

# Clinical Epidemiology Research Consortium 2025 - Call for applications

## Summary

We want there to be better understanding of the causes and risk factors (biopsychosocial) for arthritis and other musculoskeletal disorders. We want to take the uncertainty out of clinical practice and improve policy around the diagnosis, prevention and treatment options for these debilitating conditions. We want to harness biological data and an individual's lived experience to predict disease development and prognosis, identify the most effective treatments and minimise the risk of side-effects from long-term treatment.

Versus Arthritis seeks to support team science working 'across and together' to join up different areas of thought and research to deliver swifter success in translating new knowledge to reality and patient benefit.

Versus Arthritis has long supported research into the clinical epidemiology of arthritis and musculoskeletal conditions. The strength of UK research in this area is well recognised and Versus Arthritis seeks to further support and enhance UK musculoskeletal clinical epidemiology research. Re-igniting our support of dedicated clinical epidemiology investment recognises this and aims to put the application of these methodologies to work with urgency on issues around arthritis that are proving hard to understand and unlock.

Consortium funding is about bringing different people and groups together to work with integrated thought and ambition toward unlocking a problem area at pace - creating a community of shared expertise and knowledge to deliver a cohesive series of research to achieve the aims.

Applications are invited for Consortium funding up to the value £3 million for five years. We will invest in novel clinical epidemiology research including digital, genetic, proteomic and molecular epidemiology aiming to unlock area(s) of problematic understanding around the occurrence and progression of disease, and the effectiveness and safety of treatment.

Applications that have agreement for part-funding from a third party will be accepted but applicants should contact us to discuss their application as early as possible.

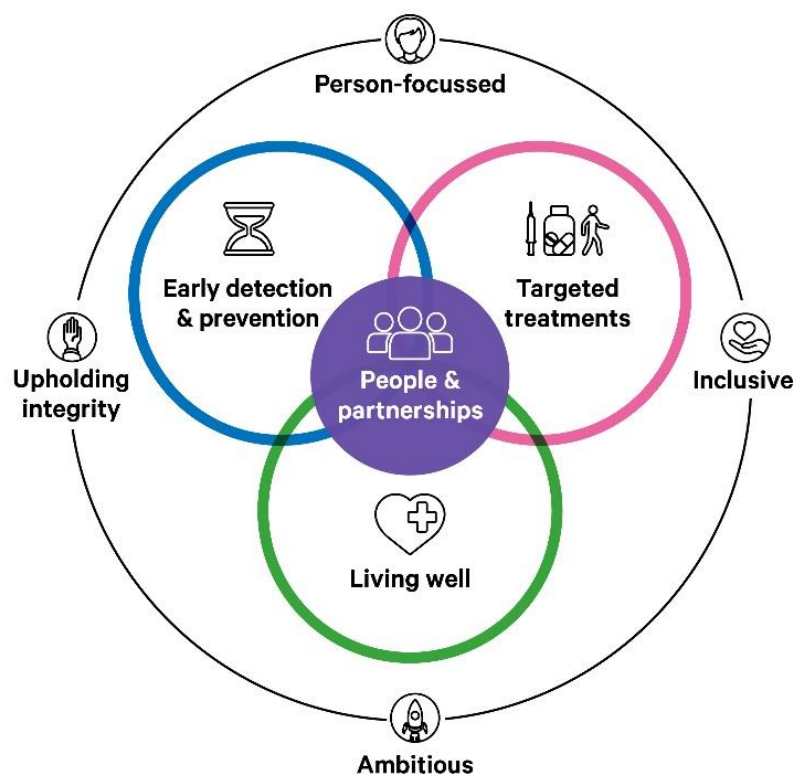
Applications should involve people with arthritis in the development of the outlined work as well as plans for continued collaboration with them in the oversight, delivery and dissemination of the proposed research.

Applicants must carefully read the application form and guidance documentation before starting an application. Please ensure that the most appropriate language is being used in each section of the form and that the correct sections are completed.

Applicants are invited to submit applications to this one-stage process through [Grant Tracker](#). The deadline for the receipt of applications is **16:00 on Wednesday 25<sup>th</sup> September 2024**.

If you have any questions about this call document, eligibility or would like to discuss your research proposal with the office please email [awards@versusarthritis.org](mailto:awards@versusarthritis.org)

# Context and changes we want to see for people with arthritis



Over 10 million people in the UK are living with arthritis. As well as pain, people living with arthritis commonly experience high levels of fatigue, stiffness and loss of mobility and dexterity.

We want all people with arthritis and those at risk to be treated appropriately, reducing the prospect of living with symptoms - including children and young people and older people with multiple long-term conditions.

The likelihood of developing arthritis and the experience of living with arthritis varies considerably across different groups in society, including by ethnicity, gender and level of deprivation index.

We want there to be better understanding of the causes and risk factors (biopsychosocial) for arthritis and other musculoskeletal disorders. We want to take the uncertainty out of clinical practice and improve policy around the diagnosis, prevention and treatment options for these debilitating conditions.

We want to harness biological data and an individual's lived experience to predict disease development and prognosis, identify the most effective treatments and minimise the risk of side-effects from long-term treatment.

We want access to treatment approaches that encompass a holistic approach, including the management of pain, mental health and fatigue. We want clinical and care pathways to adopt treatment approaches that account for individual variability in genes, environment and lifestyle. We want healthcare and public health services to be well informed by relevant, good-quality health data and knowledge to generate, evaluate and implement models of person-centred care.

We want to bring about more precise and faster early detection and diagnoses, more effective and targeted treatments, and more holistic care. These are the key priority areas in our [Better Lives Today, Better Lives Tomorrow Research Strategy 2022-2026](#). We are striving to bring ground-breaking scientific discoveries to people with arthritis at pace and with precision.

## Epidemiology

Versus Arthritis has long supported research into the clinical epidemiology of arthritis and MSK diseases. The charity has supported substantial programmes of epidemiological research leading to a greater understanding of the risk factors for the development, the progression, patient outcomes and treatments of MSK diseases particularly via the [Epidemiology Centre of Excellence at Manchester University](#), the [Primary Care Centre at Keele University](#) and the Centre for MSK Health and Work. Impact reports are available for some Centres (see previous links). These Centres have seeded the development and expansion of other beacons of excellence across the UK. The strength of UK research in this area is well recognised and Versus Arthritis seeks to further support and enhance UK MSK clinical epidemiology research.

Modern 'omics' resources and machine and deep learning artificial intelligence techniques alongside digital health technologies now underpin and drive clinical epidemiology. Re-igniting our support of dedicated clinical epidemiology investment recognises this and aims to put the application of these methodologies to work with urgency on issues around arthritis that are proving hard to understand and unlock.

Consortium funding that supports exploration and development of novel epidemiological data handling, statistical skills and methodologies, and that links across population, health service, personal digital health data and bio resources, seeks to:

- Better understand the causes, patterns, risk factors and treatment responses of arthritis and related MSK conditions.
- Determine how best to use digital technologies to support the management and treatment of arthritis.

## Versus Arthritis research gaps and priorities

There are many remaining unmet needs around arthritis. Whilst there are commonalities across diseases, equally there are differences between diseases, notably the nature of treatments and care pathways for the immune-mediated inflammatory diseases compared to osteoarthritis.

Versus Arthritis has four [Research Advisory Groups](#) which gather research priorities, each uniting specialist researchers, people with lived experience of arthritis, and health professionals in covering: Adult Inflammatory Arthritis; Autoimmune Rheumatic Diseases; Musculoskeletal Disorders and Paediatric Rheumatology.

This funding call aims to respond to the research priorities identified by our Research Advisory Groups, and so we strongly encourage all applicants to consult and refer to these priorities. These are captured in a dynamic "Gaps and Opportunities for Arthritis Research." reference document: <https://www.versusarthritis.org/research/for-researchers/how-we-deliver-research/our-research-strategy/>.

There are common issues (themes) that cut across many diseases relevant to the Consortium Calls, including living with and managing variable but pervading chronic pain and fatigue, living with and managing arthritis during the various stages of the life course, dealing with multiple long-term conditions and health inequalities. Whilst it is unlikely that a Consortium Call will target investment dedicated to any single one of these themes, research challenges related to these themes can be included in a Consortium.

# Scope and Requirements

## Clinical Epidemiology Research Consortium

Informed by the charity's research strategy, advisory group priorities and organisational goals Consortium funding should aim to unlock area(s) of problematic understanding around the occurrence and progression of disease, and the effectiveness and safety of treatment. Consortium funding should not focus on generation of population level health intelligence surveillance epidemiology.

Osteoarthritis is an increasingly prevalent condition, lacking understanding across a number of areas. We are particularly interested in supporting furthering understanding of factors that influence the development and progression of osteoarthritis.

We will invest in novel clinical epidemiology research including digital, genetic, proteomic and molecular epidemiology focused on:

- Better understanding the biopsychosocial causes, patterns, risk factors and treatment responses influencing and predicting disease onset, progression and outcome.
- Developing effective diagnostic and risk management tools.
- Contributing to effective decision making around care and treatment options.

This can include novel bioinformatic methodology development as well as novel application of epidemiology techniques and analysis.

The establishment of a dedicated Clinical Epidemiology Consortium does not predicate that epidemiological research is excluded from other Consortia challenges.

If required, please contact the research team for guidance ([awards@versusarthritis.org](mailto:awards@versusarthritis.org)) on the scope of the Call and the relevance of your application.

## The Versus Arthritis Research Consortium funding model

Consortium funding is about bringing different people and groups together to work with integrated thought and ambition toward unlocking a problem area at pace - creating a community of shared expertise and knowledge to deliver a cohesive series of research to achieve the aims.

Versus Arthritis Consortium funding is £3 million for five years. It is not expected to be renewed.

Consortium funding investments aim to directly target benefits for people with arthritis. This can also include how arthritis co-exists with other long term (MSK) conditions (i.e. condition 'X' resultant of / associated with arthritis, arthritis resultant of / associated with condition 'X'). Thus, the scope of a Consortium can encompass the many types of arthritis and MSK conditions but should be explicitly based on the associations and impacts for people with arthritis. Consortium investments are not intended to target dedicated challenges relating purely to diseases that associate with arthritis, such as other autoimmune diseases or osteoporosis / bone disease.

## ➤ Team Science in 2024

The Versus Arthritis Centre of Excellence 'infrastructure' model funded the establishment of thirteen Centres of different types, between 2008-2014. These were substantial investments for the charity allowing the building of capacity and programmes of research across a range of areas of strategic need. This model delivered change in all of the defined impact areas, progressing the knowledge base and leveraging investment in the given areas and providing capacity building environments. We recognise that over ten to fifteen years, around each of the Centres, individuals have moved, new connections have been made, the major questions have changed, technologies have changed and innovations in research have progressed.

As a result, no single research group is equipped with the necessary collective expertise to address the whole of a research challenge. Aligning efforts and outputs strengthens research capabilities and enhances impacts. Cross discipline research draws together multiple groups to look at an area from different disciplinary perspectives with shared goals. Enabling idea exchange and connection, and facilitating mobility leads to greater scientific impact and innovation than single investigator approaches. Such team science approaches, coordinating collaborative, consortium ways of working, are now well established in the landscape and known to be effective.

Versus Arthritis seeks to support working 'across and together' to join up different areas of thought and research to deliver swifter success in translating new knowledge to reality and patient benefit.

## ➤ Purpose

- Consortium funding is available **primarily to perform research**. Consortium funding is not 'enabling' or 'infrastructure' funding (to deliver a series of pump-priming projects or a PhD training network for example). Consortium funding is not to deliver a large clinical trial.
- Consortium funding is about **bringing different people and groups together** to work with integrated thought and ambition toward **unlocking a problem area at pace** - creating a community of shared expertise and knowledge to deliver a cohesive planned series of defined packages of research to achieve the aims. This investment is not network development funding to bring people together to then seek funding to do research. Consortia activity should not be supplemental to other awards.
  - We expect to see the bringing together of expertise, knowledge and studies in different areas, beyond one stream of expertise and across geographies and institutions, addressing an overall problem.
  - We welcome research involving individuals from any specialism, including those without a background in arthritis research, or employing any techniques as appropriate to addressing the research question.
  - Connections can be ambitious and broader than researcher teams, to include representation as appropriate from industry, local communities, education, employment, local authorities, healthcare structures.
  - A consortium may be small or larger in relation to the numbers of partners, depending on, and justified by, the design of the research programme.
  - We encourage representation of health and social care service delivery, local authorities, policy expertise and technology transfer capabilities as appropriate in consideration of the next dissemination/ implementation steps around the Consortium outputs.
- Consortium funding seeks to bring a broad spectrum of the best people and the best approaches together, **building on and evolving existing collaboration**, to address a major challenge. We do not



expect consortia to bring together wholly new networks but rather to build on existing networks and expertise, bringing in appropriate new partners and collaborations to address the challenges that have arisen from progress in the area.

### ➤ **Research Impact**

The Versus Arthritis Research Impact framework focuses on the seven areas of research impact listed below. We anticipate that the Consortium funding model will achieve impacts relevant to one or more of the four areas highlighted in bold. More detail around these impact areas can be found in our guidance documents including examples of outcomes relating to each area. The impact areas 'leveraged funding' and 'partnerships' are secondary impact areas for this funding model. The impact area 'capacity building' is not a target for this funding model.

- **Patient and Public Involvement** – the benefit that patients bring to the research itself.
- **New knowledge** – our research has changed what we know about arthritis.
- **Intellectual property, products, and services** – new innovations, treatments or tools which improve patients' lives.
- **Policy and Practice** – our research is influencing how arthritis is treated or managed.
- Partnerships – new networks, partners and collaborations which extend research.
- Leveraged funding – new funding that has been awarded to continue the research we funded.
- Capacity Building – our investments are increasing the human or technical capacity to conduct research.

### ➤ **Key Features**

- Versus Arthritis Consortium funding **does not require contributions from host/member organisations** in terms of capacity building resources or posts such as PhDs or salary contributions, though such contributions are very welcome. It is expected that host/member organisations will support Consortium members in terms of laboratory and desk space and access to infrastructure facilities, services and equipment.
- The Consortium funding model is **open to formal collaborations and partnership with other funders, industry and international stakeholders**. For applicants who have a potential interest in seeking co-funding, it is essential that contact is made as early as possible with the Versus Arthritis team through [awards@versusarthritis.org](mailto:awards@versusarthritis.org). This will allow the funders to determine whether the proposal would be suitable for co-funding consideration and provide further information if appropriate.
- It is expected that there will be **ambition and intent for Consortium members to seek to leverage funding** to deliver additional components of work, supplementing the primary elements of research via further funding from others as well as from Versus Arthritis. Although the Consortium model is not primarily a model to leverage further funding, some attention will be paid to this in evaluating progress.

### ➤ **Fundamental Elements**

- Consortium funding can support a short (under 6 months) **establishment phase**, this should be included in the Consortium plan/Gantt. The Consortium should not spend more than 6 months setting up the core research components, and not more than 1 year in starting research in all workstreams.

- The change(s) the Consortium is seeking to make against the Consortium's defined goals, aims and overall themes is important. However, the Consortium should **be sufficiently flexible** to respond to changing knowledge and perceptions whilst directed towards a coherent programme of deliverable research. Funding is thus available with some flexibility and 'space to create and shape' on an ongoing basis.
- A **theory of change delivery framework** and Gantt chart should be defined with an indicative budget envelope necessary to achieve the planned change. Annual reviews and conversations will shape the following years plans and can allow for changes in direction, enabling adaptation and ability to respond in response to circumstances, as well as de-prioritisation. This funding will be openly receptive to variations of allocated funding.
- A proportion of the Consortium **funding can be allocated to support the core facilitatory resources and assets** required for the research delivery, i.e. the directly allocated core operational costs sometimes referred to as infrastructure but not larger research infrastructures (buildings, major data collections / sample resources / equipment / services / training programmes).
- The Consortium leadership should adopt a team science approach. However, financial and administrative system limitations and contractual and governance arrangements require there to be **a defined Consortium Lead and administrative point of reference**. A Consortium Lead should be someone with appropriate experience, demonstrating the relevant attributes, skills and experience – they do not have to be a person at Professorial or Head of Department level. Individuals are not allowed to Lead more than one Consortium. Individuals are allowed to be members of multiple Consortia.

## General Requirements and Inclusions

### ➤ **Pace and Precision - a translational approach (Research Strategy Principle - Ambitious)**

We want emerging research evidence and research-driven solutions to rapidly enhance health and social care practice and policy guidance for prevention, early detection and treatment of arthritis.

Proposed research must advance the translational pathway towards new or improved approaches to prevention, diagnosis or treatment. Applicants should take care to ensure future benefit for people with arthritis is clearly and reasonably discussed within the application.

It should be clear from the application what the next step will be beyond the proposed study. Studies clearly emphasising the route to translation from laboratories to people with arthritis will be prioritised.

### ➤ **Research Involvement (Research Strategy Principle - Person focussed)**

Applications should involve people with arthritis in the development of the outlined work as well as plans for continued collaboration with them in the oversight, delivery and dissemination of the proposed research. More information and guidance can be found here: [Involving people with arthritis \(versusarthritis.org\)](https://www.versusarthritis.org)

### ➤ **Diversity and Inclusion (Research Strategy Principle - Inclusive)**

Applications must demonstrate careful consideration of appropriate representation and diversity (ethnicity, socioeconomic, gender, age, geography) as relevant to the content and aims of the proposal.

## ➤ **Four Nations (Research Strategy Principle - Inclusive)**

We encourage applicants to consider the breadth of the consortium reach and articulate how they will ensure that the challenge they aim to address can benefit all four UK nations, given the differences between them for example in health care delivery. This could be through inclusion of consortium members from different nations or through explicit plans on how outcomes and impacts will lead to benefits across the UK.

As relevant to the scope of the work, a Consortium should consider differences in local environments, and particularly, that specific needs of devolved healthcare and research funding contexts can require tailored solutions.

## ➤ **Clinical Research Delivery**

With the current clinical research challenges in the NHS, investigators and sponsors are required to make transparent and realistic assessments of capacity and capability to deliver.

Co-applicants and collaborators at NHS sites are asked to support proposals only if there is a certainty that they can meet recruitment targets and timelines indicated. It will be taken that host institution signatories are wholly satisfied and supportive of the assurances provided upon submission of the application.

## ➤ **Data and Sample resources**

We encourage researchers proposing to make use of human tissue to consider whether existing resources would meet their needs and to justify why any new collection is necessary.

We encourage researchers to make use of established, pre-existent cohorts, collections, bioresources and registries; notably the BSR registries, NIHR Bioresource, the IMID Bioresource and, IMID Bio UK.

Application of substantive epidemiological methods to key problem areas requires access to large, high quality, well phenotyped cohorts. Although there may be a case for primary data collection, it is considered that the focus should be on using available data sets and the potential to link between them. The prospective establishment of such cohorts within a Consortium will only be considered for support if the impacts are to be available in relation to the five-year timeframe. This equally applies to support for enriching established datasets. Consortium funding is not available to distinctly maintain population and patient cohorts and sample collections unless distinctly required to deliver the hypothesis led research being conducted to meet the aims of the challenge.

For clarity, given there is no expected Consortium renewal, intent to sustain a cohort beyond the five-year period requires independent support (a clear, feasible, sustainability plan).

We require those receiving funding to create a tissue collection provide access to this and register the collection in a publicly accessible directory.

## **Who can apply**

The lead applicant must be based at an eligible UK institution, for further information see the guidance document. At least one applicant must have a permanent position within the lead institute.

There is no defined minimum or maximum number of Consortium members, it's about bringing the best people together; we are not generally expecting single site applications.



International members bringing expertise or facilities that are not available in the UK are welcomed. Versus Arthritis conditions of award allow for funds to flow from the lead administrative organisation to non-UK organisations.

Individuals can be involved in more than one Consortium provided the time commitments can be justified and honoured. For individuals involved in more than one awarded Consortium we will want to discuss with them their commitment to each individually. We will require assurance that they have sufficient support and ability to contribute in the manner wished for and reassurance that such involvement is not having a negative effect on them individually or on the Consortium. Individuals are allowed to be members of different Consortia but are not allowed to be a Lead on more than one.

People with lived experience may be included as co-applicants.

Applications can include lead applicants and/or co-applicants with expertise relevant to this initiative but who do not have a track record of musculoskeletal research.

Applicants with proposals that include part-funding from a third party are allowable, but **applicants should contact us to discuss their application as early as possible** and will be subject to appropriate multi-party contracting arrangements around award.

## What you can apply for

We plan to invest up to £3 million in a single award.

Costs for salaries, consumables, expenses and small items of essential equipment can be requested.

If necessary, a proportion of Consortia funds (around 10%, ~£300,000) can be marked to support the associated costs of core activities. These must be clearly linked to the research delivery and include Consortium administration/management and patient and public involvement. If costs such costs are not included as direct costs, then an explanation of where such support will come from should be included.

The purpose of this funding is to fund hypothesis led research that fully realises the benefits of team science and accelerate change in areas of unmet need. It is not to fund training, however, training of key personnel, including small numbers of post graduate researchers, can be included where it is key to the success of the consortium.

For details on what you can apply for, please see the application form and guidance document.

## How to apply

There is a one-stage application process, with a gathering of interests step.

### ➤ Expression of interest

Please email to [awards@versusarthritis.org](mailto:awards@versusarthritis.org) a PDF document outlining:

- summary of the proposed consortium in plain English (500 words)
- a list of consortium members (name, institution and role)

The expression of interest content will be used to (i) check the alignment with the scope of the call before you submit your application (ii) enable us to bring together an appropriate panel of experts to assess your application, this will likely include international expertise.

This is not a triage step, seeking to sift out applications, there will be no expert review at this stage. No feedback will be provided unless the early scoping appears to be positioning the Consortium away from the aims of the Call. You should not wait for an invitation to submit an application in Grant Tracker.

Additional Consortium members can be added after the expression of interest submission, they should be noted to the office by email, in contribution to our establishment of the assessment panel.

### ➤ **Application submission through Grant Tracker**

Applicants should submit applications through [Grant Tracker](#), where the form will be available.

Applicants should not wait to be invited to submit following submission of their expression of interest.

Applicants must carefully read the application form and guidance document before starting an application.

Please ensure that the most appropriate language is being used in each section of the form and that the correct sections are completed.

The deadline for the receipt of applications is **16:00 on 25<sup>th</sup> September 2024**. Submissions after 16:00 will not be accepted. Applications seeking co-funding that have not contacted the awards team prior to submission will not be accepted.

**Please allow time for management of appropriate reviewers and signatories to access the Grant Tracker system and provide their approvals.**

### ➤ **Application content**

#### **Theory of change**

The application requires presentation of the approach proposed to making progress in tackling the defined area of unmet need. We want to see a definition of the problem and it's causes (the research gaps and implementation challenges). We want to see your definition of the progress and changes (outcomes) and resulting benefits (impact) you are seeking to make. This needs to be a realistic scale of change with the time and resources available. We need to see the extent to which the consortium has considered the range of factors needed to bring about this change and understand the logic by which you believe change will happen, including the assumptions which need to be made at this stage. This theory of change will be an ongoing tool used to help understand the progress of the consortium throughout its funding.

We will hold a presentation in June 2024 to provide supportive information about developing and managing a theory of change delivery framework; there will also be additional opportunities for one to one 'surgery' time before the submission of your full application. Please email [awards@versusarthritis.org](mailto:awards@versusarthritis.org) for further details.

#### **Consortium membership and management model**

Consortium membership, management structures, leadership and approach to decision making and ways of working and communicating should be clearly articulated, demonstrating how the Consortium will operate as a single entity providing additive value. As appropriate, applications should show, in some capacity, that people/teams have worked together before and had impact together before.

## How will applications be assessed

Assessment panel members will review applications and make a funding recommendation.

Assessment by people with arthritis forms a key part of the review process. Further information and guidance can be found on our [website](#) and in the guidance document.

All eligible applications will be reviewed by the assessment panel members. If the volume of applications makes it necessary, the panel may triage applications ahead of invitation to attend a formal assessment panel interview online.

Applications will be reviewed by an assembled panel of scientific, clinical, and other relevant experts and people with arthritis and will be assessed on:

- Importance, novelty and whether it meets an unmet need
- Scientific quality and scope
- Novelty and Innovation
- Involvement of people with arthritis
- Value for money
- Leadership, make-up of the research team, approach to collaboration and management
- Commitment to team science and the recognition of contributions of all involved.
- Quality and appropriateness of the research design and methodology
- Feasibility and facilities to conduct the proposed research and the potential to deliver the stated outcomes within the timescales and budget
- Applicants' track record and ability to deliver the proposed research
- Strengths and weaknesses

There will be a panel interview, which will be held online, this will be in December or early January. It is expected that between five and eight applicants may join the interview. Limited feedback will be provided to applicants prior to the interview to support preparation for the interview stage.

## Award management

There will be an annual review of finances, achievements and progress – you should plan to review your theory of change and encompass independent scientific review also.

It is expected that all awards will report annually via Researchfish.

All original peer-reviewed articles published as a result of this research must comply with our open access policies. You should tell us directly about all articles in peer-reviewed literature or disseminated publicly (for example, press releases) as soon as the article has been accepted for publication or dissemination.

Versus Arthritis must be notified of any information relating to intellectual property and commercial activity arising from this award.

Versus Arthritis is dependent on funds raised from public donations and receives no funding from the Government, therefore it is important that you join us in raising the awareness of our charity. Our logo should be used on all documents/presentations relating to this award.

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Award holders may be invited to meetings with Versus Arthritis to discuss their research and/or asked to contribute written summaries.

## Timelines

Deadline for expression of interest	16:00 Wednesday 10 <sup>th</sup> July 2024
Support for theory of change development	Through June, July, August, September 2024
Deadline for applications	16:00 Wednesday 25 <sup>th</sup> September 2024
Panel feedback before interview	November 2024 / December 2024
Online panel interview	December 2024 / Early January 2025
Notification of award	February / March 2025
Project start	From April 2025 at earliest

## Contact details

For all enquiries, please contact [awards@versusarthritis.org](mailto:awards@versusarthritis.org)