



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Disease Modelling in a Changed Climate, Faculty of Environment



Salary: Grade 7 (£39,355 – £46,735 p.a. depending on experience)

Reporting to: Professor Zia Wadud

Reference: ENVTR1216

Fixed term for up to 12 months to complete specific time limited work

Location: University of Leeds

We are open to discussing flexible working arrangements

Research Fellow in Disease Modelling in a Changed Climate, Faculty of Environment

Overview of the Role

Do you want to further your career by applying your quantitative data analysis and modelling skills as part of an international multidisciplinary project on developing early warning systems for waterborne disease in the context of a changed climate? If so, this could be the opportunity for you.

This post-doctoral position aims to generate short and long term predictions of Cholera spread in the context of global climate change. The work will entail developing quantitative prediction models that will be integrated to wider health systems software for the predictions to be directly used for early warning and action. You will be using both time-series and longitudinal Cholera surveillance data along with external data on contributory factors (environmental, demographic, socio-economic) to develop the models.

This is a Wellcome Trust funded project with the world-renowned International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), but you will be located at the University of Leeds in the UK. This is a fixed term appointment, but with some potential for extension subject to further funding successes.

Main duties and responsibilities

- Developing quantitative predictive models of infectious disease(s) using timeseries and panel (longitudinal) data;
- Using creativity to plan the analysis and interpret the results in order to draw conclusions, and linking the model to other parts of the project;
- Generating and pursuing independent and original research ideas in the appropriate subject area;
- Developing research objectives and proposals and contributing to setting the direction of the research project and team including preparing proposals for funding in collaboration with colleagues;
- Evaluating variables and methods used and results obtained by other researchers and relating such evaluations appropriately to your own work;



- Preparing papers for publication in leading international journals and disseminating research results through other recognised forms of output;
- Working both independently and also as part of a larger team of researchers, engaging in knowledge-transfer activities where appropriate and feasible;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the training of both undergraduate and postgraduate students, including assisting with the supervision of projects in areas relevant to the project.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

Qualifications and skills

Essential

- A PhD or near completion - i.e. the initial thesis needs to have been handed in at the point of application in data science, computer science, statistics or a discipline demonstrating skills in quantitative predictive modelling;
- A track record of innovative quantitative analysis of data sets which demonstrates an understanding of appropriate fundamental and applied data science models, methods and computational tools;
- A demonstrable commitment to using own initiative to characterise research problems and identify appropriate data and analysis techniques to tackle them;
- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support;
- A developing track record of peer reviewed publications in international journals;
- Excellent written and verbal communication skills including presentation skills;
- A proven ability to work well both individually and in a team;
- A strong commitment to your own continuous professional development.



Desirable

- Experience of modelling time-series and panel (longitudinal) data using advanced machine learning techniques;
- Experience of working with health science/public health data and combining those with other data (e.g. GIS);
- Understanding of models of infectious disease spread;
- Experience of working with climate model output;
- Experience of integrating predictive models within a software environment;
- A willingness to travel to Bangladesh occasionally.

Additional information

Please note: If you are not a British or Irish citizen, from 1 January 2021 you will require permission to work in the UK. This will normally be in the form of a visa but, if you are an EEA/Swiss citizen and resident in the UK before 31 December 2020, this may be your passport or status under the EU Settlement Scheme.

Please note that this post may be suitable for sponsorship under the Skilled Worker visa route but first-time applicants might need to qualify for salary concessions. For more information please visit: www.gov.uk/skilled-worker-visa.

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information please visit: <https://www.gov.uk/global-talent>.

Find out more about the [Faculty of Environment](#)

Find out more about the [Institute for Transport Studies](#)

Find out more about our [Research and associated facilities](#)

Find out more about [Equality in the Faculty](#)

Our University

As an international research-intensive university, we welcome students and staff from all walks of life and from across the world. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the Faculty of Environment we are dedicated to diversifying our



community and we welcome the unique contributions that individuals can bring, and particularly encourage applications from, but not limited to Black, Asian, people who belong to a minority ethnic community; people who identify as LGBT+; and disabled people. Candidates will always be selected based on merit and ability.

The Faculty of Environment has received a prestigious Athena SWAN silver award from [Advance HE](#), the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study.

Working at Leeds

We are a campus based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our [Working at Leeds](#) information page.

Candidates with disabilities

Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at disclosure@leeds.ac.uk.

Criminal Record Information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

