The Scoop on the Grant Review Process

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Overview

• The Proposal
• The Review
• The Panel
• The Survey
• Resources
The Proposal

• **Guidelines**
  - Appropriate program - Letter of Intent
  - Format
  - Page limit/Font size/Margins
  - Sequence and subsections
  - Forms
  - Appendices

• **The Summary** - A book is judged by its cover!
  - Most important page - particularly during panel ranking
  - Describe overall goal and hypothesis, model system, objectives, methods, significance
  - Be clear and succinct

Project Description

- **Characteristics**
  - Clarity and succinctness
  - Tight arguments
  - Logic
  - Completeness
  - Grammar and spelling
  - Appropriate methods and statistical procedures
  - Sections and subsections based on guidelines
  - Organization
Project Description - contd

- Introduction - Grab the interest! Focus!
  - Define the problem
  - Describe what is novel
  - State hypotheses
  - Provide specific objectives
  - Give tight rationale
  - Provide significance of research
  - Describe relevance to program

**Make the case in the first two to three pages**

Project Description - contd

- Background - Grab the interest! Focus!
  - Demonstrate understanding of problem
  - Accurately present literature to support proposed research
    - Do not write a review!
  - Provide preliminary data, with figures and tables
  - Relevant preprints/reprints can be appendices

- Experimental Procedures/Methods - Grab the interest! Focus!
  - State specific objectives - prioritize
  - State appropriate hypotheses
  - Provide details of appropriate methods
  - Describe data to be collected and analyses
  - Justify steps to be taken
  - Anticipate questions
  - Describe alternative approaches and pitfalls

- References
  - Avoid long lists; use relevant literature

- Work plan and time table
The Rest of the Proposal

- Curriculum Vitae
  - Follow program guidelines
  - Cite relevant publications
  - Include any relevant training, synergistic activities, etc.
- Facilities and Equipment
- Collaborations
  - Document with current letters
- Budget
  - Bargain budget or Padded budget
  - Justification for every item, including postdocs/grad students
  - RCR plan
- Appendices

The Review

- Myth - “Good Ole Boy Network”
- Ad hoc reviewers - database
- Most difficult job for the Program Director and Panel Manager
- 4-6 reviewers
- Good review/Bad review
- Suggest reviewers for your proposal
- Volunteer to serve as reviewer
The Panel

• The Myth - “Good Ole Boy Network”
• 9-15 peers - one-thirds repeat
• One from previous panel serves as manager
• Broad spectrum of expertise
• Experienced
• Credible and objective
• Team players
• Served as reviewers
• ~30 proposals/panelist
• Three panelists consider each proposal

Evaluation Criteria

• Scientific Merit
  • Innovative, original
  • Hypothesis driven
  • Objectives focused and achievable
  • Appropriate methods
  • Preliminary Data
  • Probability of Success
  • Potential Limitations

• Qualifications
  • Personnel and facilities

• Relevance
  • Importance to U.S. agriculture, society
Attributes of a Successful Proposal

- Innovative
- Advances science
- Fills gaps
- Science-driven
- Well-written, logical, succinct
- Focused
- Good background literature
- Clear hypotheses and objectives
- Technically feasible
- Appropriate model system
- Well-designed experiments
- Has preliminary data
- Has appropriate expertise
- Alternative approaches
- Clear justification
- Relevance

The Panel - contd

- Three panelists
  - Primary
    - Presents proposal, summarizes ad hoc reviews, champions, critiques, recommends
  - Secondary
    - Offers assessment
  - Reader
    - Offers assessment; writes summary
  - General panel
    - Involved in general discussion
- ~15 minutes of fame and the Yellow Post-It™ exercise
  - Consensus and funding priority
    - Outstanding, High priority, Medium priority, Low priority, Some merit, Do not fund
- Re-ranking
  - Revisit, discuss, rank top 25-30%
- Program Director/Panel Manager discussion/decision
- Phone Calls
Survey Results

• Novelty
• Justification and Rationale
• Significance
• Preliminary data
• Details of methods/statistics
• Sloppy writing = sloppy science
• Track record
• Qualifications
• Grab interest in summary and in first two pages
• Hook
• Organization
• Remember the reviewer’s and panelist’s time

Survey Results - contd.

• Specific aims
• Clarity
• Sections, subsections, meaningful headings
• Non-scientific aspects
• Focused
• Defines problem succinctly
• Develops ideas
• Feedback from leaders
• Budget and justification
• Collaborators
• Avoid jargon
Resources

- Campus Sponsored Programs Office
- Web sites of funding agencies
  - reeusda.gov/nri; nih.gov; epa.gov; nsf.gov, etc.
- Successful colleagues
- Grant writing workshops
- NextWave
  - http://nextwave.sciencemag.org/awards.dtl?
    CFID=389 384&CFTOKEN=40841077
- GrantsNet
  - http://www.grantsnet.org/
- Grant Doctor: (grantdoctor@aaas.org)
  - http://nextwave.sciencemag.org/