

RESEARCH GRANTS

Getting that grant: how to convince an evaluation panel that your proposal is worthy of funding

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For some years the International Association for Plant Taxonomy (IAPT) has sponsored research grants in plant systematics to young scientists, predominantly from developing countries. At the meeting of Council, held on 12 January 2008 in Pretoria, South Africa, the first such meeting held in Africa, it was decided to review the programme and to provide applicants with advice on how to write a successful proposal. Guidelines for proposal writing are given here.

KEYWORDS: IAPT, grant, guidelines, plant systematics, proposal writing

INTRODUCTION

The International Association for Plant Taxonomy (IAPT) was founded in Stockholm, Sweden, on 18 July 1950 with the general purpose of benefiting plant taxonomy globally, including through the publication of a periodical (*Taxon*) and dealing with aspects that are of general importance for plant taxonomy. The IAPT is indeed the only international organisation charged with and dedicated to furthering the goals of plant systematics worldwide, and it has several important roles and responsibilities. [For a more complete history of, and information on, the IAPT see *Taxon* 31: 415–420; 37: 791–800; 47: 3–35; 53: 2; and 54: 274–280.] The various roles of the IAPT are embodied in, among other things, its Mission Statement, namely “To promote all aspects of botanical systematics and its significance to the understanding and value of biodiversity” (*Taxon* 53: 2).

One of the ways in which the IAPT intends to give effect to this Mission is to focus at least some of its resources on contributing to the education of the next generation of professional plant systematists. The Association promotes plant systematics among the emerging corps of new plant scientists by annually awarding several small grants in plant systematics that are aimed at assisting the funding of field work, visits to herbaria, libraries, or laboratories, to stimulate research, particularly for Ph.D. students and young investigators. A further objective of the IAPT is to, as far as is affordable,

demonstrate improvement in the number and monetary value of bursaries it awards.

At the Council meeting of the IAPT held on 12 January 2008, in Pretoria, South Africa, a call was made to provide guidelines on how to write a successful proposal, as a further service to young and budding scientists. Although the bursary scheme is aimed predominantly at applicants from developing countries, it must be borne in mind that the scheme is competitive. So, it should be understood that only the best submissions stand a chance of being funded.

Since the inception of the bursary scheme, 41 awards have been made, mostly to students and young scientists from developing countries (Tables 1, 2).

GUIDELINES ON WRITING A SUCCESSFUL PROPOSAL ...

... for a grant under the IAPT Research Grants Programme in Plant Systematics.

Does the title of the project proposal adequately reflect its content and scope?

The title of your proposed project is inevitably the first item that the panel of reviewers will read. It is therefore critically important that the title should be accurate and unambiguously reflect what research work you want to carry out. You can try to make it catchy, but not silly.

Table 1. IAPT small grants made available to Ph.D. students and young researchers.

Year	Applications received	Awards made	Total value (US\$)	Countries of origin of awardees
2005	28	10	10,000	Argentina (2), Brazil (3), India (2), Malawi (1), Turkey (1), U.S.A. (1)
2006	30	9	9,000	Brazil (6), Cuba (2), Indonesia (1)
2007	44	11	11,000	Argentina (1), Brazil (5), Colombia (1), Cuba (1), India (1), Mexico (1), Spain (1)
2008	49	11	11,000	Argentina (2), Brazil (5), Croatia (1), Ecuador (1), Malawi (1), Panama (1)
Total:	151	41	41,000	Argentina (5), Brazil (19), Colombia (1), Croatia (1), Cuba (3), Ecuador (1), India (3), Indonesia (1), Malawi (2), Mexico (1), Panama (1), Spain (1), Turkey (1), U.S.A. (1)

Are you from the designated group to which these grants are preferably awarded?

To avoid disappointment, take into account that IAPT prioritises applications from countries with limited resources. Even though all applications will be considered, students from developed countries are well-advised to apply for other sources of funding. Additionally, Ph.D. students, regardless of age, and young researchers are targeted. It is not easy to define “young”, but the intention is to preferentially accord an early-career scientist the possibility of benefiting from a small grant.

Are you proposing a research project?

You should be proposing to conduct research that involves a systematic investigation to derive facts to answer a clearly posed question or problem. If it is a call for *research* grants that you are responding to, make sure that you do not request support for the development of products only, for example. It is easy to fall into the trap of requesting support for producing research derivatives, rather than for conducting the research itself. In the context of IAPT grants, these should be designed to support original research, not, for example, publication costs for a completed taxonomic monograph, or costs to develop a web-based identification key only.

Table 2. Continental spread of IAPT small grants awarded from 2005 to 2008.

Geographical origin of awardees	Countries of origin of awardees	Awards made
South America	Argentina, Brazil, Colombia, Ecuador	26
Central America and Caribbean	Cuba, Mexico, Panama	5
America north of Mexico	U.S.A.	1
Europe	Croatia, Spain, Turkey	3
Asia	India, Indonesia	4
Africa	Malawi	2
Total:		41

For which audience (adjudication panel) are you writing the proposal?

IAPT small grants are aimed at funding and stimulating systematics, so you must ensure that systematics is at the core of your submission. Do not deviate from, or compromise, on this. The IAPT grant scheme is aimed at plant systematics. Nothing more, nothing less.

Did you phrase the research question clearly and eloquently?

Be very clear on what exactly it is that you want to achieve. And be sure that all the members of the adjudication panel will understand your submission. Pass it on to some of your peers for comment and use them as a sounding board. Although the members of IAPT Council who assess these grants collectively have a broad range of expertise in systematics, you should not assume that they have detailed knowledge of the specific taxonomic group you are working on, or the techniques that you will use. Your proposal should therefore be intelligible to a broad readership.

Do the methods you propose adequately address the question that requires to be answered?

Ensure that you are not ignoring improved, or indeed simpler, ways of answering the research question.

Are your proposed methodologies taking cognisance of modern trends in plant systematics research?

Simply put, ensure that you are taking recent developments in plant systematics into account. However, do not be, or become, a dedicated follower of (research) fashion purely for the sake of being fashionable. Understand what you want to achieve, and do not propose to use a front-end loader if a spade will suffice.

Have you taken cognisance of other thrusts and initiatives in the field(s) you want to explore, or taxonomy of the group you want to improve?

Read, read, read. This cannot be overemphasised. Do not leave glaring gaps in your submission. If you intend to conduct research on the Rubiaceae, for example, do

consult (all?!) the resources (hardcopy, electronic, expertise) available on the family.

Is your submission too long?

If a proposal of three pages in length is called for, do not be tempted to write five. Or ten. The adjudication members will read only the first three pages. They are busy people. So, always be succinct and to the point.

Have you costed your budget accurately?

It is vital to give a realistic budget, broken down into subheadings. For example, costs for a field trip might be divided into costs for vehicle hire, fuel cost for the distance to be travelled, accommodation and subsistence costs for the number of days of the trip, and the cost of hiring local field assistants. Laboratory costs should reflect accurately the current costs of the work in your country (e.g., per sample costs for DNA extraction, PCR and sequencing reactions multiplied by the number of samples to be processed).

Is the proposed research to be carried out ethically?

Increasingly, research must take cognisance of legal requirements for accessing and moving samples. (See Crouch & al., 2008, for example).

Is your project a discrete entity that will produce a stand-alone result?

Many applications to IAPT request support for a portion of a larger study such as a Ph.D. If IAPT is to commit its funds wisely, it is important that the work you propose will result in a distinct, significant output. Related to this, you should explain how the wider project will be funded and achieved because IAPT would prefer to be supporting candidates who can realistically achieve these wider goals.

Are you working in a team?

There is nothing wrong with having a group of scientists and colleagues participating in your research project (or you in theirs, for that matter). In fact, some of the most exciting papers published in reputable journals have emanated from team work, and justifiably have multiple authors. Having a team to work with you provides comfort that you have a support system from which to draw guidance. Furthermore, in the future you will be leading research teams, and the importance of having gained experience while having worked in one (or more) cannot be overemphasised.

Can you realistically deliver on what you propose as (an) output(s) from your project?

Be very sure that you are not over- (or under-) ambitious. There is nothing worse than building up an early reputation as a non-deliverer of promised research outputs.

The proposal should be written in English.

Although IAPT is an international organisation and recognises that several languages are widely used as communication media for disseminating research results, it does not have the resources to translate proposals written in diverse languages into a single common language. For this reason we require that proposals are written in English. We appreciate that writing in a second language will be a considerable challenge for many applicants, and therefore emphasise that the primary criteria of assessment are the structure, coherence and scientific integrity of the text of the proposal, not the excellence of the English language itself.

A FINAL WORD

As a young researcher entering the field of scientific exploration you have to appreciate two golden rules: (1) you ARE going to write proposals and, (2) you ARE going to present them to peers (and more often than not, superiors). Against this background, applying for an IAPT small grant is good practise. Unfortunately, like all other funding sources, these grants are over-subscribed, and success is therefore not guaranteed. However, if at first you don't succeed, then try, try again! And if you wondered why so many proposals (nearly 80% of grants awarded) from South and Central America have been supported by the IAPT over the past few years, the answer is simple: they were really good.

A lot has been written about making improvements to the peer-review process for grant applications (see, for example, Marsh & al., 2008 and references therein), and the IAPT is desirous to improve its processes in this regard. Similarly, you, the next generation of plant systematists should take cognisance of best-practise when submitting proposals. Soon you will be competing, nationally and internationally, not only with fellow systematists, but also with scientists submitting proposals in other botanical subdisciplines which are often perceived as being more relevant than ours.

LITERATURE CITED

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