

# Artificial Intelligence in Cardiovascular and Respiratory Disease Diagnostics

Fellowship Grant Opportunity

Guidelines for Applicants

## Summary

---

This document guides you through the preparation and submission of an application for the Fellowship Grants in Artificial Intelligence in Cardiovascular and Respiratory Disease Diagnostics competition for mid-career researchers.

### **Deadline for Submission: 12:00 Friday 13 September 2024**

Applications must be submitted and approved by all signatories and the application received in its entirety by this deadline. All applications must be submitted via the Medical Research Foundation online grants management system (<https://medicalresearchfoundation.flexigrant.com/>). Paper application forms will not be accepted.

We advise that you prepare your application in good time to allow for your Research Organisation's checks and approvals to take place in accordance with its internal timelines. You will not be able to submit applications after this deadline. We recommend that you submit your application in advance of the deadline so that any technical issues can be resolved in good time.

The Medical Research Foundation is committed to making this application accessible to all by offering assistance where needed. Please do not hesitate to get in touch with the Research Team if you have any questions or concerns about the application or interview processes:

Email: [research@medicalresearchfoundation.org.uk](mailto:research@medicalresearchfoundation.org.uk) Tel: 020 4581 2402

## Overview

---

The Medical Research Foundation is inviting applications from mid-career researchers who are making a transition to independence to support research that will increase understanding in the field of the use of Artificial Intelligence (AI) methods for diagnosis of cardiovascular or respiratory diseases.

Cardiovascular and respiratory diseases are leading causes of mortality, both in the UK and globally. In recent years, an enormous amount of health and healthcare-related data has been generated or recorded, including high-resolution imaging, genetic data, biosensor monitoring, and electronic health records. The possibility of using AI methods to capitalise on the information represented by this data is growing rapidly, with the potential for significant impact on the accuracy and efficiency of diagnostic processes.

Multidisciplinary approaches bringing together researchers with complementary areas of expertise are required to drive forward progress in AI diagnostics. Proposals are particularly encouraged from those looking to develop interdisciplinary and cross-sector collaboration during their fellowship, including a diverse and project-relevant team to expand the applicant's research networks and build their research profile. Applications may include input from varied expertise, such as clinicians, basic scientists, computer scientists, statisticians, mathematicians, medical physicists, radiologists, physicists, engineers, health economists, and cybersecurity experts.

Applications within a broad field of either cardiovascular or respiratory disease are welcomed and we particularly encourage applications involving pulmonary embolisms. Research may be exploratory or translational in nature, but must have relevance for diagnostics in these areas. Research focusing on upper respiratory infections and/or nasal/airway conditions is not within the scope of this competition. Research focusing on cancer diagnostics will also not be considered in this competition.

Applicants to the AI in cardiovascular or respiratory disease diagnostics fellowship competition should show

productivity across past appointments and an upward trajectory and demonstrate clear plans to establish their own research niche. Applicants should clearly outline how the fellowship will enable their transition to independence as a researcher.

---

## The Funder

The Medical Research Foundation is an independent charitable foundation. Formed by the Medical Research Council (MRC) over 100 years ago, we grow and nurture people and ideas wherever we see research opportunities with great potential.

The research we fund is only possible thanks to the generosity of our donors. This competition is supported by a donation from the estate of the late Leonard Heath.

---

## The Funding

Applicants may apply for a Fellowship of up to £300,000 to support their research, over a maximum of a 3-year period (pro-rata for part-time positions). There will be up to £900,000 available in this competition.

---

## Who can apply

This competition is open to all UK-based researchers and clinical academics at eligible institutions (UK HEIs, Research Council research institutes, hospitals, and other independent research organisations). Applicants must hold a PhD, DPhil, MD or doctorate in a relevant area and be conducting their research at an eligible institution. Partnerships outside of academia are allowed, providing the collaboration will advance the research project in line with the aims of the funding call. Clinical academics and applicants with clinical duties are encouraged to apply.

This competition is for mid-career researchers. Mid-career researchers are those with extensive postdoctoral experience and in the process of, or ready for, transition to research independence. Applicants should be taking steps to start their own research group. This grant is not intended to support those who have already secured substantial research funds and/or have already established their own research group (e.g. Senior Lecturers, Professors, MRC and other funders' Senior Fellows), or those that hold a fully funded position in their Research Organisation. Applicants who have held an early career fellowship may still be eligible. As this is a Fellowship application, we expect that that the grant will cover the Lead applicant's salary, and the majority of their time will be spent on research.

Applicants will need to demonstrate productivity across past appointments relevant to their current career stage, an upward career trajectory and clear plans to establish their own research niche. The attributes needed to win support in this scheme are detailed at the [MRC webpages on skills needed to win support](#). Please see the relevant pages for 'transition to independence'.

Applicants who do not meet the eligibility criteria will not have their proposal assessed.

Only one application will be accepted per applicant for this funding call, though individuals can hold more than one Medical Research Foundation grant at any one time.

As well as funding innovative research projects, the Foundation is committed to supporting its Fellow's career progression by providing an additional package of support. This includes access to:

- The Academy of Medical Sciences Mentoring Scheme
- Further funding opportunities only open to MRC and Foundation funded researchers
- Access to MRC Fellow opportunities

If you have any queries about your eligibility for the scheme, please contact the research team via email at: [research@medicalresearchfoundation.org.uk](mailto:research@medicalresearchfoundation.org.uk).

---

## **Equality, Diversity and Inclusion**

The Medical Research Foundation is committed to achieving equality of opportunity for all funding applicants and aims to create an inclusive environment that encourages excellence in research through good equalities practice. Diversity is important to the Medical Research Foundation, and we are working to ensure that the ways in which we fund research embraces a diversity of thought, people, geographical locations and ideas.

We strongly encourage applications from under-represented groups including female and ethnic minority researchers, and researchers with disabilities or long-term health conditions. We will support our researchers and their teams to work flexibly and in a way that meets their personal circumstances. Guidance on the Medical Research Foundation flexible working policies can be found in our [Terms and Conditions](#). Please contact the Research Team if you have any questions about flexible working: [research@medicalresearchfoundation.org.uk](mailto:research@medicalresearchfoundation.org.uk).

The Medical Research Foundation encourage lead applicants to consider the diversity of the research team, as well as area of expertise, when inviting Collaborators to support their application.

---

## **Responsibilities of the Lead Research Organisation and the Principal Investigator**

### Lead Research Organisation

By submitting an application, a Lead Research Organisation (LRO) indicates their formal acceptance of the proposal, approval of the salaries and resources sought and, if the application is successful, acceptance of the [Terms and Conditions](#) of a Medical Research Foundation award.

Administrative authorities have responsibility for ensuring that salaries and resources cited in the proposal are sufficient to undertake the proposed research, attract sufficiently experienced and skilled staff and represent good value-for-money.

### Principal Investigator (PI)

The PI is responsible for the intellectual leadership of the research project and for the overall management of the research. They will be the Medical Research Foundation's main contact for the proposal. There can only be one PI on a Fellowship proposal.

The PI must be based at the LRO at which the award will be administered.

---

## **Key dates**

Deadline for submission: 12:00 Friday 13 September 2024

Shortlisting notification: January 2025

Interview: March 2025

Funding decision and feedback: March 2025

# Review and Selection

---

## Review and selection process

Applications will be peer reviewed and then shortlisted by an Expert Review Panel of independent scientific experts. The shortlisted candidates will be invited to an interview with the Expert Review Panel.

The Expert Review Panel will assess how well the award would support the applicant as they prepare to move towards independence, as well as the quality of the science proposed.

## Confidentiality

The proposal and any additional details submitted will be forwarded 'in confidence' to the Expert Review Panel. While assessing proposals, our experts may sometimes need to consult with colleagues, in confidence, about individual applications.

## Declarations of Interest

If a proposal presents a potential conflict of interest for any of the Expert Review Panel or the Medical Research Foundation Board of Trustees, the individual with a conflict will not be involved in the discussion of the application and in the decision-making process.

## Terms and Conditions of Award

Fellowship awards made through this competition will follow standard Medical Research Foundation [Terms and Conditions](#). The Medical Research Foundation terms and conditions spell out the responsibilities of the joint Principal Investigators and the Lead Research Organisation. The Principal Investigators and the Lead Research Organisation are required to indicate their formal acceptance of the application, their acceptance of the terms and conditions of a Medical Research Foundation award, and the approval of the salaries and resources sought in the application. The Medical Research Foundation may add additional conditions to an award to reflect the particular circumstances and requirements of the funding, or the nature of a particular award. Acceptance of an award constitutes acceptance of both the core conditions and any additional conditions. The Medical Research Foundation reserves the right to vary these terms and conditions.

# Application Guidance Notes

---

The information provided in this section provides guidance on completing the application form on the Medical Research Foundation online grants management system:

<https://medicalresearchfoundation.flexigrant.com/>

Guidance is provided within the system itself and this additional guidance will also be available on our website.

Please clearly label all uploaded files and ensure that all relevant documents are suitable and present.

As members of the AMRC, we support its [position statement](#) on the use of AI in grant funding applications and assessment.

If you have any questions about any aspects of the application process, please contact a member of the Medical

Research Foundation's team.

Email: [research@medicalresearchfoundation.org.uk](mailto:research@medicalresearchfoundation.org.uk) Tel: 020 4581 2402

---

## Completing the Narrative CV

Lead applicants are required to submit a CV using the Medical Research Foundation Résumé for Researchers CV template. A word version of the template is available on our website and within the online application form.

The Résumé for Researchers is an open-source template which has been developed by The Royal Society as a tool to more broadly evaluate researchers, particularly at the early career stages. The template has been adopted and adapted by the Medical Research Foundation as it supports the Foundation's approach of considering a wider view of contribution to the research landscape, at all career stages, not based solely on publication record.

Applicants are encouraged to provide examples of their impact outside of publications lists, although these should still be provided. Examples such as collaborative working, effective leadership, coaching and mentoring as well as inspiring others are welcomed.

---

### Career progression disruptions and Impact of COVID-19

The COVID-19 pandemic has had a significant and variable impact on researchers' careers across the world. The Foundation is committed to helping mitigate this as much as possible through our grant-making policies and practices, we are pleased to support the UK Academy of Medical Sciences Cross-funder COVID-19 memory statement as co-signatories, please see [our website](#) for further details.

There is a dedicated space within the application form, to detail how your career progression has been impacted by COVID-19. Additionally, guidance will be given to our Expert Reviewers and Panel Members so that they are able to take these impacts on an applicant's career into account when they are making funding recommendations.

Applicants are also provided with space to detail any other career disruptions (e.g. parental leave, ill health) that may have impacted their progression. Please only share details that you are comfortable with being shared with the Panel and do not include identifying information about third parties.

---

### Contribution to knowledge generation

This section can be used to explain how you have contributed to the generation of new ideas and hypotheses and which key skills you have used to develop ideas and test hypotheses. It can be used to highlight how you have communicated your ideas and research results, both written and verbally. It can include a small selection of outputs, with a description of why they are of particular relevance and why they are considered in the context of knowledge generation. Outputs can include (but are not limited to) open data sets, software, commercial, entrepreneurial or industrial products, clinical practice developments, educational products, policy publications, evidence synthesis pieces and conference publications that you have generated. Where outputs have a digital object identifier (DOI) please only include this.

---

### Contribution to the development of individuals

This section can be used to highlight expertise you provided which was critical to the success of a team or team members including project management, collaborative contributions, and team support. It can include your teaching activities, workshops or summer schools in which you were involved (for undergraduates and post-graduates as well as junior colleagues), and the supervision of students and colleagues. It can be used to mention mentoring of members in your field and support you provided to the advancement of colleagues, be it junior or senior. It can be used to highlight the establishment of collaborations, from institutional (maybe

interdisciplinary) to international. It can be used to describe where you exerted strategic leadership, how you shaped the direction of a team, organisation, company or institution.

---

### Contribution to the wider research community

This section can include various activities you have engaged in to progress the research community. It can be used to mention commitments including editing, reviewing, refereeing, committee work and your contributions to the evaluation of researchers and research projects. It can be used to mention the organisation of events that have benefited your research community. It can highlight contributions to increasing research integrity, and improving research culture (gender equality, diversity, mobility of researchers, reward and recognition of researchers' various activities). It can be used to mention appointments to positions of responsibility such as committee membership and corporate roles within your department, institution or organisation, and recognition by invitation within your sector.

---

### Contribution to broader society

This section can include examples of societal engagement and knowledge exchange. It can include engagement with industry and the private sector. It can be used to mention engagement with the public sector, clients and the broader public. It can be used to highlight positive stakeholder feedback, inclusion of patients in processes and clinical trials, and other impacts across research, policy, practice and business. It can be used to mention efforts to collaborate with particular societal or patient groups. It can be used to highlight efforts to advise policy-makers at local, national or international level and provide information through the press and on social media.

---

## Application form question guidance

---

### Section 1: Principal Investigator details

There can only be one lead/principal investigator, as this is a Fellowship application. Any other individuals involved in the application can be listed as collaborators in section 6, unless they will be employed on the grant, in which case they should be named as staff members. Collaborators will need to provide a signed declaration on letter-headed paper confirming that they have consented to co-operate in the research project and explaining the role they will play.

---

### Section 2: Research Proposal

The scientific title and abstract should be written in a form understandable to an academic audience. The lay title and summary abstract should be written in a form understandable to members of the public (e.g. current or potential supporters) who are not specialists in mental health.

Please indicate the key scientific objectives and challenges of the research and any potential medical, clinical or societal implications.

These abstracts will be used for external communications about the award and should therefore not contain specific details of any sensitive information, such as patient details or personal information.

---

### Case for Support: proposed research project

Provide details of the proposed research project. References, diagrams, tables or charts, and justification of samples sizes (including sample size calculations, where appropriate, or a justification for why these have not been included) can be included within the text or as an appendix.

The Case for Support and appendices for applications should not exceed 8 A4 pages PDF format (size 12, Arial font, 2 cm margins, references can be size 8 Arial font or DOI list).

The detailed Case for Support should include the following information:

- 1. Background** – provide relevant background information that is needed to understand the wider context of your application. Explain the need for research in this area and the rationale of the lines of research planned. Give sufficient details of other past and current research to show that the aims are scientifically justified and to show that the work will add distinct value to what is already known, or in progress. Justify the research either through its importance for human health, or its contribution to relevant areas of basic biomedical science.
- 2. Hypothesis and objectives** – describe the main hypotheses to be investigated, details of the objectives and how they will be achieved.
- 3. Study design** – describe the experimental approaches and methodology for the research project in detail (for example giving and explaining sample sizes, methods of recruitment and trial designs). It is not necessary to describe each experiment (if relevant), but sufficient detail is required to show why the research is likely to be competitive. Where human participants are involved, consideration should be given to how diversity factors such as sex, ethnicity and age are included and accounted for in the study design.
- 4. Timelines and milestones** – give timelines for the research with major milestones and deliverables.
- 5. Potential problems and contingency plans** – highlight any potential risks and identify procedures that can be put in place to deal with them.
- 6. People** – outline how each of the investigators named in the proposal would work together and outline other major collaborations important for the research. Detail productivity from previous appointments/research funding and demonstrate how the award will promote the applicant's trajectory towards research independence. Where appropriate, explain how the grant will contribute to the applicant's career and also the development of others.
- 7. Environment** – describe how the scientific or clinical environment(s) in which the research will be conducted will promote the delivery of the proposed research. Explain how the research will benefit from facilities provided by the Research Organisations. Describe any clinical, commercial, or organisational dependencies necessary to support the research, or to help translate it into practice.
- 8. Ethics & Research Governance** - describe the ethical issues arising from any involvement of people, human samples or personal data in the research proposal. Give details of how any specific risks to human participants will be controlled, and of any new animal research the funding would be supporting. Describe the ethical review and research governance arrangements that would apply to the proposed research.
- 9. Exploitation and Dissemination** – describe plans to disseminate the findings of the research. Is the proposed research likely to generate commercially exploitable results? Other than publication in peer reviewed journals, indicate how any results arising from the research will be disseminated to promote or facilitate take-up by users in the health services.

---

#### Gender dimension of research

The Medical Research Foundation expects that applicants will consider the gender dimension of their research proposal. Gender dimension in this instance refers not to the diversity of the research team (which should also



be considered), but the sex and gender component of the experimental design that involves human participants, animal studies, human and animal tissues, and cell lines.

Sex refers to the biological attributes of humans and animals, such as genes, chromosomes, hormone levels and reproductive organs. Sex can be referred to as male, female and intersex in humans or hermaphrodite in animals.

*Gender* refers to the social and cultural attributes of human behaviour. How individuals refer to gender will vary depending on social and cultural context and this can also vary over time.

Applicants should include the following information:

1. How the biological variable of sex will be taken into account in the experimental design with regards to research methods, data analysis and interpretation, and dissemination of findings.
2. How the socio-cultural variable of gender will be taken into account in the experimental design with regards to research methods, data analysis and interpretation, and dissemination of findings.
3. How the impact of the findings may affect different sex and genders differently.

If sex and or gender do not need to be taken into account, applicants will need justify why. For instance, the Medical Research Foundation expects that both sexes of animals will be used in animal experiments as the default, and that cost or previous published data are not sufficient justifications to use only one sex.

Please refer to the [MRC guidance on sex and gender in experimental designs](#).

---

## Collaborators

Please provide details of any additional collaborators on the project. Collaborators will need to provide a signed declaration on letter-headed paper confirming that they have consented to co-operate in the research project and explaining the role they will play.

---

## Reviewers

Please suggest up to three experts to review the application. These individuals should not be: i) closely associated with the proposed project or any related work; ii) collaborators/co-applicants on any active or recent grants; iii) have published with the lead applicant in the past five years; or, iv) previous mentors/supervisors of the lead applicant. We cannot guarantee that we will approach these experts for an assessment of the applications.

Please provide the names of up to three reviewers that you do not wish to review the application due to potential conflicts of interest.

---

## Data Management Plan

The Medical Research Foundation is committed to ensuring that the knowledge and discoveries which result from our funded research are available freely and immediately to everyone. A Data Management Plan (DMP) is required to detail how you will collect, store, curate, and manage data, including how it will be shared and any open access requirements.

Where substantial data is generated from the research, the DMP will be more in depth and therefore likely to be up to 1000 words long, for studies generating smaller amounts of data, DMPs will be short i.e. 200-500 word in total.

The [MRC Policy and Guidance on Sharing of Research Data from Population and Patient Studies](#) is a useful reference for data relating to studies involving human participation.

---

### **Section 3: Use of Animals in Research**

The Medical Research Foundation expects that before work commences on any research, the Principal Investigators will have ensured in collaboration with the Lead Research Organisations that all appropriate regulatory approvals are in place. These could include those relating to human participation, radiation, genetic manipulation, animals, stem cells, personal safety and health and safety.

The Medical Research Foundation expects that research involving animals will comply with UK regulations, regardless of which country the research is carried out in, and the research is planned and conducted according to the [3Rs](#).

If the project involves the use of animals in the UK, please provide confirmation of personal licences for all members of staff involved in the proposed animal research. In addition, please confirm the relevant project licence covers the proposed work. UK Home Office licences will only be required when research involving animals is being conducted within the UK. If your research involves animal use outside of the UK, complete the relevant questions regarding national and local ethical approval for animal research and describe how your research complies with UK animal procedure regulations.

---

### **Section 4: Human participation and ethical approval**

If the project involves the use of human participants and/or organs, tissues or cells relevant to The Human Tissue Act 2004 (England, Wales and N. Ireland) and The Human Tissue (Scotland) Act 2006 in the UK, please detail the relevant ethical approvals.

If ethical approval is required for the research proposal, please provide details of the relevant approvals.

If your research involves the use of human participants and/or organs, tissues or cells outside the UK, please provide details in the relevant questions. Describe how your research complies with relevant UK regulations. Applications involving human participants in countries outside of the UK may be subject to additional ethical implications.

Please see the MRC guidance related to [Using human samples in research](#) and [Human Participants in Research](#) for further direction on research involving human participants in countries outside of the UK.

---

### **Section 5: Intellectual property**

Please detail any intellectual property that this project will generate, either during or beyond the lifetime of the award. Please include details of any existing background intellectual property that will need to be used and/or modified and plans for ownership of this intellectual property.

---

### **Section 6: Funding requested**

The Medical Research Foundation will meet the full direct costs of research. Direct costs are those that will arise from the conduct of the research project and can be charged as the cash value spent and can be supported by an auditable record. Like all medical research charities, the Medical Research Foundation does not meet the indirect costs of research.

Applications should be costed at today's prices and inflation should not be included.

Applications can include requests for the costs of:

- Lead applicant salary including annual pay-scale increments but excluding predicted annual pay awards and overheads
  - Research staff (who will directly support the research proposal) including annual pay-scale increments but excluding annual pay awards and employment overheads *i.e.* the UK apprenticeship levy
  - Research consumables and minor equipment costs
  - Access charges for specialist equipment or services
  - Travel costs of the PI or members of staff travelling between multi-centre research sites or for scheduled collaborator meetings relating to the project.
  - Conference travel and subsistence
  - Animals and animal husbandry
  - Partnership and network building activities
  - Training or capacity building activities
  - Other direct costs of research
  - [Open access publishing costs](#) (up to £6,000 for grant duration of three years)
  - Research equipment

Medical Research Foundation research grants will not fund:

- Any directly allocated costs *i.e.* estate costs and costs of shared resources such as staff and equipment.
- Any indirect costs necessary for underpinning research but which cannot be allocated to individual projects (including but not limited to bench fees, computing and information support, general maintenance and other infrastructure costs, HR and recruitment costs etc.)
- Patient care, NHS treatment or NHS support costs associated with clinical research, which are met through other sources of funding.
- Cost of public engagement in science work
- Other costs associated with dissemination of research findings.
- Studentship costs
- Collaborators' salaries

Justify the budget requested and provide details of any costs to be met through other funding sources.

---

### **Sections 11-13: Authorisation and Declarations**

Authorisations and/or declarations are needed from the following application participants:

- Principal Investigator
- Research Administrator
- Head of Department

Participants should be invited to complete their sections of the application by following the instructions under the participants tab on the Application Summary page. Please check which email address they would like to use, as they may already be registered on Flexi-Grant and mistakes may lead to a delay in processing the application.

Applicants can keep track of the progress of submission completion status on the Application Summary page. Applicants can issue a reminder email to the invited participants through the participants tab on the Application Summary page. If the instruction email from the Medical Research Foundation has not been received please: a) double check the accuracy of the email address supplied on the application form; b) advise the intended recipient to check their spam filters/junk folders; c) contact the Medical Research Foundation with an alternative email address for the recipient. The Medical Research Foundation is happy to help where possible but cannot be held responsible for automated emails that are not received due to address errors or spam filters.

All declarations must be signed by the appropriate persons prior to the submission of the application. It is the applicants' responsibility to ensure that approval of the application by the Lead Research Organisations is completed before the closing date.

---

## Applicants

Lead applicants are required to report any conflicts of interest. Each lead applicant is required to declare that they will abide by the Medical Research Foundation's Terms and Conditions and will be actively engaged in the proposed research.

---

## Head of Departments

The Head of Department must provide a statement of support and authorise the application confirming that the potential award can be hosted within their organisation and that there is the capacity to deliver the proposed research. The relevant Head of Department should state how the applicant will be supported to focus on their proposed research, for example by being released from competing duties such as teaching or administrative commitments. Additionally, they should provide details of the resources that the department will commit to the applicant should the application be successful.

Before inviting the Head of Department to participate in completion of the application form, applicants are advised to ensure that their Head of Department is willing and available to provide a confirmation of support prior to the deadline. Incomplete confirmations will mean that an application cannot be submitted and will be deemed to be ineligible.

It is the responsibility of the lead applicants to inform the Head of Department of the deadline and liaise with them to ensure that they have received their invitation with instructions to participate in completion of the application.

---

## Research Administrators

Research Administrators at the Lead Research Organisation should be invited to approve the application ("Administrative Authority"). They must be someone with delegated authority at the Lead Research Organisation where the award will be held. This may be someone within the research office, Faculty administration, or other administrative or management role. The approver must be someone with the authority to confirm that the potential award can be hosted within their organisation and assure the proposed budget is appropriate and eligible for the scheme.

This section should be completed by individuals at the Lead Research Organisation responsible for the administration of funds. They will be contacted regarding financial arrangements and other contractual agreements, if your application is successful.

# Appendices

## Scoring Matrix for Reviewers

Score Indicators	Score
<b>Exceptional – Top international programme, or of exceptional national strategic importance</b>	
<ul style="list-style-type: none"> <li>■ Scientific Quality and Impact               <ul style="list-style-type: none"> <li>– Crucial scientific question or knowledge gap or area of strategic importance to the UK</li> <li>– Original and innovative; novel methodology and design</li> <li>– Potential for high health and/or socioeconomic impact</li> </ul> </li> <li>■ Scientific Leadership               <ul style="list-style-type: none"> <li>– Excellent potential for research leadership (track record, team, environment, and collaborators)</li> </ul> </li> <li>■ Justification of Resources               <ul style="list-style-type: none"> <li>– Potential for high return on investment (resources requested, likelihood of project delivery, anticipated knowledge generation)</li> <li>– Appropriate staff time allocated to deliver project (Principal investigators and co-investigators)</li> </ul> </li> <li>■ Other: Ethical and/or governance issues are fully considered</li> </ul>	6
<b>Excellent – Internationally competitive and leading edge nationally, or of national strategic importance</b>	
<ul style="list-style-type: none"> <li>■ Scientific Quality and Impact               <ul style="list-style-type: none"> <li>– Crucial scientific question or knowledge gap or area of strategic importance to the UK</li> <li>– Original and innovative; novel methodology and design</li> <li>– Potential for high health and/or socioeconomic impact</li> </ul> </li> <li>■ Scientific Leadership               <ul style="list-style-type: none"> <li>– Excellent potential for research leadership (track record, team, environment, and collaborators)</li> </ul> </li> <li>■ Justification of Resources               <ul style="list-style-type: none"> <li>– Potential for high return on investment (resources requested, likelihood of project delivery, anticipated knowledge generation)</li> <li>– Appropriate staff time allocated to deliver project (Principal investigators and co-investigators)</li> </ul> </li> <li>■ Other: Ethical and/or governance issues are fully considered</li> </ul>	5
<b>Very High Quality – Internationally competitive in parts</b>	
<ul style="list-style-type: none"> <li>■ Scientific Quality and Impact               <ul style="list-style-type: none"> <li>– Crucial scientific question or knowledge gap or area of strategic importance to the UK</li> <li>– Robust methodology and design (innovative in parts)</li> <li>– Potential for high health and/or socioeconomic impact</li> </ul> </li> </ul>	4

<ul style="list-style-type: none"> <li>■ Scientific Leadership <ul style="list-style-type: none"> <li>– Excellent potential for research leadership (track record, team, environment, and collaborators)</li> </ul> </li> <li>■ Justification of Resources <ul style="list-style-type: none"> <li>– Potential for significant return on investment (resources requested, likelihood of project delivery, anticipated knowledge generation)</li> <li>– Appropriate staff time allocated to deliver project (Principal investigators and co-investigators)</li> </ul> </li> <li>■ Other: Ethical and/or governance issues are fully considered</li> </ul>	
<b>High Quality</b>	
<ul style="list-style-type: none"> <li>■ Scientific Quality and Impact <ul style="list-style-type: none"> <li>– Worthwhile scientific question or knowledge gap or a valuable scientific resource</li> <li>– Methodologically sound study</li> <li>– Potential for significant health and/or socioeconomic impact</li> </ul> </li> <li>■ Scientific Leadership <ul style="list-style-type: none"> <li>– Strong potential for research leadership (track record, team, environment, and collaborators)</li> </ul> </li> <li>■ Justification of Resources <ul style="list-style-type: none"> <li>– Potential for significant return on investment (resources requested, likelihood of project delivery, anticipated knowledge generation)</li> <li>– Appropriate staff time allocated to deliver project (may be scope strengthen management of the project)</li> </ul> </li> <li>■ Other: Ethical and/or governance issues are well considered</li> </ul>	3
<b>Good Quality</b>	
<ul style="list-style-type: none"> <li>■ Scientific Quality and Impact <ul style="list-style-type: none"> <li>– Worthwhile scientific question or knowledge gap or a valuable scientific resource</li> <li>– Methodologically sound study but areas require revision</li> <li>– Likelihood of successful delivery</li> </ul> </li> <li>■ Scientific Leadership <ul style="list-style-type: none"> <li>– Strong potential for research leadership (track record, team, environment, and collaborators)</li> </ul> </li> <li>■ Justification of Resources <ul style="list-style-type: none"> <li>– Potentially more limited return on investment (resources requested, likelihood of project delivery, anticipated knowledge generation)</li> <li>– Resources broadly appropriate to deliver the proposal</li> </ul> </li> <li>■ Other: Ethical and/or governance issues are adequately considered</li> </ul>	2
<b>Poor Quality</b>	
<ul style="list-style-type: none"> <li>■ Scientific Quality and Impact <ul style="list-style-type: none"> <li>– Poorly defined question</li> <li>– Methodologically weak study</li> <li>– Limited likelihood of new knowledge generation</li> </ul> </li> <li>■ Scientific Leadership <ul style="list-style-type: none"> <li>– Poor research leadership potential</li> </ul> </li> <li>■ Justification of Resources <ul style="list-style-type: none"> <li>– Potentially poor return on investment</li> </ul> </li> <li>■ Other: Ethical and/or governance issues are not adequately considered</li> </ul>	1
<b>Ineligible for funding</b>	0



## Scoring Matrix for Expert Review Panel

Score Indicators	Fundable
<b>10. Exceptional – Top international programme, or of exceptional national strategic importance</b>	
<ul style="list-style-type: none"> <li>■ Quality               <ul style="list-style-type: none"> <li>– Highly original and innovative</li> <li>– Novel methodology and design</li> <li>– Excellent potential for research leadership (track record, team, environment, and collaborators are amongst the best in a broad field)</li> </ul> </li> <li>■ Impact               <ul style="list-style-type: none"> <li>– Crucial scientific question or knowledge gap</li> <li>– Potential for high health and/or socioeconomic impact</li> <li>– Internationally unique resource of value to many disciplines</li> </ul> </li> <li>■ Productivity               <ul style="list-style-type: none"> <li>– Potential for high return on investment</li> <li>– Very high likelihood of successful delivery (risks well managed)</li> </ul> </li> </ul>	Fundable
<b>9. Excellent – Internationally competitive and leading edge in most areas</b>	
<ul style="list-style-type: none"> <li>■ Quality               <ul style="list-style-type: none"> <li>– Original and innovative</li> <li>– Novel methodology and design</li> <li>– Excellent potential for research leadership (track record, team, environment, and collaborators e.g. among the best in a specialist area)</li> </ul> </li> <li>■ Impact               <ul style="list-style-type: none"> <li>– Crucial scientific question or knowledge gap</li> <li>– Potential for high health and/or socioeconomic impact</li> <li>– Internationally significant resource of value to many disciplines</li> </ul> </li> <li>■ Productivity               <ul style="list-style-type: none"> <li>– Potential for high return on investment</li> <li>– Very high likelihood of successful delivery (risks well managed)</li> </ul> </li> </ul>	Fundable
<b>8. Very High Quality – Internationally competitive and leading edge nationally</b>	
<ul style="list-style-type: none"> <li>■ Quality               <ul style="list-style-type: none"> <li>– Original and innovative</li> <li>– Robust methodology and design (innovative in parts)</li> <li>– Excellent potential for research leadership (track record, team, environment, and collaborators)</li> </ul> </li> <li>■ Impact               <ul style="list-style-type: none"> <li>– Crucial scientific question or knowledge gap or area of strategic importance to the UK</li> <li>– Potential for high health and /or socioeconomic impact</li> <li>– Resource of value to many disciplines</li> </ul> </li> <li>■ Productivity               <ul style="list-style-type: none"> <li>– Potential for significant return on investment</li> <li>– Very high likelihood of successful delivery (risks well-managed)</li> </ul> </li> </ul>	Fundable
<b>7. High Quality – Leading edge nationally and internationally competitive in parts</b>	



<ul style="list-style-type: none"> <li>■ Quality <ul style="list-style-type: none"> <li>– Innovative</li> <li>– Robust methodology and design (innovative in parts)</li> <li>– Strong potential for research leadership (track record, team, environment, and collaborators)</li> </ul> </li> <li>■ Impact <ul style="list-style-type: none"> <li>– Key scientific question or knowledge gap or area of strategic importance to the UK</li> <li>– Potential for significant health and/or socioeconomic impact</li> <li>– Valuable scientific resource</li> </ul> </li> <li>■ Justification of Resources <ul style="list-style-type: none"> <li>– Potential for significant return on investment</li> <li>– High likelihood of successful delivery</li> </ul> </li> </ul>	<b>Fundable</b>
<b>6. High Quality – Leading edge nationally, but not yet internationally competitive</b>	
<ul style="list-style-type: none"> <li>■ Quality <ul style="list-style-type: none"> <li>– Methodologically robust study</li> <li>– Potential for research leadership (track record, team, environment, and collaborators)</li> </ul> </li> <li>■ Impact <ul style="list-style-type: none"> <li>– Worthwhile scientific question or knowledge gap</li> <li>– Justifiable scientific resource</li> <li>– Potential for reasonable health and/or socioeconomic impact</li> </ul> </li> <li>■ Productivity <ul style="list-style-type: none"> <li>– Resources appropriate to deliver the proposal</li> <li>– High likelihood of successful delivery</li> </ul> </li> </ul>	<b>Fundable</b>
<b>5. Good Quality – Nationally competitive</b>	
<ul style="list-style-type: none"> <li>■ Quality <ul style="list-style-type: none"> <li>– Methodologically sound study but areas require significant revision</li> <li>– Leadership potential not optimal (track record, scope to strengthen team and/or collaborators; environment)</li> <li>– Poorly defined question</li> </ul> </li> <li>■ Impact <ul style="list-style-type: none"> <li>– Worthwhile scientific question with potentially useful outcomes</li> <li>– Moderate likelihood of contributing to new knowledge generation</li> </ul> </li> <li>■ Productivity <ul style="list-style-type: none"> <li>– Resources broadly appropriate to deliver the proposal</li> <li>– Good likelihood of successful delivery</li> </ul> </li> </ul>	<b>Not fundable</b>
<b>4. Potentially Useful – With significant weaknesses</b>	
<ul style="list-style-type: none"> <li>■ Quality <ul style="list-style-type: none"> <li>– Methodologically sound study (approach or study design requires significant revision)</li> <li>– Leadership potential (track record)/environment not optimal</li> </ul> </li> <li>■ Impact <ul style="list-style-type: none"> <li>– Contains potentially useful ideas but requires major revision</li> <li>– Moderate likelihood of successful delivery</li> </ul> </li> <li>■ Productivity <ul style="list-style-type: none"> <li>– Resources inappropriate to deliver the proposal</li> </ul> </li> </ul> <p>Unlikely to significantly contribute to new knowledge generation</p>	<b>Not fundable</b>
<b>3. Potentially Useful – With major weaknesses</b>	
<ul style="list-style-type: none"> <li>■ Quality</li> </ul>	<b>Not fundable</b>

<ul style="list-style-type: none"> <li>– Question poorly defined</li> <li>– Methodologically weak study</li> <li>– Poor leadership potential/environment</li> <li>■ Productivity <ul style="list-style-type: none"> <li>– Unlikely to contribute to new knowledge generation</li> </ul> </li> </ul>	
<b>2. Poor quality science, bordering on unacceptable</b>	<b>Not fundable</b>
<b>1. Unacceptable quality or has serious ethical concerns</b>	<b>Not fundable</b>
<b>0. Ineligible for funding</b>	<b>Not fundable</b>

---