

RESEARCH FELLOW



Job Title:	Research Fellow in TB/HIV Epidemiology
Department:	Clinical Research
Faculty:	Infectious and Tropical Diseases
Location:	London
FTE:	1
Grade:	Academic Pathway Grade 6
Accountable to:	Professor Helen Ayles

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 £110 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. The School's multidisciplinary expertise includes clinicians, epidemiologists, statisticians, social scientists, molecular biologists and immunologists, and we work with partners worldwide to support the development of teaching and research capacity.

Our education provision has expanded to more than 1,000 London-based Master's and Research students, 3,000 studying postgraduate courses by distance learning, and 1,000 each year on short courses and continuous professional development. Our free online courses (MOOCs) are studied by more than 30,000 participants globally.

The School performs well in various global university league tables. In the US News Best Global Universities Ranking 2017, we are ranked sixth in the world (together with Oxford University) in the fields of social sciences and public health. In the 2016 CWTS Leiden Ranking, the School was ranked fifth in the world for research impact across all disciplines, based on the share of institutions' outputs within the top 1% of papers by citation in all areas of science and independent of size of output.

The School was named University of the Year 2016 by Times Higher Education, in recognition of our response to the Ebola epidemic. The School is a member of the M8 Alliance of Academic Health Centres, Universities and National Academies, the Association of Schools of Public Health in the European Region, and the Consortium of Universities for Global Health.

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 Brendan Wren, who is Professor of Microbial Pathogenesis. 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 four large research departments comprising: Pathogen Molecular Biology, Immunology and Infection, Disease Control, and Clinical Research. 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 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.

Project information

The **TREATS (Tuberculosis Reduction through Expanded Anti-retroviral Treatment and Screening for active TB)** project consists of a series of linked studies that will provide definitive cluster-randomised evidence of the effect of a household-level combined HIV and TB prevention intervention on the burden of TB at population level. These studies are nested within the ongoing HPTN071(PopART) trial, the largest trial to measure the impact of a combination HIV/TB prevention intervention on HIV incidence, which is being conducted in Zambia and South Africa. The TREATS project will produce two major outputs of global importance to public health policy. The first will provide definitive evidence of the impact of scaled up combination TB/HIV prevention interventions on TB. The second output will improve understanding of the best ways to measure the impact of public health interventions on TB burden.

This is a unique opportunity to assess the impact of combination HIV prevention, including universal HIV testing and treatment, combined with population screening for active TB, on the burden of TB. The HPTN071(PopART) trial, a cluster randomised trial in 21 communities in Zambia and South Africa with a population size of approximately 1million individuals, is unlikely ever to be repeated. The recently adopted WHO guidelines of a "universal treatment" strategy for HIV, will prompt policy-makers to seek strategies of case-finding for HIV offering an opportunity to conduct TB screening on a large scale. The results from the TREATS project will therefore provide unique and timely information of the additional costs and benefits of combined TB and HIV prevention strategies at population level.

The studies specific to the TREATS project include:

- **Implementation research** to evaluate uptake of TB screening and the effect of the intervention on process indicators (cascade of TB care) and include the collection of routine notification data from the health facilities and details of the clinical characteristics of patients diagnosed in the presence or absence of the PopART intervention. Qualitative research will document household and TB patient response to the TB component of the PopART intervention and the comparative pathways to TB screening, diagnosis and treatment in non-intervention communities.
- **Incidence of infection cohort.** Young adults 15-24 years old, will be recruited in each community at the beginning and followed up for 24 months to assess the incidence of TB infection in a period of time when we assume the PopART intervention has decreased the prevalence and transmission of TB.
- **TB prevalence survey.** We will conduct TB prevalence surveys in a random selection of 4000 adults (15 years and above) in each of the 14 communities. All randomly selected participants will be screened for TB using a standardised symptom screen and a digital chest x-ray. Any individual who is symptomatic for TB or has an abnormal chest x-ray will be asked to provide a sputum sample for TB diagnosis.
- Nested Studies of **new diagnostics for prediction of progression to active TB disease** (tests for incipient TB) and also to improve efficiency of TB prevalence surveys.

Epidemiological data from all of the sub-studies mentioned above will be analysed by the data management and statistical analysis core and then fed into a mathematical model both to refine the model of TB and to predict the number of future cases of TB averted. Combining this with economic cost data the additional cost effectiveness of the PopART intervention in averting TB as well as HIV will provide a better measure of overall effectiveness.

TREATS will also assess novel methods to measure the effect of interventions on burden of TB in the trial communities. The latest interferon gamma release assay QuantiFERON® Gold Plus will be assessed for measuring impact of TB interventions on incidence of infection. A combination of Xpert® MTB/RIF and computer aided digital X-ray (CAD4TB) will be assessed for measuring prevalence of active TB. These new methods will provide important information about the best way of measuring TB incidence and prevalence rates and allow triangulation of the different methods to inform global estimates of TB burden in the post MDG era.

The TREATS consortium will stimulate synergy between leading African research groups (Zambart in Zambia, HST in South Africa); new European technology (Delft Diagnostic Imaging, Qiagen); International TB bodies (The Union) and European research centres (LSHTM, Imperial College, Sheffield University and KNCV), as well as with the US funders of the HPTN071/PopART trial.

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. Assist with the overall coordination of the study consortium by providing technical support to the consortium members in the design and execution of the various components of the project
2. Maintain the overall study files and ensure compliance with ethical and regulatory requirements in all sites
3. Provide technical support and monitoring of field activities in Zambia and South Africa
4. Help lead and contribute towards writing of research outputs such as reports to funders and stakeholders, and peer-reviewed publications in scientific journals
5. Present findings of the study at international conferences and meetings as and when required
6. Liaise with and provide technical advice to key project collaborators
7. Contribute to future grant applications in relevant areas
8. To undertake high quality research & scholarship, including contributing to drafting major grant proposals and/or leading on drafting small grant proposals;
9. To contribute to peer-reviewed publications, including as lead author;
10. To make a contribution to research degree student supervision, as appropriate to qualifications and experience;
11. To manage small grants or elements of larger grants, ensuring compliance with good practice in relation to the conduct of research, the ethics policy and other relevant School policies.

EDUCATION

12. To contribute to the delivery of high quality, research-informed teaching and assessment in relation to your specific subject and within the broader area covered by your department and disciplinary field;
13. To contribute to the improvement of the quality of the School's education, by participating in the development of new and updated learning and teaching materials or approaches.

INTERNAL CONTRIBUTION

1. To undertake activities that support the Department, Faculty or the School;
2. To participate in the School's PDR process.
- 3.

EXTERNAL CONTRIBUTION

1. To demonstrate good external citizenship by contributing to learned society/conference events, journal and grant reviews etc;

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. Where the length and nature of the position permits, to register for and complete a doctoral degree (if not already acquired);
3. To undertake and successfully complete the mandatory training required by the School 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, including when acting as Principal Investigator, accepting academic, managerial, financing and ethical responsibility for a project
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.

[JAN 2017]

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:

- MSc in Epidemiology or related field such as public or tropical health
- Substantial practical experience working in the field of TB
- Practical experience in the design and management of epidemiological studies
- Excellent publication record commensurate with experience
- Practical experience of analyses of data from epidemiological trials and/or studies
- Proven ability to work effectively as a member of a multidisciplinary scientific team and in a multicultural environment, as well as independently
- Excellent written and oral communication skills in English
- Willingness to undertake visits to Zambia and South Africa
- Experience of writing research protocols
- Good organisational skills including the ability to identify and deal with problems which may affect the achievement of research objectives
- Ability to organise their own work effectively to deadlines and exercise initiative and sound judgment in carrying out and managing research tasks.

DESIRABLE CRITERIA

- PhD in epidemiology and/or public health
- Clinical Qualifications
- Have worked with governments, NGOs and/or researchers
- Knowledge of Sub-Saharan Africa, particularly Zambia or South Africa
- Experience working on the epidemiology of infectious diseases
- Experience designing public health intervention trials
- Teaching experience at University level

SALARY AND CONDITIONS OF APPOINTMENT

This full-time post is funded by the TREATS Project (EDCTP) for a period of 3 years and is available from 1 March 2018. The salary will be on the Academic Grade 6 scale in the range £38,533 to £43,759 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 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 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 REF ITD-CRD-2018-01.

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.

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 Certificate of Sponsorship and eligibility to work in the UK, can be found at: www.ukba.homeoffice.gov.uk/employers/points.

Date compiled: March 2017

Academic Expectations: Research Fellow

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.

<i>Knowledge generation: Independent contributions and a clear trajectory towards excellence as an academic researcher</i>
<i>Research and scholarship</i> <ul style="list-style-type: none">• Undertaking research• Working with PIs to draft grant proposals and/or leading writing of small grants, work packages or sections of larger proposals or personal fellowship applications• Contributing to peer-reviewed outputs, including as first author, as expected by the subject area/discipline in terms of types of output• Poster/oral presentations at relevant conferences, translation of research findings into educational materials• Social media contributions such as twitter, blogs, web-based media or webinars <i>Doctoral degree supervision</i> <ul style="list-style-type: none">• For RFs with Doctorate, some contribution to doctoral degree supervision is encouraged (eg specialist skills training; ad hoc advice; advisory committees). RFs without a Doctorate may also advise in areas of specialist knowledge¹ <i>Research management, leadership and support</i> <ul style="list-style-type: none">• Effective management of own time and activities• Management of small research grants or elements of larger grants, including management of data collection and relationships with research collaborators, support to grants management <i>Professional development</i> <ul style="list-style-type: none">• Courses and other professional development activities, referenced to RDF• To register for and complete a doctoral degree (if not already acquired), if contract and funding source permit;
<i>Education: Basic competence in teaching and assessment</i>
<i>Teaching and assessment</i> <ul style="list-style-type: none">• Research-informed teaching and assessment contributions (e.g. contributions to modules, MSc project supervision) <i>Educational development and innovation</i> <ul style="list-style-type: none">• Contributing to the development of new educational materials, learning opportunities or assessments approaches <i>Education leadership and management</i> <ul style="list-style-type: none">• None expected <i>Professional development</i> <ul style="list-style-type: none">• Participation in professional development activities referenced to UKPSF (e.g. HEA, PGCILT, preparation for doctoral degree supervision, shadowing more experienced colleagues)
<i>Internal contribution: Contributions to School functioning and development</i>
<i>Internal citizenship</i> <ul style="list-style-type: none">• Contributing to at least one Department, Faculty, School, or Centre event or special interest group in any one year;• Supporting external School collaborations/partnerships (beyond own research or education role) where relevant <i>School leadership and management roles</i> <ul style="list-style-type: none">• None expected

¹ Such RFs are expected to be registered for a doctorate

<i>External contribution: Contribution beyond the School</i>
<i>External citizenship</i> <ul style="list-style-type: none">• Contributing to learned society/conference events, journal and grant reviews etc <i>Knowledge translation and enterprise: not expected but options include:</i> <ul style="list-style-type: none">• Collecting evidence of research impact for impact case studies (e.g. policy records, correspondence with policy makers, media highlights)• Engaging with policy/practice/industry/NGO communities and the general public• Supporting MOOCs/OERs or other (e.g. educational) outreach