Grant-Writing & Resources

A Presentation by the UPRM Proposal Development Unit (PDU) of the CID

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Proposal Specialist

What is the PDU?

The Proposal Development Unit of the CID

Services

- Pre-Submission proposal review
- Resubmission consultation and support
- Individualized funding search assistance
- Grant-related workshops
- Dissemination of funding opportunities
- Samples of funded proposals
- Institutional "Boilerplate" information

Overview

- Who, What, Why, When, & How of Grants
- What are Program Announcements (PA's)
- Where to look for PA's
- What to do when you find one you would like to apply for
- Grantsmanship basics and Elements of a Proposal
- Grant Writing Resources

"It's a foolproof formula for writing grant applications."

WHAT is a Proposal?

Definition: A written request for funds that justifies the need for such to accomplish one of the following:

- **Research** to test an idea or hypothesis
- Acquisition of **instrumentation**
- Tasks that improve quality of **education**

Intended to convince others that your project is **worthwhile,** that you have the **expertise** to conduct it, and that you have a sound **work-plan** to complete it

WHY do we write proposals?

From Institutional/Personal Viewpoint:

- Promotes scholarship, education and prestige
- To implement change in your university, the environment or society
- To advance your field and achieve your intellectual goals
- An important part of the culture of academia
- Brings external funding to assist with obtaining resources for your current activities
- Attracts new faculty and students
- Accomplishes institutional mission

From Sponsor's Viewpoint:

- Access to knowledge, expertise and commitment to help accomplish their mission
- Essential to the process of obtaining best quality research for the money that they invest
- The competitive process ensures all interested parties are fairly reviewed
- <u>For investigators this means</u>: The agency will want to know how your work will help solve a problem for them, and how you will sustain the impact of the work that they invest in after the award period is over—think of dissemination, data management and future directions

HOW do I know where to start?

There are a large number of potential sponsors, both federal and private—all with their own missions and priorities and different types of funding mechanisms

"Your goal is to match your scholarly idea with the right sponsor and the right program"

--Kathy Grzech,
University of Kentucky
Proposal Development Office

HOW do I know where to start?

- Determining whether the agency's mission is a fit for you:
  - Get to know the sponsor—
    - Read sponsor web pages, mission statement , history and scope of grant making activity
    - Talk with other funded investigators
    - Read and re-read the Program Announcement
      - Look at goals of program, funding priorities, target populations and review criteria
      - Weigh those against your own goals, your expertise, your collaborative relationships, and your institutional capacity and infrastructure
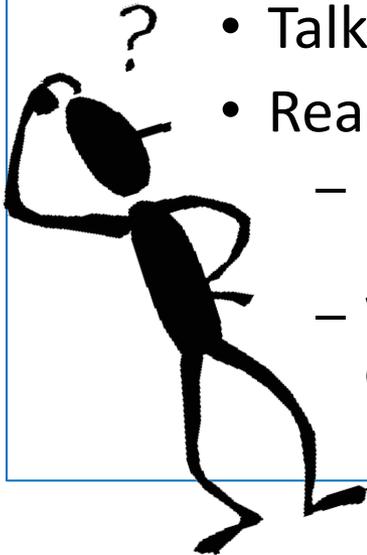
HOW do I know where to start?

- Determine whether your goals are a good match for their needs—what is in it for the sponsor? Link your objectives closely with their goals

- Research what else the agency has funded:
  – Review abstracts of successful proposals
  – What kinds of organizations? What similarities do you share?

- If you don't have much experience, look for early career/new investigator types of awards (or post doc research positions)

Searching for previously funded projects/abstracts

- Grants.gov
- NIH Reporter
- NSF Fastlane
- Google it!

What is a Program Announcement?

Proposals typically respond to a *Program Announcement:*

- A published document, prepared by the funding agency, that describes the opportunity for funding
- Contains specifications such as **eligibility**, **directions** for preparation of proposals, and **evaluation** criteria
- Other names: FOA, RFP, BAA

READ (and Re-Read!) the Program Announcement Carefully!

- Is UPRM an **eligible** institution?
- What are the **goals** of this program?
- What are the **keyword**s or concepts?
- Does it give **examples** of activities that might be funded?
- What is the expected **award amount**? How many awards?
- Is there a limit on the number of awards by institution?
- Are **matching funds** required?
- What is the submission method? **Format**?
- When is the **deadline**?
- **Review Criteria—**use them to outline your approach

Catering to the Program Announcement

- Use the Review Criteria as your outline
- Start by creating an outline with bolded subheaders taken directly from the FOA—then fill it in with your detail
- Look for key phrases and "buzzwords" that convey agency priority—such as "Transformational potential", "Innovation," "Broader contributions," and "Multi or Transdisciplinary"—sometimes you may want to add these as bolded subheadings in the narrative
- When you have answered something that you know is important to them—let them know it (bold, italics, etc.) they will appreciate that it is **easy to find**

Examples of FOA's

- http://grants.nih.gov/grants/guide/pa-files/PA-13-313.html (NIH parent R15 AREA grant)

- http://www.nsf.gov/pubs/2014/nsf14532/nsf14532.htm (NSF Early Career Award)

WHERE do I find Program Announcements?

- InfoEd SPIN: www.infoedglobal .com

- PDU: Custom Funding Search (request by e-mail)

- All Federal Funding: www.grants.gov

- Private Foundations: //foundationcenter.org

- Major Funding Agency Websites:
  NIH, NSF, NEH, NEA, DOD, DOE, DoE, NASA, DHS

"SPIN"

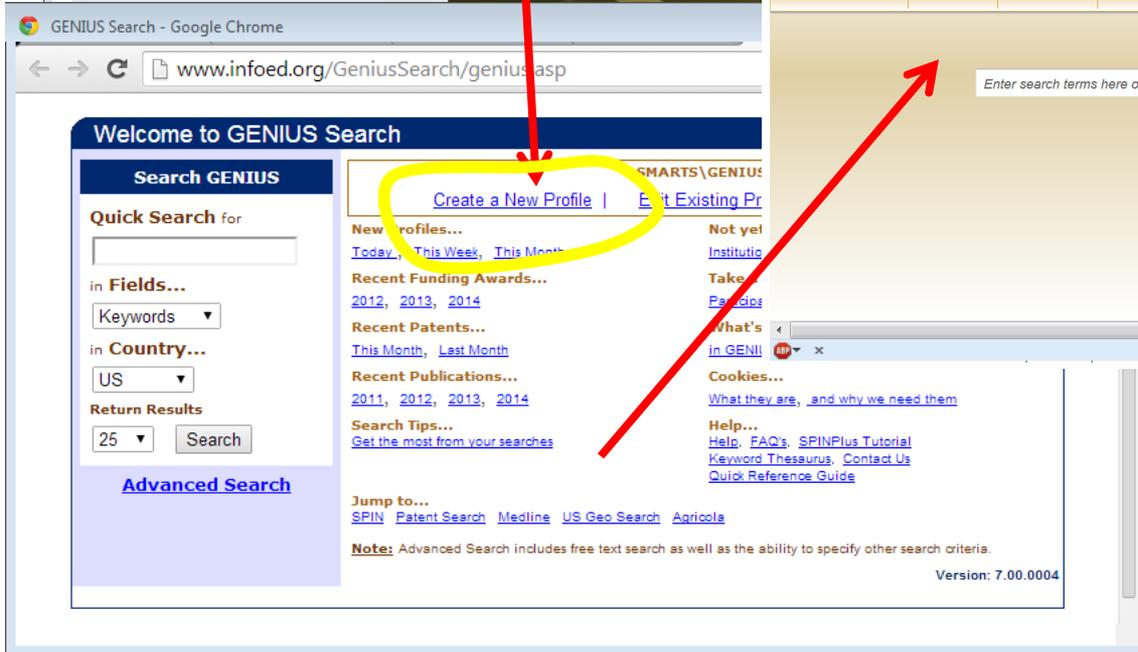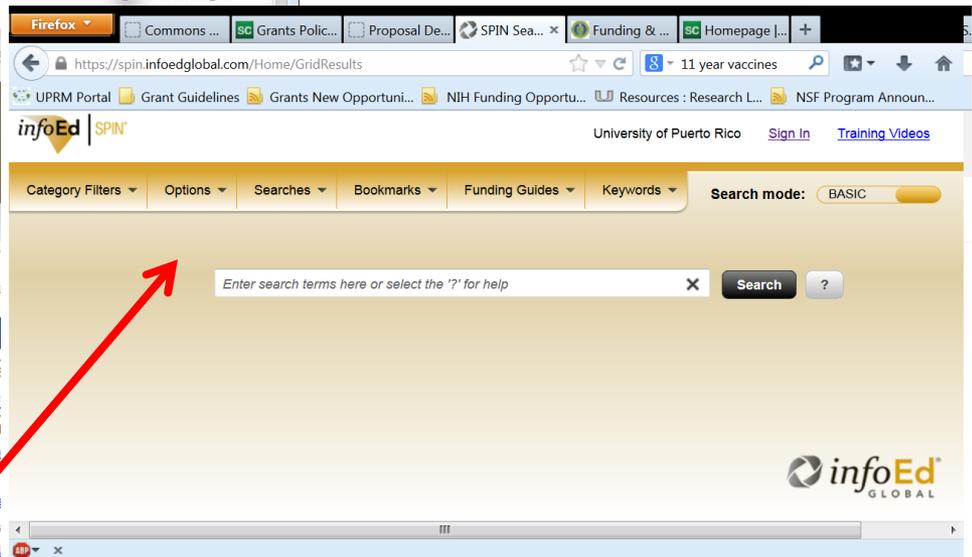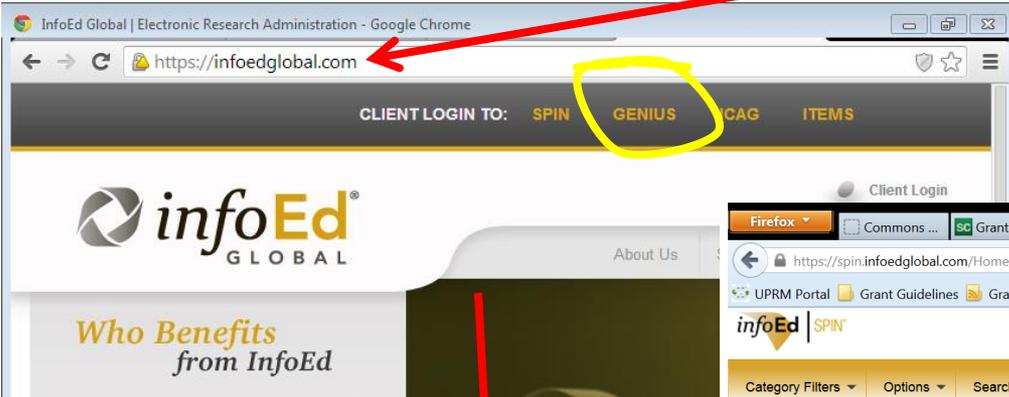infoEd | SPIN®

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When should I start?

- It can take a while to pinpoint a suitable funding source and to complete necessary government registrations (if applicable)
- Once you do—the process of preparing, applying, waiting for a response and implementing can take up to 18 months
- You may need to beef up your **preliminary data** and/or **publications** first (may need to wait a year)
- You can only take advantage of the New Investigator status for 10 years (4 years for some agencies)

Contacting the Program Officer

- Once you have pinpointed a funding opportunity that is a good match for your idea, it is a good idea to start a conversation with the Program Official
  - ensure that your idea aligns with program focus
  - Recommend a specific review group to request
  - They can act as your advocate in the review process
- First e-mail them to request a time to call, (identifying yourself, your expertise, and your institution) with a brief abstract or concept paper

General Proposal Development Strategies

1. Determine your long-term research goals
2. **Survey the literature (what has been done before)**
3. Contact/connect with other researchers working on the topic (collaborations!)
4. Evaluate yourself: Publications and Preliminary Data
5. Prepare a "white paper" or concept paper
6. Figure out existing and missing resources and support (labs, equipment, mentors)
7. Discuss with colleagues/mentors (and dept. chairs/dean)
8. Volunteer as a reviewer

3 Stage Writing Process

1. *Pre-Writing*:
   - Preliminary Research
   - Surveying the existing literature
   - Planning your project
   - Making notes
   - Figuring out the rules

2. *Writing*

3. *Revision*:
   - Re-seeing
   - Re-thinking
   - Re-writing
   - Editing

The Hard Part!!!!

Common Elements of a Proposal

- **Agency Cover Sheet**
- **Project Summary**
- **Project Narrative**
  - Introduction
  - Goals & Objectives
  - Methodology
  - Data Analysis &/or Project Evaluation
  - Timetable
  - Expected Outcomes
  - Potential Problems & Alternative Strategies

Elements of a Proposal (Cont'd)

- **Facilities & Equipment**
- **Budget & Justification**
  - Allowable Costs: Reasonable, Allocable, Consistent
  - Direct & Indirect Costs
- **Biographical Sketch**
  - All Senior Personnel: PI's and Co-PI's
- **Current & Pending Support**
- **Supplementary Documentation:** Letters of Commitment or support

Other topics commonly required

- Data Management
- Data Sharing/Dissemination
- Intellectual Property
- Project Management Plan
- Human or Animal Subjects Protections
- Hazardous materials protections
- If a combined **Research** and **Education** grant, may require objectives and outcomes for both areas

Tips for Proposal Writing

- Be well organized, clear and detailed
- Avoid the passive voice (may, might, could, perhaps, etc.)
- Sell your great idea!
- Remember that the reviewers are human—don't make it dull
- Write to their needs—weave in their terminology (key words)
- Write to varying levels of expertise—start general and then narrow to more specific
  - never assume a reviewer should know a critical component of your argument
  - Use a mix of technical and lay language

Qualities of a Competitive Proposal

- Strong **idea**
  - Potential to advance knowledge, results oriented
- Strong **evidence**
  - Preliminary or Pilot studies
- Strong **team**
  - Appropriate expertise, collaborations
- Strong **Science**
  - Appropriate methods, feasibility
- Strong **Presentation**
  - Well developed, detailed, organized and well written

Write for Your Audience

- Look at the **mission statement** of the funding agency
- Look at the stated **review criteria**
- Look at the backgrounds of the people who will be reviewing your case (often published on agency website)
- Think about how the funding agency/society will benefit from the outcome of your work and speak to that need

4-S Strategy for audience centered Communication

- **S**ignpost
  - Signal upcoming content with subheadings, boldface or italic type
- **S**tate
  - Open with a key point or topic sentence
- **S**upport
  - Cite supporting evidence for each statement
- **S**ummarize
  - Pause periodically to interpret and lead reviewer thinking

(Grzech, 2013)

10 Key Points for Successful Grant Writing

1. Start Early!
2. Get Institutional Support (Chair, Dean)
3. Select topic carefully
4. Provide Preliminary Data/Results
5. Include valid, developed, sound methods & Procedures
6. Fit the established format
7. Proposal must be well organized and complete
8. Keep peer review & selection in mind
9. Proposal writing is hard work!
10. If at first you don't succeed...Try again!

"A poor idea for a research project is not expected to do well at a competitive research granting agency, even if it was well packaged. But, as a corollary, good ideas for projects that are not well packaged are also disadvantaged. The best combination is an excellent idea for a project that is well prepared and presented."

--From "Principles of Grantsmanship" (Fretz, Angle, & Helsel, 2005)

The Peer Review Process

- <u>**Criteria**</u>: Significance/Relevance, Methods, Clarity, Budget, Staff Qualifications
- Scrutinizing process
- Established or Ad hoc panel of reviewers—knowledgeable/expertise in your area
- Proposals are scored and prioritized—placed above or below the government "Payline"
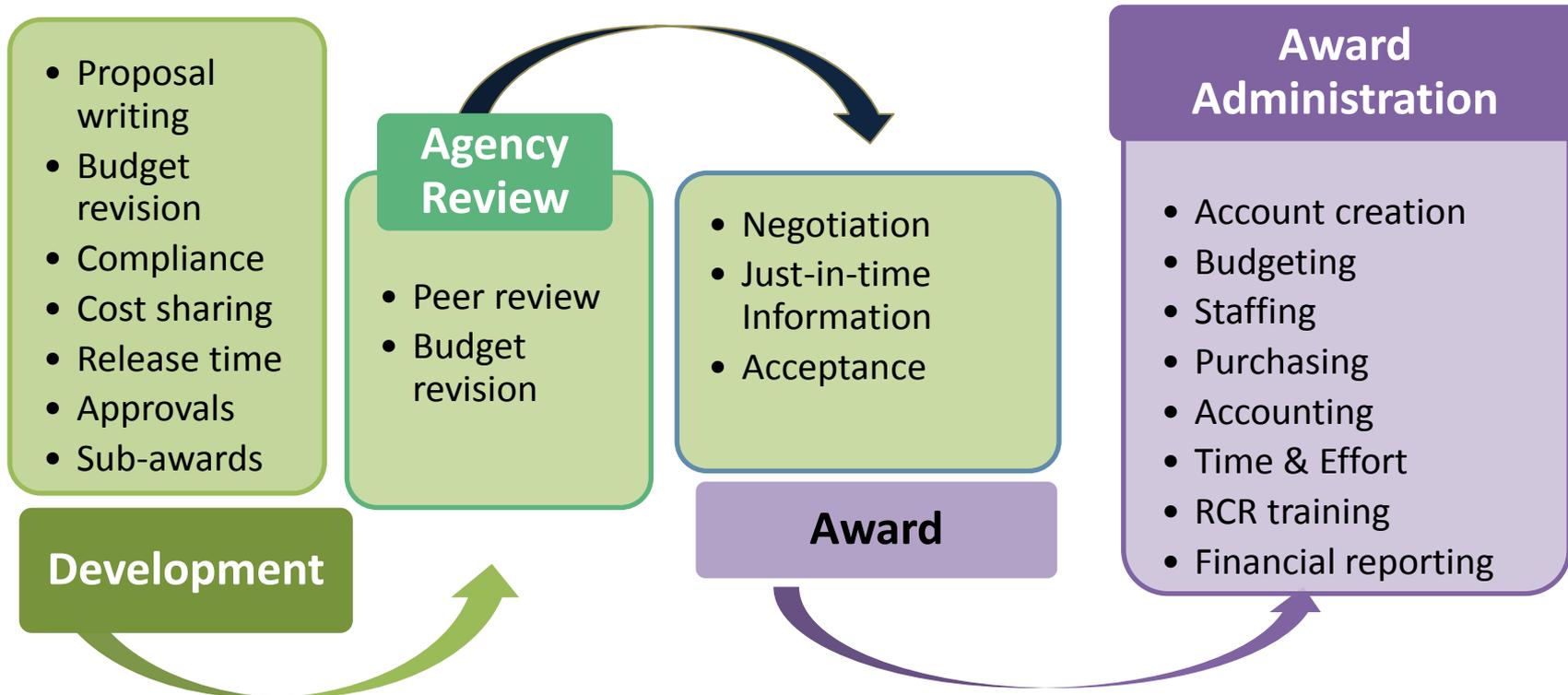- Each agency has a specific process

Resubmission Rates

- For **NIH** in 2013:
  - New submission success rate: 9.1%
  - Resubmission success rate: 31.5%
- For **NEH,** general success rates vary by program from 8% to 33%
- **NSF** ranges from 17% to 30%

  It typically takes 2-3 attempts to get funded by any agency
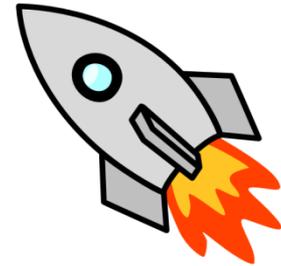
Lifecycle of a Proposal/Award

Pre-Award			Post-Award				
			Project Period				
Proposal Development	Submission	Agency Review	1st Budget Period	...	nth Budget Period	No Cost Extension	Closeout

Development

- Proposal writing
- Budget revision
- Compliance
- Cost sharing
- Release time
- Approvals
- Sub-awards

Agency Review

- Peer review
- Budget revision

Award

- Negotiation
- Just-in-time Information
- Acceptance

Award Administration

- Account creation
- Budgeting
- Staffing
- Purchasing
- Accounting
- Time & Effort
- RCR training
- Financial reporting

On-line Grant Writing Resources

- <u>General</u>:
  - *The Art of Grantsmanship* (hfsp.org/how/ArtOfGrants.htm)
  - *The Craft of Grant Writing* (teesresearch.tamu.edu/wp-content/uploads/2011/02/The Craft of Grant Writing Workbook.pdf)
  - *Writing Winning Technology Proposals* (research.utk.edu/wp-content/blogs.dir/29/files/2013/06/winning proposals.pdf) by Elizabeth Byrom

NIH (& other PHS Agencies such as **NIAID, NCI**):
- NIAID All About Grants Tutorials (niaid.nih.gov/researchfunding/grant/pages/aag/aspx)
- NIH Grant Writing Tip Sheets (grants.nih.gov/grants/grant tips.htm)

NSF:
- A Guide for Proposal Writing (nsf.gov/pubs/2004/nsf04016 1.htm)
- Advice on Writing Proposals to the NSF by Carnegie Mellon foundation (cs.cmu.edu/~sfinger/advice/advice.html)

USDA:

- USDA Review Process (csrees.usda/funding/nri/pdfs/nri review guidelines.pdf)

Private Foundations:

The Foundation Center Proposal Writing Short Course (foundationcenter.org/getstarted/tutorials/shortcourse/index.html)

Writing a Successful Grant Proposal (mcf.org/nonprofits/successful-grant-proposal) from Minnesota Council on Foundations

Contact Us!

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  – Ydarmi Acevedo x5256

Location: CID 116 cid.uprm.edu/pdu

References

- "Basic Grantsmanship—A Framework for Success" (Power Point Presentation, Kathy Doyle Grzech, M.A., 2013)

- "Principles of Grantsmanship" (Fretz, Angle, & Helsel, 2005)

- "The Only Grant Writing Book You Will Ever Need" (Karsh & Fox, 2009)