments, and training on communal equipment.</li> <li>• Maintain training records for staff, in collaboration with Head of Research Laboratories.</li> </ul> |
| <p><b>Equipment</b></p> <ul style="list-style-type: none"> <li>• Develop and maintain an operable system for cost recovery for microscope usage, to recoup running costs from research grants.</li> <li>• Run regular quality control measure to maintain imaging systems.</li> <li>• Liaise with Head of Research Laboratories and other relevant colleagues to ensure maintenance and servicing of equipment to ensure scientific standards are maintained, and records are maintained of the maintenance and servicing.</li> <li>• Work with senior academics and the Lab Management Group to obtain funding to purchase specialist microscopy equipment, participating in grant applications as required.</li> <li>• Managing shared equipment within the laboratory space, including freezers.</li> <li>• Provide technical specifications for new equipment purchases.</li> </ul>   |
| <p><b>Research and Teaching</b></p> <ul style="list-style-type: none"> <li>• Support teaching laboratory practicals by preparing materials and assisting teaching delivery.</li> <li>• Support specified laboratory based research projects (as agreed by the Laboratory Management Group), ensuring the most appropriate techniques or use of equipment, and enabling existing or new technical skills to be refined or applied.</li> <li>• The above may account for up to 20% of time in accordance with service demands during the course of the academic year.</li> </ul>  |
| <p><b>Staff Management</b></p> <ul style="list-style-type: none"> <li>• Facilitate team working amongst laboratory staff to ensure sharing of best practice and cross skilling.</li> </ul>  |
| <p><b>Finance/Ordering</b></p> <ul style="list-style-type: none"> <li>• Generate and maintaining an operable system for cost effective communal ordering and ensure research grants are charged appropriately for consumables used.</li> <li>• Apply lab access charges for microscopy facility as appropriate</li> </ul>   |

- Ensure value for money when negotiating prices on consumables and establishing new suppliers. Establish and maintain strong working relationships with external suppliers in order to enable this.
- Ensure that all expenditure is carried out within School financial regulations.

### **Safety**

- Act as the LSHTM Responsible Person for Laser Safety.
- Work with the CL3 manager to ensure that research involving ACDP HG 3 pathogens has been rigorously reviewed prior to work commencing.
- Ensure adherence to all health and safety duties as outlined in the Arrangements for BioRisk Management as outlined by the School's Health and Safety Department.
- The Lab and Facility Manager will oversee the appropriate and safe use of their laboratories. They will have a comprehensive understanding of the activities underway within their space and they will have a thorough understanding of the laboratory operation and the maintenance and testing requirements. In detail, they are responsible for:
  - i. the production of and maintenance of local rules for their laboratories so as to ensure compliance with LSHTM Policy and Arrangements;
  - ii. the preparation of risk assessments for general activities carried out within their laboratories;
  - iii. the initial review of all risk assessments prior to their submission to the H&S Department;
  - iv. the investigation of accident and dangerous occurrences and planning and implementing remedial action in conjunction with the Faculty Safety Supervisor.
- Ensure that all Safety Control measures are communicated, tested, maintained, and audited as required.
- Ensure individuals working in laboratory are named on appropriate licence where required (e.g. Home Office, GM etc).
- Undertake Named Officer roles on behalf of the School as required.
- Oversee specific safety areas on behalf of the Faculty as delegated by the Faculty Safety Partner.
- Maintain laboratories to the required safety and regulatory guidelines (e.g. to the appropriate containment level), and oversee appropriate records such as pathogen inventories, Human Tissue Act records, Poisons records.

### **Estates**

- Liaising with Estates regarding ongoing service functions (all service supplies e.g. power, water etc.).
- Be responsible for arranging permits to work when required.
- Liaise with Estates over access to Estates' maintained equipment and services, such as autoclaves, RO (water), compressors etc.
- Be the primary point of contact for the ITD dedicated microscopy suite.

### **Other**

- Undertake appropriate CPD, such as specialist conferences and facility manager meetings.
- Keep abreast of novel approaches by performing periodic horizon-scanning exercises, and facilitate access to new microscopy technology externally if not available in LSHTM.
- In conjunction with the Head of Research Labs, allow access to ITD microscopy facilities to external scientists, recouping costs and ensuring appropriate induction and risk assessment.
- May be required to join the on-call rota for laboratory services.
- Attend and contribute to laboratory meetings to discuss research progress, including work planning.
- Proactively contribute to team meetings.



- Be an active member of the Laboratory Management Group, representing the microscopy facility but also contributing to the future direction of the research support across all labs.
- Cover colleagues' absences (such as annual leave) on agreed basis with Head of Research Laboratories.
- Undertake other reasonable duties as required.

### 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.

| <b>Competency</b>                             | <b>Evidence</b>   | <b>E / D</b>  |
|---|---|---|
| <b>Education, Qualifications and Training</b> | <ul style="list-style-type: none"> <li>• A degree in a biological science or equivalent experience</li> <li>• A PhD or significant postgraduate experience in microscopy and imaging in a lifescience research lab</li> </ul>   | <p>E</p> <p>D</p>   |
| <b>Experience</b>                             | <ul style="list-style-type: none"> <li>• Significant experience in confocal microscopy, wide-field fluorescent microscopy, time-lapse microscopy and/or in vivo imaging</li> <li>• Significant experience of using and maintaining microscopes and understanding of the appropriate microscope to use to achieve objectives</li> <li>• Experience of training users (at all levels, students, postdocs, PIs) to use Faculty microscopes</li> <li>• Experience in managing research laboratories</li> <li>• Understanding of working in containment level 3 facilities</li> <li>• Demonstrable experience in managing and organising resources in the context of a working laboratory</li> <li>• Significant experience of working in laboratory research</li> <li>• Experience of managing and procuring multiuser equipment</li> </ul> | <p>E</p> <p>E</p> <p>E</p> <p>E</p> <p>D</p> <p>D</p> <p>E</p> <p>D</p> |
| <b>Knowledge</b>                              | <ul style="list-style-type: none"> <li>• Ability to use image analysis software, e.g. ImageJ, Zen Blue/black, Nikon NIS Elements</li> <li>• Strong ability in analysis of primary laboratory data and presentation of results</li> <li>• Analytical and problem solving skills</li> </ul>   | <p>E</p> <p>E</p> <p>E</p>  |

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|----------------|--|------------------------------|
|                | <ul style="list-style-type: none"> <li>• Experience of using detailed Health &amp; Safety knowledge in a laboratory setting to manage risks and ensure compliance with current legislation</li> <li>• A relevant safety qualification</li> <li>• A strong publication record based on research with imaging</li> </ul>             | E<br><br>D<br><br>D          |
| <b>General</b> | <ul style="list-style-type: none"> <li>• Ability to work independently and as part of a team</li> <li>• Experience of managing external suppliers, including optical equipment suppliers</li> <li>• Excellent written and oral communication skills</li> <li>• Experience managing budgets and recouping research costs</li> </ul> | E<br><br>E<br><br>E<br><br>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: MARCH 2024

## Salary and Conditions of Appointment

This post is offered on a without duration basis, part-time 28 hours per week, 0.8 FTE. The salary will be on the Professional Services Grade 6 scale in the range £43,947 - £49,908 per annum pro rata (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](mailto: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.