Why Write Grants?

“Many, if not most of us were not trained as grant writers, but have had to acquire this skill in order to survive in the changing university environment”

Zane R. Helsel, PhD
Why Write Grants?

- A Ph.D. is not enough to guarantee your success – You are now on your own.
- Your Dean expects you to do well, his/her success is measured by your success.
- To succeed in your faculty position you are expected to bring in the big $$$$$$.
- Provides opportunities for travel and networking
- Government short down/sequestration
Why Write Grants?

- Creates employment opportunities
- Provides job security
- Strengthens yours and students training
- Enhances collaborations/partnerships
- Provides notoriety
- It’s fun and it’s expected!
Do Your Homework

- Know the grant agencies.
- Know the programs - what’s fundable and what’s not
- Search the web – Read and study the agencies RFA’s
  - www.cos.org
  - www.grants.gov
  - www.nsf.gov
  - www.nifa.usda.gov
  - Register for e-mail notifications
  - Links to Federal programs
  - Links to Foundations
- Find successful faculty mentor
- Get involved (volunteer) as an ad hoc reviewer, seek to become a panel member, etc.
- Develop and maintain communication with grant managers.
Match Your Ideas with Funder’s Needs

- Carefully read the RFA and other program information
- Pay very close attention to the program’s objectives – they may change from year to year
- Know the importance of advance information
- Examine previously awarded grant topics
- Understand the current state of knowledge in area of interest
- Proposed effort does not duplicate others in the field
- Proposed area is not “just another study” or set of observations
- Does proposed work makes an original contribution?
- Start a year ahead and be building on ideas
What to Ask the Agency

- What are the program’s areas of interest?
- Does mine fit?
- What number of proposals are expected?
- What percentage of grants are funded relative to the total amount requested? [i.e. what is the success ratio?]
- What are the total funds available to the program?
- What is the average size and duration of the awards?
Failure or Successful Proposals

Five Factors

- Quality of organization submitting the proposal
- Innovative nature or critical importance of project
- Appropriateness of a funding source
- Competition
- Skills of the grant writer
Failure or Successful Proposals

- Significant and relevant
- Scientific quality
  - Creativity, conceptual originality, potential for discovery
- Innovative/Ideas are novel
- Relevance
  - Importance to science and to the agency goals
  - Contribution to scientific knowledge
  - Broad applicability or impact
- Work is doable/Achievable/Relevant/Sustainable/Impactful/beneficial
- Results Measurable
  - Technical feasibility
  - Resource adequacy
- Realistic timeframe/cost effectiveness
- Team is credible
People magazine is extremely successful. Why?

- Because they tell stories one person at a time
- People love reading about other people – their successes, their hardships, and their heroism.
  - The people who read grant proposals are no different
- Being able to write in a clear and concise manner
- Use short paragraphs and sentences easier to read
- Write at a fifth grade level
Addressing the Six “W” and an “H”

- Who (by whom and to whom)
- What (what will you do?, what is known/not known?)
- When (when will you start, when will you finish, when will you reach key milestones?)
- Where (where will the project take place?)
- Work (Is it doable/Achievable/Relevant/Sustainable/Impactful/beneficial?)
- Why (why do it?, why is it essential)
- How much (what will it cost?)
Grants

- Types of Grants
  - Standard Grants
  - Integrated Research, Education and Extension
  - Conference Grants
  - Enhancement Grants
    - Pre- and Postdoctoral Fellowships Grants
    - New Investigators Grant
    - Strengthening Grants
    - Sabbatical Grants
    - Equipment Grants
    - Seed grant
Funding Agencies Interests

- **Large projects**
  - Multi-disciplinary
  - Multi-state
  - Cross-cutting
  - Has significant stakeholder involvement
  - Gets out in the world (e.g. via extension)
  - Good chance that the enterprise will grow after funding ends
Scale of Proposals

- **Winning proposals convey different messages at different scales**
  - Small: project is exploratory; we have a hypothesis that is worthy of being explored
  - Medium: preliminary data are encouraging; we will conduct an in depth study on a topic
  - Large: We are already separately successful; we bring together a coalition of experts to conduct the definitive study on a theme

How to play at Different levels

- Start small yourself
- Play with the big players by bringing something special to the team
- Be the kingmaker before you reluctantly agree to be at the top
Challenge of Large proposals

- Scope can be so wide that no single person is an expert in all of the topics
- Proposal needs to show an integrated approach, can’t be piece meal
- Whole must be greater than the sum of the parts
Proposals

- **Evaluation Criteria**
  - **Scientific Merit of the proposed project**
    - Novelty, innovation, uniqueness, and originality
    - Conceptual adequacy of the research and suitability of the hypothesis, as applicable
    - Clarity and delineation of the proposed objectives
    - Adequate description of the undertaking, suitability and feasibility of methodology
    - Demonstrated feasibility through preliminary data
    - Probability of project success
Proposals

- Qualification of Project Personnel
  - Individual or team
  - Performance record
  - Potential for future accomplishments
  - Demonstrated awareness of previous and alternative approaches to the problem identified in the application
  - Institutional experience and competence in subject area

- Adequacy of Facilities
  - Support personnel
  - Facilities, instrumentation

- Project Management
  - Planning and administration of proposed project
  - Time allocation for systematic attainment of objectives
  - Partnerships, collaborative efforts, dissemination of information
Proposals

- **Project Relevance**
  - Specific Program Area Priority(ies) identified in the RFA
  - Proposed work addresses identified stakeholder needs
  - Stakeholder involvement in project development, implementation, and evaluation demonstrated where appropriate
  - Potential impact against measurable short and mid-term outcomes
  - Curricula enhancement [Extension or Teaching]
  - Support of broad range of activities
Proposal Rankings

- Review ranking
  - Outstanding
  - High priority
  - Medium priority
  - Low priority
  - Do Not Fund

Project Summary

  - Positive aspects
  - Negative aspects
  - Synthesis comments
How Important is the Title?

- Title sets the tone for the proposed work
  - Must be descriptive, specific and appropriate, and should reflect the importance of the proposal

- One way to achieve an effective title is to have a two part title, the first general and the second more specific.
How Important is the Abstract/Summary?

- Abstract/summary is very important [Typically 250 words or less]
  - Take it seriously, usually written last
  - Must be able to stand on its own
  - Must be brief, clear, and interesting to read
  - Your challenge is to draw in “HOOK” the reviewer
  - Provide what is known or not known
  - Why is it essential to find out
  - What is the outcome/impact?
The Key to Great Ideas!!!

“The best way to have a good idea is to have a lot of ideas”

Linus Pauling, Nobel Prize Winner
The End!!!

Thank You

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