

Job Description

Job Title:	Research Assistant / Associate (HIV modelling)
Department/Division/Faculty:	MRC Centre for Global Infectious Disease Analysis/Department of Infectious Disease Epidemiology, School of Public Health, Faculty of Medicine
Campus/Location:	St Mary's Campus, Paddington
Job Family/Level:	Research, Research Assistant/ Associate* (Research salary scale)
Responsible to:	Prof Marie Claude Boily
Key Working Relationships (Internal):	Lead investigator at Imperial
Key Working Relationships (External):	Peter Vickerman (Bristol University, UK), Mathieu Maheu-Giroux (McGill University, Montreal, Canada)
Contract type:	Full time and fixed term for at least two years. Part-time/flexible working will be considered, and details can be discussed at interview

Purpose of the Post

We are looking to recruit an epidemiological modeller to work on an exciting and collaborative HIV project funded by the Wellcome Trust to inform the HIV response globally. The position will require the candidate to perform statistical analysis, systematic reviews, develop innovative mathematical models to assess the population level impact of structural barriers and structural factors on HIV among vulnerable populations (e.g. men who have sex with men, female sex workers), conduct cost-effectiveness analysis and/or to coordinate projects and help team member with administrative tasks.

The post holder will work collaboratively with Prof Marie-Claude Boily at Imperial College, Prof P Vickerman and Dr M Maheu-Giroux at McGill University as well as our other UK and international collaborators and partners.

Please be in touch with Dr Marie-Claude Boily (mc.boily@imperial.ac.uk) for further information about the post or specific projects.

Key Responsibilities

- Develop modelling analysis plan, in collaboration with other project investigators.
- Develop, code, debug, and calibrate dynamic mathematical models
- Conduct scoping and systematic reviews of the literature as required
- Design and conduct secondary data analysis to inform model development and calibration
- Conduct mathematical modelling analysis and summarise and visualise modelling results
- Disseminate research findings through peer-reviewed journal publications and presentations at international meetings and conferences
- Collaborate and present findings to international research partners
- Provide advice to other staff and students in the group

Other Duties:

- To attend relevant meetings, including travel to research partner countries;
- To undertake any necessary training and/or development;

- As desired by post holder and line manager, contribute to the Department's range of teaching activities, including taught courses and supervision of MSc and PhD students;
- Any other duties commensurate with the grade of the post as directed by line manager / supervisor.

In addition, at Research Associate level:

- Take initiative in the planning of research
- Direct the work of small research sub teams
- Contribute to bids for research grants
- Conduct and plan own scientific work with appropriate supervision.
- Actively participate in the research programme of the Group

Person Specification

Requirements	Essential (E)/ Desirable (D)
Candidates/post holders will be expected to demonstrate the following:	
Education	
Research Associate: Hold a PhD in epidemiological modelling, infectious disease epidemiology, ecology, population biology, mathematics, biostatistics, computer science or an alternative highly quantitative discipline relevant to epidemiology and public health, or equivalent research, industrial or commercial experience. <i>*Candidates who have not yet been officially awarded their PhD will be appointed as Research Assistant.</i>	E (for Associate)
Research Assistant: A first / masters degree (or equivalent) in epidemiological modelling, infectious disease epidemiology, ecology, population biology, mathematics, statistics, computer science or an alternative highly quantitative discipline relevant to epidemiology and public health	E (for Assistant)
Candidate with quantitative expertise in other fields than epidemiology, public health or infectious diseases, will have to justify their change of career and demonstrate awareness of the research topic	E
Experience	
Experience in statistical analysis and visualisation of population health data (using statistical software such as R, SPSS, STATA or SAS) and epidemiological study designs	E
Experience in developing transmission dynamic models – preferably for sexually transmitted infections - and fitting mathematical models to data within a Bayesian framework	E
Experience of economic analysis	D
Research experience in HIV and/or sexually transmitted infection modelling, especially among key populations	E
Experience of participating in international research collaborations	D
Experience in communicating research findings to specialist and non-specialist audience	D
Demonstrated interest in global health, social and HIV epidemiology, particularly among vulnerable population	E
Knowledge	
Knowledge of infectious disease epidemiology	E
Mathematical modelling methods for infectious diseases	E
Knowledge of R and C++ programming languages	E
Knowledge of the epidemiology of HIV in vulnerable populations	E
Knowledge of statistics, epidemiological principles, and public health	E
Skills & Abilities	
Proven research skills	E
Ability to develop and apply new concepts	E
Creative approach to problem-solving	E
Excellent verbal and written communication skills, for example demonstrated through research presentations and journal publications	E
Ability to conduct and synthesize a detailed review of recent literature	E
Ability to collate data, interpret and present results to a high standard using a range of specialised research techniques;	E

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Ability to work independently with a minimum of supervision and as part of a larger interdisciplinary research team and to be open-minded and cooperative	E
Willingness and ability to travel internationally	E
Ability to organise own work with minimal supervision and deliver to deadline	E
Ability to direct the work of a small research team and motivate others to produce a high standard of work	E (Associate)
Other	
Flexible attitude towards work	E
Willingness to undertake any necessary training for the role	E
Willingness to work outside of normal working hours (including weekends) if the requirements of the project demand	E

Further Information

Please note that job descriptions cannot be exhaustive, and the post-holder may be required to undertake other duties, which are broadly in line with the above key responsibilities.

Imperial College is committed to equality of opportunity and to eliminating discrimination. All employees are expected to follow the [Imperial Values & Behaviours framework](#). Our values are:

- Respect
- Collaboration
- Excellence
- Integrity
- Innovation

Employees are also required to comply with all College policies and regulations paying special attention to: Confidentiality, Conflict of Interest, Data Protection, Equal Opportunities, Financial Regulations, Health and Safety, Information Technology, Smoking, Private Engagements and Register of Interests. They must also undertake specific training and assume responsibility for safety relevant to specific roles, as set out on the [College Website Health and Safety Structure and Responsibilities](#) page.

The College is a proud signatory to the San-Francisco Declaration on Research Assessment (DORA), which means that in hiring and promotion decisions, we evaluate applicants on the quality of their work, not the journal impact factor where it is published. For more information, see <https://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-evaluation/>

The College believes that the use of animals in research is vital to improve human and animal health and welfare. Animals may only be used in research programmes which are ultimately aimed towards finding new treatments and making scientific and medical advances, and where there are no satisfactory or reasonably practical alternatives to their use. Imperial is committed to ensuring that, in cases where this research is deemed essential, all animals in the College's care are treated with full respect, and that all staff involved with this work show due consideration at every level. [Find out more about animal research at Imperial.](#)

We are committed to equality of opportunity, to eliminating discrimination and to creating an inclusive working environment for all. We therefore encourage candidates to apply irrespective of age, disability, marriage or civil partnership status, pregnancy or maternity, race, religion and belief, gender reassignment, sex, or sexual orientation. We are an [Athena SWAN Silver Award](#) winner, a [Disability Confident Leader](#) and a [Stonewall Diversity Champion](#).

August 2023