



Arts & Humanities
Research Council



Widening cross-disciplinary research for mental health

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Cross-disciplinary mental health research agenda

The Research Councils (AHRC, BBSRC, EPSRC, ESRC, MRC, NERC and STFC) collectively have an interest in mental health research from a medical, biological, environmental, cultural, societal, technical and historical perspective. We have worked together to develop a cross-disciplinary research agenda, to articulate opportunities for cross-disciplinary working. This document is not a strategy for mental health research, nor is it trying to address the full scope of what is a broad field of research with other funders and organisations playing a part in its delivery. The aim of this document is to highlight some areas where researchers from different disciplinary backgrounds might work together. We recognise that researchers are already working in many of the areas outlined in this document but we hope that articulating the research areas in a cross-disciplinary way might help to expand research to be inclusive of other disciplines. We hope that this document will strengthen cross-disciplinary research for mental health and inform future cross-disciplinary Research Council investments.

We acknowledge that there are many parallel activities led by other organisations. It is intended that the publication of this research agenda will complement those activities, and will reflect specific areas that the Research Councils are collectively interested in developing through cross-disciplinary research. A summary of some related activity, for example NIHR funding, can be found at the end of this document.

We recognise the excellent research already taking place within the broad area of mental health, for example the identification of key genes associated with the development of mental health problems and the impact of childhood experiences on mental and physical health outcomes in later life. Nonetheless, much of this work falls within the remits of individual Research Councils. Our aim is to build upon this research by encouraging increased collaborative working that cuts across the remits of the Research Councils.

This document predominantly uses the terms 'mental health problems' and 'mental illness'. It is acknowledged that there are a number of alternative terms that can be used to describe the state in which a person may be experiencing mental health problems. It is our understanding that these terms are widely accepted within the research field of mental health, and also by the public.

Background

Mental illness is the largest single cause of disability in the UK and represents 28% of the national disease burden in the UK. It is the leading cause of sickness absence in the UK, accounting for 70 million sick days in 2007, and also costs the UK economy £70-£100 billion per year; which is 4.5% of Gross Domestic Product. Furthermore, people with mental illness die on average 15-20 years earlier than those without, often from avoidable causes. ¹

¹ Chief Medical Officer for England annual report on Public Mental Health, 2014 - <https://www.gov.uk/government/publications/chief-medical-officer-cmo-annual-report-public-mental-health>

It is estimated that 23% of the UK population is affected by mental health problems at some point each year. In spite of recent progress, more research is needed to better understand how to prevent, diagnose and treat mental illness². Only about a quarter of people with a mental health problem are deemed to receive ongoing treatment, leaving the majority grappling with mental health issues seeking help or information on their own, and depending on the informal support of family, friends or colleagues. In England, women are more likely than men to have a common mental health problem and are almost twice as likely to be diagnosed with anxiety disorders. However, men's mental health is also of crucial importance: of the total number of suicides registered in the UK in 2015, 75% were males. In addition, postnatal depression in fathers has been associated with emotional and behavioural problems in their child. 10% of children and young people (aged 5-16 years) have a clinically diagnosable mental problem, yet 70% of children and adolescents who experience mental health problems have not had appropriate interventions at a sufficiently early age.³

It has been found that 30% of people with a long-term physical health problem also had a mental health problem and 46% of people with a mental health problem also had a long-term physical health problem⁴, suggesting strong connections between mental and physical health.

Scope

The overarching objective of this research agenda is to encourage and strengthen cross-disciplinary mental health research that will fundamentally lead to: a better understanding of the broad determinants of mental health and mental illness across the life course, as well as a better understanding of mental health conditions and comorbidities; better knowledge of resilience to or self-management of those conditions amongst individuals, communities or groups; improved diagnosis, care and treatment; improved experience of health and social care provision; more effective interventions and preventative methods; and better training of healthcare professionals.

Definitional issues are subject to debate, are contested and need to remain contestable. Mental health and mental health problems can be both objectively and subjectively experienced and understood by a range of symptoms and experiences in various ways by different people. Mental health tends to be used as a broad term to indicate a range of concepts and understandings that include both positive states (mental health or mental wellbeing) and mental illness, but concepts of mental health and mental illness may not be mutually-exclusive.

² MQ report on UK Mental Health Research Funding, 2015 - [MQ report on UK Mental Health Research Funding](#)

³ Mental Health Foundation Report on Fundamental facts about Mental Health, 2015 - <https://www.mentalhealth.org.uk/sites/default/files/fundamental-facts-15.pdf>

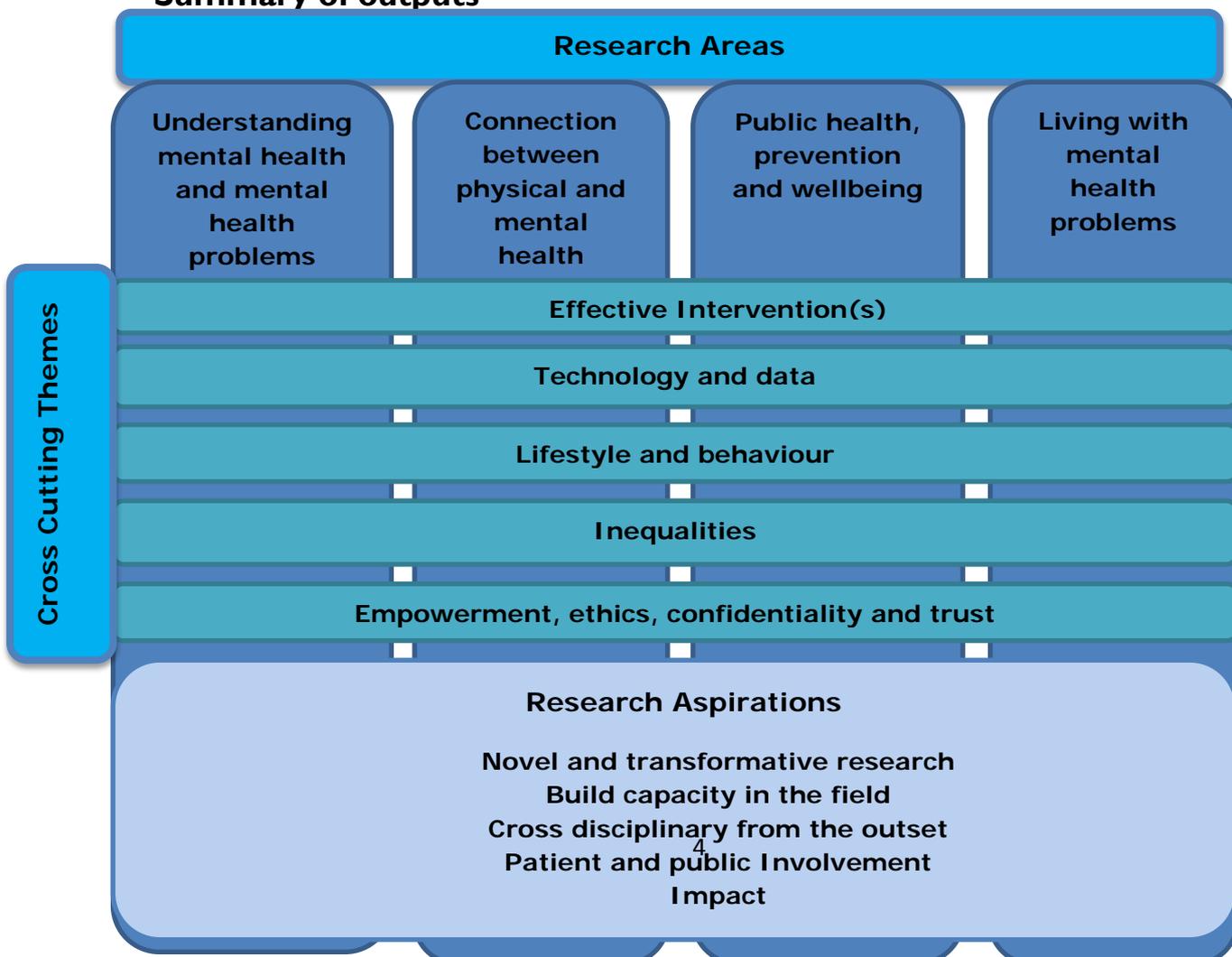
⁴ The King's Fund report on Long term conditions and mental health – the cost of co-morbidities, 2012 - https://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/long-term-conditions-mental-health-cost-comorbidities-naylor-feb12.pdf

It is widely accepted that neurodegenerative disorders fall under the broader umbrella of mental health problems, however as research on neurodegenerative disorders is being funded through alternative routes, the Research Councils have deemed them to be out of scope for this agenda. Aside from the exclusion of neurodegenerative disorders, this research agenda is open to research that focuses on the broad range of mental health conditions, in addition to research that concentrates on maintaining wellbeing or preventing mental health problems. It focuses on areas where high quality cross-disciplinary research could add the most value and impact to the broader mental health research landscape through novel and transformative research.

Process

The Research Councils convened an expert group to advise on the development of this research agenda. This comprised of five leading academics in the field of mental health, and representatives of end users of research and service user organisations. A wider audience of academics, funders, and representatives from mental health charities were consulted through a workshop. The main aim of these activities was to seek advice and gather knowledge about important research areas that could be addressed through cross-disciplinary working within or across the remits of the Research Councils. Through this consultation four research areas and five cross-cutting themes have been identified. These research areas and cross-cutting themes are shown in the diagram below and explained in further detail in the following section:

Summary of outputs



Research areas:

1. Understanding mental health and mental health problems
2. Connection between physical and mental health
3. Public health, prevention and wellbeing
4. Living with mental health problems

Cross-cutting themes

1. Effective intervention(s)
2. Technology and data
3. Lifestyle and behaviour
4. Inequalities
5. Empowerment, ethics, confidentiality and trust

Research areas

Four overarching research areas were identified where there is scope for enhanced collaboration across different disciplines and sectors. These are broad topics where collaborative and cross-disciplinary work would add significant value to the field of mental health research. The detail included within these areas and themes illustrates the types of issues that could be investigated under the broader heading. This detail is not prescriptive and therefore additional elements that are not specifically mentioned below may also be relevant, and the Research Councils welcome research in those areas as well.

I. Understanding mental health and mental health problems

The intention of this research area is to build on our understanding and knowledge of what constitutes and/or determines mental health or mental illness. This is not only in terms of medical and biological knowledge, but also in terms of the social, cultural, historical, environmental, contextual and psychological factors and their interplay with each other.

Currently there is better knowledge in some areas of mental health/illness than in others. This area requires a holistic approach to understanding the determinants, multifactorial influences (for example, looking across genetics, early life adversity, social support networks, environmental and economic factors, etc.) and potential developmental or adult stressors that could affect mental health trajectories throughout the life course, leading to an increased susceptibility to developing mental health problems. Conversely, identifying protective factors that confer resilience to the development of mental disorders is valuable. It is important to consider a time course approach that investigates both key periods of susceptibility, e.g. early life, adolescence, and an individual's mental illness journey, for example, change, remittance, or relapse. This could also include research on changes in the prevalence, awareness and/or perception of mental health problems and people's own understanding of their mental health, in addition to the wider communities understanding.

2. Connection between physical and mental health

The purpose of this research area is to improve understanding of the frequency and complexity of comorbidities, particularly when both physical and mental conditions occur.

There is a strong link between physical and mental health, whereby the status of each can influence the other. Often people present with multiple health problems (which can include both mental and physical conditions) with important interactions between them that can negatively impact on overall health outcomes. Research could investigate the complexities of comorbidities, including why some individuals may be more susceptible or have reduced resilience, the influence of health-care systems, beliefs, family and work; and also the common causes that can lead to additional physical or mental health conditions. Research in this area could also consider the social and cultural challenges around stigma and behaviour such as people being more comfortable presenting with a physical health problem than a mental health problem, attitudes and behaviours from within healthcare services, and the differences in experience and care that may occur for people across varying social, cultural and community groups.

3. Public health, prevention and wellbeing

The aim of this research area is to build on our understanding at a population level, of the external contributing factors to mental health, wellbeing and mental health problems.

Research would include profiling across the lifespan, taking into account holistic and interdisciplinary approaches to identifying, engaging and investigating populations that are more at 'risk' of mental health problems. It could include investigation into the potential positives and negatives of smart or liveable cities, as well as the broader natural and built environment. It could consider place based design and participatory approaches, encompassing issues such as changing social, physical and natural environments, housing, rapid technological change, cultural diversity and migration. Research in this area could investigate the changing roles of the state, councils, healthcare providers, communities, families and individuals and their contribution to mental health problems or wellbeing. Integrated understanding of the role of wider services and sectors, such as ecosystem services, green infrastructure, cultural and recreational services, sport and arts, education, the workplace and criminal justice could also be considered. Understanding the potential benefits of workplace and school environments being able to identify early pre-clinical risks for developing mental health conditions is important, as is the inclusion of mixed interventions. This area also includes the investigation of perceptions of mental health and wellbeing by the media, the public and policy. This could tackle problems of included or excluded 'publics', as well as vulnerable and hard to reach groups and their access to services.

4. Living with mental health problems

The purpose of this research area is to improve understanding of an individual's response, and adaptation to living with mental health problems.

Research could include looking beyond the individual to the families, communities and societies that surround them, and the processes of change within wider environments, institutions and cultures, which may make it easier or harder to live with mental illness. Research could investigate issues that affect an individual's decision to seek help for a condition, also encompassing related matters of trust and privacy. It could include consideration of the wider impact of groups that either hold, or are victim to, stigmatising attitudes, and those individuals and groups that may be more resilient. This area would take into account recovery, resilience and self-management that draw on different medical, social and environmental approaches, as well as issues of isolation, loneliness, and identity. Research could seek to improve understanding of an individual's mental health condition and behaviour, and lifestyle and environmental changes to increase wellbeing, particularly for those with chronic mental health conditions. This could include issues of polypharmacy as well as the unintended consequences of interventions. Research could also consider the possible knock on effects of having mental health problems to other elements of a person's life, taking into account factors such as their employment, relationships with family, friends or carers, physical health, their diet, cultural participation and their inclusion within, or exclusion from, society.

Cross-cutting themes

Five cross-cutting themes have been identified that could apply across the boundaries of the four research areas. It is not envisaged that these themes would be considered individually, but that they highlight important areas that may be drawn out in any of the four research areas.

I. Effective intervention(s)

This theme focuses on effective interventions that consider the historical, biological, social, cultural, and environmental aspects of mental health and mental health problems. Drawing on knowledge from previous interventions, it encompasses the creation of new and more effective interventions and the improvement in delivery of existing ones, whether that is within clinical or community settings. Research could seek to understand the wider value of contributory mechanisms that link interventions to mental health outcomes. It could explore the value of 'co-creation' of interventions of various types with community groups and service users, and which interventions are appropriate for whom and when. The importance of 'safe' and 'targeted' intervention at the point of need could be investigated, along with research that looks at how to intervene at the earliest possible stage for those with pre-existing conditions to help prevent relapse/progression /deterioration. Research could give better evidence on different forms of intervention, including cultural, creative arts, social and physical activities, environmental interventions, how to enable inclusive participation, and also issues around transferability, sustainability, scalability and interactions between different forms of interventions.

2. Technology and data

This cross-cutting theme includes the creation, linkage and utilisation of data sets and existing records, including big data, as well as the development of novel ways to collect data. It could also cover the use and development of technology, including wearable technologies, apps, robotics, artificial intelligence and virtual reality. Collaborations with the relevant industry sectors would be valuable in this area. Investigation into the acceptability and accessibility of technology across age spans and social groups (children, elderly, under-served groups, physically challenged, etc.) could be included. Research might encompass trust in technology and technological advances from individuals, healthcare professionals and the public more generally, and address associated issues around privacy, security and ethics in relation to technology. It may address issues around 'safe' technological intervention at the point of need that can be based on user engagement and co-design. Research could investigate the potential of using technology to aid in the monitoring of interventions, assist in the identification of potential lapses in health, and provide information that could help get a patient back on track, for example through self-management tools. In addition, it could acknowledge the possible negatives of technology and its potential to exclude certain groups and individuals.

3. Lifestyle and behaviour

This cross-cutting theme could include investigation into various elements of an individual or a population's lifestyle that could affect their mental health and wellbeing both positively or negatively. This could include consideration of behaviours of the individual, diverse communities, the public, the media, healthcare professionals and local authorities in effecting changes to the mental health and wellbeing of individuals. It includes looking at the biological, social, cultural and environmental aspects of lifestyle factors and behaviours and their contribution to mental health or mental health problems, or as a factor in recovery, or the long term management of conditions.

4. Inequalities

This cross-cutting theme requires investigation of how mental health affects different groups, interactions with wider inequalities in society and how to better address the needs of underserved groups, as well as inequalities in the status of mental health research. This could include issues of access to research and the opportunity to be involved in its co-production, or as a participant within a study. Research could consider the difference in determinants for mental health problems amongst different groups and how inequalities can affect access to, and experience of, high quality mental health care provision. These inequalities include, but are not limited to, issues around gender, race, poverty, sexuality, age, educational attainment, ethnicity, faith, immigration and disability.

5. Empowerment, ethics, confidentiality and trust

This theme could consider the importance of 'voice' within research and practice from the outset and the involvement of service users and of those with lived experience of mental

health conditions. Research may cover how new technology can help empower individuals to manage their own mental health condition(s), and how to address potential challenges that can emerge, for example around individual insight into their own condition, protection of individuals affected by mental health problems and respect for a person's decision-making. It could include investigation into the roles and responsibilities of institutions in this empowering process. It could also study the impact of genetic and biological advances on patient and wider public understanding, and what should and needs to be communicated to individuals as a result.

Collaboration

In order to deliver successful cross-disciplinary research in the field of mental health, collaboration and involvement with service users and people with lived experience of mental health problems should be included from the outset and planning stage of a project. Time should be taken to establish meaningful engagement with service users and professionals. Patient and public involvement is crucial to deliver high quality research that can have an impact on the community that it would ultimately benefit.

The development of innovative treatments and ways of capturing relevant information to monitor for clinically relevant signs and symptoms will require cross-disciplinary partnerships between industry, academia, patients and the NHS. Interventions may be psychological/behavioural, pharmacological or even computer-/app-based. Their development and refinement will require close working of researchers from a wide range of disciplines with the relevant industry sectors, service providers and patients themselves, to ensure acceptability, clinical utility, and integration into effective care pathways.

Funding opportunities

The Research Councils regularly co-fund proposals through their respective standard grants routes and actively encourage cross-disciplinary research. Prior to submission applicants are strongly encouraged to contact the Research Councils through the remit query system with an outline of their proposed project. This will allow the Research Councils to discuss to which Council the full proposal should be submitted. The lead Research Council will seek agreement to co-fund a proposal from other relevant Research Councils, subject to quality and the assessment process for that scheme, which may also include securing suggestions for peer reviewers from other Research Councils. Remit query contact details and further information regarding the cross-council funding agreement can be found [here](#) on the Research Councils UK website.

Related activities

As mentioned earlier in the document, we acknowledge that there is already a great deal of activity happening in this space which is led by other organisations and well as the Research Councils. This section highlights some of this work, but is not intended to be exhaustive.

In 2016, an independent NHS England Mental Health Taskforce published a report entitled “Five Year Forward View for Mental Health”, which contained a recommendation that the Department of Health (DH) should publish a 10-year strategy for mental health research⁵. Several of the Research Councils are members of the steering committee for the development of this 10 year research strategy, which is likely to be published in autumn 2017. This UK strategy will align with the overarching priorities agreed by the Roadmap for Mental Health Research in Europe (ROAMER), which brought together a wide range of stakeholders to identify gaps and set priorities in mental health research in Europe.⁶

MRC

In April 2017 the MRC launched their “Strategy for lifelong mental health research”:-

<https://www.mrc.ac.uk/documents/pdf/strategy-for-lifelong-mental-health-research/>

EPSRC

The EPSRC funded NewMind network explores the potential for technology to transform the management and treatment of mental health conditions. It does this by focussing on four main areas: Mood and Affective Disorders, Serious Mental Illness, Dementia, and Developmental Disorders. Through a series of workshops the network created the NewMind Research roadmap:

<http://www.newmindnetwork.org.uk/media/1399/newmind-research-roadmap-final.pdf>

Innovate UK

Innovate UK is the UK’s Innovation Agency and the prime channel through which the Government incentivises innovation in business. Innovate UK works with people, companies and partner organisations to find and drive the science and technology innovations that will grow the UK economy. Innovate UK supports mental health projects through a variety of different mechanisms such as the Biomedical Catalyst programme of funding, and through priority areas including precision medicine and digital health. Their latest funding schemes can be found at the link below:

<https://www.gov.uk/government/organisations/innovate-uk>

NIHR

There are a number of different funding opportunities to be aware of through the NIHR, some of which (including HTA, HS&DR, PHRP and EME) are available on a UK-wide basis. Details of all NIHR schemes can be found at the link below:

<https://www.nihr.ac.uk/funding-and-support/funding-for-research-studies/funding-programmes/>

⁵ <https://www.england.nhs.uk/wp-content/uploads/2016/02/Mental-Health-Taskforce-FYFV-final.pdf>

⁶ Wykes et al. (2015) Mental health research priorities for Europe, *Lancet Psychiatry*, 2, 11, 1036-1042.

The eligibility of researchers in Northern Ireland, Scotland and Wales to lead applications submitted to NIHR programmes is described at:

<http://www.cso.scot.nhs.uk/funding-2/>

<https://www.healthandcareresearch.gov.wales/funding/partner-funding-schemes/>

<http://www.research.hscni.net/national-institute-health-research-nihr-evaluation-trials-and-studies-coordinating-centre>

Scottish Government Chief Scientist Office

Research funding schemes run by the Scottish Government Chief Scientist Office accept proposals in the area of mental health and details can be found here:

<http://www.cso.scot.nhs.uk/funding-2/>

The NHS Research Scotland Mental Health Research Network supports clinical research in the area of mental health:

<http://www.nhsresearchscotland.org.uk/research-areas/mental-health>

Health and Care Research Wales

Health and Care Research Wales fund the National Centre for Mental Health. Its work spans the translational spectrum and it now incorporates the more clinically and applied work of what was previously the Mental Health Registered Research Group. There are strong opportunities here for collaborative activity and infrastructure support, research prioritisation and grant capture. Further details can be found at the link below:

<https://www.healthandcareresearch.gov.wales/national-centre-for-mental-health/>

Contacts

Research Council's relevant grants competitions and the contact details for mental health teams are listed below:

AHRC

Research Grants – Standard Route:

<http://www.ahrc.ac.uk/funding/opportunities/current/researchgrantsstandardroute/>

James Dracott, Strategy and Development Manager

Email: j.dracott@ahrc.ac.uk

Telephone: (01793) 416017

BBSRC

Responsive mode applications:

<http://www.bbsrc.ac.uk/funding/grants/>

bfh@bbsrc.ac.uk

ESRC

Research Grants:

<http://www.esrc.ac.uk/funding/funding-opportunities/research-grants/>

Secondary Data Analysis Initiative:

<http://www.esrc.ac.uk/funding/funding-opportunities/secondary-data-analysis-initiative-sdai-open-call/>

New Investigator:

<http://www.esrc.ac.uk/funding/funding-opportunities/new-investigator-grants/>

mentalhealth@esrc.ac.uk

EPSRC

Standard Grant scheme:

<https://www.epsrc.ac.uk/funding/howtoapply/routes/standardresearch/>

Healthcare open call:

<https://www.epsrc.ac.uk/files/funding/calls/2016/htinvestigatorledresearchprojects/>

healthcare@epsrc.ac.uk

MRC

Research Grants:

<https://www.mrc.ac.uk/funding/how-we-fund-research/research-grant/>

<https://www.mrc.ac.uk/funding/science-areas/neurosciences-mental-health/mental-health-research/>

nmhb@headoffice.mrc.ac.uk

NERC

Standard Grants:

<http://www.nerc.ac.uk/funding/available/researchgrants/standard/>

Caroline Culshaw, Head of Research - Environment and Health

Email: ccul@nerc.ac.uk

Telephone: +44 (0)1793 418025

STFC

21st Century Challenge / Global Challenge Funding:

<https://www.stfc.ac.uk/funding/research-grants/funding-opportunities/global-challenge-schemes/>

Barbara Camanzi, Healthcare Lead

Email: barbara.camanzi@stfc.ac.uk

Telephone: +44 (0)1235 445725

Innovate UK

Latest Funding Competitions:

<https://www.gov.uk/government/organisations/innovate-uk>

Penny Wilson Senior Specialist – Antimicrobial Resistance & Vaccines

Email: Penny.Wilson@innovateuk.gov.uk

Phone: +441793361334