

Funding opportunity

MRC Centre of Research Excellence (CoRE): round 1

Opportunity status:	Closed
Funders:	Medical Research Council (MRC)
Co-funders:	British Heart Foundation (BHF) for the advanced therapeutics theme
Funding type:	Grant
Total fund:	£75,000,000
Publication date:	27 September 2022
Opening date:	21 November 2022 9:00am UK time
Closing date:	21 February 2023 4:00pm UK time

Timeline

- Outline opening date
- Outline closing date
- March 2023
 Shortlisting decision meeting
- **O** April 2023

Apply for MRC CoRE funding to tackle complex and interdisciplinary health challenges.

You must:

- be based at an organisation eligible for MRC funding
- meet individual eligibility requirements

MRC CoREs will be funded for up to 14 years. Your award will initially last for 7 years, with a further 7 years based on successful review.

You can request up to £21 million at 80% full economic cost for the first 7 years.

This is an annual opportunity, initially focused on specified themes.

We expect to make up to 2 of these awards each year. Exceptionally, a third award may be made in partnership with BHF in round 1.

Who can apply

Before applying to MRC for funding, please check the following:

- the <u>MRC eligibility guidance for applicants</u>
- the <u>eligibility of your organisation</u>
- your eligibility as an individual
- the MRC guidance for applicants, which sets out the MRC funding rules

Eligibility

To be eligible to apply for MRC CoRE funding you must:

 be a researcher or technologist employed by an <u>eligible research</u> <u>organisation</u> Informed of outline decision (including feedback)

May 2023

Invited full proposal opening date (successful outline applicants)

September 2023
Invited full proposal closing date

January 2024
Interview panel (decision meeting)

March 2024
Informed of full application decision (including feedback)

2023 timing to be confirmed Future round open for outline applications

Guidance on good research

Good research resource hub

- have at least a postgraduate degree, although we expect most applicants to have a PhD or medical degree and meet <u>individual eligibility</u> <u>requirements</u>
- show that you will direct the project and be actively engaged in the work
- have the relevant expertise and experience to lead an MRC CoRE and its culture
- focus your application on tackling complex and multi or interdisciplinary health challenges

Applications can be from a single eligible organisation or a partnership of organisations.

When there are 2 or more eligible organisations involved, for administrative purposes it is necessary to identify a single principal investigator who must be affiliated with the lead research organisation. However, the balance of activity and leadership across the partner organisations can be equally shared if desirable. What is critical is for the approach to leadership and decision making across multiple organisations to be clearly specified.

Where appropriate, we encourage you to include 1 or more project partners in your application, from industry, charities or the wider third sector.

At the outline stage we expect the applicants to be the proposed MRC CoRE leadership team.

While international organisations cannot lead an application, it is possible for an international researcher to apply as part of the leadership team, as a co-investigator. We expect international co-investigators to offer expertise or facilities not available in the UK and to provide clear indicators of commitment to the MRC CoRE.

Equality, diversity and inclusion (EDI)

MRC is committed to achieving equality of opportunity for all funding applicants. We encourage applications from a diverse range of researchers and technologists.

We support people to work in a way that suits their personal circumstances. This includes:

- career breaks
- support for people with caring responsibilities
- flexible working
- alternative working patterns

Read MRC's <u>guidance on flexible working and career breaks</u>. Applicants can also find out more about <u>MRC's current EDI initiatives</u> and <u>EDI at UK</u> Research and Innovation.

Diversity is one of the core MRC values and we are committed to creating inclusive environments that encourage excellence in research through good equalities practice. We strongly encourage applications from currently underrepresented groups including female and ethnic minority researchers, and researchers with disabilities or long-term conditions. We expect MRC CoREs and their leadership to be diverse. We encourage the leadership model to be inclusive, diverse, and creative, with rotation or succession of positions as appropriate.

Organisations that are not eligible to apply

These organisations cannot apply to host an MRC CoRE, but can participate as **project partners** on an application led by an eligible UK organisation:

- businesses
- international research organisations

What we're looking for

We are looking for challenge-led applications to create new MRC CoREs that focus on distinct, disruptive, multidisciplinary, interdisciplinary or both activity with the potential to prove transformative to biomedical research, health research or both within 14 years. They should be aligned to the MRC mission.

These major investments should be outward facing, harnessing the best talent in the UK to deliver upon their proposed vision and providing a stimulating environment to train the next generation of researchers and technologists.

Applications can be from a single research organisation or in partnership across multiple organisations. Applications may include project partners.

What types of challenges should MRC CoREs tackle?

MRC CoREs will support bold and ambitious research focused on a defined challenge. Tackling such challenges will be transformational to biomedical research, health research or both and will enhance approaches to the prevention, early detection, diagnosis, and treatment of disease, improving health and wellbeing for all. MRC CoREs will be beacons of excellence in research culture, equality, diversity, and inclusion, leadership models, and innovation.

MRC CoRE challenges will:

- be bold, ambitious, and innovative, and address a gap or opportunity which is not being adequately addressed elsewhere
- address substantial unmet needs in understanding or modifying human health and disease

- have major strategic objectives achievable within the 14-year timeframe which, if achieved, will transform the research field or area of health research
- be best pursued through coordinated and flexible, major long-term funding

MRC CoRE challenges will be achieved through:

- fostering innovation and engagement to establish the capability and capacity to place the UK at the international forefront of impactful health research
- harnessing and networking the best expertise in the UK, to bring together creative and diverse approaches for cross-sectoral and multi or interdisciplinary working
- research that drives breakthrough advances and addresses specific bottlenecks through knowledge generation, technological or methodological innovation, with clear translational relevance

For round 1, applications are welcomed to address challenges under the following themes, and may address all or part of the MRC and any joint funders remit, including discovery, understanding mechanism, and development of concepts or interventions for prevention or treatment:

- mental health
- multimorbidity
- advanced therapeutics

Outside of these themes, applications aligned with MRC strategic delivery
plan
priorities that address major challenges will be considered exceptionally, but only if they have a particular strategic and time-sensitive requirement or take advantage of a time-sensitive opportunity. Applicants considering submitting outside a theme must contact us at core@mrc.ukri.org before applying to assess your idea's suitability.

Your application should be positioned in the context of ongoing investments across MRC and the broader landscape, synergising with or capitalising upon existing knowledge and investments where relevant. An MRC CoRE should not focus on open ended discovery research programmes but should pursue a compelling vision around specific questions of importance or critical knowledge gaps.

Applications that incorporate cross-cutting approaches and novel ways of working are encouraged. How is what you are proposing different to what has gone before? You should consider how to achieve equity of access to resulting knowledge, technologies, interventions and therapies.

Round 1 themes

Mental health

1 in 6 adults is affected by mental ill-health and this has been rising in recent years. Mental ill-health is now the single largest driver of disability in the UK with the mortality gap between those with a serious mental illness and the general population widening.

Despite the burden caused by mental health problems, research to address them is currently constrained by factors including heterogeneity within (and overlap across) diagnoses, poor mechanistic understanding of mental disorders, variability in measures used and a lack of objective biomarkers. We are looking for MRC CoRE applications that aim to tackle research challenges that currently limit progress and create new opportunities to treat and prevent mental ill-health.

As examples, challenges to address could include:

taking a holistic approach through identifying the biological, social, and environmental risk factors and interlinkages or co-dependencies for mental health disorders, through focus on understanding the specific mechanisms of development and progression of mental health problems at key transition points across the life course

- strengthening the prevention of mental health disorders that start in childhood and adolescence by incorporating integrated approaches linking mind-body-brain across the biological and social spectrum that could lead to new understanding of the precursors of illness in early life
- discovery of novel targets, mechanisms and markers to whose exploitation could transform early detection, monitoring or treatment for mental health disorders
- multidisciplinary and cross-sectoral approaches, across diagnostic categories which consider the mind and body through the life course to deliver novel or more effectively personalised therapeutic and innovative non-pharmacological interventions

Multimorbidity

Multimorbidity is the coexistence of 2 or more chronic diseases in the same person at the same time. The UK has an ageing population with a growing gap between life span and healthy life expectancy. Additionally, it is estimated that the gap in healthy life expectancy between the richest and poorest in UK society is as high as 15 years. This reflects the greater prevalence of chronic health conditions in disadvantaged groups, for example in older people, minority and less wealthy communities.

Therefore, an increasing number of people are living with multimorbidity. We are looking for MRC CoRE applications that will make a critical difference in improving health equity and reducing the length of time spent in ill health across all sectors of society.

As examples, challenges to address could include:

 understanding the biological pathways and aetiology relevant to the development of multimorbidities, and the precursors of illness in early life and disease modifiers in pre-symptomatic individuals; building on research that identifies disease clusters, to understand why they occur, and identify targets for novel interventions

- mechanistic research to determine the intrinsic and extrinsic influences across the life course that drive multimorbidity, using appropriately validated in vivo, in silico and in vitro models, including human experimental approaches
- improving understanding of health outcomes, including the identification of markers or measures of at-risk populations for prevention or early detection and the development and pre-clinical validation of interventions
- whole system approaches, that take account of the wider socio-economic, behavioural, cultural, and environmental determinants of mental and physical health (including health inequality) and assess the consequences of treating 1 condition on the outcomes for another comorbidity

Advanced therapeutics

Advanced therapies span cell, gene and synthetic approaches with the potential to provide transformative treatment options for a range of unmet clinical needs. This includes, but is not limited to cell or tissue therapies, integrating synthetic active components, novel methods for gene editing and new nanomedicine approaches.

Significant prior investment in this field has established a thriving UK ecosystem in this space, supporting underpinning capabilities as well as a growing portfolio of innovative therapeutic options for patients. Recognising the growing maturity of this field, it is timely to consider how further investment can continue to drive innovation and address major remaining challenges and barriers, enabling future development and translation of the most promising approaches.

We are looking for MRC CoRE applications that aim to drive a greater mechanistic understanding and accelerate the translation of transformative advanced therapies to the clinic. Opportunities to interface with industry and the engineering and physical sciences are strongly encouraged.

As examples, challenges to address could include:

- research and development for improved tissue and cell targeting, intracellular delivery and novel delivery mechanisms
- development, validation and provision to the wider community of relevant cellular or organoid models to underpin pre-clinical development of novel advanced therapies
- using a whole body approach to better understand mechanisms of action, toxicity or both and how to improve the effectiveness and utility of advanced therapeutics and technologies currently in development
- understanding and addressing the biological mechanisms governing the immunogenicity of, and immunological response to, advanced therapies

Exceptionally, in round 1, the BHF and MRC may co-fund an additional CoRE in advanced cardiovascular therapeutics focused on cardiovascular regeneration and repair.

Number of applications

Organisations are encouraged to prioritise their involvement in applications and to realistically restrict the number submitted, considering the exceptional potential that must be demonstrated to be invited to submit a full MRC CoRE application and the host organisation commitment that is required.

An organisation may lead up to 3 outline applications in round 1, one in each theme. An additional application is possible where organisations wish to consider leading an additional application for a BHF-MRC CoRE in advanced cardiovascular therapeutics.

In the exceptional situation where an 'outside theme' application is approved for submission based on a time-limited and strategic opportunity, leadership would be at the expense of 1 permitted theme application.

Applications from existing MRC units may be submitted in addition to other applications from the organisation and do not count towards the 3 applications guidance.

Organisations may freely participate as a partner in applications led from other organisations.

Expectations for research culture

MRC CoREs are expected to adopt and maintain the highest standards in the way research is conducted and openly communicated and develop and nurture career paths and a training environment which supports a positive research culture.

MRC and UK Research and Innovation (UKRI) policies, as well as crosssector concordats and joint statements, emphasise 3 key principles which underpin a positive research culture:

- research is conducted with integrity, centred on reproducibility, responsible innovation, collaboration, interdisciplinarity and multidisciplinarity
- research is communicated to maximise impact, built on transparency and openness, and partnership with the public
- career paths and training environment, are provided to recognise a diversity of talents, skills and outputs, and embrace team science as the way of working

These principles should be reflected in your application, which must identify how you will build on and enhance your organisations' research culture activities, plans or strategies. We also expect that the following are considered.

Leadership

A creative approach to leadership which includes:

- a leadership team with clear roles and responsibilities (this may include a chief operating officer or equivalent), potential leadership rotation, and clear succession plans
- commitment to building and sustaining a positive research culture, based on values-driven leadership open to listening to ideas
- actively supporting career development paths and training environment including through mentoring, supervision, pastoral care

Team science

Embracing and realising the benefits of team science to:

- build and strengthen effective collaboration across research teams, drawing on the whole talent pipeline to promote interdisciplinarity and multidisciplinarity
- generate an environment in which different disciplines come together and establish common understanding and effective communication
- actively pursue diversity of collaborations beyond the MRC CoRE and across sectors, to foster innovative approaches to the challenge and cross training

Good practice or open research

Promoting good practice and open research in all aspects:

- demonstrating best research practice (such as replacement, reduction and refinement (3Rs), reproducibility)
- adoption of open research practices as the default way of working
- embedding diversity and inclusion in experimental design, and across all research activities
- integrating public involvement and engagement into your research

Reward and incentives

Implementing, and developing if necessary:

- fair and transparent methods to assess performance, including being committed to the San Francisco Declaration on Research Assessment (DORA) principles
- standard practices for acknowledgement that recognise and celebrate all contributions within a team science environment
- support an open environment where lessons learned are shared and everyone is incentivised to strive for improvement, including relevant training and learning for all staff

Physical environment and infrastructure

Planning the use of space and support staff to:

- facilitate and foster opportunities for interaction and outreach, including beyond the MRC CoRE and across sectors
- promote the sharing of facilities and specialist equipment
- adopt relevant tools, such as electronic lab books, data repository and platforms to facilitate collaboration across geographical separate sites

Equality, diversity and inclusion (EDI) of the workforce

You will need to provide assurance, alongside that to be provided by the host organisations that your policies and practices are aligned with our EDI strategies and considerations for EDI are integrated in the governance of the MRC CoRE.

Expectations for training and careers

Research challenges cannot be addressed without outstanding people to deliver and sustain the proposed activities. These investments are expected to build research capacity in their specialist area, by accessing a combination of funding opportunities through established career schemes, and corefunded approaches where there is a clearly defined gap to fill.

We are looking for a training environment that will equip researchers with the tools needed to carry out world leading research and effectively transition between career stages.

We encourage applicants to consider how they will use the security offered by this long-term funding to address training and capacity building needs specific to the challenge area, in line with the following principles:

- provision of meaningful support and recognition for interdisciplinary and multidisciplinary research and for the range of people, skills and career pathways required to deliver an innovative training agenda
- an emphasis on sharing skills and expertise, such as the sharing of good practice, access to specialist expertise and equipment, and support for capacity building in the UK and beyond, in recognition of the MRC CoRE as a national asset
- robust management and governance structures for training activities, including a named training lead responsible and accountable for training and careers activities
- provision of initiatives promoting cross-sector porosity to develop a highly skilled workforce who can bridge scientific disciplines, cultures and sectors

 alignment and integration of training and career development support with the host organisations, improving career stability and addressing barriers to retention and progression

We also expect that the following considerations for different members of the research and innovation community are addressed.

Early career researchers

This includes:

- targeted and tailored support enabling key career transitions and onward progression
- strong host support for applicants to national fellowship and funding streams for early career researchers, including those from MRC and UKRI
- alignment with the principles of <u>The Concordat to Support the Career</u>
 <u>Development of Researchers</u>

Technologists

This includes:

- recognition of the key role that technologists and staff scientists play in both the delivery of high-quality research outputs and the training and upskilling of other researchers
- consideration for how long-term funding will be effectively used to support data scientists, research technologists and other technical and professional staff and generate sustainable career progression beyond the lifetime of the MRC CoRE
- provision of structures and processes that ensure the visibility, recognition, career development and sustainability for technologists in line with the Technician Commitment

Clinical academic researchers

This includes:

- opportunities to enable clinicians (doctors, nurses, midwives, pharmacists, allied health professionals and healthcare scientists) to develop their research careers, recognising their pivotal role in the translation of research into changes in clinical practice and improved patient benefit
- the provision of support and mentorship for both the clinical and academic strands of their career progression
- strong host support for applicants to national fellowship and funding streams for clinical academics, including those from MRC and UKRI
- alignment with the <u>UK clinical academic training in medicine and dentistry: principles and obligations</u>

Doctoral training

MRC's vision for doctoral training is to support high-quality doctoral training programmes that take a student-centred approach, focusing on scientific excellence, positive research culture and wider training opportunities.

When requesting funding for doctoral studentships, you will need to demonstrate the national need for doctoral level training in this challenge area, and that there are no equivalent UK training programmes.

You will also need to demonstrate:

- integration with local MRC Doctoral Training Partnerships (or equivalent) to ensure a consistent national standard for doctoral training that takes a student-centred approach, focusing on scientific excellence, positive research culture and wider training opportunities
- where access to local MRC Doctoral Partnerships is not available, applicants must demonstrate their capacity to develop an equivalent

framework that builds on the principles of doctoral training programmes to ensure comparable levels of provision

the number of studentships requested should be proportional to the supervisory capacity of the MRC CoRE. This would typically amount to the provision of up to two studentships each year across the duration of the award

Expectations for environmental sustainability

MRC CoREs are expected to consider and promote environmental sustainability in their research practices and to adopt relevant standards. You will have an environmental sustainability strategy which aligns with the host research organisation sustainability plan and policies.

In the first instance you should aim to comply with the <u>greening government</u> commitments 2021 to 2025.

Support from research organisations

Considerable and clearly defined support from the research organisation is essential to a successful application and will be an equal part of the assessment of applications for MRC and BHF-MRC-funded CoREs. We expect research organisations to provide:

- laboratory space
- access to facilities and equipment
- access to necessary digital support infrastructure
- support to manage estates
- human resources services
- underpinning of key staff positions
- access to additional sources of funding and support available to other researchers across the research organisations

Support from MRC

We will support MRC CoREs for up to 14 years. The initial award will be for 7 years with a review point in year 6 to approve release of the second period of funding.

The MRC budget provided to an MRC CoRE is typically £3 million for each year.

You can request up to £21 million at 80% full economic cost for the first 7 years.

Any identified exceptions will be funded at 100%.

UKRI indexation will be applied at the time of award. We will not supplement awards for inflation after they have started.

In the case of a BHF-MRC joint CoRE, the same total funding will be available with the BHF contribution funding the direct costs of research.

We will provide all the awarded funding to the lead organisation, to manage and distribute accordingly. Awards spanning multiple organisations will require a clear plan addressing award governance and management to ensure funds can be used flexibly to support changes in research delivery and opportunity across the course of the award.

We will support a limited number of interlinked research activities or themes, with funding focused on key strategic objectives, achievable during the 14-year lifespan. The MRC CoRE award should be founded upon existing grants at the point of establishment and provide a platform to win additional grant support from all available funders. A minimum expectation is for doubling of the MRC CoRE associated budget through external funding by the mid-term point (year 7).

What we will fund

You can request funding for costs such as:

- directly allocated contributions to salaries of the leadership team and other established researchers, usually between 15 to 30% of their time, in line with their research contribution
- directly incurred salaries of research staff, technician and support staff, where there is a clear justification for their critical role in delivering the MRC CoRE
- recruitment of new researchers critical to addressing the research challenge, for example those switching disciplines or sectors, or from overseas, where 100% salary may be requested for up to 3 years, before other grant support is established
- research consumables
- if required, up to £500,000 start-up costs for routine equipment (items over £10,000 that constitute normal elements of a well-founded laboratory); all items will have to be fully justified at the full application stage and may not include generic departmental equipment
- by exception and with the permission of MRC head office, mid-range or large equipment critical to establish platforms or facilities. However, it is anticipated for most mid-range equipment MRC CoREs will apply to the MRC annual mid-range equipment opportunity in competition with the wider community
- travel costs
- data preservation, data sharing and dissemination costs
- costs for innovative training and capacity building required to address the research challenge, when not available elsewhere
- studentships (an exception funded at 100%), support may typically be requested for up to 2 studentships each year across the duration of the award. Numbers should not exceed the supervisory capacity of the MRC CoRE. See <u>UKRI stipend and fees</u>

- technology and data platforms to provide accessible facilities and capability essential to the mission and to promote open-science, when not available elsewhere
- experimental medicine studies
- initiatives to underpin or strengthen a positive research culture
- external stakeholder activities including public engagement and involvement
- initiatives to improve environmental sustainability
- estates and indirect costs
- directly incurred costs for international partners (an exception funded at 100%) may be requested, although we expect most costs to be incurred by UK organisations

The leadership team will have flexibility over use of most of the funding within the total awarded, especially considering the award duration. Please note there are constraints on the use of capital equipment funding.

We do not expect exact costs to be known at the time of outline application and specified. Flexible funds can be requested and used to develop activities and support new opportunities but must be appropriately justified with clear plans for financial management.

What we will not fund

We will not fund:

- open access costs: these must be covered by the UKRI open access grant
- training and capacity building that can be accessed through existing funding routes, such as existing doctoral training programmes, MRC or UKRI fellowships
- mid-range equipment other than agreed and assessed as necessary as part of the start-up requirements. All other mid-range equipment must be

requested through the annual MRC equipment funding opportunity or other funding routes

- routine equipment (that constitutes normal elements of a well-founded laboratory) over and above the start-up fund of up to £500,000. MRC has other arrangements to modestly support ongoing routine equipment needs of its major investments
- additional or duplicative equipment that is already part of the existing research environment of the applicants
- generic computing platforms for data analysis or data storage, which should be part of wider research organisation data management activities
- buildings and other types of infrastructures
- clinical trials or longitudinal population studies, which have specific governance requirements and for which alternative funding routes are available. MRC CoREs may utilise existing cohorts or clinical trials funded through other routes

How to apply

Before you apply we welcome notification about applications in preparation, you can send a brief summary of the research challenge and applying organisation to core@mrc.ukri.org This is not a requirement.

You must apply to the outline application stage using the <u>Joint Electronic</u> <u>Submission (Je-S) system</u>. MRC will advise successful outline applicants how to apply to the full application stage.

You can find advice on completing your Je-S outline application within the <u>Je-S handbook</u>. Should you encounter any Je-S issues, please contact the <u>Je-S Helpdesk</u> in the first instance.

For opportunity specific guidance regarding the information MRC require within your application, please see further below.

We recommend you start your application early.

Your host organisation will also be able to provide advice and guidance. We recommend plans to apply to the MRC CoRE opportunity are discussed with your research office and research organisation senior management.

Submitting your application

Before starting an application, you will need to log in or create an account in Je-S.

When applying:

- 1. Select 'documents', then 'new document'.
- 2. Select 'call search'.
- 3. To find the opportunity, search for: Centre of Research Excellence R1 outline Feb 2023.

This will populate:

council: MRC

document type: Outline proposal

scheme: Standard outline

call/type/mode: Centre of Research Excellence R1 outline Feb 2023

Once you have completed your application, make sure you 'submit document' to your research office for checking and approval.

You can save completed details in Je-S at any time and return to continue your application later.

Deadline

MRC must receive your outline application by 4pm on 21 February 2023.

You will not be able to apply after this time. Please leave enough time for your proposal to pass through your organisation's Je-S submission route before this date.

You should ensure you are aware of and follow any internal institutional deadlines that may be in place.

What to include within your outline application

You must follow the below guidance before accessing Je-S.

Je-S application

Project details section

Search the database to add the lead research organisation and department, where the funded award will be held.

Project title

The title should be as informative as possible, capturing the essence of the research challenge. It should not exceed 150 characters. Avoid using specialist characters and symbols.

Start date and duration

The MRC CoRE start date can be from 1 April 2024 to 1 September 2024.

Applicants are advised to enter the duration of the project as 168 months (14 years).

This reflects the maximum duration of a MRC CoRE, note that you will be asked to indicate resources for the first funding period of 7 years.

Investigators

All applicants eligible to be included as part of the proposed leadership team, should be added to the Je-S application as an investigator.

If the application is for an MRC CoRE to be delivered in partnership by 2 or more eligible organisations, then the principal investigator must be from the organisation which will lead the partnership. All host organisations must be represented by an eligible co-investigator.

Each member of the leadership team will need an active Je-S account at the required level, to allow their inclusion as an investigator. The individual who will act as the grant holder with responsibilities to MRC at the start of the MRC CoRE award should be included within the application as principal investigator, this is for administrative purposes. Other leadership team members should be the application co-investigators (including international researchers if applicable).

The leadership team members' application roles should not imply relative status or influence the leadership model which is for the applicants to propose.

These roles do not limit who might be recruited to successful MRC CoRE teams. We will request more details of the research teams in the full application.

If you are a researcher based in the UK, an overseas MRC unit or an international researcher who has not created a Je-S account, navigate to the <u>Je-S home page</u> and select <u>'create an account'</u>.

Principal investigator

Search the Je-S database to add the principal investigator and select 'save'.

Co-investigator

Search the Je-S database to add all other members of the leadership team as co-investigator and select 'save'. Repeat process to add all new co-investigators (including any international researchers assisting with the leadership of the MRC CoRE).

Objectives

The objectives of the proposed MRC CoRE should be listed in order of priority. Objectives can be adjusted between outline and full application stages.

Resource summary

The outline resource summary should be the estimated funding request for the first 7 years.

Only indicative summary costs are requested at outline stage, there will be flexibility to adjust the costs requested at full application stage as needed within the total funding envelope available.

If you are proposing doctoral training, please indicate the estimated cost of studentships within the 'exceptions' box.

If project partners will be involved, indicate an estimate of the contributions. Otherwise indicate 0, in each cost box provided.

Summary

Describe the research challenge in simple terms.

Project partners

Details should be given of project partners. An organisation should only be named as a project partner if it is providing specific contributions (either direct or indirect).

If your application involves one or more industrial partners, you should review the information published within the <u>MRC Industry collaboration framework</u> (ICF) to decide if you should submit your application under the ICF.

Grant type

Select the option to indicate research grant and save. Please note this indication is only for internal requirements, this does not indicate MRC consider this application a research grant.

All attachments must use a minimum font size of 11 point (Arial or equivalent only) and margins of at least 2cm.

Applications that do not include all the required attachments in the required format or add attachments not requested by MRC will be rejected.

Mandatory attachments

In addition to the Je-S application, your outline application must also include the following mandatory attachments:

- case for support, which must not exceed 6 pages
- leadership team resume for research and innovation (R4RI), which must not exceed 3 pages, a single attachment covering the entire team.
 Applicants should use the 'CV' Je-S attachment type
- research organisation support statement, which for single organisation applications must not exceed 2 pages. For applications from multiple organisations a joint statement is required and an additional page is

allowed for each additional organisation, so for 2 organisations up to 3 pages, 3 organisations 4 pages. You should upload this statement to Je-S using the 'host organisation statement'

Case for support

The case for support is a single attachment up to 6 pages, the information provided will be used to assess research challenge and research environment.

The case for support should convince us of the importance and boldness of the research challenge and your plan over 14 years to do things differently to tackle it. You should articulate a compelling vision around specific questions or knowledge gaps and how these will be addressed.

You should ensure your challenge-led mission is positioned in the context of investments across UK Research and Innovation (UKRI). And you should also describe why long-term MRC CoRE funding is needed to achieve the strategic objectives set for the challenge chosen.

In the case for support, you should answer the following questions.

- 1. Why is the research challenge critical and transformational?
- 2. Why hasn't the challenge been addressed before and why is an MRC CoRE the best way of tackling it?
- 3. How will you approach leading and delivering the MRC CoRE?
- 4. What will you achieve if you are successful and what impact could this have?

The answers to these questions should include outlines of your proposed approaches and strategies for:

leadership

- research culture
- training and careers
- environmental sustainability

Explain how you will achieve and continually strengthen a positive research culture, your innovative training strategy and how these align, and add value, to the research challenge. It is essential that you provide explicit information on your plans for the research environment, rather than play back our expectations.

If you plan to request support for doctoral training, you should justify this and indicate student numbers when answering question 3.

Leadership team R4RI

The leadership team R4RI will be used in the assessment of research delivery.

As part of the outline application the leadership team must submit a team R4RI of up to 3 pages. Read **general guidance on R4RI**. You should submit a single R4RI, not individual R4RIs for each team member. In this opportunity the team R4RI is used instead of individual traditional CVs, which are not allowed.

Please download and complete the R4RI template and attach to your application.

Download the R4RI template.

The team R4RI has been designed to capture the leadership team's collective capability to deliver, recognising the size and complexity of MRC CoREs.

If project partners will contribute to leadership, or individuals who would not have formal leadership roles in the MRC CoRE will make a significant

intellectual contribution to the research challenge, they can be included in the team R4RI.

One applicant may lead the writing of the team R4RI and coordinate input from the other team members. A table is included at the beginning of the template to allow you to refer to team members by their initials throughout the document.

We want you to articulate the team's experiences, contributions and complementary skills in 4 areas, which may have been obtained individually or collectively:

- module 1: contributions to the generation of new ideas, tools, methodologies or knowledge
- module 2: the development of others and maintenance of effective working relationships
- module 3: contributions to the wider research and innovation community
- module 4: contributions to broader research or innovation-users and audiences and towards wider societal benefit

The information provided across the 4 modules should demonstrate the capability of the team to lead the research challenge outlined in the case for support. The scope and structure of information provided within each module is flexible, up to the 3-page limit.

Teams should describe only a selection of their past contributions that best evidence their ability to deliver the proposed MRC CoRE. Individual's specific achievements can be fore-fronted where appropriate, especially if this is a new team, but together the contributions described across the modules should demonstrate the appropriateness of the leadership team as a collective whole.

As part of UKRI's commitment to support the recommendations and principles set out by the San Francisco Declaration on Research Assessment (DORA), please do not include metrics, such as journal impact factors.

The team R4RI is intended to be a retrospective document, outlining the team's past experience and achievements (individually or collectively) that demonstrate the capability to deliver the MRC CoRE. Forward plans for leadership of the MRC CoRE should be included in the outline case for support.

If you are invited to provide a full application this is likely to include an expanded team R4RI, which may be updated, especially if new team members are added.

Module 1: contributions to the generation of new ideas, tools, methodologies and knowledge

Outline how the team has contributed to the generation of new ideas, tools, methodologies or knowledge. The most relevant examples are likely to arise from recent research related to the proposed MRC CoRE.

Examples might include:

- notable contributions, findings and skills acquired from past research
- successes in developing and delivering large scale research challenges
- key outputs such as data sets, software, novel methodologies, research and policy publications

Module 2: the development of others and maintenance of effective working relationships

Outline how the team has contributed to the effective working of research teams and the development of others. Examples provided should evidence the team's collective capability to lead and manage the proposed MRC CoRE.

Examples might include:

- effective leadership and management of large-scale projects or teams
- provision of inclusive team development opportunities including training, rewards, recruitment strategies and mitigation of skill gaps
- strategic leadership in shaping the direction of a project, team or organisation
- management of complex multi-investigator or multisite projects

Module 3: contributions to the wider research and innovation community

Outline how the team has contributed to the wider research and innovation community.

Examples might include:

- contributions to open research, active sharing of knowledge and skills, community resources
- contributions to collaborations and networks, and other engagement across disciplines, institutions, or countries
- notable examples of influence or responsibility within the research community
- activities which have contributed to the improvement of research integrity or cultures, including equality, diversity and inclusion practices
- examples that show visionary strategic leadership in influencing a research agenda

Module 4: contributions to broader research or innovation-users and audiences, and towards wider social and economic benefit

Outline how the team has contributed to broader research or innovation-users and audiences and towards wider social and economic benefit.

Examples might include:

- contributions to policy development or public understanding
- successful exploitation of intellectual assets
- other impacts across research, policy, practice and business
- actions to ensure research reaches and influences relevant audiences

Additional information

If you wish it to be considered in the assessment, information relating to periods that may have impacted team members such as <u>career breaks</u>, <u>secondments</u>, <u>part time work or career disruptions</u> (such as those caused by the <u>COVID-19 pandemic</u> or otherwise) can be included. This is in addition to the 3-page limit.

The additional information you provide will be seen by the panel and reviewers, even if it references a sensitive issue. We encourage you to focus on how the issue has affected your career, rather than expanding on the issue itself.

Research organisation support statement

The support statement will be used in the assessment of research delivery and should be provided by an individual with oversight of the organisations research strategy, vice-chancellor research or equivalent.

If the application is for an MRC CoRE to be delivered in partnership, then all participating organisations must be co-signatories to the statement. When applying as a partnership you must explain how you plan to manage the partnership successfully.

In the statement, please outline your support for the MRC CoRE and how you will meet the MRC expectations for an MRC CoRE, such as:

- how the MRC CoRE aligns with host organisation strategies
- the support and facilities you will offer the MRC CoRE
- how you will operate the MRC CoRE and help it address its challenge
- how the MRC CoRE will be governed within your organisation or the partnership

Applications for a jointly funded BHF-MRC CoRE in advanced cardiovascular therapeutics will require the same level of research organisation support as MRC CoREs.

Optional attachments

Your outline application may also include the following optional attachments, you should use the 'other' attachment type.

This includes:

- image of proposed MRC CoRE structure or visual representation of challenge, which must not exceed 1 page
- justification for any mid-range or large equipment, which must not exceed 1 page. Only if you seek approval to request mid-range or large equipment critical to establish platforms or facilities at the MRC CoRE, outline the items and their estimated cost

Attachments not required

The following attachments are not required:

- project partner letters of support (they will be required at the full application stage)
- individual CVs and lists of publications
- a justification for resources attachments

 any other attachment document should not be used by applicants, unless specifically directed

Full invited application stage

Full MRC CoRE application requirements and guidance will be communicated to applicants successful at the outline stage.

How we will assess your application

Outline applications will be assessed by the <u>MRC major investments board</u>, supplemented with additional panellists drawn from the MRC boards and panels and internationally to provide expertise based on the themes of interest.

The assessment is designed to identify the outstanding outline applications that demonstrate clear potential to be the international centre of excellence in the challenge, or those of exceptional national strategic importance.

There are 3 assessment criteria at the outline stage.

Research challenge

This includes:

- critical or transformative research challenge in area of strategic importance
- distinctiveness in the international research landscape
- highly original, innovative, bold or disruptive multi or interdisciplinary research approach with potential to achieve challenge objectives within 14 years

 a major long-term investment integrating various approaches is essential to address the challenge

Research environment

This includes:

- exceptional plans for collaborative and stimulating multidisciplinary or interdisciplinary research environment
- best practice in research culture and equality, diversity and inclusion
- strong commitment to engagement and open-science objectives
- high quality and distinctive training offering with clear rationale and convincing evidence for strategic training needs in the challenge area
- clear alignment of culture, training and sustainability strategies with the overall research strategy, the host research organisation and MRC expectations

Research delivery

This includes:

- exceptional leadership team (track record and potential)
- highly effective and inclusive leadership approach and governance
- high potential to operate a major research investment with commensurate impact
- outstanding involvement of host research organisation
- required infrastructure will be available or feasible
- high quality partnerships that add value

Outline assessment

The outline assessment will decide who is invited to apply to the full application stage. You will be informed about the decision on your outline application in April 2023.

Only a small number of applicants will be invited to prepare a full application.

Outline applications must demonstrate the excitement of the research challenge and potential to fully meet all criteria and indicators to be invited to proceed. Outline applications which do not meet one or more indicators, including our expectations for research environment, will be rejected.

Outline applications may not be resubmitted unless invited in writing to resubmit by the MRC.

Feedback

Feedback will be provided for all outline applications. If your outline is rejected, we will indicate which assessment criteria were not met and if you are invited to resubmit.

If you are invited to submit a full application feedback may include aspects to address in the full application.

Full applications will be assessed by peer reviewers drawn from a group of appointed international experts representing the themes of interest.

Interview

You will then be interviewed by a sub-committee of the major investments board supplemented with additional expertise from panellists from across MRC boards and panels and internationally as appropriate, including representation from any co-funding partner. At the interview applicants will have the opportunity to respond to review comments.

Recommendations from the major investments board will be considered by MRC council before new MRC CoREs are awarded, expected to be in February 2024.

We expect to award up to 2 MRC CoREs each year. Exceptionally a third award may be made in round 1 in partnership with BHF for applications under the advanced therapeutics theme with a cardiovascular regeneration focus.

Contact details

Get help with developing your proposal

For help and advice on costings and writing your proposal please contact your research office in the first instance, allowing sufficient time for your organisation's submission process.

Ask about this funding opportunity

Email: core@mrc.ukri.org

We aim to respond within 10 working days.

We welcome advance notification about applications in preparation, in particular a summary of the research challenge and applying organisation.

Enquiries relating to a BHF-MRC CoRE in advanced cardiovascular therapeutics can additionally be directed to Professor James Leiper, Associate Medical Director at BHF: leiperj@bhf.org.uk

Get help with applying through Je-S

Email

jeshelp@je-s.ukri.org

Telephone

01793 444164

Opening times

Je-S helpdesk opening times

Additional info

Applications should be positioned in the context of ongoing investments across MRC, co-funding partners and the broader landscape and aligned with MRC strategic delivery plan objectives.

Theme background

Mental health

MRC activity in <u>mental health research</u> spans the life course including investments in <u>adolescence</u>, <u>mental health and the developing mind</u>, and across disciplines through <u>health and wellbeing research</u> initiatives.

It is coordinated through the **Neurosciences and Mental Health Board**, which is responsible for MRC's investments in disorders of the human nervous system.

Multimorbidity

MRC activity in <u>multimorbidity or multiple long-term conditions (MLTC)</u> includes mental and physical conditions and long duration infectious diseases.

It is coordinated though the <u>Population and Systems Medicine Board</u>, which supports mechanistic and applied research relating to the physiology and pathophysiology of major human organs and systems.

Advanced therapeutics

MRC and BHF activity in advanced therapeutics includes investments across discovery science, and **clinical and translational research**, such as:

- UK Regenerative Medicine Platform
- Nucleic Acid Therapy Accelerator
- Innovation Hubs for Gene Therapy
- Bristol Translational Biomedical Research Centre

The <u>Molecular and Cellular Medicine Board</u> supports a portfolio of research including synthetic biology, chemical biology, gene and cell therapy, and takes responsibility for MRC's <u>regenerative medicine</u> activities.

The MRC's <u>Developmental Pathway Funding Scheme</u> and the BHF's <u>Translational Awards</u> support pull through of this science into the pre-clinical space and towards early clinical development.

Webinar

A community webinar was held on 11 October 2022.

Community webinar presentation slides (PDF, 1MB)

Credit: Medical Research Council

On-screen captions and an autogenerated transcript are available on

YouTube.

Supporting documents

Question and answer document (PDF, 131KB)
Community webinar presentation slides (PDF, 1MB)
Draft CoRE additional terms and conditions (PDF, 119KB)

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