

How to get a grant funded

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In the increasingly competitive field of biomedical research, more and more researchers are chasing an ever shrinking pot of research funding. Good ideas are not enough, funding applications increasingly require dogged determination, good organisation, and a clear strategy if they are to succeed. Doctors in full time academic posts, most of whom work outside of core funded units, will find much of their time is taken up with writing grant applications, and must therefore acquire the appropriate skills. Clinicians with a research interest may complete grant applications only occasionally, and may therefore find this daunting. Although grant applications are a fundamental part of the clinical academic way of life, writing them is seldom emphasised during academic training. However, there are generic ingredients to a good grant application, and you can maximise the chance of success by following some rules.

Choosing a funding body

At the outset, it is important to decide which grant giving body to approach. The Medical Research Council and the Wellcome Trust together currently plough more than £400m annually into supporting research and, unlike most of the smaller research charities, will fund research of a general nature. However, while the Wellcome Trust is still funding projects, the Medical Research Council is more interested in grants to centres and collaborative funding. The Association of Medical Research Charities Handbook (www.amrc.org.uk) contains details of 96 charities that fund medical research. Some of the largest are the cancer charities (Imperial Cancer Research Fund, Cancer Research Campaign, and the Leukaemia Research Fund), the British Heart Foundation, and the Arthritis and Rheumatism Council; together they spend over £150m a year. Most of the 96 charities, however, support single diseases, usually with a budget of well under £1m. The Department of Health funds health service research and the European Commission offers considerable grant funding for researchers who have collaborators in other European countries.

The research training fellowship schemes offered by various funding bodies (including the Medical Research Council and the Wellcome Trust) are an excellent source of funding for bright young clinicians or scientists, and may be a source of funding for projects that do not yet have the gravitas associated with a collaborative multicentre or programme grant.

Preliminary proposal

Some grant giving bodies now ask for a one page summary of the research proposal before inviting a full application. If this is not a prerequisite, it is important to establish that the proposed research is relevant to the funding body. "Does the proposal fit in with the aims of the charity?" is one of the questions asked of grant reviewers, and the answer to this question must

Summary points

Writing grant applications is a skill that researchers must acquire

Decide which grant making body to approach at the outset; make sure that proposed research is relevant to the funding body

Write focused, succinct, clear applications that follow the guidelines set down

Learn from rejections

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be an unequivocal "Yes." If you are in any doubt, contact the charity's administrator and discuss the project. Such a simple precaution may save a lot of time.

Writing the application

Before filling in the application form look carefully at the chosen funding body's guidelines for applicants. Although these may look daunting, they need to be read thoroughly as they contain a number of apparently trivial but important pieces of information. For example, while your individuality may best be expressed in single spaced 8 point Courier (which also gives you valuable extra space for your literature review), the decision to use such a font may be a mistake if the guidelines specify that "The application should be typed in 12 pitch font and the use of Times New Roman is preferred." Referees, who often receive many grant applications a year, must be able to read the application easily and may return unconsidered any that are illegible. Hence the stipulation of font size in the guidelines.

Follow instructions

Grants that do not comply with the funding body's guidelines in other respects may be returned unconsidered. How would you feel if the grant application you had struggled with was passed over because it was "not firmly stapled"? Sadly, this is a genuine comment that accompanied a returned grant application. (Funding bodies could help researchers by avoiding qualitative statements such as "firmly.") The reasons for following the guidelines to the letter are numerous, but all are designed to help the grant progress through the application stages with the minimum of fuss.

Focus and relevance

The application should be succinct and, most importantly, focused. Applications describing a shotgun approach to a research question, with a multitude of experiments using a variety of techniques, risk being

viewed as scientific “fishing expeditions” and may suffer as a result. The aims of the project should be clearly stated near the beginning, and should be readily understandable to those who are not experts in the proposed area of research. Furthermore, the relevance of the research should be emphasised. Relevance in this context refers to the manner in which the proposed project enhances understanding and advances knowledge. If there are potential practical applications of the research then these should be highlighted.

Background

The background to the project and literature review are important parts of the application. Here, you have an opportunity not only to summarise the general area of research, but also to highlight your own contribution. Funding bodies may ask their referees, “Does the applicant have a proved track record in this field of research?” It is important therefore that this is clear. No matter how good your idea is, if you are in competition with powerful and established groups in a similar area of research and you have no research pedigree in the field, your chances of funding will be diminished. Judicious use of preliminary data from your own experiments can be very helpful, further confirming your ability to deliver the results of the experiments you propose. Including your own manuscripts that are cited but still in press is mandatory. Since the grant referees will be experts in the field, selective quotation and, in particular, the omission of key references is unacceptable. “The applicant didn’t have the courtesy to referee my own work” is a comment to be avoided.

Clear methods

The process of research in the methods section—the description of the techniques involved, justification of the numbers of experiments, patients, or animals required, and a realistic timetable—should be clearly laid out. It is important that the review committee believe the proposed work can be accomplished within the time limits imposed by the grant.

Justify importance

Justifying the support requested is an important part of the application. The funding bodies want to know why a particular technique or part of a protocol is nec-

essary, and, if it is expensive, its use, rather than that of a cheaper method, must be justified. Furthermore, why a postdoctoral researcher rather than a cheaper research assistant is required for a particular post may have to be explained. These questions should be answered honestly and comprehensively. Grant giving bodies are not easily fooled and a blanket statement such as, “These costs are necessary to run my laboratory” will not suffice. Ultimately, “justify” means explain the cost benefit of your research.

The final adjustments

Since submission deadlines are not usually flexible, the time spent preparing the application should be well organised. In particular, it is easy to underestimate the amount of time it takes to get all the relevant signatures on a grant application. All grants must be seen and checked by the finance officer of the institution. These are busy people who cannot be expected to work to your deadlines and provide costings at short notice. It is therefore useful to get salaries costed well in advance of the final deadline and then simply get a signature on the final application form later, once the costings have been inserted.

Processing applications

Once the submission deadline has passed, the grant administrators will check, log, and sort applications and choose referees to peer review each one. Usually two or three referees will be chosen, and given approximately six weeks to return their reports. Grant applications that do not comply with the required format may be set to one side by the administrators and dealt with last. This may mean a delay in sending them out to referees, and consequently tighter deadlines for report submission. Up to a quarter of grants sent out for refereeing are returned by the chosen referee because he or she is unable to provide a report, and an additional referee needs to be found. If an application has already been delayed because its format is incorrect, the chances of appropriate refereeing may be prejudiced. Referees’ reports are very important as most grant committees are very broadly focused and rely heavily on expert opinion; thus the absence of a report for your grant at the committee stage could lead to rejection.

Dealing with rejection

Funding agencies currently support 15-25% of projects. Most applicants will therefore have to deal with rejection at one time or another. Feedback on rejections is extremely important and may be very useful, but it is not provided by all agencies or charities. Grant writing is a skill that must be acquired by committed academics, and learning from one’s inevitable mistakes is as important a skill as ... well ... grant writing itself.

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