

JOB DESCRIPTION



Job Title: Scientific Officer
Department: Infection Biology
Faculty/Professional Service: ITD
Location: Keppel Street, London
Reports to: Professor Serge Mostowy
Responsible for: N/A
Full Time/Part Time/Casual: Full-time
Hours (if less than full time): 1 FTE
Grade: Grade 5
Overall Purpose of the job: The successful applicant will develop and carry out (in consultation with the PI) specified research projects, within which existing or new technical skills can be refined or applied. They will also contribute to laboratory research output by the generation of original data, and to receive appropriate recognition for such (including authorship as appropriate), plus help with organisation of Mostowy laboratory space, microscopy suite and zebrafish facility as appropriate and actively manage the training of research students and laboratory staff in advanced techniques in microbiology, cell biology, microscopy and zebrafish infection. The post is related to a new Wellcome Trust Discovery Award and is funded for two years from the appointed start date with a possibility of extension.

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 discover more about LSHTM please click [here](#).

Our Values

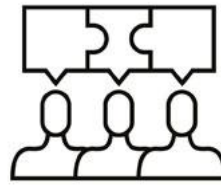
Our values establish how we aspire to achieve our mission both now and in the future - demonstrating what it means to work and study at LSHTM. To find out more please click [here](#).



**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.

Project information

The zebrafish (*Danio rerio*) has emerged in the last two decades as a powerful non-mammalian vertebrate model to study the development and function of the immune system. It is a genetically tractable organism, sharing immune pathways and cells with mammals. The small size and natural translucency of zebrafish larvae make it possible to follow individual cells and their behaviour in vivo throughout the organism, in a totally non-invasive manner. We previously established conditions for experimental infection of zebrafish larvae that allow real-time imaging of bacteria-leukocyte interactions at high resolution. We herein propose to exploit the transparent nature of the zebrafish larvae and its easy genetic manipulation to study host and pathogen determinants underlying bacterial infection in vivo. This information should provide vital clues towards understanding bacterial disease and for illuminating new therapeutic strategies.

Main Duties and Responsibilities

- To develop and carry out (in consultation with the PI) specified research projects, within which existing or new technical skills can be refined or applied. Handle and process the data to specific deadlines and maintain data records.
- To contribute to laboratory research output by the generation of original data, and to receive appropriate recognition for such (including authorship as appropriate).
- Be willing to gain expertise in new techniques and the use of other major equipment items, as appropriate for career development.
- To help with organisation of Mostowy laboratory space, microscopy suite and zebrafish facility as appropriate.
- Actively manage the training of research students and laboratory staff in advanced techniques in microbiology, cell biology, microscopy and zebrafish infection.

Additional Information

N/A

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"> • BSc degree • Postgraduate MSc and/or PhD in related scientific subject • A safety qualification (Biosafety Practitioner Level 1 as a minimum) • Evidence of continuing professional development including regular attendance on internal and external training programmes 	<p style="text-align: center;">E</p> <p style="text-align: center;">E</p> <p style="text-align: center;">E</p> <p style="text-align: center;">D</p>
Experience	<ul style="list-style-type: none"> • Experience of working in an academic environment and working closely with academic staff • Experience in scientific research, including contribution to publication and original research discovery • Experience of promoting excellence in areas of laboratory management, including the setting of service standards and monitoring of adherence to standards and safety procedures • Proven track record of management within microbiology laboratories • Training, managing and developing individuals effectively • Introducing policies, procedures, processes and systems effectively • Experience of working with high resolution and time lapse microscopy 	<p style="text-align: center;">E</p> <p style="text-align: center;">D</p> <p style="text-align: center;">D</p> <p style="text-align: center;">D</p> <p style="text-align: center;">D</p> <p style="text-align: center;">D</p> <p style="text-align: center;">D</p>

	<ul style="list-style-type: none"> • Experience of working with zebrafish 	D
Knowledge	<ul style="list-style-type: none"> • Familiarity with Codes of Practice and Standard Operating Procedures for techniques used in microbiology laboratories 	E
Personal Qualities	<ul style="list-style-type: none"> • Sympathetic, approachable manner but strong and directional and able to exercise discretion in handling confidential matters • Collaborative and flexible approach, able to work well, effectively and professionally at all time with all colleagues and students, committing to LSHTM's policy of equal opportunities 	E 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: 05/2023

Salary and Conditions of Appointment

The post is full-time and is related to a new Wellcome Trust Discovery Award funded for two years from the appointed start date with a possibility of extension. The salary will be on the Professional Services salary scale, Grade 5 in the range £37,531 - £42,875 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 website at <http://jobs.lshtm.ac.uk>. 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. 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>

