2021/22 call for applications for PhD studentships

Application guidance notes

Through our PhD studentships, we want to enable outstanding graduates to gain the necessary skills and training to set them on course for the development of an independent career in research related to one of our three priority research areas.

The studentships are open to both clinical and non-clinical candidates. They provide funding for three to four years, or longer for those wishing to complete their PhD on a part-time basis, with total funding capped at £120,000.

The submission deadline is midday on Monday 15th November 2021.

Please read these guidance notes in full before commencing your application.

A. Remit

We want to fund hypothesis-driven pre-clinical or clinical research that addresses **large unmet need** and demonstrates a **clear pathway to clinical impact** in one of our three priority areas:

- **Neuro-oncology**

  We want to fund research addressing the fundamental causes, mechanisms, diagnosis or treatment of primary tumours of the brain or spinal cord, and associated neurological complications.

- **Acquired brain and spinal cord injury**

  We want to fund research that advances understanding of how to promote meaningful recovery from acquired CNS injuries, such as traumatic brain injury, spinal cord injury and stroke.

  Please note that this theme does not cover neurodegenerative conditions, or projects focused on neuroprotection.

- **Headache and facial pain**

  We want to fund research addressing the fundamental causes, mechanisms, diagnosis or treatment of headache and facial pain.

We will not accept applications that do not align strongly with one of these themes.

B. Costs

Awards will cover the following costs, up to a maximum of £120,000:

- an annual stipend starting at £16,500 in year one (£18,000 in London)[1] (or pro-rata for part-time), increasing at £500 pa
- University fees at the Home rate
- research consumables and other direct research expenses
- conference/training costs of up to £1,500 per annum

[1] For clinical candidates, the stipend can be used to support a salary at the appropriate clinical level, however the balance of funds will need to be obtained from other sources.

We can only fund direct research costs and cannot contribute towards institutional overhead costs such as rent, general utilities, or general administrative costs.

C. Eligibility

- This call is open to prospective PhD students wishing to carry out research in one of the three priority areas outlined above and who plan to commence study towards a PhD at a recognised UK Higher Education Institute in Autumn 2022 (or earlier by agreement). The application must have the support of the candidate's prospective supervisor(s).
- We accept applications from those proposing to complete their PhD on a part-time basis.
- We will accept applications from labs already in receipt of funding from Brain Research UK but applicants should be aware that this may reduce their chance of success.
- Although it is not a requirement, we would usually expect candidates to have a Master's degree, to be working towards one, or to have other postgraduate research experience.
- Candidates already working towards a PhD are not eligible to apply.
- There is no requirement for candidates to be from the UK, nor resident for any amount of time before the award begins, however we will provide student fees at the Home rate only. Students from outside the UK must have in place the appropriate visa to permit them to live and study in the UK, and must be able to explain how they will fund the balance of fees.
- Candidates must be available to attend for interview in London at their own cost.

D. Application process

Applications must be submitted online via our Application portal. This requires you to register for an account and enter the requested information directly into the system.

You may start the application at any time, and can save it and return to it later.

Guidance notes accompany each section of the application.

As part of the application process you will generate an invitation to your Supervisor and a University Admin authority, who will each need to log in to the application and complete their respective sections. *Please ensure that you give these individuals plenty of notice – their sections must be completed and submitted by the same deadline of 15th November.*

Research proposals are completed offline and uploaded to the portal (see section F).

E. Use of animals

We support the principle of using animals in research when it is necessary to advance understanding of serious health conditions to develop better treatments and when there is no alternative.

All experiments using animals must comply with the Animals (Scientific Procedures) Act 1986, amended 2012, and any further embodiments, in:

- Using the simplest possible, or least sentient, species of animal appropriate
- Ensuring that distress and pain are avoided wherever possible
- Employing an appropriate design and using the minimum number of animals consistent with ensuring that scientific objectives will be met

We expect applicants to consider opportunities for Replacement, Reduction and Refinement and to demonstrate that you have done so.

	Standard	Contemporary
Replacement	Methods which avoid or replace the use of animals	Accelerating the development and use of models and tools, based on the latest science and technologies, to address important scientific questions without the use of animals
Reduction	Methods which minimise the number of animals used per experiment	Appropriately designed and analysed animal experiments that are robust and reproducible, and truly add to the knowledge base
Refinement	Methods which minimise animal suffering and improve welfare	Advancing research into animal welfare by exploiting the latest *in vivo* technologies and by improving understanding of the impact of welfare on scientific outcomes

We also expect applicants to follow the ARRIVE guidelines and, where appropriate, to use the Experimental Design Assistant to aid the design of animal experiments (see below – section 6 of Research proposal).

F. Research proposal

Your Research proposal should be compiled offline and uploaded as a single file (Word or Pdf) via page 2 of the application. **There is a 3,500 word limit for sections 3 to 6 combined.**

We expect the Research proposal to have been developed by the candidate, in collaboration with their proposed Supervisor(s). It should be written by the candidate, with close mentorship. *Do not under-estimate the importance of a well-written, clearly presented proposal.*

Please use the headings below and ensure that you provide all information requested. You may include tables and figures as appropriate.

1. **Project title**

2. **Scientific abstract**

3. **Original hypothesis(es).** State the main hypothesis(es) to be addressed.

4. **Background.** Set out the rationale for the project including the background to the hypothesis(es) and a summary of the existing state of knowledge in the project field. Present relevant preliminary data.

5. **Aims.** Clearly set out the aims of the project.

6. **Design of the research.** Describe the proposed research, including clearly defined, measurable research objectives. Justify the suitability of the experimental design. Acknowledge and address potential difficulties. Reference established protocols where possible and justify any unusual or novel techniques. Where applicable, demonstrate that the study is adequately powered.

For projects involving animals, you must include an explanation of the need to use animals and the lack of realistic alternatives, and justification for the choice of species to be used. You should refer to the ARRIVE guidelines and include a succinct ARRIVE table of no more than one page covering items 1 to 9 of the 'Essential 10' *(outside word limit)*.

Applicants proposing preclinical trials should use the Experimental Design Assistant (EDA) to aid the design of their animal experiments. This is a free online tool from the National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs). Benefits include:

- The ability to build a stepwise visual representation of your experiment.
- Feedback and advice on your experimental plan.
- Dedicated support for randomisation, blinding and sample size calculation.
- Practical information to improve knowledge of experimental design.
- Improved transparency of your experimental design, allowing you to share and discuss your plan with colleagues and collaborators.

To use the EDA, you need to create a free account through the EDA website so that you can save your diagrams and work on them over time. The tool will generate a PDF report, which you should upload as an appendix to your application (via page 2, as a separate file).

7. **Key milestones, with expected completion dates.** These will be referred to during the annual review process if funding is awarded.

8. **Collaborations.** Highlight any relevant existing or proposed collaborations, either within or outside of the Host institute, and explain how they will help you to achieve your goals.

9. **Training.** Highlight the specific techniques and training that will be required to deliver the project as described, and explain how these training needs will be met.

10. **Impact statement.** Please describe how you envisage this research area translating into clinical practice and how you and your research project will contribute to this pathway. Ultimately, what will be the impact for patients?

11. **References**.

G. Video presentation

Candidates are required to submit a short video (up to three minutes) of themselves discussing their research project. This will be viewed by the members of our Scientific Advisory Panel during the short-listing process.

You should use this opportunity to give a clear, concise overview of your planned research. You may include some slides if you wish but the majority of the video should be you talking to camera. The video may be recorded on a smartphone, tablet or pc.

The video presentation cannot be uploaded to the application portal; please email it to research@brainresearchuk.org.uk by the same deadline. If the file is too large to email, please use a file transfer service or email Katie.martin@brainresearchuk.org.uk to request an upload link.

H. Other supporting information

During the application process you will be asked to provide:

- **CV** - a short (two-page) CV is required for the candidate. This should be uploaded in either Word or pdf format via page 1 of your online application.

- **Academic referees -** we require details of two academic referees. These must be people who know you well in an academic capacity, and who are able to comment on your ability to conduct research leading to the award of a PhD. One of these people must be your current supervisor or tutor.

  Please avoid nominating your proposed PhD supervisor (unless they are also your current supervisor/ tutor).

  Before nominating these referees, you must confirm that they are happy to act in this capacity. We will only take up references for short-listed candidates.

- **Expert reviewer suggestions -** you will be asked to supply details of three relevant expert reviewers for your research proposal. Suggested reviewers must be in a position to provide an independent review of the proposed research. They should be external to your institution and, if different, to the institution where the proposed PhD programme is to be carried out. They should not be people with whom you have current collaborations. They may be from the UK or overseas.

  These suggested reviewers do not need to be people who are personally known to you, nor do you need to contact them yourself.

  You also have the opportunity to name individuals who you specifically do not wish us to approach in relation to this project.

I. Submission of completed application

Applications must be completed and submitted via the application portal by midday on Monday 15th November 2021, including the Supervisor and Admin sections. Videos must be submitted by the same deadline.

J. Assessment

Applications will be short-listed by Brain Research UK's Scientific Advisory Panel, who will consider the applicant's academic track record, how the proposed PhD research fits in with their overall clinical training plans where applicable, previous research experience, future academic potential, the training environment, and the credibility of the research proposal.

Short-listed research proposals go out for external peer review – and will be judged on scientific merit, originality, and the potential impact.

Short-listed candidates will be invited to interview in January/February 2022. Interviews are expected to take place in London, but this will reviewed closer to the time, in light of any remaining restrictions related to Covid-19.

Awards will be notified in March 2022.

K. Queries

Please contact Katie Martin by email katie.martin@brainresearchuk.org.uk or telephone 0117 909 4809.