Webinar FAQs: Novel human *in vitro* models of complex disease funding scheme 16 October 2024

This FAQ document provides answers to the most common questions asked during the webinar on 16 October 2024. The recording of the webinar is available here: https://nc3rs.org.uk/mrcnc3rs-novel-human-vitro-models-complex-disease

Several questions were project specific and/or were answered during the Q&A session following the webinar. These are not included here. If your question has not been answered and/or you have any further questions, please contact us directly under humandiseasemodels@mrc.ukri.org

Webinar recording

Q: Where will you share the recording?

A: The webinar recording has been published here: https://nc3rs.org.uk/mrcnc3rs-novel-human-vitro-models-complex-disease

Industry partnership

Q: Is there an expectation that clusters will also include industrial partners?

A: You must consider end-user involvement from the start, and we strongly encourage collaboration with both small and large companies as well as academic and clinical researchers, as relevant to the cluster challenge. Industry partnerships are not mandatory, however where relevant, should be mutually beneficial in line with MRC's Industry Collaboration framework. Industry partners can provide cash or in-kind contribution to the cluster as appropriate.

International co-applicants

Q: Can clusters include international partners?

A: You can include international applicants as "project co-leads (international)", provided they will make a major intellectual contribution to the design or conduct of the project. Please see the UKRI project co-lead (international) policy for further information.

You are not eligible to apply for this funding opportunity as a project lead if you are based at an international research organisation. This does not include Medical Research Council (MRC) Unit The Gambia or MRC/UVRI Uganda Research Unit at the London School of Hygiene and Tropical Medicine that are eligible to apply as project lead. In addition, if you are applying under Wellcome eligibility, lead applicants may be based within the Republic of Ireland or an eligible low- or middle-income country (LMIC).

Before applying for funding, check the Eligibility of your organisation for MRC eligibility. You must email humandiseasemodels@mrc.ukri.org, before submitting your expression of interest if you are applying as lead applicant under Wellcome eligibility.

Scope of your cluster application

Q: Can you provide further detail on the scope of the clusters?

A: You must articulate an ambitious programme of proposed work with the aim to understand human disease physiology and the clear potential to catalyse a step change in the development and validation of human in vitro model(s) in a relevant biomedical context. If the experimental design necessitates the development of healthy human reference model(s) as a prerequisite for the development and validation of disease model(s), this is within the scope of this funding opportunity.

Your individual cluster may focus on specific disease areas of high unmet need, or it may be addressing common needs with relevance to multiple disease domains which may include, but not limited to:

- Extracellular matrix complexity and structure.
- Vascularization.
- Immune regulation.
- Tissue crosstalk.

Clusters may develop an entirely new model or expand on the validation, adaptation and adoption of novel or existing models across an area of unmet need.

We will not support applications solely focused on animal in vitro models or healthy human in vitro models with no relevance to disease. However, we will consider supporting animal research that significantly enhances or complements the activity. If appropriate to your application, you are encouraged to engage with existing investments, for example, the MRC National Mouse Genetics Network.

We will not support your application if it is solely focused on technological advancement without clear functional endpoint definition(s) and defined strategies for validation and adoption by end users.

We encourage you to contact us first at humandiseasemodels@mrc.ukri.org to discuss the scope of your application.

Validation / success criteria

Q: What would be the ‘measurement of success’ of the model developed?

A: You must articulate an ambitious programme of proposed work with the aim to understand human disease physiology and the clear potential to catalyse a step change in the development and validation of human in vitro model(s) in a relevant biomedical context.

It is expected that model design within individual clusters is guided by clearly defined milestones and functional endpoints. Progress against milestones, including clear go/no-go decision points, will be reviewed by an ‘Oversight Committee’ implemented by and reporting to the funders and supported by project management resources within the clusters.

Host research organisations

Q: Is there a preference for multi-institutional applications vs single institution applications with PIs across diverse faculties?

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

When there are two or more eligible organisations involved, for administrative purposes it is necessary to identify a single project lead who must be affiliated with the lead research organisation. However, the balance of activity and leadership across the participants and 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 applicable.

Project lead specification

Q: Can you be involved in more than one cluster applications as lead or co-lead and what level of experience you expect the project lead to have?

A: To manage demand, you may only submit one expression of interest as a project lead; however, you may be involved as part of the research team on other applications.

To be eligible to apply for this funding opportunity you must show that you will direct the project and be actively engaged in the work and have the relevant expertise and experience to lead a multi-organisation project.

Network coordination

Q: Is there going to be an opportunity for the successful clusters to work together and is that going to be encouraged during the application?

A: Strategic coordination across the network of clusters will be facilitated by a coordinating committee consisting of cluster leadership team members, as well as funder representatives. The coordinating committee is expected to provide connectivity with wider UK capabilities, including industry, and ensure that common technological and regulatory challenges are being overcome.

The coordinating committee is also expected to drive a coordinated effort to address common challenges in the field, including: the development of strategies and policies for improved access to cell and tissue resources; the implementation of population-level diversity in sample considerations; and the development of regulatory frameworks (working with regulatory bodies, as appropriate) for functional endpoint definition and model validation.

Assessment process

Q: Can you tell us more about the review process?

A: Full applications will be reviewed and assessed by an expert review panel in a shortlisting meeting in May 2025. If your application is shortlisted, you will have 14 days to respond to the panel

comments. Shortlisted applications will be invited for interview by the expert review panel in July 2025. The panel will assess applications based on information provided in the application and at interview using MRC's core research grant assessment criteria, within the context of the scope of this funding opportunity. Applications will be scored using the MRC scoring matrix.

At the end of the meeting, the panel will discuss final funding recommendations, considering the score of each proposal and the potential complementarity of clusters, with the aim of supporting the strongest possible portfolio.