**NORTH WEST CANCER RESEARCH PHD STUDENTSHIP**

**GRANT APPLICATION GUIDANCE** **NOTES**

1. **Introduction**

The purpose of this document is to assist potential applicants for the North West Cancer Research PhD funding round 2021-22. Applications are sought from experienced researchers with a track record in supervising PhD students. Alternatively, researchers with less experience supervising PhD students should ensure they have an experienced co-supervisor as part of the research team.

**2. Who we are**

We are the only independent cancer research charity funding quality research for local people in North West England and North Wales. We aim to tackle the most significant cancers in our region, stopping cancer sooner.

**3. Our vision**

Achieving the best local research for a cancer free future.

**4. Research**

North West Cancer Research funds cancer research work at academic institutions in the North West of England and North Wales. Much of our funding goes to projects, but we additionally support Lectureships, Chair positions, Fellowships and PhD studentships. Please contact research@nwcr.org for more information.

We have separate calls for research in the fields of cancer discovery, underpinning translational science and health services research including cancer inequalities and specific themed calls. These calls have different eligibility criteria and direction is provided in guidance specific to each call enabling researchers to make considered decision in their applications.

**5. Award**

This PhD funding round provides up to £105,000 per PhD studentship. This includes a stipend of up to £19,000 for the student for each of three years. Where applicants use an annual stipend of less than the maximum they should provide a reference as to the guidance they have used for this e.g. UKRI / MRCFunding is available for 2-3 studentships. It is likely that at least one of these will be awarded in an area of fundamental science, with a second award in an area of applied research.

In making their applications, researchers should consider the relevance of their application to the people of the North-West of England and North Wales. This could mean overall incidence or that the particular cancer type is more common or associated with poor outcomes within the region. Applications for this funding round are open to researchers across the United Kingdom. We encourage collaboration between research groups and encourage applications that include collaborations with researchers within our regional footprint of the North West of England and North Wales.

Applications should be made from researchers who have a track record in supervising PhD students but applications are invited from academics working in a wide variety of different areas of cancer research. These include the following:

* Cancer Biology and Pathophysiology
* Cancer Therapeutics and Precision Medicine
* Population health, public Health and Cancer Inequalities including the lifestyle and environmental factors which increase cancer risks
* Cancer and Ageing, Palliative Care
* Improving care and support for people living with and beyond cancer
* Cancer Prevention
* The early detection of cancer including biomarkers

**6. Application Process**

Applications should be submitted before 5pm on Monday 17th January 2022. Applications must be submitted electronically via the charity website in one PDF document. Applications that do not meet this deadline will be held over until the next call round. Applications that are not submitted as a single PDF document will be returned to the investigator for modification and will not be included in the round if this falls outside of the call closure.

The NWCR PhD Advisory Group will meet approximately 3 months after the submission date to review the submitted and externally reviewed applications. The Board of Trustees will then meet to consider the recommendations of the Advisory Group and give approval for funding. The applicants will be notified of the final decision within one month of the Advisory Group meeting.

**7. Review**

The Charity’s review processes have been constructed in line with guidance and governance considerations set out by the Association of Medical Research Charities (AMRC) Principles of Peer Review (<http://www.amrc.org.uk/publications/principles-peer-review>).

On receipt of an application, the Charity will conduct a ‘charity triage’ to ensure applications meet with the application guidance. At this stage, the Charity considers the principal investigator and co-applicants previously funded work and the added value they have provided to the Charity. The triage includes assessment in line with the guidelines, completion of all sections and adherence to specified word count for each section.

Applications, which pass the charity check, are sent to all members of the Advisory Group who recommend appropriate independent reviewers according to the specific cancer type and research activity or technology being proposed. In addition to this expertise, the Charity will contact nominated reviewers (named in the application by the principal investigator). The Charity may also request advice from other experts in their database.

Where there have been previous difficulties with projects not completing on a timely basis, or a lack of engagement from the researchers, the Advisory Group will be informed of this. This may influence the panel’s decision and voting.

Where the researchers wish to exclude independent reviewers this must be sent to the charity Research Manager directly, alicia@nwcr.org. Researchers will be required to provide a full and detailed justification for excluding independent reviewers. The Advisory Group will be informed of the decision to exclude reviewers.

Nominated and Independent reviewers are asked to provide a written report on the proposals and provide a score which will inform the Advisory Group when voting.

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| --- | --- |
|  | Score 1 – 6 (1 = Poor, 6 = Excellent) |
| Criteria | **1** | **2** | **3** | **4** | **5** | **6** |
| 1. Importance of scientific/clinical question
 |  |  |  |  |  |  |
| 1. Scientific quality of proposed study
 |  |  |  |  |  |  |
| 1. Technical feasibility
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| 1. Financial feasibility
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| 1. Training potential
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| Total |  |  |  |  |  |  |
| **0** | **1** | **2** |
| 1. Relevance of project to the region (2 = High Relevance, 1 = Moderate Relevance, 0 = Low Relevance)
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| 1. PI is an early career researcher (2 Yes, 1 = Somewhat, 0 = No)
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| OVERALL SCORE (34) |  |

**The scoring matrix that will be used for this call together with guidance for scoring are provided below:**

**Scoring guidance (equivalent to BBSRC/MRC scoring systems)**

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| Criteria 1 and 2: Importance of scientific/clinical question and quality of proposed study |
| 6 Exceptional – equivalent to top international programme, or of exceptional national strategic importance (fundable)* Crucial scientific question or knowledge gap in area of strategic importance
* Potential for high health and/or socioeconomic impact
* Work that is at the leading edge internationally, addresses all of the assessment criteria, and meets the majority of them to an exceptional level. Likely to have a significant impact on the field.
 |
| 5 Excellent - equivalent to internationally competitive and leading edge nationally, or of national strategic importance (fundable)* Crucial scientific question or knowledge gap or area of strategic importance
* Potential for high health and/or socioeconomic impact.
* Work that is of a high international standard, and addresses and meets the majority of the assessment criteria to a very high level. Will answer important questions in the field.
 |
| 4 Very Good - equivalent to internationally competitive in parts (fundable)* Good scientific question or knowledge gap or in area of strategic importance
* Potential for high health and/or socioeconomic impact
* Work that is internationally competitive and meets the majority of the assessment criteria to a high level. Will advance the field.
 |
| 3 Good (fundable)* Worthwhile scientific question or knowledge gap or a valuable scientific resource
* Potential for significant health and/or socioeconomic impact
* Work that has merit and meets the majority of the assessment criteria to an adequate level. Likely to advance the field.
 |
| 2 Potentially fundable* Worthwhile scientific question with potentially useful outcomes
* Likelihood of successful delivery
* Work that is potentially of some merit, and meets some of the assessment criteria to an adequate level, but which is not internationally competitive. Unlikely to advance the field significantly.
 |
| 1 Unfundable * Poorly defined question
* Limited likelihood of new knowledge generation
* Work that is of no significant scientific merit, flawed, or duplicative of other research, or for which the applicants do not present evidence of a satisfactory track record, and which does not meet the majority of the assessment criteria to an adequate level. Unlikely to advance the field
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| Criteria 3: Technical Feasibility  |
| 6 Exceptional – equivalent to top international programme, or of exceptional national strategic importance (fundable)* Excellent leadership team *(track record, team, environment, and collaborators)*
* Well-planned, original and innovative design and methodology, with a novel aspect clearly explained
* Ethical and/ or governance issues are fully considered
* No impediments to progress identified, clear contingency planning in place
 |
| 5 Excellent - equivalent to internationally competitive and leading edge nationally, or of national strategic importance (fundable)* Excellent leadership team *(track record, team, environment, and collaborators)*
* Well-planned, original and innovative design and methodology, with a novel aspect clearly explained
* Ethical and/ or governance issues are considered
* Unlikely to be impediments to progress, clear contingency planning in place
 |
| 4 Very Good - equivalent to internationally competitive in parts (fundable)* Excellent leadership team *(track record, team, environment, and collaborators)*
* Robust methodology and design *(innovative in parts*) and evidence of a novel idea
* Ethical and/ or governance issues are fully considered
 |
| 3 Good (fundable)* Strong leadership team *(track record, team, environment, and collaborators)*
* Methodologically sound study with some evidence of a novel idea
* Ethical and/ or governance issues are well considered
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| 2 Potentially fundable* Appropriate leadership team *(scope to strengthen team; environment; collaborators)*
* Methodologically sound study but areas require revision, minimal evidence of novel aspect
* Ethical and/or governance issues are adequately considered
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| 1 Unfundable * Poor leadership team
* Methodologically weak study and no novel idea considered
* Ethical and/ or governance issues are not adequately considered
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| Criteria 4: Financial Feasibility  |
| 6 Exceptional – equivalent to top international programme, or of exceptional national strategic importance (fundable)* Potential for high return on investment *(resources requested, likelihood of project delivery, anticipated knowledge generation).* Realistic request, highly appropriate for suggested experimental plan.
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| 5 Excellent - equivalent to internationally competitive and leading edge nationally, or of national strategic importance (fundable)* Potential for high return on investment *(resources requested, likelihood of project delivery, anticipated knowledge generation).* Realistic request, highly appropriate for suggested experimental plan.
 |
| 4 Very Good - equivalent to internationally competitive in parts (fundable)* Potential for good return on investment *(resources requested, likelihood of projected delivery, anticipated knowledge generation).* Realistic request, appropriate for suggested experimental plan.
 |
| 3 Good (fundable)* Potential for reasonable return on investment *(resources requested, likelihood of projected delivery, anticipated knowledge generation).* Mostly realistic request, appropriate for suggested experimental plan.
 |
| 2 Potentially fundable* Potentially more limited return on investment *(resources requested, likelihood of project delivery, and anticipated knowledge generation)*
* Resources broadly appropriate to deliver the proposal
 |
| 1 Unfundable * Potentially poor return on investment
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| Criteria 5: Training Potential  |
| 6 Exceptional – equivalent to top international programme, or of exceptional national strategic importance (fundable)* Wide range of realistic training and development opportunities with clearly structured plans and appropriate resourcing in place.
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| 5 Excellent - equivalent to internationally competitive and leading edge nationally, or of national strategic importance (fundable)* Wide range of realistic training and development opportunities described, clear plans for delivery and resourcing.
 |
| 4 Very Good - equivalent to internationally competitive in parts (fundable)* Training and development opportunities considered, clear plans for progression and resource allocation.
 |
| 3 Good (fundable)* Training and development opportunities considered (limited in parts), clear plans for progression and resource allocation.
 |
| 2 Potentially fundable* Training and development opportunities considered but limited in parts
 |
| 1 Unfundable * Training and development opportunities not adequately considered
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| Criteria 6: Relevance of project to region |
| 2 = High Relevance* Highly relevant to a cancer type, treatment or inequality associated with our region
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| 1 = Moderate Relevance * Moderately relevant to a cancer type, treatment or inequality associated with our region
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| 0 = Low Relevance* Relevance only to cancer in general, or specific to a cancer with low prevalence or impact in our region
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| Criteria 7: PI is an early career researcher  |
| 2 = Yes |
| 1 = Somewhat |
| 0 = No |

**GUIDANCE ON COMPLETING THE APPLICATION FORM**

The sections below provide guidance on completing the individual sections of the application form. Please remember to adhere to the word count for each section as word count in excess of the limits below will be penalised.

* 1. **Project Title**

The project title should give potential reviewers a clear idea of the proposed research. Any confidential or commercially sensitive information should not be included in the title.

* 1. **Proposed Start Date and Duration**

The award should ideally begin as close to the academic year as possible and in this instance, the expected start date would be around October 2022.

* 1. **Applicant(s)**

 Only one application will be considered for a PhD supervisor. One additional application will be considered where the applicant is named as a co-supervisor. Applicants should not appear on more than two applications. Applications will be returned if these guidelines are not adhered to.

Co-supervisors should be experienced researchers and the roles of each co-supervisor must be justified within the application.

All applicants named on the grant MUST sign the application form. If signatures are not included, the application form will not be accepted.

* 1. **Scientific Summary of Proposed Research**

Please do not include confidential or commercially sensitive information in this summary as it can be circulated outside of our organisation. Word limit 250.

**5. Lay Summary of Proposed Research**

 This summary must be suitable for the general public as the NWCR research advisory group includes patient and public representatives who are not from a scientific or academic background. Your lay summary must be understandable to someone with no formal science education. Do not use technical language. Poorly written lay summaries will be penalised. Word limit 250.

1. **Relevance to region**

Within this section, you should provide a clear case as to why this work is of relevance to the local population of the North West of England and North Wales. This could include incidence, research specialisation of the leading groups, collaboration with regional centres of excellence in the NHS or patient group interactions. This should be written in lay terms. Word limit 250.

**7. Communications Plan**

This must include an outline of your plans for engagement, communication and dissemination of this research. This should include potential impacts for academic and non-academic users. Word limit 250.

**8. Impact Summary**

Outline the potential impact of your work and the steps you will take to achieve this. We appreciate some research work has a longer impact timeframe, please therefore consider the wider definition of impact and how as a charity we measure it. In your summary, please consider what your project will do to: generate new and novel ideas; translate research into new ideas and services, create evidence that could influence policy and stakeholders; develop the human capacity to do research; stimulate further research via new funding partnerships; for research in the long-term. Word limit 300.

**9. Human and/or Animal Subjects**

NWCR expects the research they fund to be conducted to the highest levels of integrity, probity and good management. The research grant will be managed by NWCR. Research grants are made between NWCR and the research institution, and the charity expects that researchers and their employers will work within the appropriate legal and ethical boundaries and with the approval of research ethical committees where appropriate. If the answer to the question is yes, please complete the supplementary document Appendix A.

1. **Proposed Investigation**. This section should not exceed 2,000 words.

The following information should be included:

* Title of project
* Work which has led up to this project
* Project objectives
* Detailed plan of investigation including background, preliminary results (if appropriate), hypothesis and specific aims.
* Identified risks and contingencies in place.
* Patient/Public Involvement plans

References, tables, images and graphs can be included. These will not be included in the 2,000 word count.

If the project involves patient information, human volunteers or tissue samples, or animals, Appendix A should be completed and submitted with the main application form as part of the submitted PDF document.

1. **Student Experience**

Please describe the range of training and scientific development opportunities that the student will get during this PhD. Consider the parameters for the student on this project within which they will be able to shape it to their own learning style and interests.

1. **Early Career Researcher**

Our aim is to support the development of all research staff and to nurture Early Career Researchers (ECR) as they start out on a research career. There is no single definition of an Early Career Researcher, however the UK Research Councils and the Research Excellence Framework suggest an ECR is determined on the length of time since the individual completed their PhD, e.g.:

* Those with a doctorate who had their doctoral viva not more than 5 years from the application closing date - Leverhulme.
* A maximum of four years’ academic research experience following the completion of their PhD, or be of equivalent professional standing - AHRC.

However, we understand these definitions offer a perspective of who falls into the official category of an ECR, but we believe these definitions are too rigid and fail to encapsulate our diverse research and academic community. We have a wide range of researchers from post-doctoral researchers to senior lecturers who are undertaking the first stages of their research careers. Therefore, we encourage our researchers to use a self-defining definition of who is a an ECR.

**13. Nominated Referees**

Nominated reviewers must be experts in the research field and/or be able to provide an expert view on the value and benefits of the research proposal. Please make your referees aware you have nominated them in advance of submitting your application.

Applicants should not provide reviewers from their own organisation or where any possible conflict of interest may arise. This conflict includes people with whom you have held grants within the last five years. It also includes anyone with whom you have published in the same period. Personal relationships are also considered a conflict of interest.

If the applicant does not want a particular reviewer contacted, this should not be added to the main application form but should be submitted directly to the NWCR Research Manager. Researchers must provide justification for this exclusion e.g. “main scientific competitor” or “commercial sensitivity”.

**14. Summary of Costs**

Costs (not amounting to >£105,000 in total) should be included under a number of categories:

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| --- | --- |
| **Salaries:** | Any student stipend should not exceed £19,000 per annum.  |
| **Equipment:** | Funds can be requested for small pieces of specialist equipment that are essential for the project. |
| **Consumables:** | Funds can be requested for routine research consumables. |
| **Animal costs:** | Total costs for the combined purchase, maintenance and experimental procedures should be included. The breakdown must be provided in Appendix A. |
| **PPI/Participant costs** | Costs may be applied for to cover the cost of PPI involvement or costs for the reimbursement of participant participation. |

Research carried out in the NHS: Grant holders carrying out research in the NHS must ensure that all costs are attributed according to the [AcoRD (Attributing the costs of heath & social care Research & Development) Guidelines (link is external)](https://www.gov.uk/government/publications/guidance-on-attributing-the-costs-of-health-and-social-care-research%22%20%5Ct%20%22_blank), or equivalent. It is expected that researchers use the study support service when applications are written.

**15. Justification for Support Requested**

This information should clearly describe how the resources requested are appropriate for the research proposed.

**16. Signatures**

 Please ensure that ALL named applicants sign the form.

The approval of the Head of Department and Administrative representative confirms that the Institution agrees with the budget request and use of facilities.

**17. CVs**

Please include CVs within the PDF document for all named applicants with a list of publications.

**18.** **PhD Supervision**

Please provide details of the number of students supervised in the last 5 years, including current students of the PI and co-supervisors. At least one member of the research team should have a track record of supervising PhD students. The start and completion dates (where possible) should be listed.

Please provide details of the environment in which the student will be working. This should include the number of group members e.g. PhD Students, Post-Doctoral Researchers and details of equipment available. Details of the daily support should also be included.

Please note, the relevant Research Office will be asked to provide the institutional procedures for the support and monitoring of postgraduate students.

**19. Published Papers**

If you have previously been funded by NWCR, please attached a list of published papers that have resulted in whole or in part from NWCR support. Identify within the list publications from:
- North West Cancer Research Fund

* Clatterbridge Cancer Research
* Cancer and Polio Research Fund Ltd.

**20. Resubmission**

If the application is a resubmission to the Charity, please include a covering letter and highlight details of changes from the original application. Please address the concerns raised by both the advisory group and external reviewers following the original application.