1) Brief introduction to grants at Barnard College
   - FY 2014 snapshot
   - Faculty resources
     - Researching funding opportunities
     - Budget development
     - Submissions
   - Facts, forms and FAQ’s

2) Getting Started/Next Steps
   - Grant opportunities of particular interest
     - Internal grants
     - External grants
   - A few tips and tools
Proposals & Awards
FY 2014

Submitted: 54 applications totaling $10,424,428

Awarded: 26 grants totaling $3.3M (includes subawards for $1.1M)

Funders included:
- National Science Foundation
- American Council of Learned Societies
- National Institutes of Health
- Research Corporation for Science Advancement
- NASA
Faculty Sponsored Research
FY 2011-2014

Proposals Submitted & Awarded FY 2011-2014

- FY 2011: 65 Submitted, 20 Awarded
- FY 2012: 50 Submitted, 15 Awarded
- FY 2013: 40 Submitted, 10 Awarded
- FY 2014: 55 Submitted, 30 Awarded
Resources & Support

• Funding opportunity research
  • Bi-weekly newsletters
  • Individualized research

• Budget & proposal development
  • Budget template
  • Subcontracts
  • Document review

• Submissions
  • Grants.gov
  • NSF FastLane
Developing Your Budget

- Academic Year Salary/Course Release & Fringe
- Summer Salary & Fringe
- Research Assistants Salary & Fringe
- Student Salary & Fringe
- General Supplies
- Subcontracts or Consultants
- Travel – Domestic or International
- Stipends/honorariums (non employees)
- Computers, Furniture, & Equipment
- Software
- Animal Care
- Student Housing
- Indirect Costs
The acquisition of a total internal reflection fluorescence (TIRF) microscope will greatly enhance the life sciences at Smith College, the nation's largest liberal arts college for women. This microscope will inspire a new generation of scientists through its ability to observe individual molecules in real time, thereby providing an opportunity to go from textbook descriptions of molecules to actually witnessing their behavior and showing how molecular activity leads to the behavior of whole cells.

The acquisition of a total internal reflection fluorescence (TIRF) microscope will greatly enhance the life sciences at Smith College, the nation's largest liberal arts college for women. This microscope will inspire a new generation of scientists through its ability to observe individual molecules in real time, thereby providing an opportunity to go from textbook descriptions of molecules to actually witnessing their behavior and showing how molecular activity leads to the behavior of whole cells.

The acquisition of a total internal reflection fluorescence (TIRF) microscope will greatly enhance the life sciences at Smith College, the nation's largest liberal arts college for women. This microscope will inspire a new generation of scientists through its ability to observe individual molecules in real time, thereby providing an opportunity to go from textbook descriptions of molecules to actually witnessing their behavior and showing how molecular activity leads to the behavior of whole cells.
Facts, Forms and FAQ’s

- **Process for review** – for all grants and fellowships, submit to SR at least 3 days prior to the deadline:
  - routing form +
  - budget/justification +
  - project summary

- For federal grants, FCOI report is also submitted

- **Sponsored Research** [website](#)
  - [Barnard policies](#) for the administration of federal grants
  - Grant and fellowship routing forms
  - Budget template
  - Faculty Grants Handbook
Getting Started

- Refine your ideas/research plan
  - Draft a 1-2 page summary to share and to serve as talking points with colleagues, program officers, Sponsored Research, etc.

- Get input from colleagues and mentors on your research plan & project timeline (major budget components will likely start to take shape at this point)

- Determine & prioritize potential funding opportunity(ies)

- Work with SR to develop your budget/budget justification

- Develop timeline for putting together grant application
Your Idea(s) – Some Considerations

- Novel or risky?
- Pilot project?
- Preliminary data?
- Collaborator(s)?
- Project goals?
- Multi-year project/timeline?
Identifying Potential Funders

• Sign up for our **bi-weekly newsletters**!

• Send key words and we’ll do the research for you.

• Meet with us to determine highest priority funders.
  • Focus on funders’ priorities, giving histories, etc. and prioritize funders given your specific project’s scope and timeline
# Internal Grants & Support

<table>
<thead>
<tr>
<th>Internal Grant Program</th>
<th>Deadline for Submission to Provost’s Office</th>
<th>Grants Committee Review Begins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty Conference Travel Grants</td>
<td>Ongoing</td>
<td>N/A</td>
</tr>
<tr>
<td>Faculty Research Mini-grants</td>
<td>November 25</td>
<td>December 9</td>
</tr>
<tr>
<td></td>
<td>February 10</td>
<td>February 24</td>
</tr>
<tr>
<td></td>
<td>March 24</td>
<td>April 7</td>
</tr>
<tr>
<td>Special Assistant Professor Leaves (SAPL) Mini-grants</td>
<td>February 10</td>
<td>February 24</td>
</tr>
<tr>
<td>Presidential Research Awards</td>
<td>March 24</td>
<td>April 7</td>
</tr>
<tr>
<td>Tow Award for Innovative and Outstanding Pedagogy</td>
<td>January 27</td>
<td>February 10</td>
</tr>
</tbody>
</table>
Internal Grants & Support

Faculty Conference Travel Grants
- Up to $4,000 ($2,000 max/yr. + $1,000 international supplement for air fare) over 2-year period for travel to present at scholarly conferences

Faculty Research Minigrants
- Up to $8,000 for 2-year pilot projects that will eventually result in major research proposals and small scholarly projects that would not qualify for external grants because of size or subject matter

Presidential Research Award
- $100,000 divided among 3-6 research projects that expand knowledge, probe new ground, and have the potential for major impact; build on a record of productivity/creativity; and culminate in scholarly publication(s), with broad dissemination desirable
Internal Grants & Support

Special Assistant Professor Leaves (SAPL)

- Minigrants for SAPL for writing and research; awardees must be demonstrably excellent teachers in addition to showing promise of scholarly development, as confirmed by department’s third-year review

Tow Award for Innovative and Outstanding Pedagogy

- One recipient recognized each year, who receives $10,000 research/professional development award to further innovative pedagogies
External Opportunities - NSF

NSF Research at Undergraduate Institutions (RUI) Program
- RUI supports research by faculty members at predominantly undergraduate institutions that engages them in their professional field(s), builds capacity for research at their home institution, and supports the integration of research and undergraduate education.

NSF Faculty Early Career Development (CAREER) Program
- NSF’s “most prestigious awards in support of junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research within the context of the mission of their organizations.”

NSF Grants for Rapid Response Research (RAPID) Program
- This funding mechanism is used for proposals having a severe urgency with regard to availability of, or access to data, facilities or specialized equipment, including quick-response research on natural or anthropogenic disasters.

NSF Early-concept Grants for Exploratory Research (EAGER) Program
- This mechanism supports exploratory work in its early stages on untested, but potentially transformative, research ideas or approaches
Smaller/Developmental/Focused Grant Programs – NIH

• **R03 – Small Grant Program**
  → Supports small research projects that can be carried out in a short period of time.”
  → Project period of up to two years budget for direct costs of up to $50,000 per year

• **R15 – Academic Research Enhancement Award (AREA) Program**
  → PI may not be the PI of an active NIH research grant at the time of an AREA award
  → Project period is limited to 3 years; direct costs are limited to $300,000 over the entire project period

• **R21 – Exploratory/developmental Program**
  → Intended to encourage exploratory/developmental research by providing support for early and conceptual stages
  → Project period of up to 2 years; combined budget for direct costs may not exceed $275K ($200,000 in any single year)
National Endowment for the Humanities

• The NEH reviews about 5,700 applications per year across 40 grant programs.

• Per fiscal year, NEH makes approximately 900 grants in amounts ranging from $1,000 to $750,000.

• Key programs include:
  • Collaborative Research Grants support interpretive humanities research by team of two+ scholars, for periods of one to three years. Due in December
  • NEH Enduring Questions grant program supports faculty members in the preparation of a new course on a fundamental concern of human life as addressed by the humanities. Due in September

• Success rate/funding ratio across all grant programs \( \approx 16\% \)
# NIH Research Project Success Rates

**FY 2013**

# NIH Research Project Success Rates

## FY 1999

<table>
<thead>
<tr>
<th>Activity</th>
<th>Applications Reviewed</th>
<th>Applications Awarded</th>
<th>Award Amount</th>
<th>Success Rate FY 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>R01</td>
<td>16,472</td>
<td>4,195</td>
<td>$1,143,172,479</td>
<td>25.5%</td>
</tr>
<tr>
<td>R03</td>
<td>1,850</td>
<td>569</td>
<td>$37,217,689</td>
<td>30.8%</td>
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<tr>
<td>R21</td>
<td>1,310</td>
<td>405</td>
<td>$61,356,531</td>
<td>30.9%</td>
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</table>

# NIH Research Project Success Rates

## Renewals – FY 2013

<table>
<thead>
<tr>
<th>Activity</th>
<th>Applications Reviewed</th>
<th>Applications Awarded</th>
<th>Award Amount</th>
<th>Success Rate FY 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewal</td>
<td>R01</td>
<td>4,529</td>
<td>1,424</td>
<td>$584,523,140</td>
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<tr>
<td>Renewal</td>
<td>R15</td>
<td>92</td>
<td>27</td>
<td>$10,437,034</td>
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</tbody>
</table>

Concerns Commonly Cited by (NIH) Reviewers

• Scientific issue being addressed lacks significance

• Proposed experiments are simply descriptive and do not test a specific hypothesis

• Studies based on shaky hypothesis or data or alternative hypotheses not considered

• Rationale for experiments not provided (why important, or how relevant to hypothesis)

• Overly ambitious research plan or project too diffuse/superficial or lacks focus

Concerns Commonly Cited by (NIH) Reviewers

- No recognition of potential problems/pitfalls with primary methodological approach

- Proposal innovative but lacks enough preliminary data or preliminary data do not support project feasibility

- Investigator has insufficient experience with proposed techniques and has not recruited a collaborator who does have experience

- Proposal lacks critical literature references

<table>
<thead>
<tr>
<th>Organization/ Directorate</th>
<th>FY</th>
<th>Number of Proposals</th>
<th>Number of Awards</th>
<th>Funding Rate</th>
<th>Average Decision Time (months)</th>
<th>Mean Award Duration (years)</th>
<th>Median Annual Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSF – Overall</td>
<td>2013</td>
<td>49,013</td>
<td>10,844</td>
<td>22%</td>
<td>5.77</td>
<td>2.62</td>
<td>$115,266</td>
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<tr>
<td></td>
<td>2012</td>
<td>48,622</td>
<td>11,533</td>
<td>24%</td>
<td>5.64</td>
<td>2.73</td>
<td>$104,269</td>
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<tr>
<td>Biological Sciences</td>
<td>2013</td>
<td>5,937</td>
<td>1,253</td>
<td>21%</td>
<td>5.11</td>
<td>2.87</td>
<td>$138,400</td>
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<td></td>
<td>2012</td>
<td>5,271</td>
<td>1,295</td>
<td>25%</td>
<td>5.27</td>
<td>2.88</td>
<td>$120,004</td>
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<tr>
<td>Computer &amp; Information Science</td>
<td>2013</td>
<td>7,821</td>
<td>1,616</td>
<td>21%</td>
<td>5.61</td>
<td>2.73</td>
<td>$150,076</td>
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<tr>
<td></td>
<td>2012</td>
<td>7,692</td>
<td>1,738</td>
<td>23%</td>
<td>5.44</td>
<td>2.80</td>
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<tr>
<td>Education &amp; Human Resources</td>
<td>2013</td>
<td>4,502</td>
<td>794</td>
<td>18%</td>
<td>6.06</td>
<td>2.99</td>
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<tr>
<td></td>
<td>2012</td>
<td>4,281</td>
<td>889</td>
<td>21%</td>
<td>6.05</td>
<td>3.26</td>
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<tr>
<td>Engineering</td>
<td>2013</td>
<td>10,745</td>
<td>2,220</td>
<td>21%</td>
<td>4.92</td>
<td>2.32</td>
<td>$118,140</td>
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<tr>
<td></td>
<td>2012</td>
<td>11,353</td>
<td>2,080</td>
<td>18%</td>
<td>5.03</td>
<td>2.51</td>
<td>$114,593</td>
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<tr>
<td>Geosciences</td>
<td>2013</td>
<td>6,090</td>
<td>1,568</td>
<td>26%</td>
<td>7.88</td>
<td>2.69</td>
<td>$129,177</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>5,249</td>
<td>1,643</td>
<td>31%</td>
<td>7.42</td>
<td>2.78</td>
<td>$111,981</td>
</tr>
<tr>
<td>Mathematical &amp; Physical Sciences</td>
<td>2013</td>
<td>8,903</td>
<td>2,201</td>
<td>25%</td>
<td>6.10</td>
<td>2.92</td>
<td>$101,643</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>9,006</td>
<td>2,523</td>
<td>28%</td>
<td>5.81</td>
<td>2.92</td>
<td>$104,965</td>
</tr>
<tr>
<td>Social, Behavioral &amp; Economic Sciences</td>
<td>2013</td>
<td>4,433</td>
<td>920</td>
<td>21%</td>
<td>5.12</td>
<td>2.18</td>
<td>$46,720</td>
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<tr>
<td></td>
<td>2012</td>
<td>4,776</td>
<td>1,019</td>
<td>21%</td>
<td>5.05</td>
<td>2.33</td>
<td>$43,178</td>
</tr>
</tbody>
</table>

NSF Merit Review

• Proposals submitted to NSF are reviewed utilizing two merit review criteria:
  • Intellectual Merit
  • Broader Impacts

Elements considered in review for both criteria
1. Potential for proposed activity to:
   • Advance knowledge and understanding within field or across different fields (Intellectual Merit)
   • Benefit society or advance desired societal outcomes (Broader Impacts)

2. Extent to which proposed activities suggest and explore creative, original, or potentially transformative concepts

3. Is plan for carrying out proposed activities well-reasoned, well-organized, and based on a sound rationale?
   • Does plan incorporate mechanisms to assess success?

4. Qualifications of PI/collaborative team?

5. Are there adequate resources available to PI to carry out proposed activities?
Tools & Tips

• Find colleagues who are experienced, successful grant writers or who have served on reviewer panels and ask them to:
  • Share their proposals with you so you can closely examine them, and
  • Review your draft proposal (preferably well in advance of the deadline).

• Consider whether or not you need to talk to the program officer. Guidelines often suggest those conversations; plan interactions wisely.

• If you’re applying for an NIH grant or via NSF FastLane or Grants.gov, there are special steps that may need to be taken to register yourself. Contact us early so we can ensure timely registration.

• Read the instructions/guidelines more than once (and note that there may be several sets of guidelines you need to consult). Reviewers are busy people just like you – don’t make them work too hard to read your proposal, identify required information, etc.

• First impressions matter– if your project summary doesn’t hook them, it’s unlikely anything else will so make sure to convince your reviewers from the first paragraph!
Tools & Tips

• Become a reviewer!

  • For NSF, send an e-mail to the NSF program officer(s) of the program(s) that fits your expertise. Introduce yourself, identify your areas of expertise, and attach a 2-page CV.

  • For NIH, email ReviewerVolunteer@mail.nih.gov to be added to a trans-NIH database of reviewer volunteers (include a brief description of your scientific areas of expertise and attach a copy of your biosketch).

  • For NEH, if you’re interested in serving on an application review panel, add your name to the PRISM database.
Questions?