### Application summary

<table>
<thead>
<tr>
<th>Application title</th>
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<table>
<thead>
<tr>
<th>Proposed duration of funding (months)</th>
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<table>
<thead>
<tr>
<th>Proposed start date</th>
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<table>
<thead>
<tr>
<th>Name of administering organisation</th>
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<table>
<thead>
<tr>
<th>Lead applicant's address at administering organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department/Division</td>
</tr>
<tr>
<td>Organisation</td>
</tr>
<tr>
<td>Street</td>
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<tr>
<td>City/Town</td>
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<tr>
<td>Postcode/Zipcode</td>
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<tr>
<td>Country</td>
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</table>

### Research funding area

Please select from the drop-down list the funding area that you consider your research falls under.

<table>
<thead>
<tr>
<th>Lead applicant</th>
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### Lead applicant

<table>
<thead>
<tr>
<th>Lead applicant details</th>
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</thead>
<tbody>
<tr>
<td>Full Name</td>
</tr>
<tr>
<td>Department</td>
</tr>
<tr>
<td>Division</td>
</tr>
<tr>
<td>Organisation</td>
</tr>
<tr>
<td>Address Line 1</td>
</tr>
<tr>
<td>City/Town</td>
</tr>
<tr>
<td>Postcode</td>
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</tbody>
</table>

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

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Position</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Education/training**

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Qualification</th>
<th>Subject</th>
<th>Organisation</th>
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<tbody>
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</tbody>
</table>

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

**Current/last appropriate salary details**

**Basic salary (per annum)**

<table>
<thead>
<tr>
<th>Currency</th>
<th>Date of last increment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Clinical status**

Do you have a medical/veterinary degree?

Please specify

Are you clinically active?

What is your specialty?

Please specify
### Career breaks
Have you had any career breaks or periods of part-time work, for example parental or long-term sick leave?

Please provide details

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

### Professional recognition
Please list: (i) Prizes, honours and awards received during your career, including invited talks during the last three years; (ii) Current memberships of funding agency advisory and/or journal editorial boards.

### Career contributions
What are your most important research-related contributions to date? These may include contributions to health policy or practice, or to technology or product discovery and development. (350 words max.)

### Personal statement
Describe how this Fellowship will further your research and career aspirations, and its context in your longer-term vision. (300 words max.)

What scientific considerations led you to choose this research environment and sponsor for your research? If you have already been based in this research environment for two years or more, please specify your reasons for remaining.
### Peer-reviewed publications and other research outputs

List up to 20 of your most significant peer-reviewed publications, preprints, or other scholarly research outputs, e.g. patents. You may provide a summary of your contribution to, or your role in, the work associated with each (e.g. intellectually conceiving or conducting the research, supervising staff, writing the paper).

For original research publications please indicate those arising from the Funders’ grants in **bold** (indicating whether Royal Society or Wellcome Trust), and provide the PubMed Central ID (PMCID) reference for each of these. Please refer to guidance notes.

*Publications should be in chronological order with the most recent first. Please give citation in full, including title of paper and all authors*. Citations to preprints should state “Preprint”, the repository name and the articles persistent identifier (e.g DOI).

(*All authors, unless more than 10, in which case please use ‘et al’, ensuring that your position as author remains clear.*)

<table>
<thead>
<tr>
<th>Publication Details</th>
<th>Citation Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Publication 1]</td>
<td>[Citation Format]</td>
</tr>
<tr>
<td>[Publication 2]</td>
<td>[Citation Format]</td>
</tr>
<tr>
<td>[Publication 3]</td>
<td>[Citation Format]</td>
</tr>
</tbody>
</table>

Total number of peer-reviewed publications which you have authored/co-authored. Please exclude abstracts and literature reviews.

**Total number:**

Current and recent research funding from other funding agencies

Please list all held in the last five years and any key prior grants (list the most recent first). State the name of the awarding body, name(s) of grantholder(s), title of project, amounts awarded, your role in the project, and start and end dates of support. For all active grants, indicate the number of hours per week that are spent on each project.

<table>
<thead>
<tr>
<th>Grant Details</th>
<th>Amount Awarded</th>
<th>Hours per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Grant 1]</td>
<td>[Amount]</td>
<td>[Hours]</td>
</tr>
<tr>
<td>[Grant 2]</td>
<td>[Amount]</td>
<td>[Hours]</td>
</tr>
<tr>
<td>[Grant 3]</td>
<td>[Amount]</td>
<td>[Hours]</td>
</tr>
</tbody>
</table>

Previous applications to the Royal Society

Is this your first application to the Royal Society?

Give details of all previous applications to the Royal Society over the last five years. Please include name(s) of grantholder(s), grant number (if known), title of project and, if application was successful, the amount and period of award.
Previous applications to the Wellcome Trust
Is this your first application to the Wellcome Trust?

Give details of all previous applications to the Wellcome Trust over the last five years. Please include name(s) of grantholder(s), grant number (if known), title of project and, if application was successful, the amount and period of award.

Recommendation by applicant's present Head of Department or supervisor
Please upload a letter of support from your current Head of Department or supervisor (500 words maximum).

Sponsors

Primary sponsor
1

Primary sponsor
Full Name
Department
Division
Organisation
Address Line 1
City/Town
Postcode
Country
Telephone No.
Email Address

Title of current post

Source(s) of personal salary support
Recommendation
Please upload your letter of recommendation (500 words maximum).

If a suitable vacancy arose in a medical school, university establishment or elsewhere, would you be prepared to support the Fellow as a suitable applicant?

During the tenure of the Fellowship, would you hope to be able to arrange for the creation of a suitable new post for the Fellow?

Are further sponsors required for your application?

Additional sponsors
1

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Full Name</th>
<th>Department</th>
<th>Division</th>
<th>Organisation</th>
<th>Address Line 1</th>
<th>City/Town</th>
<th>Postcode</th>
<th>Country</th>
<th>Telephone No.</th>
<th>Email Address</th>
<th>Title of current post</th>
</tr>
</thead>
</table>

Source(s) of personal salary support

Collaborators
Will you require any key collaborators for this proposal?

Please list any key collaborators* (name and organisation) and provide a very brief outline of their
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.

**Related applications**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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</thead>
<tbody>
<tr>
<td>Is this or a similar application for funding currently under consideration elsewhere?</td>
<td></td>
</tr>
<tr>
<td>Please provide name(s) of funding organisation(s) and decision date(s)</td>
<td></td>
</tr>
<tr>
<td>Is this a resubmission of an application submitted to the Wellcome Trust or Royal Society within the last 24 months?</td>
<td></td>
</tr>
<tr>
<td>By whom and when was it originally considered?</td>
<td></td>
</tr>
<tr>
<td>Please describe how this application differs from the original (200 words max.)</td>
<td></td>
</tr>
</tbody>
</table>

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

Lay summary
Please provide a summary of your proposed research that people who may not be familiar with the subject can understand. We may edit your summary and then use it to describe your research on our website and elsewhere.

Details of research project
Detail (a) Aims and research questions; (b) Work which has led up to the project; (c) Approach and methods to be used; (d) Timetable and milestones, if appropriate.

No more than 2,800 words should be used to describe the proposal.

(2800 words max.)

Does your proposal involve a clinical trial?

Clinical trial details
What are the proposed participating centres, and the roles of the clinical trial team members? Provide details of any activity to be undertaken by a third party, and comment on the plans to ensure the presence of a formal contract.

(200 words max.)

Please describe the study design, including planned interventions (experimental and control), duration of treatment, and any potential significant risks to participants. Details of any investigational product should be provided with particular regard to manufacture, quality and consistency.
Describe the inclusion/exclusion criteria. What are the proposed methods for protecting against sources of bias? What are the proposed arrangements for allocating participants to trial groups? (200 words max.)

What are the envisaged primary and secondary outcome measures, and how will these be assessed at follow up? Describe the proposed frequency and duration of follow up and any anticipated problems with non-compliance and/or loss to follow up. (200 words max.)

Detail and justify the sample size and proposed statistical analysis, including any interim analyses and/or subgroup analyses. Outline and justify the strategy for recruitment. (200 words max.)

How have patients, patient advocacy groups or communities been involved in developing the clinical aspects of this proposal? (300 words max.)

Describe anticipated regulatory and governance approvals, and the proposed arrangements for trial management. What is the proposed membership of the Trial Steering Committee and the Data
Monitoring and Ethics Committees?
(200 words max.)

You may submit up to two A4 pages of additional information (such as graphs, figures, tables and essential unpublished data).

References
You should give the citation in full, including title of paper and all authors.

Are there any papers listed in your 'References' section as being "in press" that you wish to submit to us?

Upload papers "in press"

Outputs management and sharing

Will the proposed research generate outputs of data, software, materials or intellectual property that hold significant value as a resource for the wider research community?

Which approach do you intend to use to maximise the impact of your significant research outputs to improve health and benefit the wider research community?

Please provide an outputs management plan. Ensure this describes any significant data, software, materials or intellectual property outputs, their management, and resources required (refer to guidance).
(700 words max.)
### Public engagement

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have plans for engaging with the non-academic public about your work?</td>
<td></td>
</tr>
<tr>
<td>Do you wish to apply for a provision of funds for public engagement as part of your research proposal? Refer to guidance for further information.</td>
<td></td>
</tr>
<tr>
<td>Please provide a brief outline of your public engagement plans (250 words max.)</td>
<td></td>
</tr>
<tr>
<td>Please note that the Funders provide support for researchers in the UK to engage with the non-academic public. Do you wish to receive information about training, funding and other public engagement opportunities?</td>
<td></td>
</tr>
<tr>
<td>Please note that the Funders provide support for researchers in the UK to engage with the non-academic public. Do you wish to receive information about training, funding and other public engagement opportunities?</td>
<td></td>
</tr>
<tr>
<td>We encourage researchers to get in touch with public engagement advisers within their organisations to discuss their proposals. Have you contacted a public engagement adviser in regard to your application?</td>
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</tr>
<tr>
<td>Provide name(s) of your public engagement adviser(s)</td>
<td></td>
</tr>
<tr>
<td><strong>Please provide brief details of your proposal</strong></td>
<td></td>
</tr>
<tr>
<td>Please refer to guidance. (700 words max.)</td>
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</tbody>
</table>

### Work abroad

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you propose to work abroad during the course of your fellowship?</td>
<td></td>
</tr>
</tbody>
</table>
Work abroad

1

Name of host overseas organisation

Address of host overseas organisation

Dates of travel and duration of trip(s)
Please specify weeks, months, etc.

Purpose of the visit(s)
(100 words max.)

Please upload a letter of recommendation from your sponsor at the host overseas organisation
(300 words maximum).

Location of activity

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

For each location, select the country and, where applicable, state the organisation (please include
the administering organisation).

<table>
<thead>
<tr>
<th>Country</th>
<th>Organisation</th>
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</table>

Will the funds awarded be allocated to more than one location?
For each location, please select the country, state the organisation and enter the value and currency of funds to be allocated. Please include the administering organisation.

<table>
<thead>
<tr>
<th>Country</th>
<th>Organisation</th>
<th>Value of funds</th>
<th>Currency</th>
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</table>

**Costs requested and justification**

**Salaries**
Are you requesting salaries?
Please refer to guidance notes and definition of terms for further details

**Salaries / Stipends**

<table>
<thead>
<tr>
<th>Staff category</th>
<th>Name (if known)</th>
<th>Basic starting salary (p.a.)</th>
<th>Salary grade / scale</th>
<th>Period on project (months)</th>
<th>% time</th>
<th>Total</th>
</tr>
</thead>
</table>

**Materials and consumables**
Are you requesting materials and consumables?

**Materials and consumables**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
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</thead>
</table>

**Animals**
Are you requesting animals?

**Animals**

<table>
<thead>
<tr>
<th>Animal species</th>
<th>Total no. to be purchased</th>
<th>Total purchase cost</th>
<th>Total no. to be maintained</th>
<th>Average weeks' maintenance per animal</th>
<th>Total maintenance and procedures cost</th>
<th>Total</th>
</tr>
</thead>
</table>

**Associated animals costs**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
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</thead>
</table>

**Justification for animals (number and species) requested**
Please include evidence or calculations for experimental group sizes, and describe any plans to
reduce bias (e.g. blinding, randomisation).
(500 words max.)

**Equipment**
Are you requesting equipment or equipment maintenance?

<table>
<thead>
<tr>
<th>Type of equipment</th>
<th>No. of items</th>
<th>Cost per item</th>
<th>Cost of maintenance contract</th>
<th>Contribution from other sources</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
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<table>
<thead>
<tr>
<th>Details of equipment/ facility</th>
<th>Wellcome Trust grant number</th>
<th>Date of purchase</th>
<th>End date of current contract</th>
<th>Total cost of contract</th>
<th>% time on project</th>
<th>Total</th>
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</table>

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

Please upload a copy of at least one formal quote

**Synchrotron radiation sources**
Will the proposed research require access to a synchrotron source?

Which source(s) will you be applying to? (Please select all that apply)

Please specify:

Are you requesting costs from the Funders?

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

Access charges
### Details of equipment/facility

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

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
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</thead>
</table>

**Miscellaneous costs**  
Are you requesting miscellaneous costs?  

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Total</th>
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</thead>
</table>

### Justification for resources requested

Please provide a complete justification for all the resources requested, ensuring that you present this information according to the cost headings requested above. (700 words max.)

### Full economic costing

Is your organisation calculating the full economic cost of this proposal?  

What is the total full economic cost (£)?

### Research involving human participants, human biological material and identifiable data

Does your project involve human participants, human biological material, or
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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</thead>
<tbody>
<tr>
<td>Identifiable/potentially identifiable data?</td>
<td></td>
</tr>
<tr>
<td>Please confirm that you have read the Trust's guidance on the feedback of health-related findings in research and that you are in the process of considering your approach to this.</td>
<td></td>
</tr>
<tr>
<td>Please state by whom and when the ethics of the project has been, or will be, reviewed and specify any other regulatory approvals that have been obtained, or will be sought.</td>
<td></td>
</tr>
<tr>
<td>We reserve the right to see relevant approval documents at any point during the lifetime of the grant, in accordance with our policy position on research involving human participants.</td>
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</tr>
<tr>
<td>Is the proposed clinical trial covered by The Medicines for Human Use (Clinical Trials) Regulations in the UK?</td>
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</tr>
<tr>
<td>Please confirm that the trial will be registered on the International Standard Randomised Controlled Trial Number Register (ISRCTN), ClinicalTrials.gov, or on another register listed on the WHO International Clinical Trials Registry Platform (ICTRP).</td>
<td></td>
</tr>
<tr>
<td>In the course of your project, do you propose to use facilities within the National Health Service (NHS) or to involve patients being cared for by the NHS?</td>
<td></td>
</tr>
<tr>
<td>Is a formal sponsor required for the project, for example under the Medicines for Human Use (Clinical Trials) Regulations or the Research Governance Framework for Health and Social Care and equivalent guidance?</td>
<td></td>
</tr>
<tr>
<td>Please indicate which organisation(s) has/have agreed to fulfil this role. Please note that the Wellcome Trust cannot act as sponsor.</td>
<td></td>
</tr>
<tr>
<td>If any potentially commercially exploitable results may be based upon tissues or samples derived from human participants, please confirm that there has been appropriate informed consent for such use.</td>
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</tbody>
</table>
## Proposals involving animals

Please indicate which of the following apply:

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

| Do your proposals include procedures to be carried out on animals in the UK which require a Home Office licence? |
| If yes, refer to notes. |

| Do your proposals involve the use of animals or animal tissue outside the UK? |
| If yes, refer to notes. |

| If your proposals do involve the use of animals, what would be the severity of the procedures? |

| Please provide details of any procedures of substantial or moderate severity (250 words max.) |

| Why is animal use necessary: are there any other possible approaches? (250 words max.) |

| Indicate which of the following species will be used *(Primate, Cat, Dog, Equidae, Genetically Altered Animals, Other animals)* |

| Why is the species to be used the most appropriate? |
**Primates**

Do you expect facilities and practices, and the proposed research will comply with the principles set out in the ‘National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs) Guidelines: Primate accommodation, care and use’?

Please explain why not

Will it be necessary to transport the non-human primates (i.e. from breeding facility and within the host organisation environment)?

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

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

Will single housing of the non-human primates be necessary at any time?

Please provide details in terms of the justification for single housing, its duration, and what additional resources will be provided 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 ethical review process (ERP)?

Will any of the experimental procedures involve food and/or water restriction?

Justify why this is necessary and outline what alternatives have been considered.

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 non-human primate use, care and welfare have the staff named in the application had? What provision is made for continuing professional development in these areas?

Will any of the staff involved require specific training for any of the procedures?
Please provide details of the training needed and where it will be undertaken.

<table>
<thead>
<tr>
<th><strong>Cats and Dogs</strong></th>
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</thead>
<tbody>
<tr>
<td>From where will the animals be sourced?</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th><strong>Will it be necessary to transport the animals?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicate approximate journey times and the measures that will be taken to minimise the potential stress during transport.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Are animals to be imported?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

<p>| <strong>Please provide details of the housing for the animals, e.g. enclosure size, environmental enrichment.</strong> |</p>
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will single housing of the animals be necessary at any time?</td>
<td></td>
</tr>
<tr>
<td>Please provide details in terms of the justification for single housing, its duration, and what additional resources will be provided to the animals to minimise the impact of the single housing.</td>
<td></td>
</tr>
<tr>
<td>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 ethical review process (ERP)?</td>
<td></td>
</tr>
<tr>
<td>Will any of the experimental procedures involve restraint?</td>
<td></td>
</tr>
<tr>
<td>What alternatives have been considered? Describe the nature of the restraint, its duration and frequency, and what will be done to avoid distress.</td>
<td></td>
</tr>
<tr>
<td>What prior experience and training in animal use, care and welfare will be required of the staff named in the application? What provision is made for continuing professional development in these areas?</td>
<td></td>
</tr>
</tbody>
</table>
Will any of the staff involved require specific training for any of the procedures concerned?

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

<table>
<thead>
<tr>
<th>Risks of research misuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please confirm that you have considered whether your proposed research could generate outcomes that could be misused for harmful purposes.</td>
</tr>
<tr>
<td>Have you identified any tangible risks of this type?</td>
</tr>
<tr>
<td>Please briefly describe these risks and the steps that you and your organisation will take to manage them (250 words max.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Freedom to operate/conflicts of interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe any freedom to operate issues or potential conflicts of interest that have been identified or that might arise and how these will be or have been addressed.</td>
</tr>
<tr>
<td>In particular, please consider the following:</td>
</tr>
<tr>
<td>- Do any of the individuals involved in the project hold any consultancies or equities in, or directorships of, companies or other organisations that might have an interest in the results of the proposed research?</td>
</tr>
<tr>
<td>- Will the proposed research use technology, materials or other inventions that are subject to any patents or other form of intellectual property protection?</td>
</tr>
<tr>
<td>- Will any element of the research be subject to agreements with commercial, academic or other organisations, including arrangements with collaborators named in the grant application, that might lead to intellectual property issues or restrictions? (350 words max.)</td>
</tr>
</tbody>
</table>
## Wellcome Trust supported facilities

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?

Please specify

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*Note: The table above is a placeholder for the actual data.*