UK Research and Innovation

Department for Environment, Food & Rural Affairs

UKRI policy fellowships 2027

Fellowship position

Fellowship title:

Defra strengthening one health preparedness for emerging biological threats fellowship

Fellowship type:

Natural hazards and resilience fellowship

Host organisation:

Department for Environment, Food & Rural Affairs (Defra)

Host team:

Policy Response and Resilience Unit (PRRU), the central strategic unit overseeing pandemic preparedness

Academic discipline/s:

Epidemiology, environmental science, social science, behavioural science, public health policy

Summary:

An opportunity to build a robust evidence base on the ecology of zoonotic disease vectors and reservoirs and assess their associated risks, informing UK pandemic preparedness strategies and policies and helping the UK to prepare for future disease outbreaks.

Policy topic:

This fellowship will address, through a One Health approach to pandemic preparedness, the growing risk and challenge of zoonotic disease risks, which pose threats to human and animal health, food and water security, and national resilience.

Research career stage:

Open to early and mid-career researchers

Fellowship structure

The fellowship is scheduled to begin on 1 October 2027 subject to security clearance requirements. The fellowship will have three phases:

- inception: duration is 3 months at 0.4 FTE
- main placement: duration is 12 months at 0.6-1 FTE
- knowledge exchange: duration is 3 months at 0.4 FTE

Work arrangements

Location requirements:

The role can be based in any of Defra's England offices. These are based in London, York, Newcastle and Bristol. There will be some requirement to travel to meet other team members, this would be approximately four times within a year.

Hybrid working:

Hybrid working is available for both the inception and placement phase. Whilst Defra has three days a week minimum office working requirement in line with the rest of the UK Civil Service, we would be content with a minimum of one day a week of office attendance at any location listed above during the inception or main placement phase. A laptop will be provided enabling work from home or other sites, providing access to host systems. In addition to office attendance, it would be useful to budget for travel to London around four times in the placement year and once in the inception phase. Eligible travel and subsistence costs are supported in the main UKRI grant. Please see the full call text and guidance for more details.

Security clearance and nationality eligibility criteria:

Basic Personnel Security Standard (BPSS) is required for all fellows, which usually takes around 6 weeks. If the chosen location is London, Counter Terrorist Check (CTC)/Level 1B checks are required for office attendance. We would expect the successful applicant to start the security clearance application process, with support from the host team, as soon as their fellowship has been confirmed by UKRI. Inception phase can begin before the security clearance process is completed but will be required for the main placement phase. Please see national security vetting: clearance levels for more information. The civil service also has nationality requirements that candidates would need to meet in order to take up the post. Please see civil service recruitment nationality rules for further information. Candidates should check these requirements before applying to ensure they meet the eligibility criteria.

Fellowship position description

The UK faces growing threats from emerging zoonotic diseases. These threats should be viewed through a One Health lens, as zoonotic disease poses risks to human and animal health, as well as wider UK resilience, with cascading impacts on food and water security, and the UK economy. This fellowship is a unique opportunity to drive forward cutting-edge policy research, where insights will enhance the UK's ability to prepare for and respond to emerging zoonotic disease risks. The fellow will be embedded in the Department for Environment, Food and Rural Affairs (Defra) within the Policy Response and Resilience Unit (PRRU), working alongside leading scientists, policymakers, and risk experts to bridge the gap between wildlife management, infectious disease epidemiology and government strategy.

Exact topics will be determined during the inception phase and shaped by host priorities alongside the fellow's interests and input. Working with Defra's Biosecurity and Pandemic Preparedness team, the fellow will be supported to host workshops with external and governmental wildlife, infectious disease and risk experts to co-design the specific research focus of their project.

The fellow will be able to shape the direction of the fellowship, engaging in activities such as:

- identifying knowledge and evidence gaps in zoonotic disease risks, prioritising research needs to strengthen UK pandemic preparedness
- conducting an initial landscape review of existing data on reservoirs of disease
- assess the long-term impacts of indirect and direct drivers of ecological change
- identifying and assessing mitigation options to risk, including international evidence, such as strategies for population control and surveillance
- identifying key gaps in UK risk assessments and strategies and develop evidence-based risk models to assess how zoonotic disease risks could impact UK resilience

- assessing how surveillance, evidence and horizon-scanning can be best integrated to identify, assess and respond to emerging zoonotic threats across human, animal and environmental systems

The fellow's work will provide a critical evidence base for UK government resilience strategies with possible outputs including:

- a policy framework integrating One Health approaches to risks from animal disease reservoirs into biosecurity and pandemic preparedness planning
- a policy-facing synthesis report, delivering clear data-driven actionable recommendations for risk management
- scenario-based risk exercises, indicating opportunities for strengthening UK biosecurity and pandemic preparedness
- knowledge exchange, strengthening Defra's collaboration with key social and behavioural, zoonotic disease, pest control, wildlife and risk stakeholders, ensuring that research findings directly inform policy planning
- summary report of lessons learned from animal management during previous disease outbreaks and recommendations for implementation

Benefits of the fellowship include:

- access to Defra Group experts and data
- opportunity to contribute to the strategic decision-making processes within government organisations
- working at the interface of science and policy, ensuring that research is translated into actionable solutions
- opportunity to publish and disseminate outputs of novel research, subject to appropriate clearance processes and Defra's publication approvals procedure

This fellowship offers an exciting opportunity to shape government policy with cutting-edge research. The fellow will strengthen the application of One Health approaches across pandemic preparedness, biological security and national resilience policy and governmental systems, generating evidence and insights to inform future workstreams, improve cross-government collaboration and enhance UK resilience to emerging biological threats.

Person specification

Applications will be assessed by UKRI panel assessment against the following essential opportunity-specific requirements in addition to the generic eligibility and call criteria.

Essential criteria:

- expertise in a relevant academic discipline, such as epidemiology, infectious disease (animal or human), environmental science or public health
- proven ability to design, lead, and manage sustained research projects against deliverable milestones
- strong analytical skills, with the ability to synthesise complex quantitative and qualitative data and evidence from diverse sources and translate it into policy-relevant insights related to rodent-associated zoonotic disease risks and pandemic preparedness

Desirable criteria:

- familiarity with UK pandemic preparedness and resilience frameworks, such as the National Risk Register (NRR), Pandemic Preparedness Strategy, Biological Security Strategy and UK Government Resilience Action Plan, with an understanding of how zoonotic disease risks fit into these broader structures
- experience in risk modelling, scenario analysis, or pandemic preparedness planning exercises to address emerging zoonotic disease threats through a One Health approach

- skills or strong awareness in cross-sector collaboration, engaging with scientists, industry, policymakers, resilience planners, and operational partners, to ensure science informs policy and decision-making

Processing personal data

If applicants are shortlisted by the UKRI assessment panel UKRI will need to share the application and any personal information that it contains with the host for the host led interview selection process.

Your personal data will be handled in line with UK data protection legislation and managed securely. If you would like to know more, including how to exercise your Rights, please see the UKRI privacy notice.

Please see the Defra privacy notice and they will delete your data at the end of the selection process unless you are successful, in which case we will retain your data as an independent data controller.