A Sample Grant Submission

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What do I need?

- Research Description – watch page limitations
- Research Summary
  - Each Agency has its own special requirements
  - NSF requires Intellectual Merit and Broader Impact
- Updated Curriculum Vitae
- Updated “Other Support” – Current & Pending
- Budgets and Budget Justifications
- Letters of Support – if required
- Submission via UD Peoplesoft and Grants.gov
  - Sign up for your eRA Commons Number
  - Electronic Research Administration (eRA)
Tips for Getting Funding

• Which solicitations, unsolicited?
• What are my chances?
• What topic?
• How much money to ask for?
• How long should the grant last?
• How about collaborators, post-docs, students?
• Can I ask for Equipment?
• How big is my budget, are indirect costs included?

After: Michael Shay, UD RCR Workshop

A Simple Budget

1 Faculty, 1 Grad Student, 1 UG, some Supplies, some Travel

- Faculty Summer Month (11% of $60k base salary) $6,600
  o Benefits (34%) $2,244
- Graduate Student Stipend $18,000
  o Benefits (4%) $720
- Undergraduate Student Stipends (2) $10,000
  o Benefits (8%) $800
- Supplies (specify) $8,000
- Travel (1 Conference each for Faculty & Grad Student) $3,000

Subtotal $49,364

• Overhead / F&A (53%) $26,163

Total Proposal Budget $75,527

Notes: State of DE and some Foundations do not provide F&A – Check with your College
Staff Benefits
Rate is 52%; Annual Salary Increase 4%
### Competitive Funding Environment

- Applications for funding are highly competitive.
- NSF receives approximately 40,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded.
- In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships.
- Therefore – utilize all the help you can get.

*After: Anna Papafragou, UD RCR Workshop*

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### NSF Review Criteria

1. Intellectual Merit of Proposed Activity
2. Broader Impact
   - Integrate research and education by advancing discovery and understanding while at the same time promoting teaching, training, and learning;
   - Broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.);
   - Enhance the infrastructure for research and/or education, such as facilities, instrumentation, networks and partnerships;
   - Results of the project will be disseminated broadly to enhance scientific and technological understanding;
   - Potential benefits of the proposed activity to society at large (policy formulation for Federal, State or local agencies).
NSF Proposal Submission

- Research Plan: 15 pages
- Average budget: $300,000 over 3 years
- Key: Why this? Why now? Why you?
- Content: Find a good problem
- Innovate! Do NOT simply propose extension of prior work
- Programmatic nature: ‘Think Big’
- Timing: Current relevance to state of the art; new methods or approaches that make problem tractable
- PI: Promote your strengths
  - If you do not believe in it no one else will
- Find good collaborators/industry partners
- Interdisciplinary research/international aspects encouraged

Update your CV and Other Support Files

- Each agencies requires a different version of your CV
  - Prepare your NSF-based CV as the base
- They also require different version of your “other support”
  - Track the information for your current and pending support
  - Track the level of effort committed on each proposal
How to put together a successful proposal

• Get pilot data to substantiate your approach

• Be specific; show that you have thought through the project
  o Break it down into steps; plan research in terms of stages

• Plan ahead
  o Show you’ve thought about alternatives if your plan doesn’t work out

• Be creative about Broader Impact
  o Do not leave it as afterthought

• Be realistic about how much you can accomplish
  o Consider the scope of the work (3 years?)
  o How many people? (postdocs, grad students, undergrads, collaborators)

• Find out how the grant mechanism works
  o Budgets, indirect costs, facilities…
  o Figure out mechanisms early!
    o Seek help – Program Officer, Department, Research Office…
How to put together a successful proposal

- Ask for help
  - Mentoring from more experienced/senior faculty with grants
  - Ask them what works and/or how reviewing is done
  - Discuss your idea
  - Find someone to read the final draft (if possible)
  - Get to know your Program Officer at NSF
    - He or she is there to help you
  - Attend presentations by NSF staff at conferences

- Familiarize yourself with Fastlane / Grants.gov
  - www.grants.gov

After: Anna Papafragou, UD RCR Workshop

What happens if my proposal is not funded?

- Talk to your Program Officer
- Read comments carefully; consider funding priority recommendation
  - High? Medium? Low?
    - Not all High-Priority proposals get funded!
- If you revise, take reviewer comments very seriously
- Be prepared for the fact that the proposal will not go out to exactly the same reviewers!

After: Anna Papafragou, UD RCR Workshop
12 Steps of Successful Proposal Writing

- Know your strengths and weaknesses.
- Know the program from which you seek support.
- Read the program announcement.
- Formulate an appropriate research objective.
- Develop a viable research plan.
- State your research objective clearly in your proposal.
- Frame your project around the work of others.
- Grammar and spelling count.
- Format and brevity are important.
- Know the review process.
- Proofread your proposal before submission.
- Submit your proposal on time.

From: George A. Hazelrigg, NSF