

Getting Your Research Funded: Tips for Success

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A Good Idea

- Significance
- Uniqueness
- Talk to people from other fields
- Read the literature
- Read priorities of funders
- Have a design party early



Developing an Irresistible Idea

- Define the niche area that you want to systematically develop
- Collect and analyze background information on that area
- Generate a preliminary idea
- Assess the idea's potential (your own ability to pursue it, competition, its funding potential)
- Seek constructive criticism from knowledgeable colleagues

Know the Priorities of Funding Agencies

- Know the funder's mission
- Read funder's strategic objectives
- Read funders' annual reports
- Read Funding Opportunity Announcements (FOA), Program Announcements (PA)

Select Significant Topics

Significance refers to the magnitude of the problem

- number of people affected
- size/difficulties caused by problem
- duration of the problem

Potential impact of your findings

Amenable to nursing intervention (if NINR)

An interesting research question is not necessarily an important question

Select High Impact Topics

- Go beyond significance to scientific impact
- High impact studies create change (improve care, reduce costs; change future research; change policy)

“If you are not doing intervention
research, why not?”

If not now, when?”

Marie Cowan (1995)

Intervention Research

- Determine effective interventions
- Distinguish effective components/ characteristics
- Specify effects on different outcomes
- Identify time patterns in effects
- Distinguish intervention dose
- Characterize effects across populations
- Determine mediating variables that explain how intervention works
- Calculate cost effectiveness
- Examine multi-level interventions
- Comparative effectiveness

Playing the Game: Writing for Research Funding

Professional Organizations

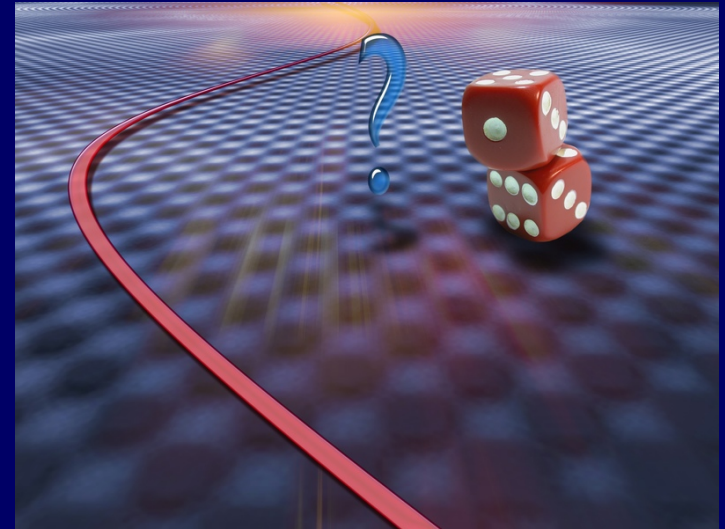
Agencies

Private Foundations

Industry

Private Donors

Institutional



Pots of Money



Professional Organizations

- Nursing Organizations – (i.e., American Nurses Foundation, Sigma Theta Tau, Alumni Associations)
- Specialty Nursing Organizations (i.e., AORN, Rehabilitation Nurses, Oncology Nursing Society, Neonatal Nurses)
- Large Healthcare and Advocacy Organizations (i.e., American Heart Association, American Cancer Society, Diabetes Association, Cystic Fibrosis Foundation,)

Agencies

- National Institutes of Health
- Agency for Healthcare Research and Quality
- National Science Foundation
- Department of Defense
- PCORI
- American Federation for Aging Research
- State of Nebraska

Private Foundations

- Robert Wood Johnson Foundation
- Kellogg Foundation
- Cardinal Health
- The Commonwealth Fund
- PEW Foundation
- Atlantic Philanthropies
- Dana Foundation

Note: Usually cannot approach a donor directly without permission of your institution

Industry Funding

Examples:

- Lily
- Sanofi



Private Donors

- Grateful patients
- Takes relationship building
- Provide a list of research ideas that you have that need funding for your development office to “pitch” to donors
- Usually cannot approach a donor directly without permission of your institution

Institutional Funding

- Local resources
- CTSA Clinical Translational Science Award
- Office of Research

Be a Good Stewart of Money

- Have a good budget plan
 - Know Allowable expenses
 - Know Rebudgeting guidelines
 - Monitor your budget
 - Planning for the end of the grant
-
- Progress Reports
 - Final reports

The Most Cost-effective Research

- Addresses an issue of significance
- Produces findings that are trustworthy
- Findings are published
- Findings are taken up in practice





Small Pots of Money

Building a Budget for a Pilot Project

- Often PI sweat equity
- Use students to help
- Borrow equipment
- Partner with someone who can garner funds from another department in the University
- Other ideas???

Funding for Pilot Projects

- Institutional funds
- Agency funds
- Professional Organizations
- Sigma Theta Tau
- ANF
- NIH (R03, R21, R15)

What Funders look for in Pilot Projects

- Usually one-year projects or less
- Usually looking for “sweat equity” and “skin in the game”
- Often require matching funds
- Did you publish your findings from previous studies?
- Did you obtain funding for larger projects from pilot studies in the past?

Research on a Shoestring

- Add complementary questions to an existing funded research project
- Conduct secondary analysis of data from completed studies
- Conduct primary analysis of electronic patient records or social media
- Conduct reviews of the literature
- Involve undergraduates and graduates
- Participate in collaborative research with cross- and inter-campus colleagues

Choose the Right Funding Mechanism

- **NIH Research grants:** R01 traditional research project; R34 RCT trials; R21 Exploratory/Developmental Grant; R25 Research Education Grant; R15 Academic Research Enhancement Award; R03 small grant program; Supplements
- **Training grants:** F31 predoctoral; F32 postdoctoral; F33 senior fellowship; **Career development grants:** K01 mentored research scientist; K22 NINR career transition; K23 mentored patient-oriented research; KL2
- **NINR Research Mechanisms Table**
- **Foundation Grants**
American Heart Association; Rehabilitation Association, Gerontological Society, MNRS

Getting Your Grant Proposals Out to Several Possible Funders

It's OK to send altered versions of a proposal to several possible funders.

Always be clear on the specs for each funding mechanism.

Change the title.

Getting Your Grant Proposals Out to Several Possible Funders

Strategies:

Add a variable

Add/change an outcome

Add a data collection point

Cut a proposal into a couple pieces

Use a different population

Different, but related focus

Talk with the Program Officer

Find the right program officer. This is the program officer who wants to support the research you want to propose. You may be referred to different people.

Initiate contact by email and ask for a phone appointment. Be prepared with a short description of your idea

Listen carefully. Be prepared to modify.

Follow the Guidelines

- Read funding calls and instructions well
- Pay attention to format, budget and time instructions
- Have a 2nd or 3rd pair of eyes look over instructions
- Call contact officer at agency when in doubt



Understand How Study Sections Work

- Download and view NIH's videotape of a mock study section
- Understand the review criteria
- Identify the correct study section
- Identify the probable reviewers
- Understand that the review panel consists of two audiences: your assigned reviewers and everyone else on the panel

General Writing Tips

- Develop a writing timeline
- Use headers freely
- Short sentences. Few acronyms. Simple words.
- Avoid “weak” words – believe, hope, try, could/should, may
- Avoid “whether..” - use instead “the extent to which..”

Don't Rush the Abstract at the Last Minute

- The abstract is usually the first thing the reviewers read
- Keep acronyms to a minimum
- Engage the reader immediately
- Abstracts also used by program personnel and Advisory Council in final funding deliberations



The Specific Aims

Your chance to create a partnership with the reviewer

Make an outline

Open with an interest grabbing sentence that establishes the relevance of your proposal to human health



Specific Aims (cont)

- Introductory sentence
- Current knowledge
- Gap in knowledge (unmet need)
- What, why, who paragraph (long-term goal, purpose, central hypothesis, rationale, well-prepared)
- Aims
- Payoff paragraph (innovation, expected outcomes, impact statement)

A Good Impact Statement



The likelihood of the project to make a sustained, powerful influence on the field:

- Clinical Impact
- Scientific Impact
- Policy
- Public Health

A Good Significance Paragraph

- Could be the most important paragraph of the application that you write
- Significance of the Problem (substantiate)
- Potential significance of your Findings

Innovation Statement

- “This study is innovative in that it.....”
- Novel approach
- Unique idea
- New technology
- New population
- Challenging an existing paradigm



Qualifications of the Investigators

- Keep your publication record strong!
- Early in your career, put a very strong team of co-investigators on your applications
- Check a collaborator's biosketch before officially inviting to be on your proposal

Selling Yourself and Your Research Team

Biographical Sketch

Budget Justification

Letters of Support

In Body of Grant



Use Your Collaborators

- Seek collaborators, resources
- Reach out and get to know others
- Build a research team early in your career
- Don't write the grant alone



Pay Adequate Attention to all Sections of the Application

- Inclusion of Women, Children, and Minorities
- Targeted Enrollment Table
- Human Subjects
- Budget Justification
- Environment and Resources
- Data and Safety Monitoring Plan

Have a Review Before the Review

- Peer review – Internal, those who know the type of research you propose and are successful grant writers (this is not a time for your friends to weigh in)
- Include persons who sit on study sections
- Have a few people review it and then give you feedback in a group meeting
- Do early enough so that you can make their changes
- Consider outside expert reviewer

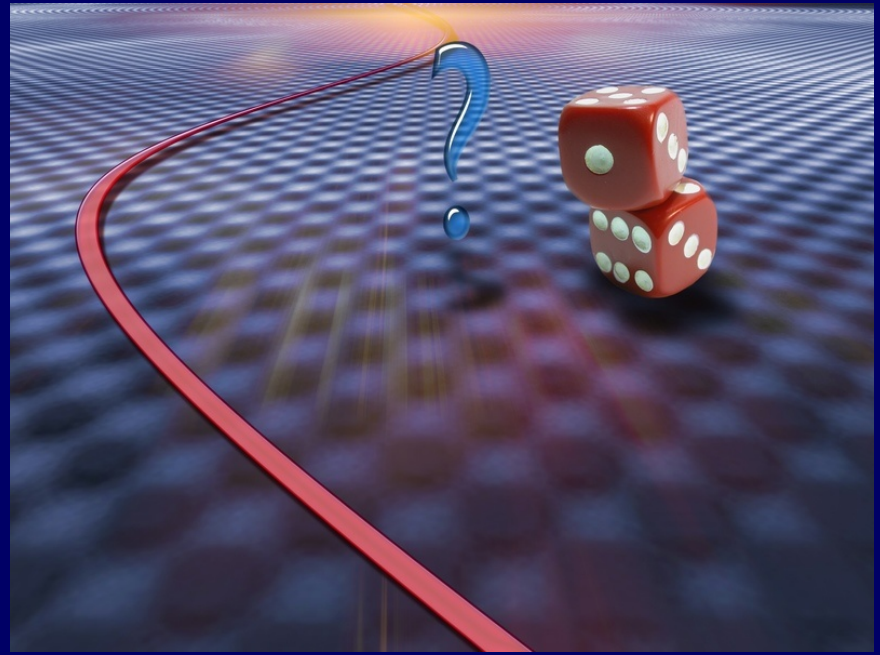
Deal Breakers

Sample Size Calculation (inadequate power)

Feasibility

Sloppy writing, Logic hard to follow

If revision, not responding to all of the criticisms



Using Critique for Improvement

Normalizing Rejection

Rejection of a manuscript or getting turned down for grant funding are normal occurrences in a nurse researcher's professional life.

Rejection is a fact of scientific life.
(Wang, 2014)

Credits to Conn and colleagues, WJNR, 2015

Dealing Constructively with Rejection

Accept rejection- view constructive criticism as essential to improve grants and manuscripts

- Acknowledge reviews are not perfect and can make mistakes
- Do not spend a long time reviewing comments when they first come, read and put aside for a few days. Then use them to improve (delve into them)

Dealing Constructively with Rejection (cont.)

Share rejection – seek the advice of trusted colleagues

Remember that people who provide emotional support may be different from those who provide instrumental assistance

Dealing Constructively with Rejection (cont.)

Cope with emotions associated with rejection –

- Accept emotions, but do not dwell on them
- Do not take comments personally
- Develop a “learning stance” in which feedback represents an opportunity to increase knowledge and improve

Dealing Constructively with Rejection (cont.)

Cope with emotions associated with rejection –

- Ask colleagues about their experiences with rejections
- Take care of yourself – strong relationships, enough sleep, nutrition and exercise
- Consider a personal ritual for dealing with rejections

Dealing Constructively with Rejection (cont.)

Reframe rejection –

- Understand that journals receive more manuscripts than they can publish
- In the grant world, many excellent projects are rejected due to funding limits
- View a journal rejection as a “deferred” publication

Reframe rejection (cont)—

- Understand that productive scientists profit from feedback to improve their work
- Socialize students and faculty to experience rejection as feedback
- Recognize that most successful authors and principal investigators experience many deferred publications and unfunded grant submissions

Attribution

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