

RESEARCH FELLOW



Job Title:	Research Fellow in Infectious Disease Modelling/Economics
Department:	Infectious Disease Epidemiology
Faculty:	Epidemiology & Population Health
Location:	Keppel Street, London
FTE:	1.0
Grade:	G6
Accountable to:	Head of Department through Principal Investigator (PI)
Job Summary:	<p>Applications are invited for an infectious disease modeler or economist to join the Department Infectious Disease Epidemiology at the London School of Hygiene & Tropical Medicine (LSHTM). The post-holder will be funded through research grants awarded by the Federal Joint Commission Germany (Gemeinsamer Bundesausschuss) and the Bill & Melinda Gates Foundation. The post may also attract other sources of funding.</p> <p>The project aims to assess optimal vaccination strategies against respiratory syncytial virus (RSV). RSV is responsible for a dramatic burden of childhood disease globally and one of the key areas targeted by vaccine development currently. The successful candidate will develop mathematical and economic models to understand the impact and cost-effectiveness of RSV vaccination in high, middle and low-income settings.</p> <p>The post is funded until 30 November 2021 initially, but is highly likely to be extended. We also normally support postholders wishing to develop their career further by applying for PhD or postdoctoral fellowships.</p> <p>The postholder will work with Prof Mark Jit and Dr Stefan Flasche at LSHTM, as well as with collaborators in Germany, South Africa and Kenya. The post holder will join a vibrant multidisciplinary team of graduate students, research fellows and faculty members in the Modelling and Economic Evaluation of Vaccines (MEEV) group who are working on issues related to vaccine modelling and economics. Our team has successfully obtained large grants from a range of funders including the NIHR, MRC, BMGF, Gavi and WHO. We also collaborate closely with immunologists, epidemiologists and clinicians through LSHTM's Vaccine Centre, as well as other infectious disease modellers through LSHTM's Centre for Mathematical Modelling of Infectious Diseases.</p>

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 3,300 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 1,200 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 70,000 participants globally.

LSHTM performs strongly in various global university league tables. In the 2019 CWTS Leiden Ranking LSHTM is ranked the UK's top university for the proportion of academic research with women listed as authors, first in Europe for publishing open access research, and first in Europe and eighth in the world for research impact in sciences (for the proportion of its total publications ranking in the top 10% of most cited research).

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. We ranked 27th for medicine in the 2019 QS World University Rankings.

In the 2019 Shanghai World Ranking we placed 201-300 overall, and ranked 4th in public health (1st in the UK), 17th in clinical medicine, and 76-100 in human biological sciences. 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 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

The **Faculty of Epidemiology & Population Health (EPH)** houses a large group of epidemiologists, demographers, statisticians and nutritionists working on issues of major public health importance in the UK and globally. EPH has approximately 400 staff members organised into four research departments.

- Department of Infectious Disease Epidemiology
- Department of Medical Statistics
- Department of Non-communicable Disease Epidemiology
- Department of Population Health

The Faculty has a teaching programme consisting of ten MSc courses: Epidemiology, Demography and Health, Medical Statistics, Public Health for Development (run jointly with the Faculties of Infectious & Tropical Diseases and Public Health & Policy), Nutrition for Global Health, Reproductive & Sexual Health Research, Veterinary Epidemiology (run jointly with the Royal Veterinary College), Global Mental Health (run jointly with Kings College London - Institute of Psychiatry) and the Distance Learning courses in Epidemiology, Clinical Trials and Demography in Health. The Faculty also has approximately 120 research students studying for an MPhil, PhD or DrPH degree.

The Dean of Faculty is Professor Liam Smeeth.

THE DEPARTMENT

The **Department of Infectious Disease Epidemiology (IDE)** conducts research on the epidemiology and control of infectious diseases of public health importance. It also conducts research on maternal and neonatal health. Work is carried out in low, middle and high-income countries, including the United Kingdom. Research ranges from ecological studies of variations in disease frequency in different populations, through observational case-control and cohort studies to define risk factors for disease, to randomized controlled trials to test the impact of specific preventive and curative interventions.

The Heads of Department are Professor Katherine Fielding and Professor Richard White.

THE CENTRE FOR MATHEMATICAL MODELLING OF INFECTIOUS DISEASES

The **Centre for the Mathematical Modelling of Infectious Diseases (CMMID)** is a multidisciplinary grouping of epidemiologists, mathematicians, economists, statisticians and clinicians from across all three faculties of the LSHTM. Research focuses on understanding and predicting the epidemiology of infectious diseases so that more effective control programmes can be devised. Researchers are developing and applying mathematical models to a range of infections including HIV and other sexually transmitted infections, HPV, tuberculosis, hepatitis C, influenza, rotavirus, measles, varicella, pneumococcal disease, Hib, malaria and sleeping sickness. More fundamental research includes developing methods to measure underlying contact patterns, sampling hard-to-reach populations (such as drug users), efficiently fitting complex mathematical models to data, and the integration of epidemiological models with economic analyses. CMMID runs the flusurvey, an online influenza surveillance platform. CMMID is actively engaged in developing links with other modelling groups; members of the CMMID include mathematical modellers working at Public Health England (formerly the HPA) and the Royal Veterinary College.

THE VACCINE CENTRE

The **Vaccine Centre at the LSHTM** is a formed consortium of over 100 scientists based at the school and among its partner institutions with a common interest in research and training on vaccines. The Centre encompasses a tremendous breadth of vaccine research from vaccine design and immunological characterisation through clinical trials, and on to epidemiological evaluation,

vaccine safety, economic modelling, social science and policy analysis. Centre scientists work in over 50 different countries worldwide and contribute to some of the principal global networks of vaccine investigation. The portfolio of current projects includes research on vaccines to control malaria, tuberculosis, pneumococcal and meningococcal diseases, influenza, measles, rubella, HPV, rotavirus, Hib, Hepatitis B, norovirus, dengue, Ebola, sleeping sickness and traveller's diarrhoea as well as veterinary pathogens. The Centre also aims to enhance the teaching of vaccine research skills spread across the School's post-graduate training programmes and in the short course for the Epidemiological Evaluation of Vaccines run each July.

THE CENTRE FOR HEALTH ECONOMICS IN LONDON

The Centre for Health Economics in London (CHIL) is a world-leading group of over 50 academics working on a diverse portfolio of health economics research. Work ranges from developing innovative methods and empirical research to policy engagement and impact. CHIL works across the globe in low-, middle-, and high-income settings. Members have strong national and international partnerships and a wealth of experience in advising UK and other national governments, international agencies, and organisations.

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 & scholarship, including contributing to drafting major grant proposals and/or leading on drafting small grant proposals;
2. To contribute to peer-reviewed publications, including as lead author;
3. To make a contribution to research degree student supervision, as appropriate to qualifications and experience;
4. 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.
5. To develop mathematical and economic models to assess optimal RSV vaccination strategies;
6. To help design relevant epidemiological and economic data collection studies that will inform models.
7. To maintain appropriate scientific collaborations with the School's Berlin Office, international partners and key funders. International partners include the Robert Koch Institute (RKI), Kenya Medical Research Institute (KEMRI) and South African National Institute for Communicable Diseases (NICD).
8. To present results to key partners, funders and decision makers in order to guide future vaccine policy.

EDUCATION

1. 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;
2. 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.

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 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 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.

[FEB 2020]

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. A postgraduate degree, ideally a doctoral degree, in a relevant field.
2. Relevant experience in mathematical modelling, health economics, epidemiology, statistics or another relevant discipline with a strong quantitative component.
3. Contributions to written output, preferably peer-reviewed, as expected by the subject area/discipline in terms of types and volume of outputs.
4. Proven ability to work independently, as well as collaboratively as part of a research team, and proven ability to meet research deadlines.
5. Evidence of excellent interpersonal skills, including the ability to communicate effectively both orally and in writing
6. Evidence of good organizational skills, including effective time management.
7. Experience in analyzing data from field studies and/or surveillance, preferably of infectious diseases.
8. Willingness to travel to international conferences and the field.

DESIRABLE CRITERIA

1. Some experience of contributing to research grant applications.
2. Some experience of teaching and assessment.
3. Some experience of supervising and supporting junior researchers and/or research degree students, and non-academic staff.
4. A record of relevant publications in good journals.
5. Experience in constructing mathematical and/or economic models, preferably of infectious diseases.
6. Experience in the epidemiology of vaccine-preventable diseases, preferably RSV
7. Work experience in a German-speaking environment and/or in Africa.

SALARY AND CONDITIONS OF APPOINTMENT

The post is funded until 30 November 2021. The salary will be on the Academic scale, Grade G6 scale in the range £40,011 - £45,437 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.

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

Date amended: FEB 2020

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. Given the nature of employment as a Research Fellow, it is expected that most activity will focus on knowledge generation, but some activity in other areas is required and will support career progression.

<p>Knowledge generation: Independent contributions and a clear trajectory towards excellence as an academic researcher</p> <p><i>Research and scholarship</i></p> <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 <p><i>Doctoral degree supervision</i></p> <ul style="list-style-type: none">• For RFs with Doctorate, some contribution to doctoral degree supervision is encouraged (e.g. specialist skills training; ad hoc advice; advisory committees). RFs without a Doctorate may also advise in areas of specialist knowledge¹ <p><i>Research management, leadership and support</i></p> <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 <p><i>Professional development</i></p> <ul style="list-style-type: none">• Courses and other professional development activities, referenced to RDF• 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)
<p>Education: Basic competence in teaching and assessment</p> <p><i>Teaching and assessment</i></p> <ul style="list-style-type: none">• Research-informed teaching and assessment contributions (e.g. contributions to modules, MSc project supervision) <p><i>Educational development and innovation</i></p> <ul style="list-style-type: none">• Contributing to the development of new educational materials, learning opportunities or assessments approaches <p><i>Education leadership and management</i></p> <ul style="list-style-type: none">• None expected <p><i>Professional development</i></p> <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)
<p>Internal contribution: Contributions to School functioning and development</p> <p><i>Internal citizenship</i></p> <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 <p><i>School leadership and management roles</i></p> <ul style="list-style-type: none">• None expected but credit can be given if undertaken

¹ Such RFs are expected to be registered for a doctorate

External contribution: Contribution beyond the School

External citizenship

- Contributing to learned society/conference events, journal and grant reviews etc *Knowledge translation and enterprise: not expected but options include:*
- 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