I. Introduction

At Versus Arthritis, we invest in breakthrough treatments, the best information and vital support for everyone affected by arthritis. We believe that by harnessing the power of exceptional science we can overcome the pain, isolation and fatigue arthritis causes, making everyday life better for all 10 million people with arthritis in the UK.

We are committed to building a world-class workforce to continue the fight against arthritis through supporting research careers and ensuring there’s sufficient capacity within the UK to translate ideas into benefit for people with arthritis. We aim to encourage the brightest and most committed researchers, from all relevant disciplines based in the UK and beyond, to become involved in research into musculoskeletal diseases.

Our prestigious PhD scholarships aim to encourage the best basic scientists and non-medical healthcare professionals (including nurses and allied health professionals) to embark on a research career in any discipline relevant to arthritis and related musculoskeletal diseases.

These scholarships provide a generous tax-free incremental stipend, UK tuition fees, expenses and a travel grant for conference attendance. Applicants can apply for one of two models of funding:

- **1+3-year model** will allow for the completion of a relevant MRes/MSc in year one, followed by three years of PhD funding. Stipend and tuition fees will be paid for the four years; consumables will be paid for years two - four only
- **3+1-year model** will provide three years of PhD funding (stipend, fees and consumables) with the option of applying for supplemental funding for year four if required.

The funding model requested should be outlined in the relevant section of the application form, with information on any proposed MRes/MSc course, where applicable.

II. Eligibility criteria

Versus Arthritis research awards may only be held in universities, hospitals or recognised academic research institutes in the UK.

Applications should be made by the proposed supervisor at an eligible institution.

Students supported by these awards can be basic scientists or non-medical healthcare professionals (including nurses and allied health professionals), medical graduates are not eligible.

Applicants may include a named student or apply with projects alone, with student recruitment to be carried out at a later date. Those without named students at this stage will be asked to submit relevant information (CV and supporting statements) when the student is appointed.

It is a requirement that one of the applicants for the PhD Scholarship scheme have a tenured or permanent position with the host institution.

Projects must demonstrate a clear relevance to the aims of Versus Arthritis.
III. Multiple applications

We will not accept overlapping applications of the same research proposal to more than one Versus Arthritis funding scheme. We will accept an application that has been submitted to another funding body, however, please check the eligibility criteria of the other funding body before making an application.

IV. How to apply

All applications for Versus Arthritis funding must be received through our online grant management system Grant Tracker. The deadline for submission of applications is 16:00 on the stated deadline in the call document/webpage – this deadline relates to the time Versus Arthritis receives the application \textbf{NOT} to the time you press submit. When you press submit an automated email will be sent firstly to your finance officer for approval and once they have approved the application a second email will be sent to your Head of Department. \textbf{It is only upon your Head of Department’s approval that the application is finally submitted to Versus Arthritis.} This must all be completed by the 16:00 deadline so we strongly recommend that applicants allow sufficient time for submission before the deadline in order to obtain the necessary approvals. No applications received after the deadline will be accepted.

Further information and FAQs about applying for PhD scholarships, are available here: \texttt{Types of fellowship | Versus Arthritis}

PhD stipend values are available here: \texttt{Applying for a grant | How to apply, FAQs, code of conduct (versusarthritis.org)}

V. Note on the language

The lay abstract should be written in appropriate non-technical language. For more information on how to write a clear and informative lay summary please use the following resources:

• INVOLVE plain English summaries

• The Plain English Campaign

If you have further enquiries on the use of appropriate language, please email the Patient Involvement Team at patientinsight@versusarthritis.org
VI. Guidance for completion of the PhD application form

The sections to be completed in the application form are presented below - please ensure you reference each section before completing the online form.

Scientific Summary

The scientific summary is a brief summary of the application which is used for the purposes of triage. The triage panel will be provided with the scientific summary, the CV of the lead applicant (primary supervisor) and details of any co-supervisors. They will not be provided with the full application form at this initial stage.

The format of the scientific summary is at the discretion of the applicant and it is not essential to use the items in the list below as headers, as long as the required information is provided. The applicant may supplement their scientific summary with one scientific summary supporting diagram (JPEG, GIF or word. Maximum attachment size 10MB).

1. Introduction – to include the background to the project, the supervisory team’s preliminary work in the area and the objectives of the current proposal
2. Methods - to include details of the techniques to be used, the supervisory team’s experience with these techniques and/or the institutional support available in these techniques
3. Predicted outcome/wider impact of research
4. Relevance to Versus Arthritis
5. Training/facilities

If the ongoing COVID-19 pandemic has had a severe impact on the preparation of the proposal (e.g. delayed publications or reduced preliminary data). Please use the scientific summary to briefly describe these impacts.

Max word count = 1000 words.

Project summary

Scientific title of research: this should be descriptive. If relevant, please use PICO (Population, Intervention, Comparison, Outcome) principles and include a project acronym.

Scientific abstract of research including key goals (max 300 words): this should include the purpose, study design, the specific area of research interest for which this application is entered, and the potential application of results.

Organisation: This should be the location of the project.

Proposed start date: This must not be before 15/04/2022.

Proposed duration: Please enter your proposed project duration in months.

Key Words: Please enter up to 6 key words that describe your application.
Lay case for support

This section may be reviewed by lay and scientific experts, please complete this section in a lay language. Further guidance on writing for a lay audience is provided at the start of this document.

Lay Title: The title should be descriptive and in a lay language.

Lay Abstract: This should outline: the background to the problem; the aims and purposes of your proposal and why they are important; a brief experimental plan; and the relevance to Versus Arthritis and potential patient benefit (max 300 words)

Background: Briefly and clearly explain the context of your research, the particular area(s) that your proposal seeks to address and the need for further understanding or treatment options. Please avoid going into great detail of the condition in question unless it is rare (max 400 words)

Hypothesis and aims: What are the questions you hope to answer and why? (max 300 words)

Lay project plan: Give a brief overview of how you intend to answer your research question(s), including details of what experimental models you will use (e.g. human cells, animal models, clinical samples, patient and/or education research studies) (max 400 words)

If awarded, explain the novelty and relevance of the application to the Charity’s ambitions: How is this research different to what has been done before by your research group and others? Explain the relevance of your proposal to Versus Arthritis’s ambitions (max 300 words)

If awarded, what impact and potential benefit will this application have for those living with arthritis? (max 400 words) How will the outcomes of your research lead to clinical, patient and/or societal benefits, and what are the likely timescales to benefit? We recognise that, depending on the nature of the research, the applications that we receive can have immediate patient benefit and others increase the knowledge basis for future interventions. In applications where the outcomes directly impact on the quality of life of people with arthritis, this should be clearly detailed in this section. Where benefit is less obvious, for example in basic laboratory research, explain:

- why this study is necessary to inform a gap in knowledge that will be useful for subsequent translational research?
- how future research can be built on the findings toward benefit?
- what are the potential next steps that would be required to get your research findings to clinical intervention?
- when the benefit might be achieved, with realistic justification of these timelines?

Project details

Please provide details on the proposed project under the following headings. Please note the word limits for each of these sections.

Scientific background (max 800 words): Briefly and clearly explain the context of your research. This should include the disease/area and its clinical and/or patient impact, the particular area(s) that your research seeks to address, and the need for further understanding. Also include past and current research, including that funded by Versus Arthritis and include the applicants’ own contribution to this.
If appropriate, where a systematic review has been carried out that summarises the available evidence, this should be referenced. If relevant, applicants should describe the policy relevance of the proposed research and the importance of its findings.

**Aims and purpose (max 150 words):** State the primary hypothesis and outline the aims and objectives of the research.

**Outline and brief plan of investigation (max 1200 words):** Outline the proposed programme of work to include clear work packages, milestones and methodology. Please include a Gantt chart using the attach documents at the end of the application form.

Please include the following subheadings where applicable:

*Research design:* Provide a detailed account of the research methodology. This should include a statistical plan, measures to reduce bias, justification for the proposed sampling strategies, sample size calculation, methods of data collection, analysis and outcome measures. The plan should be separated into work packages where appropriate.

*Data management:* Please describe the approach for data management to include making the data discoverable and the process for data sharing.

Please outline how you have taken the ongoing impact of COVID-19 into account during the planning of this application (max 500 words): Please give an overview of how this project might be affected by the ongoing COVID-19 pandemic including any risks you have identified and your planned strategies to mitigate those risks.

**Relevance of the proposed project to the aims of Versus Arthritis and justification of its suitability for PhD training (max 250 words):** Explain the relevance of your proposal to Versus Arthritis’s purpose and strategic focus. Please also use this section to state how the project is suitable for PhD training.

Outline any formal graduate training programmes that will be available to the fellow to develop their research and other transferable skills and arrangements for mentoring, pastoral care and career guidance (max 250 words)

Basic formatting can be applied to each section, but you cannot incorporate images or embed documents. Any additional documents or images can be attached in the Attachments section of the online application form. Please ensure any figure legends are included within the text.

### Additional project details

**Which funding model is requested for the proposed project?** Versus Arthritis will provide up to 4 years of support. Applicants can apply for one of two models of funding:

- **1+3 model** will allow for the completion of a relevant MRes/MSc in year 1, followed by 3 years of PhD funding. Stipend and tuition fees will be paid for the four years, consumables will be paid for years 2–4 only.
- **3+1 model** will provide 3 years of PhD funding (stipend, fees and consumables) with the option of applying for supplemental funding for year 4 if required.

**Previously submitted:** Please indicate if this or a related application has been submitted elsewhere, including Versus Arthritis. If a similar application has been submitted please provide further details about the application, where it has been submitted and the outcome or date of expected outcome.
Intellectual Property (IP): If appropriate, please provide the following information:

- Whether the proposal is likely to produce new IP (max 500 words)
- How the new IP will be managed (max 500 words)
- Whether there is existing IP associated with the proposal (max 500 words)

IP means patents, copyright, trademarks, trade names, service marks, domain names copyrights, moral rights, rights in and to databases (including rights to prevent the extraction or reutilisation of information from a database), design rights, topography rights and all rights or forms of protection of a similar nature or having equivalent or the similar effect to any of them which may subsist anywhere in the world, whether or not any of them are registered and including applications for registration of any of them. Where appropriate explain how you will engage with your Technology Transfer/Enterprise Office. For further enquiries on any aspect of IP, please email the Research & Programmes Directorate at research@versusarthritis.org.

Resources and facilities: Describe the resources and facilities available to support delivery of the project. These should include access to libraries, online journals, generic and research specific software, appropriate workspace and laboratory facilities (if relevant), and/or clinical facilities (if relevant).

Industrial Support: Indicate if the application involves any external commercial organisation (including collaborations and donations). If indicated that industrial support is associated with the project, an additional page will appear in the side menu of the application form for completion. Use the additional page to provide further details of the commercial partner including contact details, details of the support/collaboration and any conflicts of interest. Please refer to our industrial support policy.

Public and patient involvement

We strongly advocate for the meaningful integration of the insights of people with arthritis into the applications we receive through our funding calls. As such, the questions outlined in the application form are for the applicant to detail their interaction with people with arthritis in developing their application and planning of future work. Please refer to our Involving people with arthritis: A researchers guide booklet, which aims to support you to integrate public and patient involvement into your work so that it enhances your research.

Explain how people with arthritis have inputted and informed this application: Please explain (a) how you have involved patients in developing this application, and (b) how patients will be involved in steering and implementing the research should your application be successful (max 500 words).

Impact

Please describe how the research project proposed will impact the lives of people affected by arthritis in the short and long term and outline what would need to happen after this grant for the long-term impact to be realised.

Scientific references

Please detail all publications that are referenced in the application. Please include full title and all authors. Please highlight all publications by your own group or current collaborators in bold.
Lead applicant details and Lead applicant CV

For further information on grant roles please see: https://www.versusarthritis.org/research/information-for-researchers/research-funding-opportunities/applying-for-a-grant/

For PhD Scholarships, the lead applicant is the main supervisor. They will be responsible to Versus Arthritis to ensure the conditions of award are met. They must be based in a UK university, hospital or recognised academic research institute in the UK.

The Lead Applicant details in this section will be populated automatically based on the information that is stored in GrantTracker. To amend these details, please save and close the application form and visit the ‘Manage My Details’ section on the GrantTracker Versus Arthritis homepage as outlined below:

Basic information: Please ensure all fields marked with a red dot are completed (these are compulsory fields).

Update CV:

Degree/Qualification - please add any degrees or professional qualifications that you hold, and feel would aid your application.

Employment – Please list your present and last position held as a minimum. Please list any further positions that feel would aid your application.

The grants and publications sections of the lead applicant’s CV should be populated via the Relevant Grants and Publications section later in this application form.

Publications

Please provide a list of your publications from the past five years along with any publications that are highly relevant to this PhD project proposal that may pre-date the past five years. Please do not include abstracts. If you do not have any of the listed publication types, please enter N/A in the relevant box.

- Original peer reviewed papers
- Reviews
- Books or chapters
- Editorialis, letters or case reports

Other research outputs

Other than the publications and awards already listed in your application please list and briefly describe three to five of your key research outputs or achievements. These can cover any forms of output relevant to your research including but not limited to:

- Development and sharing of new datasets, software, research reagents, tools, methods, products or patents.
- Contributions to collaborations/consortia/team science
- Participation in PPI and engagement activities
- Influences on policy, practice, education or training
- Development of new preventative, diagnostic, treatment or management approaches and
interventions
• Improvements to health or quality of life for patients and the public
• Additional relevant publications and pre-prints

Co-supervisors

Co-supervisors/co-applicants are individuals who will have had intellectual input into the application and are expected to be involved in the supervision of the student. All co-supervisors are expected to make a substantive contribution to the delivery and management of the research described in the application.

If you wish to add a co-supervisor/co-applicant that is based outside the UK, please contact Versus Arthritis’s research department.

People with arthritis or service users who are named co-applicants should include in their CV a summary of any knowledge, skills and experience relevant to their role in the application.

Please add details of all co-supervisors/co-applicants involved with the project. You will be able to select individuals who already have an account with us. Individuals who do not have an account with us will be asked to register and will be sent details via an automated email.

Please ensure all co-supervisors update their CV details including publications and current grants through the ‘Manage My Details’ section on the Grant Tracker Versus Arthritis homepage. Details will pull through automatically to this application form.

Relevant Grants and Publications

Before adding relevant grants and publications to this application, the lead applicant and co-supervisor(s) should ensure that all that their profile is up to date in their Grant Tracker account as follows:

Research grant and fellowships

Go to ‘Manage My Details’ section followed by “Update CV” to check or amend the list of grants and fellowships held.

Publications

Go to “My Research Outputs” to check or amend the list of publications held.

Please refer to our guidance document for full instructions on how to use the Research Outputs section.

Once the lead and co-supervisor profiles are up to date, each participant can then add their own relevant grants and publications in the Relevant grants and publications section of the application form.

This section allows both the lead applicant and co-supervisor(s) to choose which grants and publications to list as part of their CV. The lead applicant and supervisor(s) can each choose to list up to a maximum of ten grants and ten publications that are most relevant to the application. This section will appear different to each individual filling it in and only the individual’s own publications and awards as listed in Grant Tracker will be visible to that user.
The lead applicant and co-supervisor(s) must individually complete this section before the form can be submitted.

To add a grant
Use the button to add a new field then select a grant from the drop-down menu. If the grant you wish to add is not listed in the drop-down menu, you can add it to your CV in the Manage My Details section of Grant Tracker.

To add a publication
Use the button to add a new field then select a publication from the drop-down menu. If the publication you wish to add is not listed in the drop-down menu, you can add it to the My Research Outputs section of Grant Tracker.

There is a link to additional online guidance within this section of the application form in Grant Tracker.

Research students

Department student numbers: Please provide the number of students that
- are currently training for a PhD in the host department/unit
- have been awarded a PhD in the last 5 years.

Supervisor(s) student details: Please provide details on the research students supervised by any of the applicants over the last 5 years. Please provide the student name, the names of all their supervisors; their source of funding, degree registered for, start date and date of award of degree if known.

Collaborating institution

If the student will spend time at another institution, please provide details of the collaborating supervisor, their appointment and institution.

Please detail the:
- advantage of the collaboration (including any special materials or facilities to be provided by the collaborating institution)
- work to be undertaken at the collaborating institution
- total time to be spent with the collaborating supervisor
- type and frequency of contact between the main academic supervisor and the collaborating supervisor
- the financial contribution by the collaborating institution (detailing stipend, travel and subsistence whilst at the collaborating institution, university fees and running expenses).

Collaborations

Enter details of any collaborators not already listed in under the industrial support or collaborating institution sections. Collaborators are individuals who are not be involved in the day-to-day execution of the research but may supply research materials, specific expertise or access to patients.
All collaborators associated with the application will be required to provide a letter of support. These should be uploaded in the attachments section of the form.

**PhD student information (optional)**

Applications may include a named student or, alternatively, students may be recruited by the host department after award of the studentship, with the approval of Versus Arthritis. If the student is known at the time of application, please provide the students name and upload a word copy of the student’s CV.

**Candidates statement:** For PhD scholarships with a named student, the student should provide a proposal statement outlining why they want to apply for a Versus Arthritis PhD Scholarship. This section has a maximum word count of 250 words.

**Supervisor’s statement:** The supervisor(s) is to provide a statement which should address the following needs of the student:

- Induction, orientation and administrative support
- Supervision, giving an indication of the frequency of meetings, setting of timelines, and provision of verbal and written feedback
- Training opportunities, including both generic research and transferable skills
- Environment, including group meetings, journal clubs and opportunities for ideas exchange

This section has a maximum word count of 250 words.

**Ethics**

Please only complete this section if applicable to your application.

The Department of Health requires that research involving patients, service users, care professionals or volunteers, or their organs, tissue or data, is reviewed independently by a Research Ethics Committee (REC) to ensure it meets ethical standards (Favourable Ethical Opinion).

Please tick the box if Favourable Ethical Opinion is required for this research from an NHS Research Ethics Committee

If Favourable Ethical Opinion is not required, please enter justification for not needing it.

If Favourable Ethical Opinion is required, please tick the box if it is already in place for this research and attach the final letter from the REC in the attachments section.

If Favourable Ethical Opinion is required but not yet in place, please provide the approximate date this will be applied for.

**Animal ethics**

Please only complete this section if applicable to your application.

Versus Arthritis is committed to the principles of reduction, refinement and replacement in animal studies. Before completing this section please read our policy on animal research.
Versus Arthritis is a member of the Association of Medical Research Charities and signs up to their position on animal research.

Please tick the box if the project involves the use of experimental animals or other organisms covered by the Animals (Scientific Procedures) Act.

You will be required to indicate:

- The maximum severity of the procedures involved
- Whether the proposed research involved a protected species (non-human primates, cats, dogs or equidae)
- Whether the relevant Home Office project and personal licences been obtained. If you do not hold the relevant Home Office licence, please state when you expect to obtain them.

Justification for the use of animals: Please justify the use of animals, the species and techniques proposed and the number of animals to be used per experiment. Please include details of sample size calculations and statistical advice sought for the number of animals required to reach statistical significance.

There should be sufficient information to allow for a robust review of any applications involving animals. Further guidance is available from the National Centre for Replacement, Refinement and Reduction of Animals in Research (NC3Rs), including an online experimental design assistant to guide researcher through the design of animal experiments.

Replacement, reduction and refinement (3Rs) of animal experiments: Indicate whether the proposed research lead to the advancement of the 3Rs and how it will do this. Further information on the 3Rs is available from the NC3Rs.

**Finances**

PhD scholarships provide a generous tax-free incremental stipend, running costs, a travel grant and UK tuition fees. Please note Versus Arthritis will not pay overseas tuition fees.

The stipend, running costs and travel grant are set by Versus Arthritis. The host institutions UK tuition fees should be provided in the application (please note we will only fund UK rate tuition fees).

For both models please fill in finances for the full four years. Applicants on a 3+1 model will only be awarded the first three years funding and should plan the project accordingly. Costs for year four for this model are for information only at this stage and applicants will need to apply for the fourth years funding during year three if it is required.

**PhD student stipend**

If the host institution is in London please choose yes under London Allowance. If not, please choose no. This will automatically fill in the appropriate stipend values.

**Expenses & Animals**

Depending on which funding model is requested the total project expenses including animal costs should equal the following values exactly.

- **3+1 Model:** Yr 1 £10,000.00  Yr 2 £10,000.00  Yr 3 £10,000.00  Yr 4 £7,500.00
- **1+3 Model:** Yr 1 No Expenses  Yr 2 £10,000.00  Yr 3 £10,000.00  Yr 4 £10,000.00
Expenses

If you are planning to use animals during this project, please fill in that section first and then list the remaining available expenses for that year of your chosen funding model under expenses. Please do not add animal costs to year 4 of a 3+1 model – the whole £7500 allocation should be listed as expenses.

If you will not be using animals, then please add the exact values shown above for your chosen funding model in the expenses section and leave the animals section blank.

In all cases the combined total across the animals and expenses sections must equal the total amount available for that year of your chosen funding model as listed above. Submitting expenses and animal costs with a combined total either above or below the listed values may cause a delay in processing your application.

You do not need to provide justification for your expenses. Please add N/A in the justification box on the expenses page.

Animals

Versus Arthritis is a member of the Association of Medical Research Charities and is required to collect information on the numbers and strains of animals used in the research we fund.

You will be asked to provide the following information:

• Animal species
• Animal strain
• Whether they are genetically modified
• Source of supply
• Number of animals to be purchased for each year of the fellowship
• Purchase price per animal
• Number of animals to be maintained for each year of the fellowship
• Number of weeks maintenance required for each year of the fellowship
• Weekly maintenance cost

Please fill in a separate copy of the table for each strain and species of animal you plan to use. After completing the first version you can add a new species or strain by clicking the add animals button again. A table will appear below listing the costs requested for each species and strain and this will give a total animal cost for each year.

Tuition fees

Please provide the host institution's UK tuition fees (please note we will only fund UK rate tuition fees). If fee information is unavailable for all years, please obtain estimates from your finance office to enter in this form. We will not provide supplements at a later date to cover any change in fees. College fees for students at Oxford/Cambridge should be included in the amount requested.

Please ensure fees information is entered in the correct year depending on the funding model requested:
For a **1+3 model** please enter MSc/MRes fees for Year 1 and PhD fees for Years 2-4

For a **3+1 model** please enter PhD fees for Years 1-4

**Pre-award Administrators**

Please enter all of the administrators required for this application. Administrators can access and edit the application form, however, their details will not appear explicitly on the completed form.

**Signatories**

Enter the details of the signatories required to sign-off the application. The head of department and finance officer OR research officer details should be completed. Before submitting your application to Versus Arthritis, you must obtain the necessary signatories prior to the deadline.

**Attachments**

Only text can be added to the fields of the online application form. Where additional files are required, they can be uploaded in this section.

The maximum size per attachment is 10 MB.

The following documents should be included as attachments where relevant:

1. Scientific summary supporting diagram
2. Letters of collaboration / support
3. Ethical approval
4. Animal licence(s)
5. Named student CV
6. Gantt chart
7. Additional figures / data referenced in the project details section or lay case for support
8. If the application is a resubmission, a cover letter should be attached detailing how the application has been altered in response to the feedback received from the original submission.

**Disease category, Research focus, Research category and Methods used**

In these sections, we ask you to provide some research classification information on your application. You will be asked to select a number of classifications from a standard list in each section.

**End – submitting your application**

To complete the application process, the final steps are as follows:

1. Select Validate form

   This will check that you have completed all of the sections within the application.
2. Click Save then close

After completing these steps, you will be taken to the details page of your application. The submit application button on the right-hand side of the page should be available.

3. Click Submit

Once you have submitted your application an automated email will be sent firstly to your finance officer, once they have approved the application a second email will be sent to your Head of Department. It is only upon your Head of Department’s approval that the application is finally submitted to Versus Arthritis. This must be completed by 4pm on the deadline day.

You will receive an automated email containing an acknowledgement that we have received your application. If you are experiencing difficulties submitting your application, please contact us on 0300 7900 403, allowing for sufficient time prior to the deadline.

Contact

For further enquiries on any aspect of your application, or any issues relating to the submission of your application, please email the Research Directorate at research@versusarthritis.org or phone us on 0300 7900 403.