

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

**FACULTY OF INFECTIOUS AND TROPICAL DISEASES**

**DEPARTMENT OF DISEASE CONTROL**

**Scientific Officer (Entomology)**

**FURTHER PARTICULARS**

## **GENERAL INFORMATION**

### **The London School of Hygiene & Tropical Medicine**

The London School of Hygiene & Tropical Medicine is a world-leading centre for research and postgraduate 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.

Founded in 1899, the School has expanded in recent years at its two main sites on Keppel Street and Tavistock Place. Our staff, students and alumni work in more than 150 countries in government, academia, international agencies and health services.

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.

We have 3,000 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.

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.

We deliver research-led educational programmes to future health leaders, managers and researchers across the world. We have more than 1,000 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 55,000 participants globally.



LSHTM performs strongly in various global university league tables. In the 2018 Shanghai World Ranking we placed 151-200 overall, and ranked 3rd in public health, 40th in clinical medicine, and 76th in human biology. In the US News Best Global Universities Ranking 2019, we ranked ninth in the UK overall and 13th in the world in the fields of social sciences and public health 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 ranked first in Europe for research impact in sciences, based on its proportion of publications that belong to the top 1% most frequently cited publications, in the 2018 CWT Leiden Ranking.

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 Disease Control (Head: Professor James Logan)***

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.

### ***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.

## **Project information**

GenoScent is an MRC-funded project that aims to investigate the genetic basis of attractiveness to mosquitoes, both in the UK and in a natural host-vector-parasite system in The Gambia. The study will provide insight into the mechanisms that can affect our body odour, and make people more or less attractive to mosquitoes.

By collecting body odour from identical and non-identical twins in the UK and The Gambia, we will test the relative attractiveness of twins to the major vector of malaria, *Anopheles* mosquitoes, in behavioural experiments as well as investigate their odour profiles. The attractiveness and odour profile will then be used in an association study to correlate these traits with the presence of specific genetic variants in the volunteers' genome. The aim is to develop a novel drug which could be used to reduce the attractiveness to mosquitoes.

## **JOB DESCRIPTION**

<b>Job Title:</b>	Scientific Officer (Entomology)
<b>Department:</b>	Department of Disease Control
<b>Faculty:</b>	Infectious and Tropical Diseases
<b>Location:</b>	Keppel St, Bloomsbury, London WC1E
<b>FTE:</b>	1.0 FTE
<b>Grade:</b>	PSP 4
<b>Accountable to:</b>	Dr Robert Jones

## **General**

The post-holder will be responsible to the Dr Robert Jones and the Principal Investigator, Professor James Logan, and will be required to assist with the preparation and implementation of scientifically rigorous experiments to investigate into the mechanisms underlying differences in host attractiveness to malaria mosquitoes. The post-holder will assist with mosquito rearing, analytical chemistry, recruitment of participants and will also be required to assist in other research activities within the research group. The researcher will be required to liaise with collaborators and consultants in the UK and overseas. The post requires an enthusiastic individual with a good understanding of experimental design and excellent attention to detail.

## **Main Duties and Responsibilities**

- Insectary management, particularly the rearing of colonies of *Anopheles* mosquitoes
- Design, preparation and implementation of behavioural experiments with mosquitoes in the laboratory and volatile collection from human participants
- Recruitment of study participants
- Data handling

- Actively take part in report and manuscript writing
- Rearing insects
- Liaise with administrative, support staff and insectary staff
- Attend and contribute to team meetings and conferences
- Assist with other administrative and research activities where required
- Perform mosquito bite-protection assays to evaluate levels of and duration of repellency
- Sourcing materials and equipment for experiments
- General laboratory duties, including preparation of chemical stocks and disposal of hazardous waste, etc
- Actively take part in the analysis, interpretation and presentation of data
- Contribute to the writing of scientific publications
- Liaise with 3rd party companies and academic collaborators
- Attend and contribute to meetings and conferences
- Compile, present and communicate key information in a written and spoken style appropriate to different audiences
- Actively contribute to the management of research grants and ensure compliance with good practice in relation to relevant school policies
- Proactively contribute to the team and demonstrate a 'can-do attitude' to achieve project objectives
- Effectively make decisions and adapt when encountering day-to-day problems.
- Proactively contribute to collaborative decisions about project-related matters through active participation in project meetings and discussions with the team members and collaborators from other institutions
- Make independent decisions related to one's own work, seeking regular input and guidance from the Principal Investigator
- Use initiative and creativity to problem solve, plan and organise own workload
- Proactively anticipate and identify any problems that may arise during the project

This list is not exhaustive and the post-holder will be expected to carry out duties in line with these responsibilities.

#### 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 full 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 Director of Professional Service.

The post holder will be responsible and accountable for ensuring all School 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 review (appraisal) process.**

## **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>Job Title:</b> Scientific Officer (Entomology)
<b>Department/Division:</b> Department of Disease Control

Competency	Evidence	E/D
<b>Education, Qualifications and Training</b>	<ul style="list-style-type: none"> <li>Science degree in Entomology (or related discipline)</li> <li>Evidence of continuing professional development i.e. training and development courses</li> </ul>	 E  E
<b>Experience</b>	<ul style="list-style-type: none"> <li>Experience of chemical ecology</li> <li>Experience of performing insect behavioural experiments</li> <li>Experience of rearing insects</li> <li>Experience of human genetics</li> <li>Experience of Anopheles behavioural experiments</li> <li>Proven ability to meet deadlines and organise and prioritise own workload.</li> </ul>	 E  D  E  D  D  E

<b>Skills</b>	<ul style="list-style-type: none"> <li>• Proven ability to perform statistical analysis on biological data</li> <li>• Excellent organisational skills</li> <li>• Excellent IT skills including use of Microsoft desktop applications, including Microsoft Word and Excel, and statistical software</li> <li>• Excellent written and oral communication skills</li> <li>• Proven ability to work independently, as well as collaboratively as part of a research team</li> </ul>	E     E     E     E     E
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• Knowledge of and experience in vector control</li> <li>• Interest in global health issues</li> </ul>	E  D
<b>Personal Qualities</b>	<ul style="list-style-type: none"> <li>• Excellent interpersonal skills including the ability to establish and maintain effective working relationships in a multicultural and multi-disciplinary environment together with the ability to communicate at all levels.</li> <li>• Sympathetic, approachable manner</li> <li>• A high degree of personal motivation, including the ability to work independently and organize own priorities</li> <li>• Ability to use initiative and prioritise tasks under pressure.</li> <li>• Commitment to School's policy of equal opportunities and the ability to work harmoniously with colleagues and students of all cultures and background</li> <li>• Evidence of good organisational skills, including effective time management</li> <li>• Willing to travel</li> </ul>	E                E                E                E                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: 03 March 2020

## **SALARY AND CONDITIONS OF APPOINTMENT**

The post is available on a full-time basis commencing as soon as possible. It is funded until 28 February 2021 in the first instance with possibility to extend depending on funding. Salary is on the Professional Support Grade 4 scale in the range £29,854 - £33,959 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 "Director's Days". Membership of the Pension Scheme is available.

## **ASYLUM AND IMMIGRATION**

The School will comply with the Immigration, Asylum and Nationality Act 2006, 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 UK Visas and Immigration to enable sponsorship of migrant workers. Therefore, we cannot progress applications from candidates who require sponsorship to work in the UK.

Further information about Certificate of Sponsorship and eligibility to work in the UK, can be found at: [www.ukba.homeoffice.gov.uk/employers/points](http://www.ukba.homeoffice.gov.uk/employers/points)