SHOW ME THE MONEY: FUNDING YOUR IDEAS

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Chief Research Operations Officer
Overview

1. Develop an Idea
2. Find Potential Sponsors
3. Plan the Proposal
4. Draft the Proposal
5. Complete and Submit the Proposal
Step 1 - Develop an Idea

- What is the need?
- What is the project that will address the need?
- What are your qualifications and institutional capabilities?
- How will the project be conducted?
What is the need? (Why)

- Who has the need? (target population)
- What are their needs/problems?
- What is causing the needs/problems?
- What are the major unanswered questions?
- How can the needs/problems be measured and documented?
- What does the current literature say about the problem/need? What approaches have been tried or suggested?
What is the project that will address the need? (What)

a. What is the proposed solution?
b. What approaches can attain that solution?
c. What are some alternative approaches?
d. What makes the project unique?
e. What makes project important?
f. What resources will be needed?
   a. People, facilities, money, time
   b. Institution, partners, funder

g. What is the projected budget?*
What are your qualifications and institutional capabilities? (Who and Where)

a. What have you done that is similar?
b. What input have you sought?
c. How does project fit institution’s mission?
d. What is institution’s commitment to this specific project?
e. What capabilities and resources does the institution have?
f. What other capabilities and resources are available?
How will the project be conducted? *(How and When)*

a. What methods will be used?

b. What are the expected outcomes of the project?

c. How will the project be evaluated?*

d. How will the project be continued after the grant expires?
Step 2 - Find Potential Sponsors

- Collaborators with funding
- Foundations/Corporations/Voluntary Health Organizations
- What are sponsor priorities?
- What are sponsor guidelines?
  - How should initial contact be made?
- What types of projects, investigators, and institutions has the sponsor funded currently/previousy?
Collaborators with funding

- Research Portfolio Online Reporting Tools (RePORTER)
  - Grant Number
  - Project Title
  - PI Name, e-mail, Title
  - Abstract
  - Thesaurus Terms
  - Grant Start and End Dates, etc.
  - Interactive mapping function

- Federal RePORTER

- NSF Award Search
  - Includes free-text search capability
New resource to find collaborators with funding

- Presidential Commission for the Study of Bioethical Issues
  - 18 federal agencies
  - 55,000 projects supported by the federal government in 2010*
  - Download dataset for free at http://www.bioethics.gov/cms/node/756
Private and corporate foundations/voluntary health organizations

- Foundation Center
  http://foundationcenter.org/search
- Subscription services
  - SPIN, IRIS, Community of Science, etc.
- General Internet search engines
What are sponsor priorities?

- Types of grants, e.g., research grant, training and professional development, seed money
- Types of applicants, e.g., physicians, residents, students
- Populations served by project, e.g., children, families, elderly
- Geographic restrictions
What are sponsor guidelines?

- **How should initial contact be made?**
  - Phone (rehearse first)
  - *Letter of inquiry/intent*
  - *Preapplication/Preproposition*

- **Will program officer critique a draft?**

- **Citizenship and other eligibility**

- **Maximum budget request**
  - Matching requirement?

- **Deadlines or open**

- **Success ratios**
Types of projects, investigators, and institutions funded*

- Collaborative vs. standalone; service delivery vs. research, etc.
- Trainees, midlevel, senior
- Grassroots and other nonprofits; large/research-intensive; another PI at your institution
- Sponsor’s website, annual reports, newsletters, press releases
- Who’s on review panel?
Step 3 - Plan the Proposal

- Read the instructions
- "Boilerplate"
- Proposal matrix
- Proposal outline
  - Organize thoughts
  - Can be tailored to each opportunity
- Proposal concept paper
- Proposal development calendar
  - Internal timelines and milestones
“Boilerplate”

- History of institution
- Number of students, employees, patients
- Operating budget
- Official contacts
- Organizational structure
- IRS status and letter if 501(c)(3)
- Facilities, equipment, other resources
## Proposal matrix

<table>
<thead>
<tr>
<th>Project Goal</th>
<th>Sponsor’s Goals/Interests</th>
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<table>
<thead>
<tr>
<th>Need</th>
<th>Objective</th>
<th>Evaluation Measure</th>
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PHILADELPHIA COLLEGE OF
OSTEOPATHIC MEDICINE
## Proposal Outline

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>A.</td>
<td>Abstract</td>
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</tbody>
</table>
| B. | Introduction  
(Background) |
| C. | Needs Assessment  
(Preliminary Studies) |
| D. | Goal |
| E. | Objectives |
| F. | Plan of Operation  
(Experimental Design and Methods) |
| G. | Key Personnel |
| H. | Institutional Commitment |
| I. | Expected Outcomes |
| J. | Evaluation |
| K. | Timeline |
| L. | Dissemination |
| M. | Resources And Facilities |
| N. | Project Continuation |
| O. | Budget and Narrative/Justification |

PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE
Proposal concept paper

- Use outline
- Practice makes perfect
- Prepare even if no funding opportunity
- Get feedback
Proposal development calendar

- Hofstadter’s Law: It always takes longer than you expect, even when you take into account Hofstadter’s Law.
- The devil is in the details
- 1 month minimum to write, review, and re-write

Step 4 - Draft the Proposal

- Tell the story!
- Proposal elements
- Abstract
- Introduction and Needs Assessment
- Goals, objectives
- Plan of operation (activities, methods or strategies, personnel and other resources, institutional commitment)
- Expected outcomes, evaluation plan, and timeline
- Dissemination and continuation
- Budget and narrative/justification
Good writing will not save bad ideas, but bad writing can kill good ones.

Don’t make the reviewer(s) struggle
- Avoid jargon
- Use abbreviations, acronyms, etc. sparingly
- Divide long sentences
- Use appendices, attachments or URLs solely for more in-depth info

Kraicer J. The art of grantsmanship.
Tell the story the sponsor wants to hear

- Create a clear, descriptive, and interesting project title
- Use keywords and phrases from the announcement *judiciously*
  - Title
  - Abstract
  - Throughout
- Mirror sponsor priorities in purpose of the project
Proposal elements

Everything in outline PLUS:

- Internal approvals
- Cover sheet/Cover letter
- Sponsor-specific forms
- Table of contents
- Biographical sketch(es)
- Commitment letter(s)
- Literature cited
- Appendices*
Abstract

- Possibly the most important piece
  - First impression
  - May be all reviewers read
- Must be of utmost quality and clarity
Background on institution and project-related activities

- What has been done to date?
- What are qualifications?
  - School
  - PI/PD
- What is uniqueness?
- *What is next logical step?*

Some sources suggest starting with need to grab reader attention, then going back to background
Need Assessment (Preliminary Studies)

- Statement and documentation (facts, figures, etc.) of problem
  - Expressed in terms of target population (not $)
  - Specific to your setting
  - Quantify
- Preliminary studies always about PI/PD
  - Background is work by others + PI/PD
Goals, objectives

- Goals are overarching and not measurable
  - Flow logically from needs statement
  - Link directly to sponsor’s and institution’s missions
- Objectives are S-M-A-R-T
  - Who will do how much of what by when?
  - Steps to achieve goal
Activities, methods or strategies, personnel and other resources, institutional commitment*

- Activities to meet objectives (the “what”)
- Methods or strategies (the “how” and “how much”)
- Personnel (the “who”)
  - Don’t beam into budget from outer space
- Other relevant resources, such as equipment, clinical space, student body, library
- Institutional commitment: resources, relevant work done to date, capacity to conduct project
Outcomes

- Relate to goals and objectives
- **Results expected**
  - Educational research: Change in awareness, knowledge, attitudes, skills
    - Change in behaviors takes 1-3 years
  - Clinical research: Estimated safety and/or efficacy of an intervention
  - Change in health status or QOL takes 3-5 years
- Limit to your subject/participant population
Evaluation plan

- Interim outcomes, evaluation, and annual reports
  - Measurements/Instruments
  - Data collection and analysis
  - Potential challenges and solutions
  - Resources (Internal? External? Both?)
  - Timeline
- Overall outcomes, evaluation, and final report
Timeline

- Timetable (the “by when”)
  - Gantt chart
  - PERT chart
  - Simple table, grid, or spreadsheet
- Include evaluation in timeline
  - Interim
  - Overall and final report
## Sample Simple Timeline

<table>
<thead>
<tr>
<th>Activities</th>
<th>Funding Year 1</th>
<th>Funding Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1/2 3/4 5/6 7/8 9/10 11/1</td>
<td></td>
</tr>
<tr>
<td>Goal #1 Create an interdisciplinary steering committee (ISC), mission statement and establish policies/procedures.</td>
<td>✓ ✓ ✓</td>
<td></td>
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<tr>
<td>Develop educational modules</td>
<td>✓ ✓ ✓</td>
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<tr>
<td>Incorporate the core curriculum with an interactive on line service.</td>
<td>✓ ✓ ✓</td>
<td></td>
</tr>
<tr>
<td>Goal #2 Incorporate core teaching modules on research concepts into curriculum and post-graduate training programs.</td>
<td>✓ ✓ ✓ ✓</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>Conduct a community-based research project to increase the number of primary care physicians involved in research.</td>
<td></td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Establish linkages to healthcare centers, community organizations, and physician practice sites.</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Prepare each site for research implementation skills.</td>
<td></td>
<td>✓ ✓ ✓ ✓</td>
</tr>
</tbody>
</table>
Dissemination and continuation

- Be specific
- Dissemination
  - Presentations
  - Publications
  - Replication
- Continuation
  - Incorporate into practices (and budget?)
  - Toolkits
  - Apply elsewhere for funding
- Useful to others (value beyond current project)
Budget and narrative/justification

- Adequate and appropriate*
- Consistent in project narrative, budget form, budget narrative
- Relate to objectives and activities
- Calculations and categories, as required
- Equipment and travel
- Double check the math!
Basic budget categories

- Personnel
  - Salaries and fringe benefits
- Consultants
  - External only
- Equipment
- Supplies
- Travel
- Contractual arrangements
- Other expenses
  - Publication fees, parking for subjects, lab tests
Step 5 - Complete and Submit the Proposal

- Internal peer review
- Internal approvals
- Spellcheck, proofread, and edit!
- Assemble the pieces
- Checklist for submission
- Submission scenarios
Internal peer review

- Circulate among colleagues for *feedback*
  - Grant reviewers for same or other sponsor are particularly valuable
  - Within and outside your area of expertise
- Allow sufficient time for review and revisions
  - 2 weeks before deadline
Internal approvals

Allow sufficient time – up to 2 weeks
- Department head(s)
- Research administration
- Finance
- Dean
- Possibly others
  - Institutional policies in general
  - Software/hardware
  - Renovations/construction
“Nothing says poor workmanship like wrinkles in the duct tape.”

First -- and possibly last – impression

Allow at least 2 days for this step and next step
Assemble the pieces

Everything in outline PLUS:

- Internal approvals
- Cover sheet/Cover letter
- Sponsor-specific forms
- Table of contents
- Biographical sketch(es)
- Commitment letter(s)
- Literature cited
- Appendices
Checklist for submission

☑ Proofed, corrected, corrections checked
☑ Table of contents accurate
☑ Components in correct order
  ✔ Page numbers sequential and accurate
☑ Budget totals and subtotals match throughout
☑ Forms signed by appropriate personnel
☑ Correct number of copies made
  ✔ Originals only of some components?
☑ Institutional and sponsor submission instructions followed
Submission scenarios

- PI submits
- PI forwards to research office/authorized official
- PI uploads electronically and authorized official validates/submits
  - N.B.: Electronic ≠ instantaneous
  - Institutional policies and deadlines
- Research office/authorized official submits
Step 6
Step 7
Lack of money is no obstacle. Lack of an idea is an obstacle.

- Ken Hakuta