Today’s Session

- Selecting the appropriate agency
- Tools to overcome common reasons for application failure
- Developing your idea
- Creating a writing schedule
- Preparing your grant’s content
- Preparing revisions
Selecting Appropriate Agency & Type of Proposal
Funding Opportunities

1. Be aware of funding opportunities and announcements
   - NIH, DOD, NSF, AHA, HRSA
   - SciVal Funding (Demo)

2. Read the solicitation instructions

3. Avoid applying to multiple agencies (i.e., cannot submit the same proposal to both NIH and NSF. Will be rejected)

4. Be aware of types of grants and deadlines
1. Communicate with Program Director prior to submission
   • Contact agency
   • Does it fit in?
   • Identify the best study section
   • Ex. NSF: Send 1 page draft of Specific Aims
     • Targeting correct program
     • Provides framework for reviewer
     • Outlines Specific Objectives, Potential Impact
Tools to overcome common reasons for application failure cited by review
Common problems cited by reviewers

- Studies based on a shaky hypothesis or data.
- Alternative hypotheses not considered.
- Importance of problem not important not conveyed.
- Lack of original or new ideas.
Developing
Your Idea
Developing Your Hypothesis

• Observation
• Formulate multiple/several (six) hypotheses
• Focus hypotheses specific to area of interest – study’s aim
  » At risk individuals
  » Gap in knowledge
Pros and Cons for Hypotheses

• Write out pros and cons of each hypothesis
  » Preliminary data
  » Skill sets
  » Fundability
Narrowing Down Your Hypothesis

• Narrow down to three hypotheses from pros and cons
  • Write three Specific Aims for each of the three hypotheses
    » Keep aims independent of one another
    » Describe phenomena
  • Select the strongest hypothesis
Believe In & Agree With Your Hypothesis

» Well-defined problem & well articulated hypothesis
» Thorough review of literature
» Do not write the proposal if the hypothesis could be wrong
Illustrations

- Create as part of the planning process
- Create prior to writing
- Make it easy on reviewer
- Black, white and grey
- Multiple Illustrations Describing, , ,
  - » Hypothesis
  - » Each Aim
  - » Timeline
  - » Research Plan
  - » Preliminary Data
Creating a Writing Schedule
Creating a Writing Schedule

**Writing Schedule**

» Work on daily ~ Discipline
» Plan for 4-6 months of writing
» Review throughout
» Edit and proofread in several short blocks of time
» Plan for editing and submission time
Preparing Your Grant’s Content
Common problems cited by reviewers ~ 1

- Methods unsuited to the objective.
- Lack of focus in Hypotheses, Specific Aims, or Research Plan.
- Direction or sense of priority not clearly defined, i.e., experiments do not follow one another and lack a clear starting or finishing point.
- Proposed model system not appropriate to address the proposed questions.
- Problem more complex than investigator appears to realize.
Common problems cited by reviewers ~ 2

- Experiments too dependent on success of an initial proposed experiment.
- Lack of alternative methods in case the primary approach does not work out.
- Too little detail in the Research Plan to convince reviewers the PI knows what he or she is doing, i.e., no recognition of potential problems and pitfalls.
- Over-ambitious Research Plan with an unrealistically large amount of work.
- Proposal driven by technology, i.e., a method in search of a problem.
Common problems cited by reviewers ~ 3

• Rationale for experiments not provided, i.e., why they are important or how they are relevant to the hypothesis.

• Proposal lacking enough preliminary data, or preliminary data do not support project's feasibility.

• Not clear which data were obtained by the investigator and which were reported by others.
Specific Aims Page

» Introduction
» Statement of problem
» Statement of Impact and Summary
» One Central Hypothesis (restate verbatim)
» Specific Aims (3-4). Do not write too many.
  » List – precise descriptions, action verbs
  » Provide details in the strategy section
Research Strategy ~ Three Components

» Significance
» Innovation
» Approach
Research Strategy ~

Significance

» Critical analysis of the literature (Scopus)
» Statement of significance
» Research Design
Research Strategy ~ Innovation

» New idea or discussed but not studied
» New approach
» New technology
Preparing Your Grant’s Content

Research Strategy

» Questions leading to aims – questions to address
» Short paragraph summary/introduction for each specific aim
» Provide rationale
» Do not add details like the concentration or amounts
» Techniques rather than details
Research Strategy Cond.

» Statistical considerations (CCORDA)
» Animal considerations (CCORDA and UNMC’s Center for Collaboration on Research)
» Alternative outcomes
Additional Expertise and Collaboration
Collaboration and Resources

» Contact experts (SciVal Experts Demo)

» Letter of support

» Collaboration - bring someone in if there is limited expertise
  » Multi-Investigator section
  » Management Plan
  » How communication will take place
Revision Process
Revising and Resubmitting

» Response
» Communicate with program director
» One page to address comments
  » Address everything
  » Agree and expand briefly/direct
» New Info.
  » Highlight new info based on Instructions
  » Note: If information was missed in the review, can restate as if it is new
Resources & References

Grant Writing Tips and Sample Applications:
http://grants.nih.gov/grant_tips.htm

RePORTER Research Portfolio Online Reporting Tool Expenditures & Results –
http://projectreporter.nih.gov/reporter.cfm

SciVal & SciVal Experts

Scopus

CCORDA
Melody Montgomery, B.S.

Editorial Grants Specialist

Office of the Vice Chancellor for Research
Research Editorial Office
University of Nebraska Medical Center DRC I 4010
985875 Nebraska Medical Center
Omaha, NE 68198-5875

Office Hours: 9 a.m. – 5 p.m. M-F
E-address: m.montgomery@unmc.edu
Phone: 402.559.4132

http://www.unmc.edu/research_editorial.htm