

Using Peer Review Groups to help secure funding

Obtaining research funding is becoming an increasing challenge for institutions worldwide. **Jennifer Shambrook, Carla Danielson, William Schweri** and **Paul Waugaman** present their views on how to produce more competitive proposals.

The research environment has always been competitive when it comes to obtaining funding. Now, as we hear from all sides, that obtaining funding is *more* competitive than ever before, you may ask: “What can I do to enhance my competitiveness for funding in an increasingly competitive environment?”

This question is asked at institutions with very limited resources that are just beginning to get involved in competitive funding. It is also asked at institutions that have a very significant funded research portfolio who hope to maintain or increase their level of funding.

The solution: In-house PRGs

The answer to this question is not a secret. In fact, the answer can be found in any good grantsmanship guide. It may be stated in a variety of ways, but the main message is this: *Never let the sponsor's reviewers be the first to critique your proposal for funding.*

This can be accomplished by formally establishing an in-house peer review group (PRG) that is committed to training themselves to critique proposals in-house prior to being submitted to the sponsoring agencies.

Fortunately, for those of us at institutions with limited financial resources, this solution can be implemented using intellectual rather than monetary resources. These intellectual resources are not easy to gather, however, and they can sometimes be scarcer than monetary resources. It requires competent *time management skills* in order to prepare proposals early enough before the submission date to allow time for the review group to critique the prop-

osal and for the recommendations to be followed. It requires *team building skills* to assemble and inspire a group of people that are willing to learn to effectively review each proposal. It requires *organisational skills* to arrange ongoing reviewer training, circulate the proposal for review, schedule the meeting, establish a meeting place and send reminders. It requires *commitment* by each member of the group to take an active role to assist in both review and training. Finally, it requires tremendous *self-discipline* to adhere to all of the aforementioned character resources and pledge yourself to the in-house peer review tactic to help one another.

How do we know it works?

Embracing the belief that history is the best indicator of the future, let's look at some experiences of others who have utilised the strategy of in-house PRGs.

The cornerstone example is that of Western Psychiatric Institute and Clinic (WPIC). WPIC serves as the Department of Psychiatry for the University of Pittsburgh School of Medicine in Pittsburgh, Pennsylvania, USA. They have a funded research portfolio that is made up primarily of funds from one of the most competitive and rigorous funding agencies in the world, the US National Institutes of Health (NIH). NIH has posted their award data at www.nih.gov from 1998-2004. In 1998, WPIC was listed as the top ranked Department of Psychiatry in the US, with NIH funding of USD 41.4 million. WPIC has remained at the top rank throughout the past nine years and in 2004 was awarded USD76.9m in NIH funding.

WPIC requires investigators to submit all proposals to an in-house PRG before agency submission (Wysocki, 2004). This is a part of a ‘basic training’ programme implemented in the department in the mid-90s that includes the in-house PRG, and an ongoing training series on grantsmanship and peer review technique (Reynolds, Kupfer, et al., 1998). The 85 per cent increase in NIH funding speaks to the success of their strategic efforts.

You might now ask: Can this same programme given by a well-funded department at an American medical school be employed at an institution where resources are scarce? Are the faculty members at my institution capable of adequately reviewing proposals? Is there a way to inexpensively receive training to implement a programme like this? The answer to all of these questions is definitely *yes*. Yes, you can do this anywhere with the faculty you have and the resources available.

The Society of Research Administrators International (SRA International) recently had two research management training assignments where peer review of proposals was demonstrated. SRA International was selected by the Carnegie Corporation of New York to conduct one-week workshops at six universities in Africa¹, and by The Civilian Research and Development Foundation and the Vladimir Potanin Charitable Foundation of Russia to organise and present a four-day workshop for young research managers from 18 Russian universities. The African and Russian institutions varied from little to moderate funding and/or research management experience.

At each workshop, principles of grantsmanship and peer review were included in the training curriculum (Scheweri, Waug-

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1. The universities were: Obafemi Awolowo University, Nigeria; University of Education Winneba, Ghana; Makerere University, Uganda; University of Dar es Salaam, Tanzania; Ahmadu Bello University, Nigeria; and University of Jos, Nigeria.

aman, Shambrook, Hackett, 2005). The capstone activity for each workshop was to divide the attendees into PRGs. Each PRG member was given one to two days to read the grant, consider the grantsmanship standards that were given during the workshop, and determine what could be done to strengthen the proposal. Each PRG was allowed an opportunity to meet as a group, discuss their notes with one another and compile a consensus report. The consensus report was presented on the final day of the workshop.

Each PRG was made up of members who were from diverse academic disciplines. However, while we do encourage researchers to have someone in their field read the proposal for scientific merit, any educated person can be trained to read a proposal and know if the basic elements of a good proposal are present.

We found that the PRGs were well equipped to review proposals and offer insightful advice for strengthening their competitiveness. We used a wide variety of proposals. At each institution there were two or three PRGs and each PRG was given a different proposal for the members to critique.

We offered some proposals that had not yet been submitted or funded and asked the principal investigator to attend the PRG meeting and hear the PRG Consensus Report. The principal investigators stated that this was a valuable exercise and they planned to incorporate the advice given by the PRG in their next version of the proposal prior to submission.

We also offered proposals that had competed. We offered one proposal that had scored well and had been funded, one that had been scored below the funding range, and one that had been returned without full review for lack of competitiveness. The PRG consensus reports matched the reviewing sponsor's recommendations exactly.

References

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At the Medical University of South Carolina (MUSC), the first and second authors of this paper organized a PRG. Last year, nine grants from new investigators were reviewed. Eight grants were considered ready for submission after PRG-recommended improvements. Seven grants were submitted to NIH and one to the Centers for Disease Control. Approximately 50 per cent of all NIH grants are considered competitive and scored by an NIH PRG. 85 per cent of the grants our PRG recommended for submission were considered competitive for scoring, 35 per cent above the norm. The application that the PRG recommended not be submitted was submitted and was returned unscored as non-competitive. Although the grant was unsuccessful, we consider this further evidence of the efficacy of the in-house PRG as the NIH PRG agreed with the in-house PRG.

We have not heard the results on all of the grants submitted. However, we do know that three of the grants considered competitive by the in-house PRG have been funded or recommended for funding. The NIH application success rate for the last fiscal year was 24.6 per cent for all investigators, including the most experien-

ced. Our group of junior investigators was 13 per cent more successful than all investigators taken together.

Conclusion

The in-house PRG is an effective means of increasing the competitiveness of the research proposals submitted by your institution. With dedication and commitment, you can make it happen at your institution and see your own funded research portfolio increase. **RG**

For information on the mechanics of developing a PRG at your institution, please read the follow up article in the next issue of *Research Global*.

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Establishing In-House Peer Review

Enhancing institutional grantsmanship skills

In the February 2006 issue of *Research Global*, we reported on Peer Review Groups (PRGs) and how institutions are increasingly making use of them in their quest for research funding. Here, **Jennifer Shambrook, Carla Danielson, Cliff Studman, William Schweri and Paul Waugaman** suggest best practice on establishing peer review groups within institutions.

Introduction

An established strategy of successful research institutions is to establish an in-house peer review group (PRG) to pre-review proposals before offering them to the funding agencies.^{1, 2} This is a low-cost method that can be used at any institution with a group of interested people willing to learn basic grantsmanship techniques and devote their time to improving their own skills along with the skills of others.³ You may follow these steps exactly, or modify them to fit your unique institutional environment. Whether you have a group of 30 or a group of 3, if you will employ this method, your proposals will be strengthened and your likelihood of funding will rise.

How to do it yourself

The process of establishing an in-house PRG can begin with one person seeing the benefits of this activity and taking the initiative to be the champion of the effort. Although this effort does not require great financial resources, it will take some time, organization, commitment and self-discipline to build the necessary team to get things established. If possible, enlist the support of the leadership of your organization. Hopefully, this article, along with those cited in the endnotes will be of use to you in your team-building efforts.

The team can consist of anyone interested in promoting the sponsored program mission of your organization willing to make a commitment to the in-house PRG activities. The group can decide if they would like to review only their own applications for funding, or those of anyone within the organization. By having a more open policy, the group has a better chance of expanding the range of expertise as those bringing proposals for review are likely to join the group as a member. Try to have at least five

people to start with a goal to double in size over two years.

The next step in the process is to determine how often the group will meet. This could be on a regular or as needed basis. The first and second authors of this paper conduct a voluntary institutional PRG at the Medical University of South Carolina (MUSC). The MUSC group meets on the 1st and 3rd Monday of each month during the academic year. The core group is comprised of junior investigators and one administrator. It has a 50% success rate for U.S. National Institutes of Health (NIH) proposal funding, while the national average success rate for NIH grants is less than 25%. Thus, the success of this group of young investigators is twice that of all investigators applying for NIH funding.

Training

The 1st Monday is dedicated to a didactic training activity with the goal of improving the grant writing and/or reviewing skills of the group. Some of the topics that have been included are:

- *Writing Abstracts*
- *Initial Contact of the Sponsor*
- *Writing Human Subject Consent Forms*
- *Defining and Refining Specific Aims*
- *Internet-based Funding Source Searches*
- *Building a Proposal Budget*
- *Electronic Grant Submissions*
- *Writing Compelling Budget Justifications*
- *Research Method Principles*

Everyone should leave the Peer Review Group feeling they have enhanced their abilities to write better proposals or give better proposal review advice.

Instructors for the training have come from a variety of offices at our institution, however, all of this training could be performed in a journal club format using chapters from good basic grant writing manuals. Both *The 'How-To' Grants Manual: Successful Grantseeking Techniques for Obtaining Public and Private Grant Funds*⁴ by David Bauer, and *Grant Application Writer's Handbook*⁵ by Liane Reif-Lehrer, have been very useful in creating didactic sessions. An excellent resource for research-related topics was recently published titled *Research Administration and Management* by Kulakowski and Chronister.⁶

There are also a number of resources freely available on the internet which can also be used for training materials. At http://grants.nih.gov/grants/grant_tips.htm you will find a library of free resources, tip sheets and examples which were developed by the U.S. National Institutes of Health. An additional set of resources are available at <http://www.mcf.org/mcf/grant/basics.htm> which is sponsored by the Minnesota Council on Foundations. Others can easily be obtained through a search engine query for grant writing tips.

Review

In reviewing the grant proposals, the groups may be comprised of people from a variety of disciplines as was the case in the PRGs in the workshops described by these authors in the last issue of *Research Global*.⁷ In house PRGs were successfully set up with diverse groups at six universities in Africa and a group with delegates from 16 universities in Russia. It is helpful if at least one person in the PRG has scientific expertise in the area being studied. This person may be a regular member of the group, or someone invited to join the group for a particular grant review. While the scientific expertise does need to be addressed, one invited expert reviewer can serve this purpose with the remaining reviewers looking at the basic elements of a good research proposal.

In looking for the basic elements of a good research proposal, you may ask the following questions:

ew Groups:

- 1 Is the problem clearly stated?
- 2 Does the proposal make the case for the need to solve the problem?
- 3 Does the solution appear to be focused?
- 4 Does the scope of work appear to follow a logical sequence?
- 5 Is jargon clearly defined in layman's terms?
- 6 Does the budget appear to match the scope of work?
- 7 Does the budget justification match and address every aspect of the budget?
- 8 Has the expertise of the project team been adequately addressed?
- 9 Have the unique resources of the research environment been outlined?
- 10 Have possible obstacles and alternative solutions been addressed?
- 11 Is the proposal responsive to the sponsor's stated funding purpose?
- 12 Have the sponsor's proposal guidelines been followed?

Measure, encourage, resubmit

The in-house PRG has a quality improvement mission. This improvement will be seen in the competitiveness of individual proposals submitted from the institution and the grant writing and reviewing skills of the PRG participants. Measure your success to see your progress and determine areas where training should be focused. The in-house PRG also has an encouragement mission. The proposals are critiqued to advise how they can be improved, not to be torn apart for the purpose of pointing out flaws. Everyone, including the principal



*A Peer Review Group session,
University of Jos, Nigeria.*

investigator (PI), should leave the PRG meeting feeling they have enhanced their abilities to write better proposals or give better proposal review advice. For those proposals that are submitted, but not funded, the PRG can actively engage in assisting the PI in the resubmission of an improved proposal that adequately addresses the sponsor's PRG comments.

Conclusion

The in-house PRG is an affordable and effective means of increasing the competitiveness of the research proposals submitted by your institution. With time, dedication and commitment, you can make it happen at your institution and see your own funded research portfolio increase.

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