NIH Research Funding And How To Apply For It.

Susan Newcomer, NICHD
For a workshop at Columbia University
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National Institutes of Health [NIH]
Where does the money go?

- Of the NIH budget, 90% will be used for extramural research
- Ongoing obligations to current grants use up perhaps 80% of those dollars, but there is

  • **ALWAYS ROOM FOR A GOOD IDEA**
YES

• Many of the NIH institutes fund research on adolescents.

• Many of the NIH institutes fund research that designs and evaluates interventions, including social and structural interventions, not just medical/clinical ones.

• Many of the researchers in this room have NIH money or work on NIH grants. Ask them.
Institutes, Divisions and Centers

- Within each institute there are usually centers, divisions and branches
- Within each branch are program staff who are responsible for developing the research goals of the program, and who have specific areas of expertise.
  - These are the people to get to know.
Does the NIH fund foreign institutions?

- Yes, both as subcontracts to US institutions and directly to the foreign institution IF the research and researcher are unique, the setting exceptional and the research important for global health.

- NIH believes that all countries have an obligation to do what they can to prevent catastrophe and work to ameliorate global health problems—for the good of all.
NICHD Mission

• Ensure that every person is born healthy and wanted
• Women suffer no harmful effects from reproductive processes
• All children have the chance to achieve their full potential for healthy and productive lives, free from disease or disability
• Ensure the health, productivity, independence and well-being of all people through optimal rehabilitation
Why you should apply for NIH Grant Funding

• Hard work to get, but a GREAT way to support your research
  • You control the science
  • Few administrative requirements
• You get great input from wise people about your research
• Prestige
Main Types of RESEARCH Grants for Investigators

- R01 - Research Project Grant
- R03 - NICHD Small Grant
- R21 - Experimental Grant
- R34 - NIH Planning Grant
What’s been funded?
Fiscal Years 1994 to 2015

• Look at RePORTER This is a keyword [subject, institution, author etc] searchable biomedical database of federally-supported research conducted at universities, hospitals, and other research institutions.

• [http://projectreporter.nih.gov/reporter.cfm](http://projectreporter.nih.gov/reporter.cfm)
Special Funding Initiatives

RFA: Request for Applications
PA: Program Announcement

• How NIH asks researchers to consider certain topics or areas
• Also how NIH notifies researchers that funding mechanisms are available
Remember:
Relatively few research grants results from RFAs & PAs
What should you do before applying?

• Talk with NIH staff about research ideas & funding mechanisms. **Use email**

• Check out the NIH web site to see:
  • Research areas NIH funds
  • Priorities for the ICs
  • What has been funded recently [the RePORTER]
  • Look at current FOA [Funding Opportunity Announcements]
What should you do before applying? [2]

- Work with another researcher who knows the process and who will walk you through the process, and review your draft proposal
- Be patient, it takes a while
- Educate your administrative offices about NIH reporting requirements
Grant writing is a skill...

- It can be learned
- It takes practice
- You are unlikely to succeed at first
- Learn from and address review feedbacks
- It is helpful to have good teachers
- Once learned, it is useful in other arenas, such as writing for publication
Common sense rules for writing grant applications [1]

Know your strengths & weaknesses

• Write about what you know
  • Don’t use your first application to completely change research directions

• Never change research directions to respond to an RFA or PA

• Don’t promise more than you can deliver
Common sense rules [2]

Have a good idea

• No amount of grantsmanship can disguise a weak idea... But poor grantsmanship can kill a good idea

• Follow the directions **REMEMBER**: innovation in ideas but not in presentation
Common sense rules [3]
Develop the art of persuasion

• Sell your ideas early in the application

• Crisply state your specific aims

• Explain your approach – Don’t assume reviewers will know what you mean, some may not be from your discipline
Common sense rules [4]

Justify your research

• Tell reviewers not just what you want to do, but why:
  • Why is it important to do this research?
  • Why did you choose this technical approach?
“I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO.”
Common sense rules [5]

- Develop a unified proposal with a sharp focus
- Theory, models, hypotheses, data sets, and research plan should be logically related
- Explain methods clearly and completely
Common sense rules [6]

Study the study sections

- Keep in mind who will be reviewing it
- Look up the rosters of recent study sections
There is no grantsmanship that will turn a bad idea into a good one, but........

There are many ways to disguise a good one.

William Raub, Past Deputy Director, NIH
Common Problems in Application from new applicants

• Questionable logic of the approach
• Diffuse, unfocused research plan
• Lack of detail
• Unrealistic scope of work
• Uncertainty regarding future directions
Another common problem not just for new investigators...

- **Failure to READ the instructions**
  - READ the application form
  - READ the RFA, PA, or NOTICE, if applicable
  - Note that specific instructions in a Funding Opportunity Announcement [FOA] **supercede** instructions in the standard application form
Scientific Review Panel Actions

• Read all applications assigned to them by the review administrator
• Write reviews of each application and evaluate them on 5 criteria on a 1-9 scale
• Meet with all other reviewers to discuss all application
• Vote a score for each discussed application during the meeting
Criteria for Reviewers

1. Significance
2. Innovation
3. Approach
4. Investigator
5. Environment
Impact/Priority Score/Final Score

• This is an overall score reflecting the reviewers’ assessment of the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved, in consideration of the five core review criteria, and additional review criteria (as applicable for the project proposed).
  • Low is good, high is bad – think golf, not bowling!
But what if I don’t get funded?

• TRY AGAIN!!

• Virtually all senior scientists have had proposals blown out of the water...and they applied again

• Even if you don’t succeed, you’ll have a well-developed proposal to market elsewhere
Funding Information

• Office of Extramural Research
  http://grants.nih.gov/grants/oer.htm
• NIH Grants tutorial
  http://www.niaid.nih.gov/ncn/grants/
• Youtube 15 minute explanation of review
  http://www.youtube.com/watch?v=rNwsg_PR90w&feature=youtu.be
• Tips on preparing applications
  http://grants1.nih.gov/grants/grant_tips.htm
• Reviewing
  http://public.csr.nih.gov/ReviewerResources/BecomeAREviewer/Pages/Overview-of-ECR-program.aspx
REMEMBER...

There’s always room for a good idea!