

RESEARCH FELLOW



Job Title:	Research Fellow
Department:	Medical Statistics
Faculty:	Epidemiology and Population Health
Location:	Keppel Street, London
FTE:	1.0
Grade:	G6
Accountable to:	Head of Department through Principal Investigator (PI) Alexandra Lewin
Job Summary:	<p>We are seeking a Research Fellow to work on an MRC funded project developing Bayesian causal inference methods for mediation analysis using Electronic Health Records (EHR) data.</p> <p>The Research Fellow will design and implement Bayesian methods and software for studying mediation using longitudinal data exhibiting irregularity and informativeness of the visiting process.</p> <p>The work is motivated by the aim to find mediating mechanisms of cardiovascular disease in people who suffer from eczema. For this purpose the project will use an existing population cohort of over 5 million patients from the CPRD (Clinical Practice Research Datalink), anonymised data from a network of GP practices across the 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 -

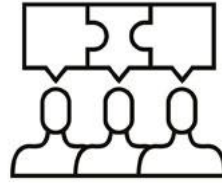
demonstrating what it means to work and study at LSHTM. Please visit our [LSHTM Values page](#) for further information.



**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 Information

The Department of Medical Statistics (MSD) specializes in methodological research in medical statistics, especially in relation to clinical trials, observational epidemiology and disease prevention. MSD has established a reputation for being one of the leading innovative centres in Europe for biostatistical methodology relevant to the planning and reporting of medical research. The department has a leading role in methodological and applied research related to phase III clinical trials, missing data, pharmaco-epidemiology, causal inference and health data science. The Department incorporates a Clinical Trials Research Group (concerned with planning, co-ordination, statistical analysis and reporting of clinical trials), and has a special interest in perinatal health, cardiovascular, respiratory and infectious diseases, including trials conducted in LMIC.

The Head of Department is Tim Collier, and MSD's professors are Liz Allen, James Carpenter, Tim Clayton, Diana Elbourne, Chris Frost, Ruth Keogh, Neil Pearce, Stuart Pocock, Linda Sharples, Jonathan Bartlett, Elizabeth Williamson.

Electronic Health Records Research Group

The Electronic Health Records Research Group (<https://www.lshtm.ac.uk/research/centres-projects-groups/electronic-health-records>) is a diverse team capitalising on research opportunities offered by routinely collected data, bringing methodological rigour to provide real-world evidence for important questions regarding human health. Our work covers a broad-spectrum including disease aetiology, safety and effectiveness of medications, vaccines and surgery, environmental influences, and health services research. We have particular interest in developing and applying optimal research methods, including both observational and interventional approaches.

Researchers in the group conduct a wide portfolio of research investigating disease aetiology and drug effects, across a range of clinical areas including brain health, cancer, and skin, cardiovascular, kidney and respiratory diseases. The overall aim of our work is to capitalise on new opportunities for research using electronic health data. We have close collaborative links with the Medical Statistics Department at LSHTM, the Clinical Practice Research Datalink, and Health Data Research UK.

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 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 develop and use Bayesian methods to analyse Electronic Health Records data.
6. To contribute to data management, processing and synthesis.
7. To contribute to model design and development.
8. To conduct simulation studies for testing model validity and generalizability

Education

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.

Internal Contribution

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.

External Contribution

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

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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. 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 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 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. 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 postgraduate degree, ideally a doctoral degree, in a relevant topic.
2. Experience using complex statistical models for real data analysis.
3. Experience analysing large data sets.
4. Contributions to written output, preferably peer-reviewed, as expected by the subject area/discipline in terms of types and volume of outputs.
5. Proven ability to work independently, as well as collaboratively as part of a research team, and proven ability to meet research deadlines.
6. Evidence of excellent interpersonal skills, including the ability to communicate effectively both orally and in writing
7. Evidence of good organizational skills, including effective time management.

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. Experience of development of novel statistical methods.
5. Experience in Bayesian analysis and methods.
6. Experience in computational implementation of statistical methods.
7. Experience with analysis of Electronic Health Records data.

Salary and Conditions of Appointment

The post is fixed term until 29 February 2028 and full-time 35 hours per week, 1.0 FTE. The post is funded by the Medical Research Council and is available from 01 November 2025. The salary will be on the LSHTM salary scale, Grade 6, spine point 32, £45,097 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