RESEARCH ASSISTANT

#Job Title:	**Research Assistant**
Department:	Department of Infection Biology
Faculty:	Infectious and Tropical Diseases
Location:	Keppel Street
FTE:	1.0
Grade:	G5
Accountable to:	Head of Department through Principal Investigator (PI) – David Allen
Job Summary:	To work on a Wellcome Trust-funded research project, which aims to understand the virus- and human population-associated factors that underlie the evolution and transmission of norovirus strains, associated with pandemic emergence. The post-holder will primarily undertake bespoke immunological assays (ELISA) to determine the level of immunity in the UK population to norovirus, and how this population immunity changes over time, as well as supporting other aspects of the project.

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 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 INFORMATION

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 David Mabey)
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 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.

Department of Infection Biology (Head: Professor Chris Drakeley)
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

PROJECT INFORMATION
Diarrhoeal illness is a significant global health problem and the second leading cause of death in children under the age of five years. Human norovirus, a member of the *Caliciviridae* family is responsible for 50% of these infections, causing over 300 million Infections per year worldwide and 3 million in the UK. Despite candidate norovirus vaccines currently entering phase 2b clinical trials, which offer some potential for prevention of disease, gaps in our knowledge about norovirus virology, its epidemiology, and host factors that together influence emergence and transmission of novel strains remain major barriers to the future implementation of public health and immunisation programmes. The aim of this project is to understand further the virus- and human population-associated factors that underlie the evolution of norovirus strains, their dissemination in the population, and that influence the impact of norovirus pandemic events.

The primary role of the post-holder will be to perform bespoke immunological assays (ELISA) to determine the level of immunity in the UK population to norovirus, and how this population immunity changes over time. These data will be essential to understand (1) the extent of norovirus immunity in the population, (2) how does norovirus immunity vary over time, and (3) how observed changes in the genomes of norovirus strains concurrent with changes in the population immunity to norovirus influence the emergence of new global epidemic strains. Other roles will include (but not be limited to) supporting research work across other themes within this project based at London School of Hygiene & Tropical Medicine.

The portfolio of duties outlined below will vary in accordance with the detailed expectations of the role (attached), which may be varied from time to time, and agreed at your annual Performance and Development Review (PDR).

JOB DESCRIPTION

Main Activities and Responsibilities

KNOWLEDGE GENERATION

1. To undertake high quality research as directed by your line manager, including contributing to drafting grant proposals and peer-reviewed and other outputs;
2. To support the administration of projects linked to your employment, helping ensure compliance with good practice in relation to the conduct of research, the ethics policy, and other relevant School policies;
3. To handle, process and prepare human clinical specimens held in specimen archives for the purpose of this project
4. To maintain and assist in the curation of large collections of clinical specimens used in this study;
5. To support laboratory testing of human blood specimens in bespoke immunoassays

EDUCATION

1. To participate in some aspects of the School's Education Programme or educational outreach activities;

INTERNAL CONTRIBUTION

1. To undertake activities that support the Department, Faculty or the School;
2. To participate in the School's PDR process;
3. Support research work across other themes within this Wellcome Trust-funded project

EXTERNAL CONTRIBUTION

1. To demonstrate good external citizenship by supporting the external academic and practice communities;

PROFESSIONAL DEVELOPMENT & TRAINING

1. To keep up-to-date with the latest research / thinking in your academic field and with changes to pedagogic practice within the School and more generally;
2. For lab-based disciplines: where the length and nature of the position permits, to apply for and, if accepted, undertake a doctoral degree (if not already acquired);
3. To undertake and successfully complete the mandatory training required by the School as appropriate to the role;

GENERAL
All academic staff are free within the law to question and test received wisdom, and put forward new ideas and controversial or unpopular opinions, to enable the School to engage in research and promote learning to the highest possible standards.

All staff at LSHTM are also expected to:

1. Act at all times in the School's best interests;
2. Treat School staff, students and visitors with courtesy and respect at all times;
3. Comply fully with School policies, procedures and administrative processes relevant to the role;
4. Uphold and support the School's values (as set out in the School Strategy document);
5. Act as ambassadors for the School when hosting visitors or attending external events;

The above list of duties is not exclusive or exhaustive and the role holder will be required to undertake such tasks as may reasonably be expected within the scope and grading of the role.

Role descriptions should be regularly reviewed to ensure they are an accurate representation of the role.

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.

ESSENTIAL CRITERIA:

1. MSc degree in a relevant field either awarded or imminent.
2. Demonstrated wet-laboratory experience in molecular biology
3. Experience working with clinical specimens of human origin
4. Demonstrated competency in information technology and computer literacy
5. Willingness to work at and travel between collaborator institutes within London
6. Evidence of good organisational skills, including effective time management.
7. Proven ability to work independently, as well as collaboratively as part of a research team.
8. Evidence of excellent interpersonal skills, including the ability to communicate effectively both orally and in writing
9. Demonstrated ability to handle large datasets and maintain precise and detailed records and files for data tracking and analysis
10. Understanding of information governance and information security.
11. Understanding of health and safety procedures and good practices.

DESIRABLE CRITERIA

1. Some experience of teaching
2. Experience of data handling and database management for large datasets.
3. Experience of performing immunological assays (ELISA).
4. Experience with laboratory analysis platforms, such as real-time PCR systems

SALARY AND CONDITIONS OF APPOINTMENT

The post is funded until 31st January 2021. The salary will be on the Academic Pathways Grade 5 scale in the range £34,854 - £40,011 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.

Applications should be made online 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 shortlisted. Online applications will be accepted by the automated system until 10pm of the closing date. Any queries regarding the application process may be addressed to jobs@lshtm.ac.uk. Please quote reference ITD-DIB-2019-16

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 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 bring their passport (and visa if applicable) to interview so that it can be copied and verified.

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

Date compiled: Jan 2019

Academic Expectations: Research Assistant

Examples of expected types of activities are listed; the selection of activities will vary from year to year and not all activities in each category would necessarily be done in any one year. The statement in each shaded heading summarises the general expectations for contributions in each category. Given the nature of employment as a Research Assistant, it is expected that most activity will focus on knowledge generation, but some activity in other areas is desirable and will be required for career progression.

Knowledge generation: *High quality support for, and contribution to, research*

Research and scholarship

- Undertaking research, as directed by line manager
- Contributions to funding applications including supporting more senior staff in completing applications
- Contributing to peer-reviewed outputs as expected by the subject area/discipline in terms of types of output
- Poster/oral presentations at conferences
- Social media contributions such as twitter, blogs, web-based media or webinars

Doctoral degree supervision

- None expected though involvement in advisory activities/roles or provision of practical skills training is encouraged where relevant

Research management, leadership and support

- Effective management of own time and activities
- Supporting the administration of projects he/she is employed on, eg taking meeting minutes

Professional development

- Appropriate courses and other development activities, referenced to RDF
- Especially for lab-based disciplines: where the length, nature and funding source of the position permit, to apply for and, if accepted, undertake a doctoral degree (if not already acquired).

Education: *Participation in educational activities*[1]

Teaching and assessment

- Limited participation in some aspects of the School's Education Programme or education outreach activities e.g. contributions to taught courses, research methods training, mentoring school pupils on outreach programmes

Educational development and innovation

- Limited contributions to educational innovations or developments, e.g. helping to update the content or delivery of a course or module

Educational leadership and management

- None expected

Professional development

- Formal study/training and/or other activities that develop educational knowledge and expertise, referenced to UKPSF

Internal contribution: *Support to the academic environment in the Department or beyond*

Internal citizenship

- Supporting Department/Faculty/Centre/School events or special interest groups; organising seminars/lab meetings/journal clubs; group or departmental social organising; support to Athena Swan activities; support to external partnerships

General leadership and management roles

- None expected but credit can be given if undertaken

[1] it is accepted that some RA roles and/or funding make it difficult to give time to Educational activities, but some degree of engagement is encouraged

External contribution**:** *Support to the external academic community*
External citizenship • Involvement in journal or book reviews, if opportunities arise • Sharing examples of good practice (e.g. contributing to discipline-specific interest group or professional bodies) *Knowledge translation and enterprise: not expected but options include* • Collection of evidence of research impact for impact case studies (e.g. policy records, correspondence with policy makers, media highlights) • Engagement with policy/practice/industry/NGO communities and with the general public