

## Job Description

<b>Job Title:</b>	Research Assistant / Associate in Public Health and Engineering
<b>Department/Division/Faculty:</b>	School of Public Health, and Faculty of Engineering
<b>Campus/Location:</b>	White City/South Kensington
<b>Job Family/Level:</b>	Research Job Family, Research Assistant or Associate ( <a href="#">Research salary scale</a> )
<b>Responsible to:</b>	Professor Paolo Vineis/ Professor Adrian Butler
<b>Key Working Relationships (Internal):</b>	Role will work closely with Professor Paolo Vineis in the School of Public Health and Professor Adrian Butler in the Faculty of Engineering.
<b>Key Working Relationships (External):</b>	George Institute, ICDDR,B and the U Dhaka
<b>Contract type:</b>	Part-time (17.5 h/w) and fixed-term for 4 years.

### Purpose of the Post

Are you passionate about environmental modelling and interested in the application of Life Cycle Assessment? Are you an excellent researcher in public health, particularly interested in Low-Middle Income Countries (LMIC) and Non-communicable Diseases contexts? Would you like to contribute to an ambitious programme of work aimed at developing solutions to alleviate the impact of environmental degradation on health in LMIC? If so, then this exciting and challenging opportunity could be the ideal next step in your career.

The NIHR Centre for Non-Communicable Diseases in LMIC (part of the School of Public Health, and the Department of Civil and Environmental Engineering in the Faculty of Engineering, at Imperial College London) have an exciting new opportunity for a Research Assistant to join a team working on an ambitious project aimed at providing solutions for major health challenges related to highly salinity drinking water in coastal Bangladesh.

This is an exciting post which will enable a researcher with quantitative and qualitative skills to develop their interest in exploring and enhancing research in LMICs. The work investigates the links between human health, water resources and local environmental conditions. It will lead to the development of new evidence-based tools by analyzing existing population and environmental data and contributing to designing intervention studies with a participatory component.

### Key Responsibilities

#### Duties and responsibilities

The focus of this post will be:

- To contribute to the review and summaries of relevant literature for the project.
- To lead on the mapping of current resources and expertise around the College and the LMIC partners.
- To undertake data collection, including water sampling, in Bangladesh when needed.
- To supervise field work in collaboration with ICDDR,B and other institutions in Bangladesh.
- To analyse and interpret qualitative and quantitative data, making use of appropriate research methods and techniques (including very large datasets and GIS mapping).

- To report and present information to the project team, including production of short findings reports.
- To keep accurate and up-to-date records of activities relating to the project.
- To contribute to the promotion and dissemination of the project and its outputs across the College and in external conference presentations and peer review journals.

## Essential requirements

The Research Assistant will have a postgraduate qualification in a relevant public health, environmental engineering, environmental assessment (e.g. Life Cycle, systems dynamics), hydrological sciences or appropriate equivalent experience and should be motivated, well organised and able to work independently and as part of a team. They should have excellent communication skills and good qualitative research skills. You must also have a broad grasp of water systems-environment-bioeconomy issues affecting LMIC.

Essential skills include good knowledge and practice in data analysis with updated statistical approaches and use of GIS. Knowledge and practical experience of using programming languages, systems modelling and data management software. Experience in field research in LMIC. An ability to understand, learn and apply water sampling and chemical analysis methods to water sampling in the field is also a key requirement.

## Person Specification

Requirements	Essential (E)/ Desirable (D)
Candidates/post holders will be expected to demonstrate the following:	
<b>Education</b>	
<b>Research Associate:</b> a PhD or equivalent in relevant public health, environmental engineering, environmental assessment, hydrological sciences or appropriate equivalent experience. <i>*Candidates who have not yet been officially awarded their PhD will be appointed as Research Assistant</i>	E
<b>Research Assistant:</b> An MSc in a relevant public health, environmental engineering, environmental assessment (e.g. Life Cycle, systems dynamics), hydrological sciences or appropriate equivalent experience	E
<b>Experience</b>	
Experience of using GIS to map and analyse environmental, socioeconomic or similar geospatial data	E
Expertise in spatial data linkage and integration of large-scale data from different sources	E
Experience in public and stakeholder engagement	E
Experience of dealing with exposure assessment research projects and analysis of exposure data (Research Associate)	E
Practical experience within a research environment and / or publication in relevant and refereed journals (Research Associate)	E
Expertise and experience in the use of ESRI software	D
Experience of working in multi-disciplinary teams	D
<b>Knowledge</b>	
A thorough understanding of GIS-based programming (e.g. in PostGIS, Python)	E
A thorough understanding of GIS principles and methods and their applications	E

Good knowledge of relevant spatial analysis and modelling techniques	E
Knowledge of a relevant substantive area of application (e.g. advanced spatial modelling, environmental epidemiology)	D
<b>Skills &amp; Abilities</b>	
Sound and demonstrable skills in using GIS for spatial modelling of environmental conditions and/or human exposures	E
Excellent mapping and cartographic skills to communicate spatial data effectively to a general audience	E
Ability to conduct a detailed review of recent literature	E
Ability to develop and apply new concepts	E
Creative approach to problem-solving	E
Excellent verbal communication skills and the ability to deal with a wide range of people	E
Excellent written communication skills and the ability to write clearly and succinctly for publication	E
Ability to collaborate effectively, with a wide range of staff from various disciplines, including research and administrative support staff	E
Ability to write papers for publication in peer-reviewed journals	D
Ability to organise own work with minimal supervision	E
Ability to prioritise own work in response to deadlines	E
Advanced computer skills, including word-processing, spreadsheets and the Internet	E
Ability to direct the work of a small research team and motivate others to produce a high standard of work	E
Excellent organisational skills	E
<b>Other</b>	
Willingness to work as part of a team and to be open-minded and cooperative	E
Flexible attitude towards work	E
Discipline and regard for confidentiality and security at all times	E
Willingness to undertake any necessary training for the role	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.

# Imperial College London

*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**