Proposal Writing 101

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Important Question:
Why write a proposal?
Important Question:
Why write a proposal?

• It’s a creative, scholarly activity
• It solidifies research plans
• You don’t get if you don’t ask
• Just start with one

• …besides, you might get funded!
Proposal Preparation in a Nutshell…

1. Determine your Research Goals
2. Determine where your work fits within your field
3. Determine needs to achieve Goals
   (Equipment, students, travel, postdocs, etc…)
4. Find appropriate funding agency
5. Read Request for Proposals (RFP)/Announcement
6. Plan Ahead
7. Write and Submit Proposal
First Proposal?

Start with **Faculty Research Support Funds (FRSF)**

- Internal UHCL grant
- For student salary, supplies, and research travel…
- The maximum funding ranges from $5000 - $6000
- 10 page proposal
- See OSP website [http://prtl.uhcl.edu/portal/page/portal/OSP](http://prtl.uhcl.edu/portal/page/portal/OSP)

Next deadline: March 17, 2014 (Monday) and then September 2014.
1. Determine your research goals

- What is your passion?
- What interests you?
- What can you build on?
- What unique resources do you have?

Consider:
- Impact
- Collaborating
- Moving outside your field
- Making use of national facilities
1. Determine your research goals

In general, goals can be:
- testing a stated hypothesis
- creating a novel design
- solving a specific problem
- challenging an existing paradigm
- addressing a barrier to progress in the field
- developing a new technology
1. Determine your research goals

**Devote time to thinking (it’s critical!)**
Think of and write out:
- Every question you would like to ask
- Every experiment you would conduct (regardless of cost)
- Every hypothesis related to your project
Develop your goals into short sentences which can be used in your proposal:

“The goal of my work is to test if students gain a better understanding of physics concepts from guided peer-to-peer tutoring than traditional lectures.”

“The goal of my work is to test the hypothesis that GluR1 signaling is necessary for dendritic maturation.”

“The goal of my work is to determine what is the fastest timescale for magnetic switching.”
Develop your goals into short sentences which can be used in your proposal:

Assignment: write out your goal(s)

“The goal of my work is to ….

You can share these goals with OSP later if you wish…
2. Determine where your work fits within your field

Be educated, be prepared.

• You must conduct a thorough literature review in your field to determine what has been done already and what are the most recent problems, hypotheses, and opportunities.
• You must give literature backing to your research plan (why should it work?).
• Pay special attention to recognized experts in your field – they may be reviewing your proposal!
2. Determine where your work fits within your field

Resources to help:

http://prtl.uhcl.edu/portal/page/portal/LIB/HOME

http://prtl.uhcl.edu/portal/page/portal/LIB/HOME/DATABASES
2. Determine where your work fits within your field

Resources to help:

Consider using Endnote to catalog your literature
3. Determine needs to achieve Goals (Equipment, students, travel, postdocs, etc…)

- See how others designed their experiments.
- If you don’t have a needed resource, consider collaboration or using a national facility.
- Give adequate time to determine needs, costs, and gather necessary collaborations and letters of support.
- More later on preparing a budget…
4. Find appropriate funding agency

Grants.gov is a good place to start!
Note: These two processes are related!

Determining your Research Goals

Finding appropriate funding agency
Determining your Research Goals

Finding appropriate funding agency

I want to study yellow widgets.
I want to study yellow widgets.

Determining your Research Goals

Finding appropriate funding agency

Our strategic focus is on green widgets.
Determining your Research Goals

Finding appropriate funding agency

OK, I want to study green widgets.

Our strategic focus is on green widgets.
Determining your Research Goals

Finding appropriate funding agency

But I’ll throw a few yellow ones in there too.

Our strategic focus is on green widgets.
4. Find appropriate funding agency

Search funding agency site for previous awards
Talk to Your Program Officer!

They want to help you!

The Program Officer is intimately knowledgeable of the funding agency’s strategic goals, controls the review process and often makes decision for funding recommendation.
Proposal/Review Process in a Nutshell…

1. Opportunity Announced
2. Proposal Submitted
3. Compliance Checked
4. Reviewers Selected
5. Peer Review
6. Program Officer Recommendation
7. Director/Business Review
8. Award Notification
5. Read Request for Proposals (RFP)/Announcement

Look for:
- Goal of Program
- Eligibility
- Number of Awards
- Amount of Award
- Special preparation and Requirements (e.g., letter of intent)
Some Reasons Proposals are Rejected:

1. Improper Formatting (margins, font, citations, page limitations)
2. Did not address purpose of program or agency
3. Did not fulfill requirements of solicitation
4. It is scheduled with insufficient lead time
5. It was previously declined and not substantially revised.
6. It duplicates another proposal already awarded
7. It duplicates a proposal already submitted by PI
7. Write and Submit Proposal

**General Guidelines**

1. Be Clear (consider non-specialist)
2. Be Concise
3. Be Courageous
   “This work is new because…”
   “This work will impact…”
   “This work will solve….”
   “This work will enable…”
4. Make it easy for reviewer…
5. Get advice from colleagues
6. Get help from Grants Development and OSP
6. Plan Ahead

- It takes time to do all this…
- Best to give yourself 3-6 months to prepare proposal
- Complex projects may need a year to prepare
- Many funding opportunities are cyclical
- It’s normal not to be funded first time… keep trying! (funding rate 10-20%)
If possible, start with preliminary investigation and *publications*

*Publications are a measure of the impact of work (measure of stewardship)*
In general, proposal development services include:

- Generation of proposal outline from solicitation
- Generation of a timeline of tasks for proposal completion
- Assistance in development of research and management plans
- Assistance in contacting program officers for discussion of proposal
- Providing general university or community information or statistics already on file
- Editing and proofreading
- Check of compliance to agency solicitation and guidelines
- Completion of forms and submission of proposal to agency
Funding Resources:
http://prtl.uhcl.edu/portal/page/portal/OSP/FEDERAL

Departments
- U.S. Department of Agriculture - AGRIC
- U.S. Department of Commerce - COMM
- U.S. Department of Defense - DOD
- U.S. Department of Education - ED
- U.S. Department of Homeland Security - DHS
- U.S. Department of Housing and Urban Development - HUD
- U.S. Department of Interior - INTER
- U.S. Department of Justice - JUSTC
- U.S. Department of Labor - LABOR
- U.S. Department of State - STATE
- U.S. Department of Transportation - TRANS

Agencies
- Center for Disease Control - CDC
- Congressionally Directed Medical Research Programs - CDMRP
- Cooperative State Research, Education, and Extension Service - AGRIC CSREES
- Environmental Protection Agency - EPA
- National Aeronautics and Space Administration - NASA
- National Endowment for the Arts - NEA
- National Endowment for the Humanities - NEH
- National Institutes of Health - NIH
- National Science Foundation - NSF
Questions?
Good luck!

Workshop assignment: Find one agency or program that may be a funding source for your goal.