**Tackling infections**

Prepare for future disease epidemics and halt the ‘slow motion pandemic’ of antimicrobial resistance (AMR).

Through our five year strategy [Transforming Tomorrow Together 2022 to 2027](https://www.ukri.org/publications/ukri-strategy-2022-to-2027/), UKRI aims to harness the full power of the UK’s research and innovation system to tackle large-scale, complex challenges. To do this, we have identified five strategic themes to enable working across disciplines and leveraging new and existing investment and activity.

Tackling infections is one of the themes. It will bolster our national defence and response capabilities by tackling infectious diseases that pose threats to people, livestock, crops and natural resources in more integrated and innovative ways.

In particular, we aim to better prepare for future disease epidemics and more effectively tackle the slow-moving pandemic of antimicrobial resistance.

### Phase one

#### Interdisciplinary tackling infections flagships in epidemic preparedness

An interdisciplinary initiative to better understand, predict and prevent re-emergence of diseases of epidemic potential. Initial investments will seed interdisciplinary teams and research ideas. Larger scale programmatic awards will address research questions and establish a networked, interdisciplinary research community better prepared to address future threats.

#### Interdisciplinary tackling infections flagships in antimicrobial resistance (AMR)

An interdisciplinary programme to deliver innovative and effective AMR solutions. An initial tranche of funding will support a broad suite of capacity building awards, evolving into a more focused set of larger scale programmatic awards, and developing complementarity with the Innovate UK AMR feasibility/accelerator and Candidate Translation programme.

#### Amplification

Leveraging core commitments in targeted priority areas to develop investment scale, pace and interdisciplinary inclusivity, injecting collective value to programmes in various stages of current development.

### Phase two

#### Gap-filling and augmentation programme

Taking stock of and building on the key capabilities established in phase one, working with the tackling infections programme board to identify priority gaps and additional opportunities to add further value to the core programme components.

#### Focus

Details to be confirmed.

Current acute global shocks and the increasing costs and risks of long-term embedded problems now come together to frame an urgent need to implement a fully integrated systems-based approach.

The aim is to deliver a necessary step change in our ability to effectively tackle infections of humans, animals and plants. This will provide the knowledge and skills required to accelerate the development of innovative and effective tools, technologies, strategies and policies to crack the challenges of new infectious disease outbreaks and persistent, embedded problems. ​

UKRI has a long track record of national and international excellence and leadership in infectious disease research and innovation, with major institutes, centres and units working at the forefront of global efforts. However, the landscape is fragmented. Communities, infrastructures and data across human, animal and plant health sectors are not well integrated, and opportunities to share resources and learning are undeveloped.

There is a key need for innovative new tools and tactics to be developed based on a more systemic understanding how infectious disease problems arise and effective approaches to intervene.

Impacts in the longer term could include:

* reduced health, welfare and economic burdens to society
* increased resilience to new epidemic threats
* improved population health through better prevention and detection
* reduced incidence, severity and spread of human, animal and plant disease outbreaks
* an efficient, resilient and safe food supply
* increased competitiveness of UK research and research industries providing knowledge and solutions globally to infectious disease problems and threats