

## **Global issues from health to humanitarian crises to be tackled in ambitious research programme**

Leading experts from the UK and in developing countries across the world are joining forces to tackle some of the most serious global challenges in a new multi-disciplinary research programme launched today.

In one of the most ambitious international research programmes ever created, £225 Million has been invested across 37 interdisciplinary projects to address challenges in fields such as health, humanitarian crises, conflict, the environment, the economy, domestic violence, society, and technology.

The Global Challenges Research Fund (GCRF) Research Councils UK Collective Fund is supporting projects in the range of £2 – 8 million over four years.

It aims to build upon research knowledge in the UK, and strengthen capacity overseas, to help address challenges, informed by expressed need in the developing countries.

Jo Johnson, Minister for Universities and Science, said: “From healthcare to green energy, the successful projects receiving funding today highlight the strength of the UK’s research base and our leadership in helping developing countries tackle some of the greatest global issues of our time.

“At a time when the pace of scientific discovery and innovation is quickening, we are placing science and research at the heart of our Industrial Strategy to build on our strengths and maintain our status as science powerhouse.”

Andrew Thompson, RCUK GCRF Champion, said: “The 37 projects announced today build research capacity both here in the UK and in developing countries to address systemic development challenges, from African agriculture to sustainable cities, clean oceans, and green energy, to improved healthcare, food security, and gender equality.”

Projects consist of UK and developing-country researchers, working together as equal partners and include:

- addressing real-world problems such as the growing prevalence of diabetes and dementia in both the developing world and in western countries.
- utilising the potential of museums not only to reflect on past lives but also to promote social justice, strong institutions and fair societies.
- creating novel manufacturing processes for solar power and smart technologies for a second Green Revolution in crop yields.
- For full list of projects see <http://bit.ly/GCRFgrowbrochure>

Professor Thompson added: “The ambition is to lay the foundations for a sustained and targeted research effort to address the most intractable challenges faced by the world today, climate change, disease and epidemics, food insecurity, rapid urbanisation, and forced displacement and protracted conflict.”

Professor Sir Mark Walport, Chief Executive designate of UK Research and Innovation, said: “In the same way that facing these global challenges requires a multi-national response, finding the solutions to them requires researchers from many disciplines to work together. The Global Challenges Research Fund makes that possible, and means that the UK’s world-leading researchers are able to get on with the job of working with each other and partners across the globe to make the world and society more sustainable.”

Examples of the projects include:

- **Low cost technologies for safe drinking water in developing regions (SAFEWATER)**

Professor John Byrne - University of Ulster

In the developed world, we take it for granted that our drinking water is safe, yet nearly 25% of the global population drink water that is not.

Water that has been contaminated with faeces from animals and humans may contain pathogens which cause deadly diseases such as polio, typhoid, cholera and dysentery.

Clean water saves lives and it means that children, mothers and breadwinners can get on with their lives instead of falling sick.

We know how to make water safe to drink but the cost of doing this may be too high as nearly half the world’s population live on less than £2 per day. Low-cost technologies do exist but the people don’t readily adopt these.

The SAFEWATER project is a collaboration involving academics in South America and – crucially – NGOs that are already working in Colombia and Mexico, and are trusted by local people. Through the NGOs, local people will be involved in the development of clean water solutions from the beginning of the project so the technologies will meet their needs.

The researchers also aim to develop smart devices which will quickly tell if their water is safe to drink.

- **RESEARCH FOR HEALTH IN CONFLICT: developing capability, partnerships and research in the Middle and Near East (MENA)**

Professor Richard Sullivan - King's College London

Across the Middle East, soaring numbers of refugees and displaced people carry with them problems one doesn't think to associate with conflict. Gone are the days when the only humanitarian needs flowing from a conflict related to clean water and vaccinations. These days the victims are suffering from noncommunicable diseases too, such as cancer and mental health.

But how is cancer treatment to be provided in a refugee camp? How do medics give palliative care when their country is torn by violence?

New ideas and new ways of working are called for... and these are what the Research For Health in Conflict (R4HC)–Middle East and North Africa (MENA) partnership wants to find.

By working with research organisations across MENA and using novel ways of gathering health intelligence in conflict, they hope to help countries like Jordan, Lebanon and the Occupied Palestinian Territories work out not just how to care for those within their borders but also how to research such issues in the first place.

- **Agricultural and Food-system Resilience: Increasing Capacity and Advising Policy**

Professor Timothy Benton - University of Leeds

Extraordinary demands are being made of the people who grow our food. They are to feed 2.5 billion more of us by 2050 – and do this without exhausting the soil, depleting water supplies or robbing us of biodiversity. They are to cope with the extreme weather, heat and moisture changes brought by climate change and also, since agriculture turns out to be a major carbonemitter, cut greenhouse gases too.

In addition, in Africa at least, they are to propel the continent to economic development and prosperity.

To achieve this needs research done in countries that have few research resources, by a wide range of disciplines whose practitioners need to understand how to do policy-related research. They also need strong channels to communicate their results to the decision-makers.

Learning from the 'policy paralysis' that prevented some African countries from achieving some of the Millennium Development Goals, AFRICAP will pull experts together from the UK and a variety of African countries. It will help four African countries to build their research capabilities. It will also tap into an existing network of policy experts across the continent so that research results really can lead to policy changes, and a better-fed continent.

- **RECAP - Research capacity building and knowledge generation to support preparedness and response to humanitarian crises and epidemics**

Dr Bayard Roberts - London School of Hygiene & Tropical Medicine

In the thick of natural disasters or war, aid groups work through the chaos to bring basic services – and dignity – to the victims. In such a tough environment it's hard to stand back and study what's going on, collect data and assess whether and how aid could be better delivered. Yet it's vital to find a way of examining it critically, if responses are to improve and the health of those caught up in crises is to be protected.

RECAP will create a network to tackle this research problem – and it has some of the big players in humanitarian aid on board. The network will include leading organisations in the UK, as well as the American University of Beirut, in Lebanon, and the University of Sierra Leone. Working with Médecins sans Frontières, the International Rescue Committee, and the largest NGO in the world – Bangladesh's BRAC -- they are going to build research skills and conduct studies in some of the world's hotspots.

The result should be better research methods and strong links between all the organisations, leading, in turn, to improved humanitarian policies – and, ultimately, the safeguarding of victims' health.

- **GCRF-Crick African Network**

Professor Robert Wilkinson - The Francis Crick Institute

Across Africa there are talented scientists who have achieved their PhDs and are poised to lead their countries into healthier places via their expertise and research into the infections that blight the continent. However that ambition is curtailed by lack of funding, poor research facilities and the absence of mentoring. This is what the Crick African Network will ameliorate.

The Francis Crick Institute in London, along with five leading African partner institutions, will seek out the best and brightest post-doctoral researchers and provide resource to reach the next level: training at the Crick in the UK, linked to help establishing research programmes back home in institutes to strengthen them as hubs of scientific excellence for the Continent; and mentoring via an international network.

The scientists chosen for this “African Career Accelerator” will be those with ideas about how to tackle some of the big scourges of Africa – such as HIV, affecting an estimated 25 million people in the continent, TB and malaria. They will be empowered to come up with the insights and ideas to roll back these economically debilitating diseases.

---

## Contact details

- Simon Wesson,  
RCUK Media Campaigns Officer  
[simon.wesson@rcuk.ac.uk](mailto:simon.wesson@rcuk.ac.uk)  
01793 444067

## NOTES TO EDITOR

- **Research Councils UK (RCUK)** is the strategic partnership of the UK's seven Research Councils. Our collective ambition is to ensure the UK remains the best place in the world to do research, innovate and grow business. The Research Councils are central to delivering research and innovation for economic growth and societal impact. Together, we invest £3 billion in research each year, covering all disciplines and sectors, to meet tomorrow's challenges today. Our investments create new knowledge through: funding research excellence; responding to society's challenges; developing skills, leadership and infrastructure; and leading the UK's research direction. We drive innovation through: creating environments and brokering partnerships; co-delivering research and innovation with over 2,500 businesses, 1,000 of which are SMEs; and providing intelligence for policy making. Find out more about our work at [www.rcuk.ac.uk](http://www.rcuk.ac.uk).
- **The Global Challenges Research Fund (GCRF)**  
GCRF is a £1.5 billion fund that supports cutting-edge research which addresses the global issues faced by developing countries. It harnesses the expertise of the UK's world-leading researchers, focusing on: funding challenge-led disciplinary and interdisciplinary research; strengthening capacity for research, innovation and knowledge exchange; and providing an agile response to emergencies where there is an urgent research need. It forms part of UK Government's Official Development Assistance (ODA) commitment and is overseen by the Department for Business, Energy and Industrial Strategy (BEIS), and delivered through 17 delivery partners including the Research Councils, the UK Academies, the UK Space Agency and funding bodies.
- More details on each of the 37 grants can be found in the [Growing research capability to meet the challenges faced by developing countries](#) brochure. For further details on exact elements on the projects, please contact the associated institution's press team.