Guidance for the PhD application



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I. Introduction

At Arthritis Research UK, 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. Our remit covers all conditions which affect the joints, bones and muscles, including osteoarthritis, rheumatoid arthritis, back pain and osteoporosis. We fund research into the prevention, cause, treatment and cure of arthritis and we provide information on how to maintain healthy joints and bones, and how to live well with arthritis.

Arthritis (the term representing a range of conditions that affect muscles, bones and joints) affects approximately 10 million people across the UK.

- More than 1 in 6 people of all ages struggle with the pain and disability of arthritis every day
- Arthritis is the biggest cause of pain and disability in the UK
- Musculoskeletal conditions account for one in five GP consultations, rising to a third of all in the over 50s.

II. Eligibility criteria

Arthritis Research UK research awards may only be held in universities, hospitals or recognised academic research institutes in the UK. Any academic, clinician or allied health care professional at an eligible UK institution can apply. The lead applicant must be based at an eligible UK institution.

Multiple applications

We will not accept overlapping applications of the same research proposal to more than one Arthritis Research UK 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.

III. How to apply

All applications for Arthritis UK funding must be received through our online grant management system Grant Tracker.

Further details on how to apply can be found on our website.

The deadline for submission of applications is 16:00 on the stated deadline in the call document/webage. No application will be accepted after this deadline. We strongly recommend that applicants allow sufficient time for submission before the deadline in order to obtain the necessary approvals, such as from your research or finance office and head of department.

For further enquiries on any aspect of your application, please email the Research & Programmes Directorate at research@arthritisresearchuk.org or phone us on 0300 7900 403.



IV. Note on the language

We recognise that specialist language will be required to accurately convey the detail of your proposal and, as such, sections that require technical detail will be labelled accordingly.

In addition to scientific review, applications may also be reviewed by <u>Patient Insight Partners</u>. For more information on how to write a clear and informative for lay reviewers and the public 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@arthritisresearchuk.org.

V. 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.

Project summary

Application title: The title should be descriptive. If relevant, please use PICO (Population, Intervention, Comparison, Outcome) principals and include a project acronym.

Scientific Synopsis/Abstract: Provide a brief technical account of the proposed research activity including background, focus and objectives, details of the proposed techniques and exploitation of the research results. This section has a limit of 500 words.

Organisation: Insert the name of the lead applicant's host organisation

Department: Insert the name of the lead applicant's host department

Address: Address of the host organisation

Phone number: Contact phone number of the lead applicant

Key words: Please enter up to six key words that describe your application.

Project Model

Please select which funding model you are requesting: Arthritis Research UK will provide up to 4 years of support. 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 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.



Project details

This section will be reviewed by scientific experts, please complete this section in technical language. Please note this entire section has a limit of 2,400 words between all the text boxes. If attaching a figure in the attachments section, please ensure you include a figure legend within the text here to reference the figure.

Scientific background: 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 Arthritis Research UK 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.

Hypothesis and aims: State the primary hypothesis and outline the aims and objectives of the research.

Programme of work and scientific procedures: 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.

Relevance and justification

Explain the relevance of your proposal to Arthritis Research UK's purpose and strategic focus. Arthritis Research UK exists to prevent the onset of arthritis, develop a cure for arthritis and transform the lives of those living with arthritis by building, applying and sharing knowledge. We want to improve the quality of life of people with arthritis so those seeking help from Arthritis Research UK are enabled to make informed choices and are supported to realised their decisions and so they can say "I am in control, independent and recognised". Use this section to explain how this research will have an impact on and contribute to achieving he charity's mission and strategic focus.

Please also use this section to state how the project is suitable for PhD training.

Additional project details

Facilities: Describe the facilities available to support delivery of the project.

Previously submitted: Please indicate if this or a related application has been submitted elsewhere, including Arthritis Research UK. 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 information on whether the proposal:

- is likely to produce new IP (maximum 500 words),
- how the new IP will be managed (maximum 500 words) and
- if there is existing IP associated with the proposal (maximum 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@arthritisresearchuk.org.

Industrial Support: Indicate if the application involves any external commercial organisation (including collaborations and donations). If the proposal includes industrial support use the additional page to provide further details of the commercial partner. Please refer to our <u>industrial support policy</u> and provide contact details, details of the support/collaboration and any conflicts of interest.

Lay case for support

This section may be reviewed by lay and scientific experts, please complete this section in a lay language. Each question has a word limit of 100 words. Further guidance on writing for a lay audience is provided above.

If attaching a figure in the attachments section, please ensure you include a figure legend within the text here to reference the figure.

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 Arthritis Research UK and potential patient benefit.

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.

Aims and purpose: What are the questions you hope to answer and what will this tell you?

Experimental plan: Give a brief overview of how you intend to answer your research question(s), including details of what methods of recruitment or experimental models you will use (e.g. human cells, animal models, clinical samples, patient and/or education research studies) and how the research will be managed.

Importance: Explain why this particular study is important and how this research is different to what has been done before by your research group and others? For example, why have you chosen to investigate this molecule, gene, therapy or aspect of disease, education or health promotion over others



Relevance: Explain the relevance of your proposal to Arthritis Research UK's purpose and strategic focus. Arthritis Research UK exists to prevent the onset of arthritis, develop a cure for arthritis and transform the lives of those living with arthritis by building, applying and sharing knowledge. We want to improve the quality of life of people with arthritis so those seeking help from Arthritis Research UK are enabled to make informed choices and are supported to realise their decisions so they can say "I am in control, independent and recognised". Use this section to explain how this research will have an impact on and contribute to achieving the charity's mission and strategic focus

Novelty: How is this research different to what has been done before by your research group and others?

Impact (potential for benefit): 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.

Lead applicant

For further information on grant roles please see http://www.arthritisresearchuk.org/research/information-for-applicants/applying-for-agrant/roles.aspx

For PhD Scholarships, the lead applicant is the main supervisor they will be responsible to Arthritis Research UK 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 principal/lead applicant must open the application form on grant tracker and add the other key personnel who can then add information.

The details displayed in the application form for the lead applicant are those that are stored on Grant Tracker. To amend them, please save and close the application form and visit the 'Manage My Details' section on the GrantTracker Arthritis Research UK homepage.

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. Publications. Please list your most important research publications up to a maximum to 10 that you feel would aid your application. Full author citations are required. Research Grants – Please list all current grants held.



Co-supervisors or co-applicants

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-applicants are expected to make a substantive contribution to the delivery and management of the research described in the application. For further details on how to enter a co-supervisor/ co-applicant see: http://www.arthritisresearchuk.org/research/information-for-applicants/applying-for-a-grant/how-to-apply.aspx

If you wish to add a co-supervisor/co-applicant that is based outside the UK please contact Arthritis Research UK'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.

Collaborations

Please list any collaborations in the programme of work under **project details**. 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 an application who are not co-applicants are required to provide a letter of support with the application.

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 Arthritis Research UK. 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 an Arthritis Research UK 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.



Administrators

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 Arthritis Research UK, you must obtain the necessary signatories prior to the deadline. A workflow diagram can be found here.

Scientific references

Detail all references (citing all authors) that are of interest for this application.

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.

Publications

Original peer reviewed papers: Please list all your publications that are original peer reviewed papers.

Reviews: Please list of your publications that are reviews.

Books or chapters: Please list all publications that are books or book chapters.

Editorials, letters or case reports: Please list all publications that are editorials, letters or case reports.

Award (grant) Information

List all current awards held by the co-applicants (excluding any from Arthritis Research UK). Those on the Lead Applicant's CV will be added automatically. Please note that we only require



one entry per award, where awards are held by more than one applicant please enter the names of all the award holders listing the PI first.

Arthritis Research UK Awards

Please list each Arthritis Research UK award held by the co-applicant(s) within the past five years. Award information will automatically populate from the Lead Applicant's CV in the PDF of your application; it is therefore unnecessary to include this information here. Please note that we only require one entry per award, where awards are held by more than one applicant please enter the names of all the award holders listing the PI first.

Associated tuition fees

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

The stipend, running costs and travel grant are set by Arthritis Research UK. The host institutions UK tuition fees should be provided in the application (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, (remaining boxes can be left blank).

For a **3+1 model** please enter PhD fees for years 1-3 only (remaining boxes can be left blank). Any fees for Year 4 can be applied for at a later date.

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).



Ethics

Please only complete this section if applicable to your application.

The <u>Department of Health</u> 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 attachment section.

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

Animal ethics

Please only complete this section if applicable to your application.

Arthritis Research UK is committed to the principles of reduction, replacement and refinement in animal studies. Before completing this section please read our policy on animal research.

Arthritis Research UK is a member of the Association of Medical Research Charities and signs up to their position on animal research (http://www.amrc.org.uk/our-work/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.

Select the maximum severity of the procedures involved.

Indicate if the project involves a protected species (non-human primate, cats, dogs or equidae).

Indicate if the relevant Home Office project and personal licences have 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 the Replacement, Refinement and Reduction of Animals in Research (NC3Rs) http://www.nc3rs.org.uk/responsibility-use-animals-bioscience-research, including an online experimental design assistant to guide researchers through the design of animal experiments: http://www.nc3rs.org.uk/experimental-design-assistant-eda.



Replacement, reduction and refinement (3Rs) of animal experiments: Indicate if the proposed research lead to the advancement of the 3Rs (replacement, refinement or reduction in the use of animals) and how it will do this. Further information on the 3Rs is available from the National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs) https://www.nc3rs.org.uk/the-3rs.

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 combined file size cannot be more than 7MB.

Attachments will either be appended to the PDF or they will be referenced from the PDF and included as separate files according to the following rules:

- Image files (JPG and GIF format) will be appended within the PDF.
- For Microsoft Word files, you have the option to either append them or include them as separate files, by default they will be appended. (Please note: Docx files are not currently supported for embedding and will be included as separate files).
- Excel and other file types (e.g. PDF, PPT) will be included as separate files and listed in an appendix.

Disease Category

In this section, we ask you to provide some research classification information on your application. This will be used by Arthritis Research UK to categorise the applications it receives and the work that it funds. Please indicate if the main focus of your research is the education of health professionals or the public. Please also select up to 3 disease categories that your research aligns to.

Research Focus

In this section, we ask you to provide some research classification information on your application. This will be used by Arthritis Research UK to categorise the applications it receives and the work that it funds. Please indicate if the main focus of your research is adult or paediatric disease, if your focus covers both please select both.

Application Category

In this section, we ask you to provide some research classification information on your application. This will be used by Arthritis Research UK to categorise the applications it receives and the work that it funds. Please select up to 3 research categories.



Methods Used

In this section, we ask you to provide some research classification information on your application. This will be used by Arthritis Research UK to categorise the applications it receives and the work that it funds. Please select up to 4 research methods and techniques.

End – Submitting your application

To complete the application process, the final steps are listed below.

1. Select Validate form

This will check that you have completed all sections within the application. Also, that your coapplicants have confirmed and approved their role(s).

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 research or 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 Arthritis Research UK. This must be completed by 16:00.

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.

