

UK joins forces with international experts to tackle global challenges

- New UK research collaborations to tackle global societal challenges like using clean technology to tackle climate change
- UK experts will work with researchers in US, Israel and China to stop the spread of infectious diseases including Zika and Ebola
- projects will be joint funded by partner countries around the world

Scientists will receive a new £60 million cash boost to work with researchers across nine countries to tackle some of the world's biggest environmental and health challenges.

The funding announced today by Business Secretary Andrea Leadsom will be matched from international collaborators from countries including India, China, the US and Japan. It brings the total UK investment in international scientific collaborations to more than £1.5 billion.

New projects include:

- working with the USA, Israel and China to examine how interactions between humans, livestock, wild animals and crops can spread infectious diseases
- joining US experts to examine subpolar ocean currents in the North Atlantic and the impact on world climate
- partnering with Chinese colleagues to create products and services to help older people in our ageing society

Business Secretary Andrea Leadsom said:

The UK has a well-earned reputation for world-class research and innovation. Programmes like the Fund for International Collaboration have put us at the forefront of a global network of academic and business partnerships tackling some of humanity's greatest challenges, from the impact of climate change to critical health issues.

As we prepare to leave the EU on 31 October, each of these projects reflect our wholehearted commitment to continuing our track record of driving forward international collaborations in science and research and making the UK a science superpower. These ground-breaking initiatives will not only help tackle major issues, including the spread of infectious diseases, they will create jobs and drive economic growth across the UK.

The investment is the second wave of the government's Fund for International Collaboration, overseen by UK Research and Innovation (UKRI) – the

government's research and development agency. It will support these projects over a 4-year period, helping to maintain the aim of promoting the UK as a world-class destination to generate and access research and innovation.

UK Research and Innovation Chief Executive, Professor Sir Mark Walport, said:

The partnerships announced today underline the critical role that international collaboration will play in addressing pressing global challenges, from climate change to deadly diseases such as Ebola and Zika.

The Fund for International Collaboration demonstrates that the UK's research and innovation community will be at the forefront of efforts to tackle these problems, delivering benefits that will be felt here in the UK and throughout the world.

This is the second wave of funding from the Fund for International Collaboration. Under the first wave, [announced in January](#), projects included collaborations with Japan. These are now being led by UK universities with Japanese academic colleagues and include:

- a venture to improve trial versions of vaccines for HIV – a joint University of Oxford and Hokkaido University project
- an investigation into how sleep can help the memory – link up between Bristol University and RIKEN
- an investigation into how plant cells divide to help improve crop yields – University of Edinburgh and Nagoya University

The [Fund for International Collaboration](#) is managed and administered by UK Research and Innovation.

Fund for International Collaboration Wave 2

Calls and projects announced today in wave 2 of the Fund for International Collaboration:

The changing North Atlantic ocean and its impact on climate

Investigation with the USA to examine the subpolar ocean currents in the North Atlantic and the impact on world climate.

These currents are important for the Earth's climate, keeping the UK relatively mild in winter compared to other countries at similar latitudes to Canada and influencing the global climate through their impact on surface temperatures, precipitation, wind strength, hurricanes and even rainfall in the Sahel desert, Amazon and parts of the US. Any changes and influences could have lasting impact on the environment and life in the ocean.

UKRI council: Natural Environment Research Council – Funding £5.1 million

Next generation transdisciplinary international research collaborations in ecology and evolution of infectious diseases

A joint project with the USA, Israel and China will examine the interaction between humans, livestock, crops, wild animals and plants that can lead to diseases spreading.

Many diseases cross these species barriers and can lead to the emergence and transmission of infectious diseases such as Zika, Ebola, African Swine Fever and Anthrax.

Lead UKRI council: Biotechnology and Biological Sciences Research Council (BBSRC) – UKRI funding £8.3 million

Healthy ageing flagship challenge

The UK will work with Chinese colleagues where society faces similar challenges around healthy ageing to see how new products and services can help people as they age.

The research aims to understand the biological, medical and social drivers and implications of these challenges. Research council: ESRC, MRC and Innovate UK – UKRI funding: £8.3 million

Diabetes partnership initiative

Working with experts in Canada to examine how diabetes can be treated better.

5 million people in the UK suffer from diabetes at a cost to the NHS of approximately £14 billion a year, or 10% of the total NHS budget. Globally, the prevalence of diabetes has nearly doubled since 1980, from 4.7% to 8.5% of the world's adult population.

UKRI council: Medical Research Council – UKRI funding £2 million

Built environment and prevention research scheme

A partnership with Australia will examine how people's urban environment can have an impact on health.

The project will support the government's Prevention is Better Than Cure vision, which proposes a move to a system which predicts and prevents poor health, by supporting world-leading research to explore the links between the environments we live in and non-communicable diseases such as heart disease, cancer and diabetes.

UKRI council: Medical Research Council – UKRI funding £2.1 million

Artificial intelligence and society

A joint programme with Japanese experts will explore how artificial intelligence digital technologies can help society evolve and benefit society

and its economy.

UKRI Council: Economic and Social Research Council – UKRI funding £2.1 million

Collaboration on artificial intelligence: building competitive, resilient economies and societies

Working with colleagues in Canada, this project will allow UK specialists to examine ways of supporting innovative AI research in social sciences and humanities; health and biomedical sciences and natural sciences and engineering to tackle societal changes.

UKRI council: Economic and Social Research Council – UKRI funding £5.2 million

Globalink doctoral exchange scheme

A UK and Canada partnership will support the exchange of doctoral students between the two countries, fostering long-term research networks and collaborations that will ultimately attract talent to the UK and maintain the UK's reputation for research and innovation excellence and contribute to economic growth.

Across UKRI Councils – UKRI funding £1.4 million

Global incubator programme

Working with colleagues in Canada, Singapore, India and USA, to help businesses to easily build collaborations and partnerships and explore the potential of overseas markets.

UKRI council: Innovate UK – UKRI funding £3.3 million

Digital transformation in humanities research: UK-Irish collaboration in the digital humanities

Working with Irish partners to preserve artefacts digitally, making them more accessible to researchers and the public.

UKRI council: Arts and Humanities Research Council – UKRI funding £4 million

UK-USA business innovation bridge

Working with US funding partners at federal and state level, the Business Innovation Bridge will forge connections in new technology areas like advanced materials, high value manufacturing and renewable energy projects.

UKRI council: Innovate UK – UK funding £5 million

UK-India extreme photonics innovation centre

The joint UK and India scheme will use particle and x-ray beams which have the potential to revolutionise a range of areas of healthcare, such as high-resolution imaging, therapeutic and biomedical applications to tackle health problems.

UKRI council: Science and Technology Facilities Council – UK funding £4 million

UK-Canada: understanding and adapting to a changing environment

A new UK-Canadian multidisciplinary research collaboration will deliver innovative understanding and systems to help local communities adapt to environmental change incorporating traditional knowledge.

The programme will help our understanding of the impact of environmental change and identify new technological, engineering, social, health, cultural and economic responses.

UKRI council: Natural Environment Research Council (NERC).

Other funding linked to wave 1

Social sciences and humanities connections

The joint UK Japan programme examines how the arts, humanities and social sciences can identify common interests to enable future collaborative research activity to benefit society.

UKRI councils: Economic and Social Research Council and Arts and Humanities Research Council – UKRI funding £650,000