

## Application summary

### Application title

### Proposed duration of funding (months)

### Proposed start date

The date must be at least seven months after the application deadline.

*You can change your start date if your application is successful. All grant expenditure and activities must be within the grant start and end dates.*

### Name of host organisation

If your application is successful, this is the organisation that will be responsible for administering the award.

### Lead applicant's address at host organisation

If your application is successful, we will use this address in your award letter.

Department/Division

Organisation

Street

City/Town

Postcode/Zipcode

Country

### Research subject area

Select the most relevant area, based on the key aims of the research. This allocates your application to the relevant Research Funding team for processing. We may reallocate your application to another area if we consider it appropriate.

Are you applying as an individual researcher or with coapplicants?

## Research proposal summary

### Research summary

Provide a summary of your proposed research, including key goals, for an expert audience. (200 words max.)

*The summary should be as complete as possible within the word limit. Include key words that best describe the research to enable text searching.*

*We will use this as a short abstract and to classify your proposal by subject. We may use it to describe your research on our website and elsewhere (we publish summary details of all our awards). If your application is successful, this summary will be automatically uploaded, without editing, to our website. Take care not to include anything confidential or commercially sensitive.*

Is this or a similar application for funding currently under consideration elsewhere?

*We'll consider your application even if you have a similar application being considered by another funder. If the other funder offers you funding, you must tell us immediately. We will usually ask you to decide on that offer within one month. If you decide to apply to another funder with a similar application after you have applied to us, let us know.*

Provide the name(s) of the funder(s) and the expected decision date(s).

Is this a resubmission of an application submitted to Wellcome?

How is this application different? Significant changes are needed for the second application. You do not need to contact us first. (200 words max.)

## Your research vision

Describe your research vision. We want to understand how your research programme will be bold, creative and of high quality. In your description make sure you include:

- (a) your aims and research questions;
- (b) the expected outcomes from your work.
- (c) the background and work which has led up to the project;
- (d) your approach, methods and how you will address challenges; and
- (e) key stages in your research plans, indicating location and milestones.

See the Wellcome Discovery Awards scheme webpage for more information on how we will assess your research proposal.

Do not exceed 3,000 words.

**Key stages in your research plans, indicating location and milestones:** if requesting support for greater than five years you only need to provide a detailed workplan for the first five years of your project. An outline only of the proposed research is required for the remaining years.

The word count must not exceed 3,000 words in total. Do not include any graphs, figures, tables or other additional information in your proposal description. Instead, use the 'Additional Information' question to provide this. Do not refer to additional unpublished information on personal websites; you must provide all relevant information within the application form.

You may provide your answer to this question in text entry format or as a PDF attachment. If you are uploading your research proposal, the uploaded document must be in 11 point Arial font and portrait format.

(3000 words max.)

### **Additional information**

Figures and additional information cannot exceed 2 A4 pages.

Upload additional information here. Do not embed it in the description of your research vision. If it exceeds two pages of A4 we will return your application to you to reduce the amount of information.

This form asks for all the information we require to consider your application. You should not provide additional information (e.g. letters of support) unless specifically requested in the form.

### **References**

Include any references needed to justify your proposal. You should give the citation in full, including title of paper and all authors. 'In press' publications may be included only if they are available on preprint servers.

You may provide up to the equivalent of two A4 pages of references. Ensure that your references are pertinent to your research proposal and are cited in full, including all authors, the full title of each publication, journal title, year, volume and pages.

You can shorten references with more than 10 authors to *et al*, but you must ensure that your position as author (if applicable) remains clear.

### **Team composition and management**

Describe the roles of all applicants and how the project will be managed and led.  
(500 words max.)

Select any of the following that apply to your proposed work:  
(Proposal involves human participants, Proposal involves the use of human biological material, or identifiable/potentially identifiable data, Neither of the above)

We use the World Health Organization definition of research with human beings: "any social science,

*biomedical, behavioural, or epidemiological activity that entails systematic collection or analysis of data with the intent to generate new knowledge, in which human beings:*

- *are exposed to manipulation, intervention, observation, or other interaction with investigators either directly or through alteration of their environment or*
- *become individually identifiable through investigator's collection, preparation, or use of biological material or medical or other records.*

*Read our Research involving human participants policy for information on what we expect from the researchers and organisations we fund.*

### **Details of study design for research involving human participants**

Describe the study design. This should include, as applicable:

- number of participants, respondents or ethnographic subjects in each group;
- how you will allocate participants to study groups;
- type, frequency and duration of interventions, health outcome measures, interviews, focus groups or participant observation sessions;
- the location(s) of research involving human participants;
- details and justification for the power calculation, sample size and proposed statistical analysis. Explain the methods for protecting against bias;
- form, frequency and duration of planned follow up;
- long-term follow up or respondent care plans;
- any other activity with potential significant risks to participants.

(700 words max.)

*Types of health outcomes or interventions can include but are not limited to:*

- *screening procedures*
- *collection of biological samples*
- *biometric and clinical data*
- *experimental challenges*
- *behavioural treatments.*

Outline your strategy for recruitment and describe the inclusion/exclusion criteria for study participants (if applicable). Describe how you will ensure the inclusion of under-served groups as outlined in our policy.

(300 words max.)

How have you involved patients, participants, patient advocacy groups or communities in developing this proposal? What ongoing involvement will they have in the research?

(200 words max.)

Describe the oversight arrangements for the study. For example, the membership and composition of the Steering Committee, Data Monitoring Board.

Who has, or will, review the ethics of the project and when? Detail any other regulatory approvals you have obtained, or will seek.

We reserve the right to see relevant approval documents at any point during the grant and after it has ended. This is in accordance with our research involving human participants policy.

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*Before research begins, you must have in place:*

- *ethical approval in every country where any part of the research will be carried out*
- *the relevant regulatory and ethical approvals for every site where research will be carried out*
- *appropriate governance mechanisms.*

*Read our guidance on research involving people living in low- and middle-income countries.*

*You must have ethical approval for any research Wellcome funds that involves:*

- *human participants*
- *human biological samples*
- *personal data.*

*Any use of personal data or biological samples, relating to living or dead persons, must comply with all relevant legislation where you are working.*

*You must get approval from other regulatory bodies such as the Human Fertilisation and Embryology Authority (HFEA) or the Gene Therapy Advisory Committee in the UK where necessary. For example, research involving human embryos may require a licence from the HFEA. See the HFEA website for more information.*

*If your proposal involves research on gene therapy which requires regulatory approval, you should apply for this from:*

- *your Local Research Ethics Committee*
- *your University's Genetic Manipulation Committee*
- *the Gene Therapy Advisory Committee*
- *the Medicines and Healthcare products Regulatory Agency (MHRA).*

*Researchers based outside the UK must tell us what the law and guidelines are in the area/jurisdiction in which they will be collecting samples, and how they will comply with these.*

Will you be using facilities, staff or patients within the National Health Service (NHS) in the UK?	
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*By agreeing to fund work which requires NHS support, Wellcome agrees to abide by the Statement of Partnership on Non-commercial R&D in the NHS in England (and the corresponding statements in Northern Ireland, Scotland, and Wales). You must therefore meet the obligations of the Partnership and may not carry out any research until the NHS has given its consent.*

*The Research Governance Framework for Health & Social Care, published by the Department of Health in England can be downloaded from the Department of Health website. Wellcome cannot act as sponsor.*

Have you completed a Schedule of Events Cost Attribution Tool (SoECAT)? This must be signed off by an AcoRD specialist. Download a template SoECAT from the NIHR website. Read our guidance on why you need to complete a SoECAT.	
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Explain why you have been unable to complete a Schedule of Cost Attribution Tool. You can submit your SoECAT whilst we are reviewing your application but Wellcome cannot make a funding decision without it. If you do not have a signed-off SoECAT form your research will not receive HRA approval (or equivalent). (100 words max.)

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Which organisation(s) has/have agreed to act as the formal sponsor(s) for your project?

All research involving human participants, tissue or data (including clinical trials) must have a sponsor. For example, under the Research Governance Framework for Health and Social Care or the Medicines for Human Use (Clinical Trials) Regulations 2004.

If your trial is based in the UK, then you must comply with the Medicines for Human Use (Clinical Trials) Regulations 2004. In accordance with this regulation, applicants must identify a sponsor who fully understands the responsibilities and costs associated with assuming this role. This is usually a university or NHS Trust. Wellcome cannot act as sponsor.

Researchers based outside the UK must tell us what the law and guidelines are in the area/jurisdiction in which they are working, and how they will comply with these.

Confirm you have in place, or you will seek, appropriate informed consent to use any potentially commercially exploitable results from tissues or samples derived from human participants. Where data has the potential to be used beyond its initial purpose or beyond the end of the study, include details for how the consent will be managed.

Answer 'not applicable' if no potentially commercially exploitable results (based on human tissues or samples) will be produced during your research, and if no potential future use of data.

## Outputs management and sharing

### Provide an outputs management plan

All Wellcome-funded researchers are expected to manage their research outputs in a way that will achieve the greatest health benefit, maximising the availability of research data, software and materials with as few restrictions as possible. Our guidance on developing an outputs management plan, which includes a link to some good examples, is available here.

If an outputs management plan is not required, please briefly explain why below.  
(500 words max.)

Your plan should be clear, concise, proportionate and focus specifically on how outputs will be identified, managed and used to advance potential health benefits.

You should use the following questions as a template for your answer.

#### 1. For data, software and materials outputs

- (i) What outputs will your research generate?
- (ii) What metadata and documentation (e.g. the methodology of data collection and way of organising data) will accompany the outputs?
- (iii) When will these outputs be made available?
- (iv) Where will you make these outputs available?
- (v) How will they be discovered and accessed by the research community? (e.g. via presentations/press releases)
- (vi) Are there possible restrictions to data sharing or embargo reasons?
- (vii) How will data and metadata be stored, backed up and preserved?
- (viii) What resources (e.g. financial and time) will be dedicated to outputs management and ensuring all data is findable, accessible, interoperable and reproducible?

If your study involves a clinical trial, please see the clinical trial specific guidance on the webpage. This includes additional points you must specify when your outputs include participant data.

#### 2. For intellectual property outputs

- (i) What IP will your research generate?

(ii) How will you protect this IP?  
 (iii) How will the IP be used to achieve health benefits?  
 (iv) Provide the name and contact details for the person in your organisation (e.g. Technology Transfer Officer or Business Development executive) who can act as a point of contact for Wellcome in connection with the protection and commercialisation of this IP.

Select the approach you will use to maximise the impact of your significant research outputs to improve health and benefit the wider research community. If an outputs management plan is not required, select 'Not applicable'.

## Collaborations

Are any collaborations essential for this proposal?

*A collaborator provides essential subject related expertise, support or materials. They are not involved in the day-to-day running of the research. They are not normally involved in the intellectual design of the project.*

*They are not remunerated for their input, although expenses can be covered, for example for their grant-related travel and the costs associated with providing the agreed input into the research, including the materials and consumables involved.*

List any key collaborators (name and organisation) and provide a very brief outline of their role in the proposed research.

Name	Organisation	Outline of role in proposed research (50 words max)

*You can replace the collaborators named here with suitable alternatives if it is necessary or appropriate to do so.*

I confirm that the collaborators named above have agreed to be involved, as described, in the proposed research and are willing for their details to be included as part of this application.

## Location of activity

**Will the funded activity take place at more than one location?**

List any locations outside of your host organisation where you will be conducting research or redirecting funds. This includes, but is not limited to, anywhere in receipt of indirect funding, Wellcome Trust supported facilities, fieldwork sites, and time spent working in another organisation/laboratory. This does not include conference attendance.

**For each location, select the organisation and then select 'Edit' to add the country and percentage of funds. You must include the administering organisation.**

Enter the approximate percentage of the total funds that will be spent in each location. Enter zero for locations where activity will take place but no significant funds will be spent. If you are requesting salary costs, attribute them to the employing organisation.

**Will the project be based in one of the following Wellcome Trust supported facilities:**

- the Wellcome Trust Sanger Institute
- a Wellcome Trust Centre
- an Africa and Asia Programme
- the Francis Crick Institute?

**If the project will be based at one of these facilities, you must add the facility as a location above.**

**Will you require funds to be awarded directly to more than one location?**

We will only consider requests for funds to be awarded directly to more than one location if:

- your award includes a request for multiple currencies. Any request for additional currencies must be at least the equivalent of £750,000; and/or
- your award involves an organisation based in a low- or middle-income country. We will assess the financial capacity of the organisation to manage the award.

If we award directly to more than one location, we will not move funds between organisations after we have issued the award letter.

Explain why you require these funds to be awarded directly to more than one location. (1000 words max.)

For each location, select the country, state the organisation and enter the value and currency of funds. You must include the host organisation.

Country	Organisation	Value of funds	Currency
			-

## Research involving animals

Select any of the following that apply to your proposed work:

*(Proposal involves the use of animals, Proposal involves the use of animal tissue, Neither of the above)*

*The following notes relating to 'Proposals involving animals' are intended to provide guidance and advice in completing the form, rather than a comprehensive review of the legal and regulatory environment in which the application is made.*

*Applicants must refer to our policy on the use of animals in medical and veterinary research.*

*In all animal experiments we support, the principles of reduction, replacement and refinement will apply. In all experimental studies, applicants must actively consider:*

- *the complete replacement of live animals with tissues derived from either animals or humans;*
- *the possibilities of reducing the numbers of animals that need to be used;*
- *refining the experimental design in order to obtain the maximum amount of information from the minimum number of animals.*

*Refined methods in animal research are those which alleviate or minimise any adverse effects for the animals involved, and/or enhance animal welfare. Refinements may be applied at any stage in the life of an animal. Thus, refinement encompasses all aspects of a procedure, including:*



- the source, transport, husbandry and environment of the animals involved;
- the experimental design (for example, the choice of species and the group size employed);
- the techniques applied; the end points of the procedures;
- and care of the animals before, during and after a procedure.

For further information about the National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs), check their website.

**Monoclonal antibodies**

The use of ascitic animals for monoclonal antibodies (mAb) production in vivo may only be proposed when in vitro attempts at mAb production have failed or the use of animals is considered justified for specific diagnostic or therapeutic products. You must give a full explanation if in vitro production methods are not considered to be suitable.

Select any of the following species you will use:  
(Primate, Cat, Dog, Equidae, Genetically Altered Animals, Other animals)

The NC3Rs will review all applications involving the use of primates, cats, dogs and equidae animals, or their tissue/data. All proposed research projects involving genetically altered mice are expected to consider the principles of welfare assessment set out on the NC3Rs website.

Select 'Add...' to enter the animal species and total numbers required (this may differ from the number to be purchased, maintained).

Animal species	Strain (if appropriate)	Total number required to carry out proposed work
-		

Provide a justification of the proposed sample size and details of planned statistical analyses. Include power calculations if appropriate. Describe experimental design, including any plans to reduce bias such as blinding or randomisation. (750 words max.)

You may provide your answer to this question in the field provided (text entry format) or as a PDF attachment (upload format). If you are uploading your answer, the uploaded document must be in 11 point Arial font and portrait format.

For each species, you must ensure that adequate experimental detail is provided to justify both the use and number of animals. This should include:

- definition of unit of analysis (i.e. N referring to animal or sample number);
- means of avoidance of bias (e.g. blinding or randomisation);
- statistical analysis to be used and explanation of how sample and/or group size was derived;
- where repeated measures are used, the number of time points;
- an indication of number of replications of each experiment to mitigate spurious non-replicable results.

You may include tables and figures in this section to help justify animal numbers. You can find additional guidance on designing animal experiments through the NC3Rs Experimental Design Assistant.

(750 words max.)

Does your proposal include procedures to be carried out on animals in the UK which require a Home Office licence?

The organisation must ensure that research involving the use of animals complies at all times with UK laws and regulations.

Is there a current Home Office Personal Project Licence (PPL) that authorizes the proposed procedures to be carried out in the UK?

Provide the name of the licence holder.

Detail your plans and timelines for acquiring the appropriate licence.

If your proposal involves the use of animals, what would be the severity of the procedures? You can find guidance on assessing the severity of a procedure on the Home Office website.

Provide details of any moderate, severe or non-recovery procedures. Can lower severity procedures be used?  
(250 words max.)

Does your proposal involve the use of animals or animal tissue outside the UK?

Confirm that the proposed animal work outside of the UK will comply with the principles of UK law. Animal research conducted outside the UK must, as a minimum standard, be carried out in accordance with the principles of UK law and regulation.

*Law and regulatory standards often vary from country to country. If experiments are to be carried out on animals outside the UK, the experiments proposed must be performed to standards which accord with the principles of UK legislation. Furthermore, the housing and care of animals must similarly accord with the standards and principles of UK legislation.*

*For studies using non-human primates, cats, dogs or equines, this is assessed during NC3Rs review. For studies involving other species, applicants should complete and upload the checklists listed on the NC3Rs website, as appropriate. Information on choosing contractors can be found here.*

If your study does not involve non-human primates, cats, dogs or equines, complete and upload the checklists listed on the NC3Rs website, as appropriate. Upload the checklist(s) as a single pdf. Information on choosing contractors can be found here.

Explain why animal use is necessary and the choice of species to be used.  
(250 words max.)

*It is particularly important to justify the species when an animal is being used as a model for a human physiological or pathological condition.*

### **Non-human primates**

If you are exclusively using already generated tissue or data in the proposed experiments answer all relevant questions as thoroughly as possible, in particular the questions relating to housing and

procedures. If a question is not relevant you can answer 'N/A', but we may request additional information if necessary for assessment.

Do the facilities and practices, and the proposed research comply with the principles set out in the National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs) Guidelines?	
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Explain why not

Will it be necessary to transport the non-human primates (i.e. from breeding facility and within the host organisation environment)?	
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Indicate approximate journey times and the measures that will be taken to minimise the potential stress during transport.

Provide details of the housing for the animals, e.g. enclosure size, environmental enrichment.

*See the NC3Rs guidance on animal housing and husbandry for further details.*

Will single housing of the non-human primates be necessary at any time?	
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Provide a justification for single housing, its duration, and explain what additional resources you will provide to the animals to minimise the impact on animal welfare.

Describe the experimental procedures involved and how any pain, suffering, distress and/or lasting harm will be minimised. Have the procedures been recently reviewed by the Named Veterinary Surgeon (NVS), Named Animal Care and Welfare Officer (NACWO) and Animal Welfare and Ethical Review Body (AWERB)?

Will any of the experimental procedures involve food and/or water restriction?	
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Justify why this is necessary and outline what alternatives have been considered.

Will any of the experimental procedures involve restraint?	
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What alternatives have been considered? Describe the nature of the restraint, its duration and frequency, and what will be done to avoid distress.

What prior experience and training in non-human primate use, care and welfare will you require of the staff named in the application? What provision are you making for continuing professional development in these areas?

Will any of the staff involved require specific training for any of the procedures concerned?

Provide details of the training needed and where it will be undertaken.

### Cats, Dogs and Equidae

If you are exclusively using already generated tissue or data in the proposed experiments answer all relevant questions as thoroughly as possible, in particular the questions relating to housing and procedures. If a question is not relevant you can answer 'N/A', but we may request additional information if necessary for assessment.

From where will the animals be sourced?

Will it be necessary to transport the animals?

Indicate approximate journey times and the measures that will be taken to minimise the potential stress during transport.

Are animals to be imported?

Where animals are to be imported, what journey times have been agreed with the Home Office? Describe the conditions for the animals at the breeding establishment and how the potential stress during transport will be minimised.

Provide details of the housing for the animals, e.g. enclosure size, environmental enrichment.

See the NC3Rs guidance on animal housing and husbandry for further details: <https://www.nc3rs.org.uk/3rs-resources/housing-and-husbandry>

Will single housing of the animals be necessary at any time?

Provide a justification for single housing, its duration, and explain what additional resources you will provide to the animals to minimise the impact on animal welfare.

Describe the experimental procedures involved and how you will minimise any pain, suffering, distress and/or lasting harm. Have the procedures been recently reviewed by the Named Veterinary Surgeon (NVS), Named Animal Care and Welfare Officer (NACWO) and Animal Welfare and Ethical Review Body (AWERB)?

What adverse effects might the animals experience? List the clinical and other signs that will be monitored, the frequency of monitoring and, where relevant, the humane endpoint criteria established for the study.

Will any of the experimental procedures involve restraint?

What alternatives have been considered? Describe the nature of the restraint, its duration and frequency, and what will be done to avoid distress.

What prior experience and training in animal use, care and welfare will you require of the staff named in the application? What provision are you making for continuing professional development in these areas?

Will any of the staff involved require specific training for any of the procedures concerned?

Provide details of the training needed and where it will be undertaken.

## Risks of research misuse

Confirm that you have considered whether your proposed research could generate outcomes that could be misused for harmful purposes.

*You and your host organisations must consider carefully any risks that the potential outcomes of the research (information, products or technologies) of the research could be misused for harmful purposes. These are known as "dual use risks" and they include actions that pose a significant threat to humans, animals, plants or the environment, including terrorist misuse.*

*Research areas that aim to do the following are often associated with this type of risk:*

- *demonstrate how to render a vaccine ineffective;*
- *confer resistance to a therapeutically useful antibiotic or antiviral agent;*
- *enhance the virulence of a pathogen or renders a non-pathogen virulent;*
- *increase the transmissibility or alter the host range of a pathogen;*
- *enable the evasion of diagnostic and detection methods;*
- *enable the weaponisation of a biological agent or toxin;*
- *generate or reconstitute an eradicated or extinct agent or toxin.*

Do not include the following types of risk in your answer:

- remote or hypothetical risks of future misuse (we recognise that most research could hypothetically be misused)
- data risks - for example breaches of personal data and risks of anonymised recipients being reidentified (should be managed by research design and data management protocols)
- safeguarding risks to researchers and participants (these should be managed by your organisation).

Have you identified any tangible risks of this type?

Refer to the joint BBSRC, MRC and Wellcome policy and position statement on managing risks of research misuse, and our guidelines on good research practice.

Briefly describe these risks. Explain how you and your organisation will manage them.  
(250 words max.)

The identification of tangible risks in a research project should be clearly balanced against the benefits and value that is to be gained for health, science and society. If there are tangible risks that the proposed research will generate outcomes that could be misused to cause harm, you (and your fellow researchers and host organisations) must take appropriate steps to monitor the research as it proceeds and minimise these risks. Risk mitigation could include establishing a process to review dual use risks on an on-going basis through the project and to gain independent expert advice as appropriate. You must also ensure that all members of your team are aware of these risks in progressing their research, and receive appropriate education and training on these issues.

## Freedom to operate/conflicts of interest

**Describe any freedom to operate or other intellectual property related issues that might affect your ability to carry out the proposed research and/or to use, share or commercialise the research outputs. Explain how you will address these.**

If you are satisfied that there are no such issues, enter N/A. If you have fully addressed such issues in your outputs management plan under the question on "Outputs management and sharing", then you may refer to that answer.

In particular, consider the following:

- Will your research use technology, software, databases, materials or patented inventions that are owned or controlled by others and which you do **not** already have written permission to use?
- Will the ownership, use, commercialisation and/or sharing of research outputs with the wider research community, be subject to agreements with commercial, academic or other organisations? This includes arrangements with collaborators named in this application.

(250 words max.)

For more information about our approach to intellectual property and translation, refer to:

- Clause 8 of our Grant Conditions
- Our intellectual property and translation page.

Disclose all relevant information pertinent to your grant proposal, including proprietary information where appropriate, to provide the most comprehensive picture of how any commercial/IP matters may affect the delivery of your proposed research and the subsequent use, commercialisation and/or sharing of your research outputs.

**Describe any conflicts of interest which might affect your ability to carry out the proposed research and/or to share or commercialise the research outputs.**

For each conflict:

- explain how you and your organisation will manage the conflict
- explain how you will comply with your organisation's requirements in relation to conflicts of interest
- confirm whether the identified conflict has been disclosed to your organisation.

If you are satisfied there are no issues, enter N/A.

Refer to our policy on conflicts of interest related to Wellcome-funded researchers and commercial organisations. In particular, consider whether anyone involved in your project holds any consultancies, advisory roles, or equities in, or directorships of, companies or other organisations that might have an interest in the results of your proposed research.

(250 words max.)

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## Lead applicant details

Lead applicant details	
<b>Full Name</b>	
<b>Department</b>	
<b>Organisation</b>	
<b>Email Address</b>	

ORCID iD	
<b>ORCID iD</b>	

Career history (current/most recent first)			
From	To	Position	Organisation

Education/training				
From	To	Qualification	Subject	Organisation

Career breaks	
<p>Have you taken any breaks from research that you wish us to take into consideration? This can include periods of parental or long-term sick leave, caring responsibilities, part-time work, secondments, volunteering or time spent in different sectors. You can also include any periods where you were unable to work because of the COVID-19 pandemic.</p>	

Provide details

*We take breaks from research into account when we consider your outputs. State when and for what period you took a break, or were working part-time. We are not asking for the reasons for this break so please do not provide these here, including sharing any sensitive personal health information.*

**Do you wish to undertake this award part time?**

If you wish to undertake this award part-time, either from the start or part way through the grant, your host organisation must employ you on a part-time basis during that time.

*We always try to accommodate requests, as long as your employing organisation agrees to the working arrangement. Your Funding Adviser will contact you to acknowledge receipt of your application after the scheme application deadline. You should discuss any flexible working plans with them as early as possible. If you have any questions before you apply, please contact our Research Funding Information Desk.*

**Source(s) of personal salary support**

State all your sources of salary funding (for example, through your organisation's block grant from a higher education funding body), and the percentage of your salary they contribute. Answer 'not applicable' if you are not currently employed.

*If the source of your salary places any restrictions on intellectual property rights or publications arising from your research, contact us as this may affect your eligibility.*

Are you a healthcare professional?

Indicate your healthcare profession

Are you clinically active?

**What is your specialty?**

If your specialty is not on the list, select 'Other' and specify.

Specify

**Current and recent research funding (including Wellcome grants)**

List any funding you have received in the last five years, including current funding, and any key funding in the five years before that.

List the most recent first. State the name of the funder, name(s) of grantholder(s), title of the project, total amount awarded (and how much of this you received), your role in the project, and the start and end dates. State the percentage of your time spent on the research.



*Include details of any recurrent or core funding you have held. Explain your role in obtaining the funding. For example, whether you held them in your own right as lead applicant, coapplicant, or as part of a consortium.*

*We use this to check your eligibility for this award and to understand how this proposal is distinct from other funding you hold.*

Describe how the currently active grants listed above relate to this application. If you hold grants related to the topic of this application, explain how these differ and confirm there is no overlap in funding.

(200 words max.)

*This helps us understand how your application is distinct and does not overlap with research activities already supported by other awards.*

What percentage of your research time will you spend on this project?

## Lead applicant research contributions

**How have you contributed to the generation of knowledge?**

**Describe how you have contributed to the generation of new ideas, tools or techniques and your most important research outputs so far.**

You may highlight skills you have used to develop and test ideas. Please also list up to 10 of your most significant research outputs and describe why they are relevant, what difference they made and your contribution to each (up to 50 words per output). Outputs can include: original publications, open data sets, software, commercial or interventional products or tools, clinical practice developments, educational products, policy publications, and conference publications that you have generated.

If referencing original research publications, please give the citation in full, including the title of paper and all authors (unless more than 10, in which case you may use 'et al', ensuring that your position as author remains clear). Citations to preprints must state "Preprint", the repository name and the articles persistent identifier (e.g. DOI).

(500 words max.)

**How have you contributed to the development of others?**

This may include, for example:

- mentoring and supervision of students and colleagues, or mentoring others in your field;
- examples of strategic leadership, how you shaped the direction of a team, organisation, company or institution; and
- your involvement in establishing collaborations.

(300 words max.)

**How have you contributed to the wider research community?**

This may include, for example:

- editing, reviewing, refereeing, and your contributions to the evaluation of researchers and research projects;
- organisation of conferences or knowledge sharing activities;
- contributions to improving research culture (research integrity, equality, diversity, mobility of researchers, reward and recognition of researchers' various activities); and
- appointments to positions of responsibility within your department, institution or organisation.

(300 words max.)

## Lead applicant research environment details

Describe how your research contributes to the strategic aims of your organisation.  
(300 words max.)

Describe your approach to developing and supporting a positive and inclusive research culture, including examples from previous and current groups. This could include, for example:

- mentoring
- supporting collaboration and interdisciplinarity
- leadership and people management
- promoting research integrity.

(500 words max.)

*You can find examples of approaches to improving research culture [here](#).*

Your organisation will give you and the staff employed on your grant a minimum of 10 days a year to undertake training and continuing professional development. Explain how you will use this time.  
(300 words max.)

*This may include the responsible conduct of research, research leadership, people management, diversity and inclusion, and the promotion of a healthy research culture.*

Upload a letter from a senior member of your organisation confirming that the organisation will:

- Give the applicant the space and resources they'll need from the start date to the end date of the award.
- Give the applicant and any staff employed on the grant 10 days a year (pro rata if part-time) to undertake training and continuing professional development (CPD) in line with the Concordat to Support the Career Development of Researchers.
- Provide a system of onboarding, embedding and planning for the applicant when they join the organisation and/or start the award.
- Provide the applicant with the status and benefits of other academic staff of similar seniority.
- If teaching buyout is being requested, ensure that the applicant will retain at least 10% of their teaching time and that teaching buyout for the applicant is not being provided by other grants

for the same period it is requested on this grant.

If you are based in a low- or middle-income country and you are requesting your salary on this grant, this letter should also confirm:

- that your employment contract states you must get salary recovery from external grant funding; and
- that your host organisation will underwrite the salary and post for the period of time that you will be working on the grant

## Coapplicant details

1	
<b>Coapplicant</b>	
<b>Full Name</b>	
<b>Department</b>	
<b>Organisation</b>	
<b>Email Address</b>	

### Career history (current/most recent first)

From	To	Position	Organisation
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### Education/training

From	To	Qualification	Subject	Organisation
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### Career breaks

Have you taken any breaks from research that you wish us to take into consideration? This can include periods of parental or long-term sick leave, caring responsibilities, part-time work, secondments, volunteering or time spent in different sectors. You can also include any periods where you were unable to work because of the COVID-19 pandemic.

Provide details

*We take breaks from research into account when we consider your outputs. State when and for what period you took a break, or were working part-time. We are not asking for the reasons for this break so please do not provide these here, including sharing any sensitive personal health information.*

### Do you wish to undertake this award part time?

If you wish to undertake this award part-time, either from the start or part way through the grant, your host organisation must employ you on a part-time basis during that time.

We always try to accommodate requests, as long as your employing organisation agrees to the working arrangement. Your Funding Adviser will contact you to acknowledge receipt of your application after the scheme application deadline. You should discuss any flexible working plans with them as early as possible. If you have any questions before you apply, please contact our Research Funding Information Desk.

**Source(s) of personal salary support**

State all your sources of salary funding (for example, through your organisation's block grant from a higher education funding body), and the percentage of your salary they contribute. Answer 'not applicable' if you are not currently employed.

If the source of your salary places any restrictions on intellectual property rights or publications arising from your research, contact us as this may affect your eligibility.

**Are you a healthcare professional?**

Indicate your healthcare profession

Are you clinically active?

**What is your specialty?**

If your specialty is not on the list, select 'Other' and specify.

Specify

**Current and recent research funding (including Wellcome grants)**

List any funding you have received in the last five years, including current funding, and any key funding in the five years before that.

List the most recent first. State the name of the funder, name(s) of grantholder(s), title of the project, total amount awarded (and how much of this you received), your role in the project, and the start and end dates. State the percentage of your time spent on the research.

Include details of any recurrent or core funding you have held. Explain your role in obtaining the funding. For example, whether you held them in your own right as lead applicant, coapplicant, or as part of a consortium.

We use this to check your eligibility for this award and to understand how this proposal is distinct from other funding you hold.

Describe how the currently active grants listed above relate to this application. If you hold grants related to the topic of this application, explain how these differ and confirm there is no overlap in funding. If you currently hold a Career Development Award and are a coapplicant on another Discovery Award, explain:

- why no other applicant or coapplicant can provide the expertise that you bring to the project
- how you will manage your research commitments across all three awards.

(200 words max.)

*This helps us understand how your application is distinct and does not overlap with research activities already supported by other awards.*

What percentage of your research time will you spend on this project?

**How have you contributed to the generation of knowledge?**

**Describe how you have contributed to the generation of new ideas, tools or techniques and your most important research outputs so far.**

You may highlight skills you have used to develop and test ideas. Please also list up to 10 of your most significant research outputs and describe why they are relevant, what difference they made and your contribution to each (up to 50 words per output). Outputs can include: original publications, open data sets, software, commercial or interventional products or tools, clinical practice developments, educational products, policy publications, and conference publications that you have generated.

If referencing original research publications, please give the citation in full, including the title of paper and all authors (unless more than 10, in which case you may use 'et al', ensuring that your position as author remains clear). Citations to preprints must state "Preprint", the repository name and the articles persistent identifier (e.g. DOI).

(500 words max.)

**How have you contributed to the development of others?**

This may include, for example:

- mentoring and supervision of students and colleagues, or mentoring others in your field;
- examples of strategic leadership, how you shaped the direction of a team, organisation, company or institution; and
- your involvement in establishing collaborations.

(300 words max.)

**How have you contributed to the wider research community?**

This may include, for example:

- editing, reviewing, refereeing, and your contributions to the evaluation of researchers and research projects;
- organisation of conferences or knowledge sharing activities;
- contributions to improving research culture (research integrity, equality, diversity, mobility of researchers, reward and recognition of researchers' various activities); and
- appointments to positions of responsibility within your department, institution or organisation.

(300 words max.)

**Describe how your research contributes to the strategic aims of your organisation.**

(300 words max.)

**Describe your approach to developing and supporting a positive and inclusive research culture, including examples from previous and current groups.**

This could include, for example:

- mentoring
- supporting collaboration and interdisciplinarity
- leadership and people management
- promoting research integrity.

(500 words max.)

*You can find examples of approaches to improving research culture here.*

**Your organisation will give you and the staff employed on your grant a minimum of 10 days a year to undertake training and continuing professional development. Explain how you will use this time.**

(300 words max.)

*This may include the responsible conduct of research, research leadership, people management, diversity and inclusion, and the promotion of a healthy research culture.*

**Upload a letter from a senior member of your organisation confirming that the organisation will:**

- Give the applicant the space and resources they'll need from the start date to the end date of the award.
- Give the applicant and any staff employed on the grant 10 days a year (pro rata if part-time) to undertake training and continuing professional development (CPD) in line with the Concordat to Support the Career Development of Researchers.
- Provide a system of onboarding, embedding and planning for the applicant when they join the organisation and/or start the award.
- Provide the applicant with the status and benefits of other academic staff of similar seniority.
- If teaching buyout is being requested, ensure that the applicant will retain at least 10% of their teaching time and that teaching buyout for the applicant is not being provided by other grants for the same period it is requested on this grant.

## Costs requested and justification

**Select the currency in which you want to apply.**

Submit costs in the currency you think will best enable you to undertake the activity. This will probably be your local currency; if not, explain why not.

*If you think that the currency may not be readily available, email [grantpayments@wellcome.org](mailto:grantpayments@wellcome.org). For more information see our website.*

*We may not be able to award your grant in the currency you have requested. In these situations, we will talk to your administering organisation about using another.*

Is this your local currency?	
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What is your local currency?	
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Explain why you are requesting costs in the selected currency and what exchange rate you have used. (100 words max.)

*If you do not have a bank account in the currency you have requested, you will be liable for any increase in research costs due to foreign currency conversions and/or charges.*

<b>Staff</b> Are you requesting staff?	
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<p><i>Detail the full employment costs for all staff to be funded on the grant.</i></p> <p><i>If you are based in the UK or Republic of Ireland, you cannot ask for your salary. If you are based in a low- or middle-income country, you can ask for your salary if you hold a permanent, open-ended or long-term rolling contract that states that you have to get your salary from external grant funding.</i></p> <p><i>Provide the names of individuals for posts involving the handling of, and research on, non-human primates. Whilst your application is being considered, you must notify us of any change to the individual(s) named in the application.</i></p> <p><b>Definition of terms</b></p> <p><b>Staff category:</b> For example: "Postgraduate research assistant", "Postdoctoral research assistant", "Technician", "Fieldworker". Specify the level of seniority of the post where relevant, e.g. "Junior postdoctoral research assistant", "Senior postdoctoral research assistant".</p> <p><b>Salary grade/scale:</b> The national or local salary grade/scale on which the individual will be employed.</p> <p><b>Basic starting salary:</b> Annual salary to be paid to the individual upon their appointment to the post, exclusive of any allowances for which the individual is eligible. If the post is part time, the annual salary must be quoted on a pro rata basis.</p> <p><b>Total cost on grant:</b> Total cost of the post, inclusive of any locally-recognised allowances (for example, London allowance), employer's contributions and increments, over the period of the grant. Employer's contributions should include any statutory obligations (e.g. for the UK, National Insurance contributions) and contributions towards an organisational pension scheme.</p>
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**Staff costs**

Cost type	Number of staff requested for	Staff category	Name (if known)	Basic starting salary (p.a.)	Salary grade / scale	Period on project (months)	% time	Total

<p><b>Justification for staff</b></p> <p>Specify the role and responsibilities for the staff requested. Justify the type and seniority, including the level of salary requested, of each post. (300 words max.)</p>

*If any staff requested will be working in different locations, indicate where they will be working. If you are requesting funds to*

be awarded directly to more than one location, you must indicate in the cost breakdown where the funds are to be allocated.

**Adjustment support**

Are you requesting adjustment support?

If you or a member of staff employed on your grant is disabled or has a long-term health condition, we offer different types of support during your grant. This includes help to carry out your project, report on grant progress, and attend events such as researcher meetings. See <https://wellcome.org/grant-funding/guidance/disability-related-support-for-applicants>.

Enter the cost of the adjustment support required. We do not require any further information at this stage.

**Adjustment Support**

**Total**

**Training and continuing professional development**

Are you requesting training and continuing professional development?

**Training and continuing professional development**

Cost type	Description	Total

Justification for training and continuing professional development.  
(200 words max.)

**Materials and consumables**

Are you requesting materials and consumables?

Provide a high-level breakdown of materials and consumables costs. These typically include:

- laboratory chemicals and materials (eg reagents, isotopes, peptides, enzymes, antibodies, gases, proteins, cell/tissue/bacterial culture, gloves, plasticware and glassware)
- associated charges for shipping, delivery and freight
- archival photocopying
- printing associated with fieldwork

In the justification for materials and consumables, provide an estimate of the cost per staff member per year.

**Materials and consumables**

Description	Total

Justification for materials and consumables.  
(300 words max.)



<b>Animals</b> Are you requesting animals?	
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*In order to ensure animal experimentation costs are accurate, you must complete this section after consultation with your animal house or biological services manager. Your organisation must apply a consistent costing methodology when presenting cost details.*

*We may ask for more detailed costing information where a large number of animals and/or substantial costs are involved.*

**Animals**

Animal species	Total no. to be purchased	Total purchase cost	Total maintenance and procedures cost	Total

**Associated animals costs**

Description	Total

*These costs cover specific and relevant training and environmental enrichment, including training for animal husbandry, welfare and associated training for animal technicians, and the cost of animal licences.*

Justification for animal costs.  
(300 words max.)

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*Do not include a justification of the animal numbers you require; you can explain this in the 'Research involving animals' section.*

<b>Equipment</b> Are you requesting equipment?	
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*The organisation's Director of Procurement/Head of Purchasing (or equivalent) must be aware of all potential capital purchases and we require organisations to use best procurement practice when purchasing equipment with our funds.*

**Equipment to be purchased**  
*We expect you to consider the cost-effectiveness of the proposed purchase of equipment. The estimated price of the equipment must cover all aspects including delivery, installation, maintenance and training, where appropriate. We expect discounts to be negotiated and included in quoted prices.*

*We normally expect a contribution from the host organisation, or other source, where the application includes a substantial equipment request. If you have any questions about this, contact [grantenquiries@wellcome.org](mailto:grantenquiries@wellcome.org).*

*If there is a preferred manufacturer for certain items of equipment, you can explain this in the 'Type of equipment' field.*

*We expect that the equipment you request will be covered by the manufacturer's warranty for the first year after it is purchased. We will fund reasonable maintenance costs for four years after the initial period of warranty on all equipment (irrespective of the length of award made), where this is negotiated as part of the capital purchase cost. We will also consider costs for the maintenance of equipment over 5 years old if you can demonstrate that it is cost-effective.*

**Value Added Tax (VAT)**

For grants to be held in the UK, the costs of all equipment to be used for medical and veterinary research must be quoted exclusive of VAT. For equipment that does not fall within this definition, VAT costs should be shown.

**Equipment maintenance**

We consider requests for maintenance of existing equipment if the grant that funded its purchase has ended. We only provide maintenance costs for equipment more than five years old if it is cost-effective to keep maintaining it.

**Equipment costing 100k or more**

We require a copy of at least one formal quote for each piece of equipment with a list price of £100,000 or more. The discount that has been negotiated must be stated in the quote. We expect a contribution from the host organisation, or other source, if your application includes a substantial equipment request.

**Equipment costs**

Type	Type of equipment	No. of items	Cost per item	Cost of maintenance contract	Contribution from other sources	Total

Justification for equipment.  
(300 words max.)

If you are requesting a piece of equipment which costs more than £100,000, provide details of:

- similar equipment in the applicant's department and adjacent departments;
- why it cannot be used for this particular project; and
- any other individuals likely to use the equipment.

Are you requesting a piece of equipment with a list price of £100,000 or more?

Upload a copy of at least one formal quote; if you have more upload these as a single PDF.

**Access charges**  
Are you requesting access charges?

You can ask for the cost of access to shared equipment or facilities if they're essential to your research project. These may include materials and consumables, plus a proportion of:

- maintenance and service contracts;
- staff time costs for dedicated technical staff employed to operate the equipment or facility.

We don't cover the costs of:

- estates and utilities;
- depreciation or insurance;
- other staff e.g. contributions towards departmental technical, administrative and management staff time.

If the facilities or equipment were paid for by a Wellcome grant, you can only ask for access charges if:

- the grant has ended;
- any support for running costs and maintenance contracts has ended.

**Access charges**

Details of equipment/facility	Original source of funding	Wellcome Trust grant number, if applicable	Standard access charge per unit	Specify unit	No. of units to be used for this project	Total

Justification for access charges.  
(300 words max.)

**Overheads**  
Are you requesting overheads?

*Where overheads are allowed and you are including these in your application, provide a letter from the Finance Director of each organisation requesting these costs. The letter must provide a breakdown of the costs requested and confirm that the request is a true representation of the costs incurred.*

**Overheads**

Description	Total

Justification for overheads.  
(300 words max.)

Upload a letter from the Finance Director of each organisation. If there is more than one letter, upload these as a single PDF.

Each letter must include:

- a full breakdown of costs requested (you can't ask for a percentage of the project costs)
- an explanation of why these costs are necessary for the project
- confirmation that the breakdown is a true representation of the costs incurred.

Are you based at a UK university and requesting overheads on subcontracted costs?

Confirm that the university will not include these subcontracted costs in its annual return for the UK Charity Research Support Fund.

**Travel and subsistence**  
Are you requesting travel and subsistence?

*Include conference attendance, collaborative visits and other travel related to this grant separately. Where necessary, state the host organisation. Enter the total carbon offset costs requested as a single line. Find out more about our carbon offset for travel policy here.*

**Conference attendance**

The lead applicant and any research staff to be employed on the grant can request costs to attend academic/scientific conferences, including conference registration fees and carbon offsetting the travel, up to a maximum of £2,000 a year for the lead applicant and each coapplicant and £1,000 a year for research staff. Specify the amount being requested per person.

**Collaborative visits**

If you are requesting costs for collaborative visits, state the host organisation and provide a detailed breakdown of the travel and subsistence costs. Justify the need for each visit, its duration and your mode of transport separately.

**Other travel related to this grant**

You can request costs for other essential visits, for example for sample collection and trips to facilities. Justify the need for the visit, its duration and your mode of transport separately.

**Carbon offset**

Calculate your carbon offsetting costs for all the travel on the grant. Tell us the number of tonnes you are offsetting and the cost.

**Travel and subsistence costs**

Type	Description	How much carbon will this offset (in tonnes)?	Total

Justification for travel and subsistence.  
(300 words max.)

**Overseas allowances**

Are you requesting overseas allowances?

**Overseas allowance costs**

Type	Description	Total

Justification for overseas allowances.  
(300 words max.)

**Fieldwork expenses**

Are you requesting fieldwork expenses?

**Fieldwork expenses**

Description	Total

Justification for fieldwork expenses.  
(300 words max.)

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<b>Clinical research</b> Are you requesting clinical research?	
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**Clinical research costs**

Description	Total

Justification for clinical research. (300 words max.)

<b>Public engagement and patient involvement</b> Are you requesting public engagement and patient involvement?	
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**Public engagement and patient involvement costs**

Description	Total

Justification for public engagement and patient involvement. (300 words max.)

<b>Contract research organisations</b> Are you requesting contract research organisations?	
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**Contract research organisations**

Description	Total

Justification for contract research organisations. (300 words max.)

<b>Other</b> Are you requesting other?	
---	--

<i>Provide a detailed breakdown of the other costs requested. Enter costs that do not fall under any other category in this section.</i>
--

**Other costs**

Type	Description	Total

Type	Description	Total

Justification for other. (300 words max.)

Summary of costs requested	
	<b>Total</b>
<b>Total</b>	

### Full economic costing

Is your organisation based in the UK?	
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Is your organisation calculating the full economic cost of this proposal?	
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<b>What is the total full economic cost of your research proposal (£)?</b> Include inflation in your costs at the percentage rate currently used by your host organisation.	
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Sample