

Selecting suitable funding bodies involves understanding their objectives and showing you can help meet these

This is the second article in our research funding mini-series aimed at giving you some guidance in obtaining grant funding for your research needs. Here, selecting a suitable funding body, which will entail matching your funding needs with the funder's eligibility criteria and available awards is considered along with some tips for making that all-important grant application stand out from the crowd.

In the first article of this mini-series I covered some of the basic groundwork needed when beginning any grant application process.¹ This includes discussing your research idea with colleagues who will ask probing questions, conducting a thorough literature review to discover whether your idea has been studied before and if it has whether you can add to the findings, and locating collaborators who can help you undertake the study and analyse the data. In carrying out these activities you may have already come across potential funders and drawn up a short-list of those that appeared most compatible with the aims of your project. If you have not yet done this you should do so now.

Select a funding body

Selecting the most appropriate funding body for your particular research study is crucial. You will need to ensure it has the level of funds you are seeking and that these are available to commit to the sort of research you wish to undertake. You will also need to ensure that you can satisfy the funding criteria for applicants. This will vary for all funding bodies and with different types of award run by the same funding body.

All funding bodies state the aims of the organisation and who they consider to be eligible to apply for specific funds in their paper-based or web-based literature. Research the remit of all potential funding

organisations and read through the descriptions of the awards they offer. You will then be able to judge where your research idea best fits into the available funding programmes. For example, your intended research project might concern how best to redesign and streamline existing multi-professional services for people with a chronic condition, such as epilepsy. You



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might decide to look at the whole patient pathway from diagnosis to long-term maintenance and consider factors such as treatment optimisation, adherence, the impact of the condition on employment, driving restrictions and various social issues with an overall view to improving patient outcomes through better service efficiency and delivery. The Pharmacy Practice Research Trust (PPRT) is an independent charity with a broad remit to 'promote and

develop research relating to the practice of pharmacy'.² One of the key research priorities of the PPRT over the next three years is inter-professional working and one of its current invitations for proposals is in the area of 'multidisciplinary service development or evaluation for patients with long-term conditions'.² You might therefore read through the appropriate guidance notes to decide whether your project fulfils the eligibility criteria.

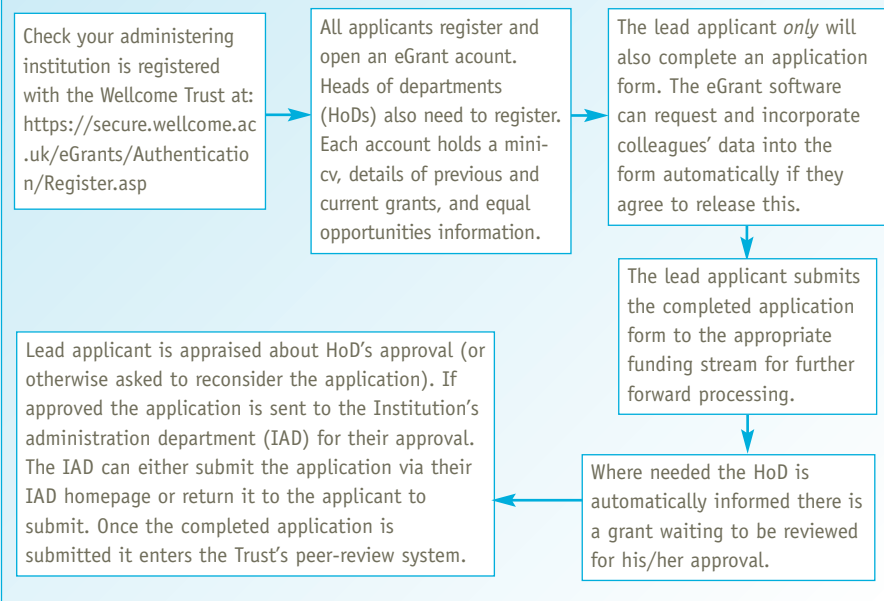
Some other examples of current calls for research proposals from grant-awarding bodies were listed in the first article of this mini-series.¹ However, you could also search the Association of Medical Research Charities website³ for funding opportunities given by the 114 member charities and for other useful information.

Guidance notes usually contain:

- the aims of the organisation
- the research type they will fund and the applicant eligibility criteria
- detailed explanation of all the of sections within the application form and notes about how to complete these. Read the notes carefully before you start because there may be word limits or special instructions for individual sections
- the person to whom the application should be returned and mode of submission — electronic or paper
- deadline for submission

Figure 1. Outline of the Wellcome Trust eGrant application system⁴

The Wellcome Trust awards funds in five funding streams: immunology and infectious disease; populations and public health; neuroscience and mental health; physiological sciences and molecules, genes and cells. First select the most appropriate stream for your project, then follow process briefly outlined in the flow diagram below.



Once you are satisfied that you have found a funder for the sort of research you are intending to do you can obtain the relevant application form and guidance notes. This can usually be downloaded from the website or obtained by phoning or emailing the organisation.

Guidance notes

Information provided in the guidance notes will usually briefly reiterate the aims of the organisation, the funding opportunities it offers and the eligibility criteria for the specific funds. The guidance notes will also explain, in detail, exactly what is required of you at each stage of the application. They will usually guide you through the application form step by step. Although each organisation's application form will have a different design there is a core of standard information that will be requested and assessed by the funding body.

A growing number of funders are working towards running the entire grant awarding process through the web. The Wellcome Trust, for example, has run an e-grants system since 2005. This is currently being

end-of-grant reporting will be web-based.⁴ The main stages involved in the Trust's eGrant system are outlined in Figure 1. For those who are not particularly 'techno-savvy' this may seem a daunting prospect but it is a very simple and clear process, and helpful online guidance notes are available throughout as the eGrant software leads you through the application.⁴

What makes a good application?

Once you are in possession of an application form and its guidance notes it is a simple matter to work through each stage and complete the form. The main sections that must be completed are outlined in Table 1 and, on the surface, these look straightforward. However, the peer-reviewer will view each section with slightly different eyes to those of the applicant and it may be worth considering some of the points that the reviewer will be looking out for before you start writing your application.

The applicants

The first question the funder's grant officer will need to answer is: 'Are the investigators of this application eligible to receive our funds?'

updated so that the whole process from registering and making the application to

Table 1. Standard details required in application forms

Applicants and lead investigator details

Full details of all applicants will be needed, sometimes including a full cv, but a principal investigator will need to be nominated as a main contact for the organisation. You should satisfy the funder that you have the necessary expertise to conduct and manage the project.

Project title and summary

This is usually a brief but content-rich abstract of the proposal. You will need to show within this that your proposal matches the funder's aims and that your proposal is well-founded, well thought-out and has achievable outcomes here. In addition some funders request a non-academic summary.

Fuller details of the proposal

This will include a thorough background to the proposal including supporting references. Full methodological details, with, where appropriate, pilot study findings should be included along with the study design and location, statistically-relevant sample numbers and the means of subject recruitment, methods of data collection, analysis and measuring outcomes, how you propose to comply with research governance and ethical procedures, details of public or beneficiary involvement, full budget with justification of all costs. A comprehensive project timetable and management structure are also required to demonstrate you have the necessary systems in place to ensure the project will be well-managed both from a practical and financial viewpoint. Because most proposals must be based on outcomes you will also need to demonstrate how the findings will be used — how you will implement the appropriate outcomes and disseminate your findings.

Declarations

All applications need to be signed by the applicant(s), by people who will be responsible for administering the funds, such as the finance officer, and by those who will be responsible for accommodating the project and associated employees. Usually this is the head of department or institution.

Research funding

Table 2. Key features of a strong grant application

- The research question is valid, innovative, worthwhile, has clear objectives, is timely and its answer will build on the existing knowledge-base. The data produced from the planned research will answer the question definitively.
- The research plan is not overambitious and the investigators make realistic claims about its usefulness and impact. The research is likely to lead to the stated outcomes.
- The proposed methodology to answer the question is suitable and adequate. The researchers have (or will have) the necessary experience with the methods to conduct the research.
- The proposed timescale is consistent with the required subject recruitment (where appropriate) and the level of work that needs to be undertaken with the dedicated staff.
- There is an appropriate and adequate management structure in place for the research project, with clear day-to-day accountable persons, continuous monitoring and regular meetings to evaluate progress. Achievable milestones are in place with an appropriate structure to address any insufficiencies in fulfilling the study objectives.
- There is an appropriate level of public or beneficiary involvement in the study management.
- The ethical approvals and research governance requirements necessary for the project have been obtained or are in progress and are highly likely to be approved.
- The budget is clear, accurate and realistic being neither undercosted nor containing unjustifiable expenses or inflated costs. Ensure the costs will be accurate when the study begins, which may be many months after your submission. Some funders, such as the Wellcome Trust, adjust figures for inflation, others ask you to show such calculations, others do not take inflation into account, so you will need to ensure that you are aware of the funder's policy on this.
- There are clear and varied plans in place to disseminate the study findings.

Clearly, if the answer is no then your application will go no further no matter how good the proposal is. However, for eligible applicants the review system will often also consider factors such as whether the lead applicant has the capacity to lead the research and whether the researchers have — or will have gained — the ability to carry out the research. This will involve assessing the lead applicant's expertise to conduct, monitor, review and manage the project, and reviewing the abilities of all researchers in relation to the project needs.

A good international standing or a strong reputation within your research area will certainly do no harm, but this is not essential. What is important is to be able to *demonstrate* how the lead applicant will manage the project and to detail how the strengths and abilities of all team members will help maximise their contribution to the project.

The research question

Peer-reviewers will work very hard to understand *what* you intend to do and *why* you consider this important because they will want worthy projects to receive funding. However, if your research question is not presented clearly and in an understandable

manner, with the best will in the world it is unlikely that it will be appreciated.

You should endeavour to test your research question for logic. Ask yourself how it relates to established theory and research. Be clear about how your proposed questions relate to each other and to existing knowledge. You should be able to develop your arguments methodically and explain *how* answering your question(s) will contribute to the evidence base that will better inform policy or patient care (see Table 2). You will need to demonstrate that your question *does* have a definitive answer. This might mean that you need to conduct some preliminary research to confirm that your question is valid and answerable. If this is the case you might need to consider submitting a development grant proposal to undertake these first. Any supporting information that you can include in your application to substantiate your proposal will help.

Comprehensive project management

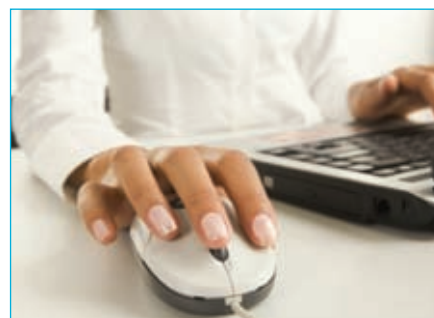
Having defined your question, do not make the mistake of being overambitious in what you can achieve with the time and funds available — and do not overplay the

importance of your research to policy or patient care. Be realistic and factual, and ensure that you detail the methodology, explaining, where necessary, how this will help answer the question and how the existing skills or training of your team members will facilitate this. Good project management will be evident from an application that demonstrates considered planning both of the research — including feasibility of the study, the research team's credentials, data analysis, project monitoring arrangements and dissemination of findings — and the budget.

List your intended research outcomes and satisfy yourself that these can be obtained using the proposed methodology, and in the planned time. Define how the project will be managed and who will be accountable for the various aspects of the project. Management teams will vary with project size and complexity from possibly one person to, perhaps, a small steering group of people comprising supervisors, study investigators, members of the public and/or patient groups.

Public involvement

Funders are increasingly requesting that you involve the public or stakeholders, where possible, in your study design and



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management. Clearly, if your study focusses on a specific patient group it would be wise to involve them from the outset because they may be able to offer you invaluable insights into their condition that could help better inform and guide your research. Indeed, the BIG Lottery fund supports charities and voluntary organisations to undertake medical (and social) research,

which is often conducted in partnership with established medical research groups (Table 3).⁵ In this way the BIG Lottery fund ensures that beneficiaries are empowered to commission high-quality research in areas they feel would produce the most useful outcomes. Many other funders are now asking for details of public involvement and some funders, such as the Wellcome Trust, provide support for researchers to engage with the lay public.

Research plan and monitoring

You should present a detailed plan of the research, how it will be monitored and reported, the frequency of management or steering group meetings to review progress, and the full project costings — with justifications. In your management plan set achievable targets and milestones throughout the study duration, with regular monitoring of progress and outcomes built in. This will not only help you to focus and keep on track but will assist your learning and make interim and end-of-grant reporting to the funder much easier because you will have all the facts and figures to hand. It is good practice to show you have given some consideration to what might be done in the event of problems such as poor subject recruitment or other events that might impact negatively on the study objectives. This will show the reviewers that you have made a risk assessment for your project. In the rare event that disaster should strike when your project is underway funders will usually welcome discussion about how to deal with this or any

unforeseen problem that might impact on the project and they will usually try to help. You might, however, find that things go better than you anticipated and you exceed your expectations, so consideration of these eventualities might also be appropriate.

Research and ethical approvals

Copies of all appropriate research and ethical approvals that are needed for the study should accompany the research application. Research carried out within the NHS, for example, is subject to guidelines



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laid down in research governance framework for the NHS and social care in England,⁶ Scotland,⁷ Wales⁸ or Northern Ireland.⁹ This addresses both research quality, data collection and analysis methods. Similarly, if you intend to undertake a clinical trial you will need to

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ensure your trial will comply with the legislation laid out in the *Medicines for human use (clinical trials) Act* of 2004.¹⁰ Clinical trials are authorised by the MHRA and the procedure for applicants is available on the MHRA website.¹¹ The National Research Ethics Service¹² co-ordinates the work of NHS Ethics Committees and has led a multi-agency collaborative project, run under the UK Clinical Research Collaboration, to set up an integrated research application system (IRAS) across the UK. This web-based system came online on 29 January 2008 and allows you to enter information that would be needed for approvals into a personalised database.¹³ IRAS will facilitate your applications for as many permissions or approvals as your application requires automatically — including those for the MHRA and Research Ethics Committees. This streamlines this part of the grant application process — and can save considerable time for those applicants who have numerous permissions to obtain, because data will only need to be entered and checked for accuracy once, but it can be used to complete different types of permissions or approvals applications. Researchers are urged to give IRAS feedback on the system before all new applications must be made through it — scheduled for the summer of 2008.

Budget realistically

All grant applications are judged on the applicant's ability to calculate an accurate and realistic budget for the study. You will need to demonstrate that you have arrived at the figures presented in a logical manner and taken all relevant costs into account. It is often the case that the true costs of research are underestimated — but trying to match the sum you request with the level of funds declared by the funder, rather than presenting an accurate budget will not

Table 3. BIG Lottery fund's funding criteria⁵

The applicant cannot be a university research group leader — it must be a charity or voluntary organisation. You, as a pharmacy researcher, may of course be the lead in such an organisation or you may have been approached by a charity to be their research partner in undertaking a specific project that satisfies a need of a particular patient group. Remember if you join forces with a voluntary organisation to complete a BIG Lottery funded-project you are going to be working on their behalf and everyone must be fully aware of their responsibilities, boundaries, project ownership (which is the charity's) and management obligations, but many such working arrangements have blossomed and continued beyond the duration of a first project. Conducting research for a charity can bring mutual benefits with each group offering the other new ideas and approaches to problems. As medical researchers you can also play an active role in sharing knowledge with the charity to the benefit of the specific patient population and others. The applicants will need to register online at www.bigresearchprogramme.org.uk and a research proposal will need to accompany the application.

Research funding



reflect well. If the funder does not have the level of funds you need it is better to simplify your application — perhaps by breaking it down into smaller distinct projects that can be targeted at different funders. Your peer-reviewers will be familiar with running costs and equipment costs and will know roughly what you will be likely to incur. Also, remember that the project may start many months after your initial submission. You will need to obtain accurate information for all costs and present sensible future projections where appropriate.

It will be your responsibility to have financial processes in place to track and report all aspects of actual project expenditure against your budget. These processes must provide sufficient evidence to justify your invoices during the project delivery. Finance officers usually take responsibility for processing invoices and often can make forecasts for you during the course of the project, but you will need to be able to show you can monitor and justify your expenditures. Funders often expect to be able to audit the financial systems at any time so systems must be in place to ensure everything is kept up-to-date and easily accessible.

Submitting the application

Some funders, such as the Alzheimer's Society, ask for a preliminary proposal for a project grant to be submitted online before it invites full applications. The preliminary applications are considered by a panel of consumers and prioritised in line with the Society's main objectives, which are 'to fund research projects in the areas of cause, cure or care for dementia'.¹³ This reflects the growing involvement of beneficiaries and lay public in the decision-making processes

of medical research. The Alzheimer's Society also states that it expects to be an active partner in the research process, supporting the successful outcome and dissemination of research findings, the latter being another important aspect of the funding process. Submitting a completed application is facilitated by electronic systems, such as the Wellcome Trust's eGrants system, which has checks in place to ensure all sections are fully completed and which processes the application through Heads of Departments and Finance Departments saving some leg-work for the applicant (Figure 1). However, paper-based applications are still requested by many — if not the majority — of funding organisations, so it is important to check thoroughly that you have completed all relevant sections and the form is accompanied by as many approvals and permissions as your study requires — with the requisite number of photocopies.

Additional support for researchers

Some helpful support services for researchers are now coming on-line. For example, as part of the National Institute for Health Research and supported by the NHS, RD Direct offers a web-based

signposting service to researchers working in health and social care settings.¹⁴ Web-links direct the researcher to information on research methodology, searchable databases, NICE and other organisations. Another section of the website provides useful guidance about all stages of research and may help answer any queries.

In the next article I will explore a variety of means for disseminating information that will help you to create a good track record. ✦

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The author declares that she has no competing interests.

Christine Knott, editor, *Pharmacy in Practice*

If you have suggestions, information or comments to make about this series please feel free to email me at cknott@medicomgroup.com

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