Writing Grant Applications

Grants

- Purpose of grant awards
- Who gives them
- Who gets them
- Who decides who gets them

Grant Mechanisms

- At the NIH level, most are investigator initiated
- RFA's (Request for Proposals)
- Contracts and partnerships

Grant Mechanisms (con't)

- Research awards
- Personnel awards
  - –Individual training awards
  - –Group training awards (training programs)
  - –Career development awards
- Service awards

The Application Process

How to Approach the Process

- Identify an important problem which needs to be solved
- Think about how you want to address that problem and the likelihood that you will be successful in addressing that problem
- Would you invest your resources in that idea or strategy?

How to Approach the Process (con't)

- Take a very practical approach – Would you put your money into the proposed project?
- Think about how reviewers might view your ideas/proposal
- Think of your proposal as a request for investors in a new idea and remember that investors want to see a return on their investment – Are you going to give them a good return?

The Process

- Seek feedback from others
- Find out what has been done and be sure that you hold the promise of doing it better
- Literature review, current and past
- Critically look at the resources you have and whether you can find what else you will need

The Actual Writing of the Applications

- Carefully read the instructions and use them as a guide
- Talk with the agency awarding grants; agency personnel want to fund good grant applications – your success is their success

The Actual Writing of the Applications (con't)

- But remember, agency personnel do not give priority scores, study sections give priority scores – your peers
- Identify an interesting and important question and make the case for your proposal
- Remember that an RFA is different from an investigator initiated grant

Application Instructions are very important, use them as your friend

- Read and refer back to them to remind the reviewer as he/she is reading the application of exactly how you will address the instructional items
- It is your responsibility, not the reviewer's, to make sure that he/she "gets it"
- Let the instructions form the structure of your application

The Application Proper

- Abstract – clear summary of what you want to do, ending with specific aims (the fewer, the better, usually three)
- Budget – Realistic – not too large, not too small
- Budget justification – be precise
- Letters from consultants – make sure that they demonstrate a real familiarity with the application and let them compliment your proposal; you may want to provide a draft

The Application Proper (con't)

- Letters of support – very important; make sure that they demonstrate a real familiarity with the application and let them compliment your proposal; you may want to provide a draft
- Resources and environment – moderately important, but most relevant is availability of "study/client" population
- Letters of support/agreement tie into resources/environment

The Crucial 25 pages

- Specific Aims – begin with the same (could be slightly longer) version of the abstract, ending with the specific aims (the exact same as used on the abstract page)
- Background and Significance – actually presented in the reverse order. Begin making a case for the importance of the problem you want to address in the proposed project/research

The Crucial 25 pages (con't): Background and Significance

- The first paragraph is very important – provide a "hook" – such as a dramatic example of the problem
- Might discuss the magnitude of the problem and give statistics
- The background refers to the work that has come before, a literature review

The Crucial 25 pages (con't): Literature Review

- Be sure that references are complete, recent and "historic"
- Provide an introduction to this section and consider using headings – explain the topics that you will be discussing in this section of the application
- Provide a model or theory as a guide for the proposed work

The Crucial 25 pages (con't): Model or Theory as a guide

- Refer to the model throughout the application (e.g. in Methods section point out how procedures are dictated by model)
- Do the same in discussion of statistical analytic strategy

The Crucial 25 pages (con't): Summary

- End with a summary of what has been done to address the important issue/topic

Progress Report: What you have done and Preliminary Studies

- What you have done and Preliminary studies
- Critically important – here you demonstrate that you can successfully complete the proposed research/program
- Summarize, in almost list form, everything you have done that is relevant to what you propose
- Feasibility studies should be included, especially if this is a new (not continuing) application – again, here you demonstrate that you can do what you propose and that the proposed is feasible

Progress Report: What you have done and Preliminary Studies (con't)

- Efforts discussed in this section depend on the kind of grant for which you are applying
- This section could be organized in terms of the aims listed earlier in the application
- Tell the reviewer why those efforts are relevant and demonstrate the likelihood that the proposed work will be successful

Research Methods

- The heart of the application
- Begin with an overview
- Various ways to organize this section, but it must be organized – one approach is organization in terms of aims (how each aim will be addressed)

Research Methods (con't)

- Explain how "effects" will be determined – methods of measurement, data collection, etc.
  - –Best to use established, published assessment tools (i.e. tests and measures)
  - –Provide measures of reliability and validity of measures

Research Methods (con't)

- Outline how data will be analyzed – statistical methods
  - –Best to have a bio-statistical consultant's assistance (include CV in the grant)
  - –Tie analyses to aims and include research questions

Limits and Limitations

Charts, Graphs, and Figures

Future Directions

Timeline