

IMPERIAL COLLEGE LONDON

JOB DESCRIPTION

Job Title:	Early Career Research Fellow (SM271-16AL)
Faculty:	Medicine
School/Institute:	Public Health/National Heart and Lung
Departments:	Epidemiology and Biostatistics – two posts/ Population Health & Gene Therapy– one post
Centre:	MRC-PHE Centre for Environment and Health
Reporting to:	Senior Centre member
Job Family/Level:	Academic and Research, Level B
Salary Range:	£36,070 to £43,350 per annum
Contract:	Full time for a fixed term of 36 months (dates flexible, starting before 1 October 2017).
Location:	St Mary's Hospital campus, Paddington; Royal Brompton Campus, Chelsea

Fellowship Programme

The MRC-PHE Centre for Environment and Health's Early Career Fellowship Programme provides a unique opportunity for early-career scientists to develop the skills needed to meet future research challenges in the environment and health arena. The fellowships aim to support early career researchers to develop their own competitive, independent research programmes, and to bridge the gap in training between doctoral studies and intermediate/senior fellowships and independent research. Full salary costs for up to three years are provided, as well as reasonable research expenses.

Applicants are required to produce a **research proposal** describing their plans to develop an independent research programme within the course of the fellowship. This is an important part of the application process, and will form a key part of the assessment. Research proposals should be high quality, relevant to the Centre, and demonstrate the applicant's potential to develop an independent research career.

The applicants' research focus should fall within at least one of the following key underpinning disciplines:

- **Environmental Epidemiology**
- **Respiratory Epidemiology**
- **Molecular Epidemiology**
- **Small Area Health Statistics, Spatial Epidemiology, and GIS**
- **Biostatistics, Computational Biology, Data Science, and Bioinformatics**
- **Exposure Sciences**
- **Physical, Environmental and Mathematical Sciences**

Three fellowships are available; two will be based in the Department of Epidemiology and

Biostatistics, and one in the National Heart and Lung Institute. While appointees will be primarily based in these locations and should have primary mentors from these locations, multidisciplinary cross-Centre proposals are encouraged.

Candidates will be assessed based on the quality of the research proposal, their potential to develop an independent research career, and the standing of the applicant (as demonstrated by the extent to which they meet the personal criteria in the job description).

Research Environment

The MRC-PHE Centre for Environment and Health was formed in June 2009 as a partnership between Imperial College and King's College London, funded by the Medical Research Council (MRC) and Public Health England (PHE). The Director is Professor Paul Elliott (Imperial) and the Deputy Director is Professor Frank Kelly (King's). The Centre incorporates the UK Small Area Health Statistics Unit (SAHSU) at Imperial College, the Environmental Research Group (ERG) at King's College London, in addition to bringing together leading researchers from four departments of the Faculty of Medicine at Imperial College (including the National Heart and Lung Institute), and researchers at King's College, St George's University of London and London School of Hygiene and Tropical Medicine.

The Centre is internationally recognised in research on environment and health along with providing vibrant cross-disciplinary research training. The Centre promotes novel cross disciplinary approaches, integrating individual-level and small-area analyses of environmental exposures and health, together with experimental data, biomarker and mechanistic studies, and analyses of large population cohorts. The formation of the Centre in 2009 catalysed a number of new research programmes which would not have otherwise occurred, and the renewal of Centre funding for a further five years in 2014 has allowed the Centre to build on its key strengths in multidisciplinary research in environment and health.

The Centre offers a supportive, multi-disciplinary environment at the leading areas of research in the environment and health sciences. There will be unique opportunities for appointees to access, analyse, interpret and publish from the wealth of data held in and being generated by the Centre, including multi-omics, toxicological, and small-area health and environmental data. Successful candidates will be supported by a mentor, as well as the Centre's Training Programme and Researchers' Society.

Mentor

Applicants should identify a potential academic mentor from within the Centre (<http://www.environment-health.ac.uk/people>), based on their research interests. The mentor will support the appointee to develop their own research programmes and further enhance their critical thinking, methodological and analytic skills.

Primary mentors must be Centre members from the location at which the applicant will be based i.e. either Department of Epidemiology and Biostatistics or the National Heart and Lung Institute (NHLI), both at Imperial College London. Inclusion of additional mentors from across the Centre is welcome, and these may be from any Centre location.

Applicants should formulate their own research proposal and approach potential mentors to discuss issues such as feasibility and suitability before applying. It is recommended that Centre members are contacted at least four weeks before the deadline, to allow adequate time for response, and to be able to produce a competitive research proposal.

Eligibility

The eligibility criteria are as follows:

- Applicants should have a PhD in a relevant discipline, or expect to do so by the time they take up the award.
- The fellowships are targeted at early career researchers, and are designed to bridge the gap in training between doctoral studies and intermediate/senior fellowships and independent research. Applicants with more than four years' postdoctoral experience should contact Dr Elizabeth Hayes (e.hayes@imperial.ac.uk), the Centre's Scientific Manager, beforehand to ascertain whether this fellowship is suitable for their stage of career. When contacting the Centre, please include a CV and a cover letter explaining why you consider your experience makes you suitable for this fellowship.
- Career breaks, part-time working and changes in discipline will be taken into account when assessing research experience to date and track record.
- The fellowship is available for immediate start; successful candidates should commence their fellowships by 1 October 2017.

Job Summary

The appointee is expected to carry out, own, plan and lead a high quality programme of research in an area of direct relevance to the Centre; undertake project management and supervise multidisciplinary teams. The fellow will be expected to submit publications to refereed journals and attract external research funding. Specifically, successful candidates will be supported in developing and submitting applications for further funding to progress their career, with an expectation that after 18 months the appointee will submit a competitive research proposal for a mid-career fellowship to a major funder.

To allow the post holder to focus on establishing their research, there are no obligatory teaching duties associated with this fellowship. However, teaching opportunities are available.

Main Duties and Responsibilities

- To plan, conduct and lead a high quality programme of research in environmental and molecular epidemiology, biosciences, bioinformatics and related specialties, taking advantage of key advances in the field
- To submit a highly competitive research programme for funding via a mid-career fellowship application, within the first 18 months of the appointment
- To publish research papers in peer-reviewed journals
- To report and discuss the inputs, methods, and results of the analyses with colleagues and collaborators in different scientific disciplines
- To effectively present findings via publications in journals and at national/international conferences
- To attend relevant workshops and conferences as necessary
- To develop contacts and research collaborations within the Centre and the wider scientific community
- To promote the reputation of the Centre, the host Department, and their respective College
- To develop a personal programme of research, developing research proposals and funding bid, and being successfully awarded them
- To take initiatives in the planning and leading of research
- To manage research projects
- To direct the work of small research teams, supervising and taking responsibility for the research team
- To write reports for submission to research sponsors
- To provide guidance to staff and students
- To effectively manage research projects and resources in line with the fellowship

Other Duties

- To attend research group meetings and other relevant meetings
- To undertake any necessary training and/or development
- Other responsibilities appropriate to an appointment at this level as required by the Centre Directors Professors Paul Elliott and Frank Kelly.
- To be responsible for ensuring that data is accurate, up-to-date and complete.
- To observe and comply with all College policies and regulations, including the key policies and procedures on Confidentiality, Conflict of Interest, Business Continuity, Data Protection, Equal Opportunities, Ethics related, External Interests, Financial Regulations, Health and Safety, Imperial Expectations (for new leaders, managers and supervisors), Information Technology, and Smoking.
- To undertake specific safety responsibilities relevant to individual roles, as set out on the College Health and Safety Structure and Responsibilities web page: www.imperial.ac.uk/safety/policies/organisationandarrangements.
- To undertake [Business Continuity responsibilities](#) relevant to individual roles

Job descriptions cannot be exhaustive and the postholder may be required to undertake other duties, which are broadly in line with the above key responsibilities.

Imperial College London is committed to equality and valuing diversity.

Person Specification

Qualifications

Essential

- PhD or equivalent in environmental, respiratory or molecular epidemiology, computational biology, bioinformatics, biostatistics, geographical information systems (GIS), small area health statistics, exposure sciences, physical and mathematical sciences, environmental sciences or other related specialties.

Experience and knowledge

Essential

- Extensive experience and knowledge in environmental, respiratory and/or molecular epidemiology, computational biology, bioinformatics, biostatistics, geographical information systems (GIS), small area health statistics, exposure sciences, physical and mathematical sciences, environmental sciences, and/or other related specialties.
- Track record of technical and scholarly excellence as demonstrated by a record of high-quality publications in international peer-reviewed journals, and/or methods development and application
- Track record of working successfully in multi-disciplinary teams and environments that combine novel methods and applications
- Presentation of work at significant conferences

Desirable

- Evidence of having made a significant contribution to writing proposals
- Experience of management and analysis of epidemiologic data, health surveys, and/or other large datasets

Skills and Abilities

Essential

- Ability to produce a research proposal which addresses an important research question and proposes a high-quality research programme to achieve the stated objectives. The

research programme should be original and innovative, and demonstrate its potential to contribute to the current understanding of the chosen research field. The proposal should demonstrate clear relevance to the mission of the MRC-PHE Centre for Environment and Health

- Ability to develop and apply new concepts
- Creative approach to problem-solving
- Excellent communication skills and the ability to deal with a wide range of people, both in person and via telephone/email
- Excellent written communication skills and the ability to write clearly and succinctly for publication
- Ability to organise own work with minimal supervision and prioritise own work in response to deadlines
- Advanced computer skills, e.g. use of GIS and programming languages such as R.

Personal Attributes

Essential

- Potential to develop an independent research career.
- Willingness to work as part of a team and to be open-minded and cooperative
- Flexible attitude towards work
- Discipline and regard for confidentiality and security at all times
- Willingness to undertake any necessary training for the role
- Willingness to travel both within the United Kingdom and abroad to conduct research and attend conferences

Application Guidance

Applicants should complete and submit the following through Imperial College's online iRecruitment:

1. Early Career Research Fellow Project Proposal Form from <http://www.environment-health.ac.uk/centres-fellowship-programme>. Note that Section 2 should not exceed six pages of A4.
2. A copy of your CV, using the CV template provided (maximum two pages), and including a list of publications (additional one page maximum). The template can be found on the Centre's website <http://www.environment-health.ac.uk/centres-fellowship-programme>.
3. Imperial College London's online iRecruitment Application Form.

If invited to interview, candidates will be expected to give a ten minute presentation about their career plans and chosen area of research.

Thank you for your interest in this post. We look forward to receiving your application.