Grant Writing: A 12-Step Program

Nancy L Desmond, Ph.D.
Division of Neuroscience &
Basic Behavioral Science
NIMH

Tip 1: Identify a mentor(s)

- with a track record of successful funding
- who is committed to you & your career goals
- need not be your research advisor
- more than one is OK!

Tip 2: Plan ahead

- Grant writing takes time...probably more time than you expect
- Bounce ideas off mentors & colleagues
- Make use of grant-writing resources
- Talk to program staff to learn about Institute-specific use of various mechanisms (e.g. F31, K01)
- Decide on your target deadline
- Get organized

Resources for New Investigators

- grants.nih.gov/grants/new_investigators/
- grants.nih.gov/grants/grant_tips.htm

NATIONAL INSTITUTES OF HEALTH
Office of Extramural Research

NIH Home
OER Home

Hide Graphics
Search
Powered by Google Advanced Search

Grant Writing Tips Sheets

Many NIH Institutes put out guides and tip sheets on their Web sites. These guides can be useful resources. Here are just a few.

- All About Grants - Including Grant Application Basics, How to Plan a Grant Application and How to Write a Grant Application.
- Choosing an Appropriate NIH Funding Instrument and Funding Mechanism (MSWord)
- Preparing Grant Applications
- Quick Guide for Grant Applications
- Tips for New NIH Grant Applicants
- Quick Guide for the Preparation of Grant Applications (Complementary and Alternative Medicine)
- Applying for an NIH Grant
- A Straightforward Description of What Happens to Your Research Project Grant Application (R01/R21) After it is Received for Peer Review
- Review Of New Investigator R01s: Guidelines for Reviewers
- SBIR/STTR Policy and Grantsmanship Information

grants.nih.gov/grants/grant_tips.htm

http://www.niaid.nih.gov/ncn/grants/default.htm

Search

Advanced Search

NIAID Research Funding

NIAID Funding News
Funding Opportunities
Paylines and Budget

Grants and Contracts

All About Grants Tutorials
Research Grants
R&D Contracts
Small Business Grants
Training and Career
Special Research Areas
International

Council
Extramural SOPs
Questions and Answers
Glossary

Find It! Index
Funding Site Map
Staff Information
Site Feedback
Search Funding Area
Latest Updates

All About Grants Tutorials

These All About Grants tutorials help biomedical investigators, especially new ones, plan, write, and apply for the basic NIH research project grant, the R01. Our advice comes from the experience of NIAID staff, including former NIH grantees, and should be considered as opinion only. Differing opinions may exist.

Get Acrobat Reader

We do not repeat instructions in the PHS 398 grant application kit. Before preparing an application for an NIH grant, read all instructions, and follow the directions.

Basic Tutorials	Printable	Translated
Grant Application Basics	Printable	Español, Français
How to Manage Your Grant Award	Printable	N/A
How to Plan a Grant Application	Printable	Español, Français
How to Write a Grant Application • Focus Your Application • The NIH Grant Application: Section by Section • Send NIH Your Application • What to Do If You Did Not Succeed	Printable	Español, Français
Tutorials in Specific Areas	**Printable**	**Translated**
Advice on Research Training and Career Awards	Printable	N/A
Advice for Small Business Grants (SBIR, STTR)	Printable	N/A
How to Prepare a Multi-Project Grant Application	Printable	N/A
How to Write an Application Involving Research Animals	Printable	N/A
How to Write a Human Subjects Application	Printable	N/A
Tools and Resources		

with annotated R01 app...

CRISP

crisp.cit.nih.gov

- Searchable database of federally supported biomedical research
- Locate experienced NIH funded investigators in your area of interest
  - Potential mentors/collaborators
- Analyze current Institute portfolio
  - Areas with few funded projects
  - Research areas already well funded

Tip 3: Don’t be creative…make the reviewers’ job easier

- Use the correct forms (PHS398 or PHS416)
- Follow the instructions
- Follow the recommended format
- Fill the forms out completely
- Don’t guess—ask questions of mentor(s) and NIH program staff

Tip 4: Be creative but pragmatic…

- Formulate your Specific Aims
- Seek feedback
  - Focused?
  - Feasible?
  - Realistic (not overly ambitious)?
  - Good training vehicle for you?
- Did I say “Focus”? Be certain every aim and experiment is clearly related to the overall goal of your proposal.

Tip 5: It's about you AND your idea

- The candidate
- Research plan
- Training/career development plan
- The sponsor
- The institutional environment

Tip 6: Consider the review criteria

- The candidate: your background and potential to develop into an independent researcher
- Research plan: its scientific merit, significance, feasibility & relationship to your career plans
- Training/career development plan: its components & how well it fits the research plan
- The sponsor: his/her track record as both a researcher and mentor
- Institutional environment & commitment to the training/career development of the candidate

Tip 7: Demonstrate mastery of your research topic

- Explicitly state your rationale.
- Cite the appropriate literature thoroughly.
- Include preliminary data.
- Identify problematic aspects of hypotheses or techniques; indicate back-up strategies.
- Provide expected/alternative outcomes and interpretations.
- Don’t forget your training/career development plan!

Tip 8: Help the reviewers do their jobs

- Give your application a “reviewer-friendly” format.
- Present the proposal in “bite-sized bits.” Use section headings, bold type, etc. to identify experiments, outcomes, interpretations, implications, etc.
- Walk the reader through the experiments. Don’t just present a list of methods.
- Include an explicit timeline.

Tip 9: Don’t assume…don’t be sloppy

- Don’t assume the reviewers will *know what you mean*…be explicit, be clear in text and figures.
- Watch grammar. Avoid jargon.
- Make sure you’ve completed all required sections in the indicated order.
- Ask your mentor(s) to critique a written version of your application well in advance of the deadline.
- Spell check and
- Read your application carefully before submitting.

Tip 10: Common problems to avoid

- Lack of new or original ideas
- Absence of an acceptable scientific rationale
- Lack of knowledge of relevant, published work
- Overly ambitious research proposal
- Diffuse, superficial, or unfocused research plan
- Questionable reasoning in experimental approach
- Lack of experience with an essential methodology
- Insufficient experimental detail

Tip 11: A strong research proposal…

- Has well-defined Specific Aims
- Proposes novel, interesting & focused experiments
- Is likely to advance knowledge in the area of study
- Provides supporting preliminary data
- Includes an appropriately detailed Experimental Design
- Documents appropriate scientific expertise
- Has a reasonable & justified budget
- Training applications need other strengths too

Tip 12: If you need to revise

- Discuss the summary statement with your mentor(s) and get help formulating how to respond to the critiques.
- Be polite.
- Be responsive to all of the reviewers' criticisms.
- Put all ego aside. If in doubt, do it their way.
- An amended application is scored, in part, based on your responsiveness to the critiques.

Tip 13: Last, but hardly least…

- Celebrate your efforts
- Don’t forget to call us
- Have *fun* doing science