

ASSISTANT PROFESSOR



Job Title:	Assistant Professor of Infectious Disease Modelling
Department:	Infectious Disease Epidemiology and Dynamics
Faculty:	Epidemiology and Population Health
Location:	Keppel Street, London
FTE:	1.0
Grade:	G7
Accountable to:	Rosalind Eggo
Job Summary:	<p>We are looking for an enthusiastic and productive mathematical modeller with an interest in learning new skills and working with colleagues with a range of epidemiological backgrounds to join a team working on projects to advance the research agenda on health inequalities in England.</p> <p>The post-holder will work on a project investigating socioeconomic and ethnic health disparities in respiratory virus transmission. The post-holder will join a supportive team using OpenSAFELY for analysis of linked electronic health record data. The post-holder will be responsible for developing transmission models stratified by key socioeconomic or ethnic groupings and parameterizing these with social contact data. The post-holder will use EHRs to identify respiratory health outcomes for fitting to and use Bayesian methods for parameter inference.</p> <p>The post-holder will join a highly collaborative and supportive group working on allied questions in infectious health inequalities. They will work in collaboration with medics, epidemiologists, modellers, and data science specialists at LSHTM and partner universities. There will be excellent opportunities for publication, for collaboration and for participation in future grant applications and outputs crucial to public health decisions. There is scope for self-motivated research within the remit of the larger study. Applicants will also join the Centre for Mathematical Modelling of Infectious Diseases (CMMID).</p> <p>Please contact Rosalind Eggo with any questions (r.eggo@lshtm.ac.uk).</p>

General Information

The London School of Hygiene & Tropical Medicine (LSHTM) is one of the world's leading public health universities.

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.

Staff and students are committed to helping create a more healthy, sustainable and equitable world for everyone, because we believe our shared future depends on our shared health.

We embrace and value the diversity of our staff and student population and seek to promote equity, diversity and inclusion as essential elements to improve 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 find out more please visit our [Introducing LSHTM page](#).

Our Values

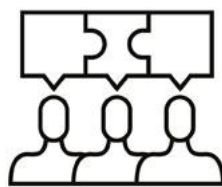
Our values establish how we aspire to achieve our mission both now and in the future - demonstrating what it means to work and study at LSHTM. Please visit our [LSHTM Values page](#) for further information.



**Act with
integrity**



**Embrace
difference**



**Work
together**



**Create
impact**

Faculty Information

The Faculty of Epidemiology & Population Health (EPH) houses a large group of epidemiologists, demographers, statisticians and nutritionists working on major issues of importance to public health provision in the UK and globally. EPH employs approximately 560 people in five research departments.

- Department of Infectious Disease Epidemiology & Dynamics
- Department of Infectious Disease Epidemiology & International Health
- Department of Medical Statistics, which includes the Clinical Trials Unit
- Department of Non-communicable Disease Epidemiology
- Department of Population Health

The Faculty has a postgraduate teaching programme including eleven intensive MSc courses: Epidemiology, Demography and Health, Medical Statistics, Health Data Science, Public Health for Development (jointly with Faculties of Infectious & Tropical Diseases and Public Health & Policy), Nutrition for Global Health, Global Mental Health (jointly with Kings College London, Institute of Psychiatry), Reproductive & Sexual Health Research, Sexual & Reproductive Health Policy and Practice (online), Veterinary Epidemiology (run jointly with the Royal Veterinary College) and Climate Change and Planetary Health. There are also two Distance Learning MSc courses: Epidemiology and Clinical Trials. The Faculty also has approximately 220 research students studying for an MPhil, PhD or DrPH degree.

The Dean of Faculty is Professor Elizabeth Allen.

Department of Infectious Disease Epidemiology & Dynamics (IDED)

The Department of Infectious Disease Epidemiology & Dynamics conducts research on the epidemiology and control of infectious diseases of public health importance. Work is carried out in low-, middle- and high-income countries, including the United Kingdom, in close collaboration with partners in each country. The Department has three groups:

- The infectious disease modelling group, which comprises the majority of the [Centre for Mathematical Modelling of Infectious Diseases \(CMMID\)](#), and develops and applies the latest mathematical and statistical modelling methods to understand the dynamics of infectious pathogens to inform their control.
- The [UK Public Health Rapid Support Team](#), a specialist multidisciplinary team across LSHTM and the UK Health Security Agency (UKHSA) that offers low and middle income countries around the world support to prepare for and respond to disease outbreaks, through field collaboration, research and capacity-strengthening activities.
- The [Vaccine Confidence Project](#), which conducts global research, investigating the roots, trends over time and impacts of vaccine confidence at regional, national and sub-national levels.

The Department works closely with the Department of Infectious Disease Epidemiology & International Health.

The Department Heads are Professor Gwenda Hughes and Dr Oliver Brady.

Relevant Centres at LSHTM

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 recently, CMMID has been one of the leading groups involved in responding to modelling needs in the UK and globally around the COVID-19 pandemic. 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 is actively engaged in developing links with other modelling groups; members of the CMMID include mathematical modellers working at the UK Health Security Agency and the Royal Veterinary College.

The portfolio of duties outlined below will vary in accordance with the academic expectations of the role, 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 deliver high quality research & scholarship in your field of study, individually and in collaboration with others, by applying for external grants/fellowships from good¹ research funders, publishing peer-reviewed outputs as lead and co-author; and evaluating teaching practice;
2. To contribute to doctoral student supervision;
3. To manage research grants and promote and ensure compliance with good practice in relation to the conduct of research, the ethics policy, and other relevant LSHTM policies;
4. To support the development of early-career researchers;
5. To contribute to the design and planning of research studies

Education

1. To deliver high quality, inclusive, research-informed teaching and assessment in relation to your specific subject and within the broader area covered by your department/disciplinary field;

¹ Good research funders are: Research Councils; Government Departments; NIHR; National and overseas charities recognised by HEFCE for QR; Overseas research councils or equivalent including NIH; EU; other agencies (eg NGOs, commercial companies) supporting commissioned research that is consistent with LSHTM's mission and meets LSHTM's cost recovery targets

2. To contribute to the improvement of the quality and inclusivity of LSHTM's education, by participating in the development of new and updated learning and teaching materials or approaches, and/or improving assessment practices, and/or improving aspects of the student experience;
3. To support educational leadership and management by active participation in selected aspects of the curriculum, as appropriate, and by collaborating with professional services staff, centrally and in the Faculty, in carrying out relevant administrative processes;

Internal Contribution

1. To undertake activities that support the Department, Faculty or MRC Unit or LSHTM, including Committee membership;
2. To reflect LSHTM's EDI goals in your work and behaviour;
3. To participate in own PDR and undertake those of others;

External Contribution

1. To demonstrate good external citizenship by contributing to the external academic community;
2. To promote knowledge translation and enterprise by participating in networks and activities that disseminate research-based knowledge beyond academia;

Professional Development and Training

1. To keep up-to-date with the latest research/thinking in your academic field and with changes to pedagogic practice within LSHTM and more generally;
2. To undertake and successfully complete the mandatory training required by LSHTM 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 LSHTM 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 LSHTM's best interests;
2. Treat staff, students and visitors with courtesy and respect at all times;
3. Comply fully with LSHTM 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 LSHTM's values (as set out in the LSHTM Strategy);
5. Act as ambassadors for LSHTM when hosting visitors or attending external events;

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Academic Expectations

All academic roles have a statement of academic expectations attached to each level. Please ensure that these have been read and understood. For further information please refer to the [Academic Expectations page](#).

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. A doctoral degree in a relevant topic
2. Expertise in mathematical modelling of infectious disease
3. Contributions as lead and co-author in peer-reviewed outputs, as expected by the subject area/discipline in terms of types and volume of output; significant contributions to at least four outputs within the most recent 5 years which are at least internationally excellent²
4. Proven ability to work independently, as well as collaboratively as part of a research team, and to meet research deadlines
5. An understanding of the strategies for improving equity and inclusion in research and or learning and teaching
6. Evidence of excellent interpersonal skills, including ability to communicate effectively both orally and in writing
7. Evidence of good organizational skills, including effective time management
8. Relevant experience using stratified transmission models
9. Proven experience fitting models to data using Bayesian methods
10. Experience using version control for research code management

Desirable criteria:

1. Experience of generating research income such as fellowships, and/or small project grants, and/or supporting grant applications of others
2. Some experience of supervising and supporting junior researchers and/or research degree students, and non-academic staff
3. Some experience of undertaking teaching and assessment
4. Demonstrable evidence of promoting inclusion in research and or learning and teaching
5. A teaching qualification
6. Relevant experience of research in health inequalities
7. Experience of respiratory pathogen transmission models
8. Experience analysing electronic health records data

² i.e. of a quality that would be rated highly in assessments of research quality such as those done by UK government, and in peer review processes used by funders

Salary and Conditions of Appointment

The post is fixed term until 31 December 2028 and full-time 35 hours per week, 1.0 FTE. The post is funded by UK Research and Innovation (UKRI) and is available from 01 January 2025. The salary will be on the Academic scale, Grade 7 in the range £52,199 - £59,623 per annum pro rata (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 [jobs website](#). 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 on the [government immigration rules page](#).

Date amended: Jan 2024