

RESEARCH FELLOW OR ASSISTANT PROFESSOR

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



Job Title:	Research Fellow or Assistant Professor Infectious Disease Modelling
Department:	Infectious Disease Epidemiology and Dynamics
Faculty:	Epidemiology and Population Health (EPH)
Location:	Keppel Street
FTE:	0.6 – 1.0 FTE (depending upon post holder's capacity)
Grade:	Research Fellow Grade 6 or Assistant Professor Grade 7
Accountable to:	Dr Nicholas Davies
Job Summary:	<p>We are seeking a Research Fellow or Assistant Professor to join the NIHR Health Protection Research Unit (HPRU) in Immunisation at the London School of Hygiene and Tropical Medicine.</p> <p>The successful candidate will work as part of the HPRU's Modelling and Health Economics theme, where researchers use mathematical modelling to understand vaccine-preventable disease in the UK and to evaluate the cost-effectiveness of immunisation programmes.</p> <p>The ideal candidate will have expertise both in mathematical modelling of infectious diseases and in health economics. However, we will also consider individuals with experience in only one of these areas (i.e. either mathematical modelling of infectious diseases or health economics), provided they can demonstrate the capacity to collaborate with others and a willingness to learn new techniques as appropriate.</p> <p>There is substantial pressure on the health service in the UK. Averting hospital admissions due to vaccine-preventable infectious diseases may help to alleviate this strain. The post-holder will design and apply mathematical models to address policy decisions around vaccination in England, with an emphasis on identifying cost-effective immunisation strategies against respiratory viruses—such as SARS-CoV-2, RSV, and influenza—and other vaccine-preventable diseases, such as herpes zoster (shingles). The person appointed will prepare research findings for policy makers as well as for scientific publication.</p> <p>The post-holder will be a member of both the Vaccine Centre and the Centre for Mathematical Modelling of Infectious Diseases, and will be based within the Department of Infectious Disease Epidemiology at LSHTM, but will also work closely with modellers and epidemiologists at UKHSA.</p>

General Information

The London School of Hygiene & Tropical Medicine (LSHTM) is renowned for its research, postgraduate studies and continuing 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.

We embrace and value the diversity of our staff and student population and seek to promote equity, diversity and inclusion as essential elements in contribution to improving 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 discover more about LSHTM please click [here](#).

Our Values

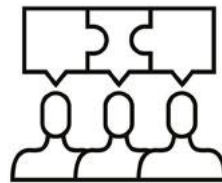
Our values establish how we aspire to achieve our mission both now and in the future - demonstrating what it means to work and study at LSHTM. To find out more please click [here](#).



**Act with
integrity**



**Embrace
difference**



**Work
together**



**Create
impact**

Faculty Information

Faculty of Epidemiology and Population Health

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 in Developing Countries (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 and Clinical Trials. The Faculty also has approximately 120 research students studying for an MPhil, PhD or DrPH degree.

The Dean of Faculty is Professor Elizabeth Allen.

Department of Infectious Disease Epidemiology

The Department of Infectious Disease Epidemiology (IDE) 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 groups working on maternal, neonatal and child health; international statistics and epidemiology; vaccines, outbreaks and humanitarian crises; and modelling. Research methods include ecological studies of variations in disease frequency in different populations, observational case-control and cohort studies to define risk factors for disease, randomized controlled trials to evaluate the effectiveness of individual- and community-level interventions, and mathematical models to project the impact of public health interventions.

The Department Head is Professor Mark Jit.

NIHR Health Protection Research Unit in Immunisation

This post is funded by the National Institute for Health and Care Research (NIHR) Health Protection Research Unit (HPRU) in Immunisation, a partnership of over 25 scientists from LSHTM, UKHSA and the University of Cambridge. Our research aims to reverse the decline in immunisation coverage in children, increase vaccine uptake in adults and reduce inequalities in the vaccine service.

Our unit is one of 14 HPRUs across England, part of an investment by the NIHR to protect the health of the nation. The HPRUs fund high quality research that enhances the ability of UKHSA to use innovative techniques to protect the public's health and minimise the health impact of emergencies, such as COVID-19. Each NIHR HPRU undertakes high

quality research that is used by UKHSA to keep the public safe from current and emerging public health threats. The NIHR HPRUs focus on collaboration and knowledge sharing, and play a pivotal role in maintaining and growing UKHSA's scientific expertise and future workforce. The multidisciplinary centres of excellence also deliver responsive research to tackle emerging or potential public health emergencies.

The NIHR's mission is to improve the health and wealth of the nation through research. The NIHR was established in 2006 and is primarily funded by the Department of Health and Social Care.

Working in partnership with the NHS, universities, local government, other research funders, patients and the public, the NIHR delivers and enables world-class research that transforms people's lives, promotes economic growth and advances science.

The NIHR HPRU in Immunisation is led by Professor Mary Ramsay at UKHSA and Professor Anthony Scott at LSHTM. The Modelling and Health Economics theme of the HPRU in Vaccines and Immunisation is led by Dr. Nicholas Davies at LSHTM.

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

Research Fellow

1. To undertake high quality research & scholarship, including contributing to drafting major grant proposals and/or leading on drafting small grant proposals, and evaluating teaching practice;
2. To contribute to peer-reviewed publications and other outputs, including as lead author;
3. To make a contribution to doctoral 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 LSHTM policies;
5. To design and apply either: mathematical models of infectious disease dynamics for addressing policy questions about immunization in the UK; or health economic analyses to address policy questions about cost-effective immunisation programmes in the UK;
6. To collaborate effectively with mathematical modellers and health economists at UKHSA and LSHTM;
7. To develop and deliver a research portfolio that improves the evidence base for best practice on immunization in the UK;
8. To collaborate with experts in epidemiology and immunisation at UKHSA and LSHTM to apply real-world data and knowledge to

Assistant Professor

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 design and apply mathematical models of infectious disease dynamics for addressing policy questions about immunization in the UK;
6. To design and apply health economic analyses to address policy questions about cost-effective immunisation programmes in the UK;
7. To collaborate effectively with mathematical modellers and health economists at UKHSA and LSHTM;
8. To develop and deliver a research portfolio that improves the evidence base for best practice on immunization in the UK;
9. To collaborate with experts in epidemiology

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

inform the use of models in immunisation policy.

and immunisation at UKHSA and LSHTM to apply real-world data and knowledge to inform the use of models in immunisation policy.

Education

Research Fellow

1. To contribute to the delivery of high quality, inclusive, 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 LSHTM's education, by participating in the development of new and updated learning and teaching materials or approaches;

Assistant Professor

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;
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

Research Fellow

1. To undertake activities that support the Department, Faculty, MRC Unit or LSHTM;
2. To reflect LSHTM's EDI goals in your work and behaviour;
3. To participate in LSHTM's PDR process;
4. To coordinate with HPRU colleagues to deliver actions that meet the HPRU and NIHR's strategic objectives;

Assistant Professor

1. To undertake activities that support the Department, Faculty, 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;
4. To coordinate with HPRU colleagues to deliver actions that meet the HPRU and NIHR's strategic objectives.

5. To assist HPRU management in reporting activities to the NIHR.

5. To participate in HPRU management and in reporting activities to the NIHR.

External Contribution

Research Fellow

1. To demonstrate good external citizenship by contributing to learned society/conference events, journal and grant reviews etc;
2. To represent the HPRU at international and national external events, conferences and workshops;
3. To communicate research results in both reports and oral presentations to inform evidence-based policy decisions (such as by advising the Joint Committee on Vaccination and Immunisation);
4. To participate in patient and public involvement and engagement (PPIE) activities in furtherance of responsible research practice.

Assistant Professor

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;
3. To represent the HPRU at international and national external events, conferences and workshops;
4. To communicate research results in both reports and oral presentations to inform evidence-based policy decisions (such as by advising the Joint Committee on Vaccination and Immunisation);
5. To participate in patient and public involvement and engagement (PPIE) activities in furtherance of responsible research practice.

Professional Development and Training

Research Fellow

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. 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 LSHTM appropriate to the role;
4. To maintain your own professional development, including reflecting on your own practice.

Assistant Professor

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;
3. To maintain your own professional development, including reflecting on your own practice.

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;

Academic Expectations

All academic roles have a statement of academic expectations attached to each level. Please ensure that these have been read and understood. The academic expectations can be found [here](#).

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:

Research Fellow

1. A postgraduate degree, ideally a doctoral degree, in a relevant topic.
2. Relevant experience, preferably in the context of vaccination/immunization, in

Assistant Professor

1. A doctoral degree in a relevant topic.
2. A high level of expertise and experience, preferably in the context of

either of these areas: mathematical modelling of infectious diseases; or cost-effectiveness analysis in health care.

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 of working with a range of epidemiological data sources and integrating them in analysis.
8. Experience with common programming languages for infectious disease modelling and health economic analysis (e.g. one or more of R, python, C++).

vaccination/immunization, in either of these areas: mathematical modelling of infectious diseases; or cost-effectiveness analysis in health care; AND some experience in the other area either through their own work or through collaboration with other researchers.

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. Experience of working with a range of epidemiological data sources and integrating them in analysis.
9. Experience with common programming languages for infectious disease modelling and health economic analysis (e.g. one or more of R, python, C++).

Desirable Criteria Research Fellow

Assistant Professor

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

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. Experience of developing collaborative and reproducible code for data analysis and statistical inference.
5. Experience of working on vaccine-preventable infectious diseases that are relevant for the UK.
6. Familiarity with the structure of the health system in the UK.
7. An understanding of the basic principles of mathematical modelling of infectious diseases (for applicants who are primarily health economists) or an understanding of the basic principles of economic evaluation of health care (for applicants who are primarily infectious disease modellers).

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. Experience of developing collaborative and reproducible code for data analysis and statistical inference.
7. Experience of working on vaccine-preventable infectious diseases that are relevant for the UK.
8. Familiarity with the structure of the health system in the UK.
9. An understanding of the basic principles of mathematical modelling of infectious diseases (for applicants who are primarily health economists) or an understanding of the basic principles of economic evaluation of health care (for applicants who are primarily infectious disease modellers).

E-Essential: Requirement without which the job could not be done

D-Desirable: Requirements that would enable the candidate to perform the job well

Salary and Conditions of Appointment

The post is full time and fixed-term until 31st December 2024 though part-time roles will be considered for a minimum of 21 hours per week, 0.6 FTE. The post is funded by the National Institute for Health and Care Research and is available from 1st August 2023.

The salary will be on the Academic Pathway salary scale, Grade 6 (Research Fellow) in the range £42,875 - £48,691 or Grade 7 (Assistant Professor) in the range £50,048 - £57,013 per annum pro rata (inclusive of London Weighting). The post is based in London at the London School of Hygiene & Tropical Medicine.

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 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 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 at:
<https://www.gov.uk/guidance/immigration-rules/immigration-rules-appendix-skilled-worker>

Date amended: May 2023