NSF Grants Conference
Proposal Preparation

March 11-12, 2013
Hosted by Howard University, Arlington, Virginia
Panelists

Sonia Esperança
Program Director, Directorate for Geosciences, Division of Earth Sciences

Jean Feldman
Head, Policy Office; Office of Budget, Finance & Award Management, Division of Institution & Award Support

Jolene Jesse
Program Director, Directorate for Education & Human Resources, Division of Research on Learning in Formal & Informal Settings

Anita La Salle
Program Director, Directorate for Computer & Information Science & Engineering, Division of Computer & Network Systems
Topics Covered

- Find Funding Opportunities
- Proposal and Award Policies and Procedures Guide
- Sections of an NSF Proposal
- Proposal Development Strategies
- Support for Proposal Writing
- RAPID & EAGER Proposals
NSF Website Organization
Other Ways to Find Funding

Use Grants.gov’s search feature
What is the Proposal & Award Policies & Procedures Guide?

The Proposal and Award Policies and Procedures Guide (PAPPG) contains documents relating to NSF's proposal and award process. It has been designed for use by both our customer community and NSF staff and consists of two parts:
What is the Proposal & Award Policies & Procedures Guide?

Part I is NSF’s proposal preparation and submission guidelines -- the NSF Grant Proposal Guide (GPG) and the NSF Grants.gov Application Guide.
What is the Proposal & Award Policies & Procedures Guide?

Part II is NSF’s award and administration guidelines -- the documents used to guide, manage, and monitor the award and administration of grants and cooperative agreements made by NSF.
Grant Proposal Guide

• Provides guidance for preparation and submission of proposals to NSF

• Describes process – and criteria – by which proposals will be reviewed

• Outlines reasons why a proposal may be returned without review

• Describes process for withdrawals, returns, and declinations
### Types of Funding Opportunities

<table>
<thead>
<tr>
<th><strong>Program Descriptions</strong></th>
<th>Proposals for a Program Description must follow the instructions in the GPG.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program Announcements</strong></td>
<td>Proposals for a Program Announcement must follow the instructions in the GPG.</td>
</tr>
<tr>
<td><strong>Program Solicitations</strong></td>
<td>Proposals must follow the instructions in the Program Solicitation; the instructions in the GPG apply unless otherwise stated in the solicitation.</td>
</tr>
<tr>
<td><strong>Dear Colleague Letters</strong></td>
<td>Dear Colleague Letters are notifications of opportunities or special competitions for supplements to existing NSF awards.</td>
</tr>
</tbody>
</table>
What to Look For in a Program Announcement or Solicitation

• Goal of Program

• Eligibility

• Special proposal preparation and/or award requirements
Sample Cover Page of a Solicitation

Program Solicitation Number

NSF Directorates and Offices providing funding for this opportunity
Sample Cover Page of a Solicitation

**Award Information**

**Anticipated Type of Award:** Standard Grant or Continuing Grant or Cooperative Agreement

**Estimated Number of Awards:** 60

Up to 60 awards will be made across fiscal 2012 and 2013.

In FY 2012, up to 20 Bridge to the Doctorate (BD) grants will be made.

In FY 2013, 20 Alliance grants (this includes 5 B2B), up to 15 Bridge to the Doctorate (BD) grants and up to 5 Broadening Participation Research (BPR) in STEM Education grants.

**Anticipated Funding Amount:** $20,000,000

$20,000,000 across fiscal years 2012 and 2013; Subject to the availability of funds.

Number of awards funded by the program per year

Funds available to the program per year
Sample Cover Page of a Solicitation

Eligibility Information

Organization Limit:
Proposals may only be submitted by the following:

- Universities and Colleges - Universities and two- and four-year colleges (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Such organizations also are referred to as academic institutions.

PI Limit:

Alliance (including the B2B) and BD: To promote institutional commitments to increase the quality and quantity of under-represented minorities in STEM disciplines, the President or Provost of the lead institution should serve as the Principal Investigator. A full explanation should be provided for a PI designation in variance with this requirement. Co-principal investigators from partner institutions may be designated, as appropriate, for the project.

Broadening Participation Research in STEM Education: Eligible PI/co-PI(s) for proposals applying for educational research or evaluation support should be the individual conducting or responsible for the research or evaluation project. Other potential co-Principal Investigators include collaborators on the research project. At least one of the PI's must have experience in educational research.

Limit on Number of Proposals per Organization:

Alliances (including B2B) and BD: 1

Broadening Participation Research in STEM Education: No limit.

Limit on Number of Proposals per PI:

Alliances (including B2B): 1

Bridge to the Doctorate: 1

Broadening Participation Research in STEM Education: No limit.
Types of Proposal Submissions

No Deadlines – Proposals may be submitted at any time
Types of Proposal Submissions

Target Dates –
Talk to the Program Office if you think you might miss the date

F. When to Submit Proposals

Proposers should allow adequate time for NSF review and processing of proposals (see GPG Chapter I.H for further information). Many NSF programs accept proposals at any time. Other programs, however, establish due dates for submission of proposals. The following types of due dates are utilized by NSF:

1. **Target dates**: dates after which proposals will still be accepted, although they may miss a particular panel or committee meeting.

2. **Deadline dates**: dates after which proposals be returned without review by NSF. The deadline date will be waived only in extenuating circumstances. Such a deviation only may be authorized in accordance with GPG Chapter II.A.
Types of Proposal Submissions

Deadline Dates – Proposals will not be accepted after this date and time (5 pm submitter’s local time)
Types of Proposal Submissions

Submission Windows – Closing date converts to a deadline date

3. Submission windows: designated periods of time during which proposals will be accepted for review by NSF. It is NSF’s policy that the end date of a submission window converts to, and is subject to, the same policies as a deadline date.
Types of Proposal Submissions

Letters of Intent – Enables better management of reviewers and panelists

1. Letter of Intent

Some NSF program solicitations require or request submission of a letter of intent (LOI) in advance of submission of a full proposal. A LOI is not binding. The predominant reason for its use is to help NSF program staff to gauge the size and range of the competition, enabling earlier selection and better management of reviewers and panelists. In addition, the information contained in a LOI is used to help avoid potential conflicts of interest in the review process.

A LOI normally contains the PI’s and co-PI’s names, a proposed title, a list of possible participating organizations (if applicable), and a synopsis that describes the work in sufficient detail to permit an appropriate selection of reviewers. A LOI is not externally evaluated or used to decide on funding. The requirement to submit a LOI will be identified in the program solicitation, and such letters are submitted electronically via the NSF FastLane System.
Types of Proposal Submissions

Preliminary Proposals – Sometimes required, sometimes optional

2. Preliminary Proposal

Some NSF program solicitations require or request submission of a preliminary proposal in advance of submission of a full proposal. The two predominant reasons for requiring submission of a preliminary proposal are to:

- reduce the proposers’ unnecessary effort in proposal preparation when the chance of success is very small. This is particularly true of exploratory initiatives where the community senses that a major new direction is being identified, or competitions that will result in a small number of actual awards; and
- increase the overall quality of the full submission.
Proposals Not Accepted

- Proposals that do not contain the following required sections will not be accepted by FastLane
  - Project Summary
  - Project Description
  - References Cited
  - Biographical Sketch(es)
  - Budget
  - Budget Justification
  - Current & Pending Support
  - Facilities, Equipment & Other Resources
  - Data Management Plan
  - Postdoctoral Mentoring Plan (if applicable)

- If submission instructions do not require one of the above sections to be provided, proposers must insert text or upload a document in that section of the proposal that states, “Not Applicable.”
Sections of an NSF Proposal

Cover Sheet (Required)
Many of the boxes on the cover sheet are electronically prefilled as part of the FastLane login process.

Example from FastLane

<table>
<thead>
<tr>
<th>Cover Sheet for Proposal to the National Science Foundation</th>
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</thead>
<tbody>
<tr>
<td>PROGRAMANNOUNCEMENT/SOLICITATION NO/CLOSING DATE</td>
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<tr>
<td>NSF 98-164</td>
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<tr>
<td>NSF - NETWORKING RESEARCH</td>
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<table>
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<tr>
<th>DATE RECEIVED</th>
<th>NUMBER OF COPIES</th>
<th>DIVISION Assigned</th>
<th>FUND CODE</th>
<th>DUNS# (state universal numbering system)</th>
<th>FILE LOCATION</th>
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<tr>
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<td>4097</td>
<td>074811854568</td>
<td>05050000 39 33 38 5e</td>
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<table>
<thead>
<tr>
<th>NAME OF ORGANIZATION TO WHICH AWARD SHOULD BE MADE</th>
<th>ADDRESS OF AWARDS ORGANIZATION, INCLUDING 9 DIGIT ZIP CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSF</td>
<td>Arlington, VA 223302000 US</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME OF PERFORMING ORGANIZATION, IF DIFFERENT FROM ABOVE</th>
<th>ADDRESS OF PERFORMING ORGANIZATION, IF DIFFERENT, INCLUDING 9 DIGIT ZIP CODE</th>
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</thead>
<tbody>
<tr>
<td>PERFORMING ORGANIZATION (IF KNOWN)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>IS AWARDSEE ORGANIZATION (Check All That Apply)</th>
<th>SMALL BUSINESS</th>
<th>FOR PROFIT ORGANIZATION</th>
<th>MINORITY BUSINESS</th>
<th>WOMAN-OWNED BUSINESS</th>
<th>IF THIS IS A PRELIMINARY PROPOSAL, THEN CHECK HERE</th>
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<tr>
<td>YES (5)</td>
<td>NO (6)</td>
<td>YES (7)</td>
<td>NO (8)</td>
<td>YES (9)</td>
<td>NO (10)</td>
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<tr>
<th>TITLE OF PROPOSED PROJECT</th>
<th>Neural Network Research</th>
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<tr>
<th>REQUESTED AMOUNT</th>
<th>PROPOSED DURATION (IN MONTHS)</th>
<th>REQUESTED STARTING DATE</th>
<th>SHOW RELATED PRELIMINARY PROPOSAL NO. IF APPLICABLE</th>
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<td>$400,000</td>
<td>6 months</td>
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<table>
<thead>
<tr>
<th>CHECK APPROPRIATE BOXES IF THIS PROPOSAL INCLUDES ANY OF THE ITEMS LISTED BELOW</th>
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</thead>
<tbody>
<tr>
<td>☐ BEGINNING INVESTIGATOR (GPG I.2)</td>
</tr>
<tr>
<td>☐ DISCLOSURE OF LOBBYING ACTIVITIES (GPG II.C)</td>
</tr>
<tr>
<td>☐ PROPRIETARY &amp; PRIVILEGED INFORMATION (GPG I.D, II.C.1.4)</td>
</tr>
<tr>
<td>☐ HISTORIC PLACES (GPG II.C.2.C)</td>
</tr>
<tr>
<td>☐ SMALL GRANT FOR EXPLORATORY RESEARCH (SGER) (GPG I.D.2)</td>
</tr>
<tr>
<td>☐ VERTEBRATE ANIMALS (GPG I.D.4, II.C.3.C.3)</td>
</tr>
<tr>
<td>☐ HIGH RESOLUTION GRAPHICS/OTHER GRAPHICS WHERE EXACT COLOR REPRESENTATION IS REQUIRED FOR PROPER INTERPRETATION (GPG I.G.1)</td>
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<table>
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<tr>
<th>P.I./P.I.D. DEPARTMENT</th>
<th>Division of Information Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.I.D. FAX NUMBER</td>
<td>703-292-3000</td>
</tr>
<tr>
<td>P.O. BOX ADDRESS</td>
<td>4201 Wilson Boulevard</td>
</tr>
<tr>
<td>Name</td>
<td>Arlington, VA 223301000 United States</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME</th>
<th>High Degree</th>
<th>Yr of Degree</th>
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<th>Electronic Mail Address</th>
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<tbody>
<tr>
<td>Terry Demo</td>
<td>PhD</td>
<td>2005</td>
<td>703-292-1000</td>
<td><a href="mailto:td@nsf.gov">td@nsf.gov</a></td>
</tr>
</tbody>
</table>

Electronic Signature
Sections of an NSF Proposal

Project Summary
(Required)
Text boxes must contain an Overview and Statements on Intellectual Merit and Broader Impacts.

Proposals that do not separately address the Overview and both merit review criteria in text boxes will not be accepted by FastLane.

Project summaries with special characters must be uploaded as a PDF document.

Text from the GPG
Sections of an NSF Proposal

Project Description (Required)

Proposers should address what they want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful.

A separate section within the narrative must include a discussion of the broader impacts of the proposed activities.

Text from the GPG
Sections of an NSF Proposal

References Cited (Required)
Reference information is required, and proposers must follow accepted scholarly practices in providing citations for source materials.

Text from the GPG

References Cited
Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, year of publication. If the document is available electronically, the website address also should be identified.12 Proposers must be especially careful to follow accepted scholarly practices in providing citations for source materials relied upon when preparing any section of the proposal. While there is no established page limitation for the references, this section must include bibliographic citations only and must not be used to provide parenthetical information outside of the 15-page Project Description.

If there are no references cited, a statement to that effect should be included in this section of the proposal and uploaded into FastLane.
Sections of an NSF Proposal

Biographical Sketches (Required)
Biographical sketches are required for all senior project personnel and must not exceed two pages in length, per individual.

Text from the GPG
Budget (Required)
Each proposal must contain a budget for each year of support requested. The budget justification should be no more than three pages for all years of the project combined.

Example from FastLane
Budgetary Guidelines

Information regarding budgetary guidelines can be found in both the GPG and in the Award & Administration Guide (AAG), as well as NSF program solicitations.

Amounts should be:

- Realistic and reasonable
- Well-justified and should establish need
- Consistent with program guidelines

Eligible costs consist of:

- Personnel
- Equipment
- Travel
- Participant support
- Other direct costs (e.g., subawards, consultant services, computer services, and publications costs)
NSF Cost Sharing Policy

• Inclusion of voluntary *committed* cost sharing is prohibited in solicited & unsolicited proposals.
  – To be considered voluntary committed cost sharing, the cost sharing must meet all of the standards of 2 CFR § 215.23, to include identification of cost sharing on the NSF budget.
  – Line M will be “grayed out” in FastLane.

• Organizations may, at their own discretion, continue to contribute any amount of voluntary uncommitted cost sharing to NSF-sponsored projects.
Facilities, Equipment, and Other Resources (Required)
This section of the proposal is used to assess the adequacy of the organizational resources available to perform the effort proposed.

**Instructions:** Upload an aggregated description of the internal and external resources (both physical and personnel) that the organization and its collaborators will provide to the project, should it be funded. Describe only those resources that are directly applicable. The description should be narrative in nature and must not include any quantifiable financial information. If there are no Facilities, Equipment, or Other Resources identified, a statement to that effect should be indicated in this section and uploaded into FastLane. See GPG II.C.2.i for more information.
Sections of an NSF Proposal

Current & Pending Support (Required)
This section of the proposal calls for information on all current and pending support for ongoing projects and proposals.

Example from FastLane
Special Information and Supplementary Documentation
This segment should alert NSF officials to unusual circumstances that require special handling; more information can be found in the GPG Chapter II.C.2.j.

Text from the GPG

Additional information on charging certain types of costs generally associated with meetings and conferences to NSF awards is available in AAG Chapter V.C.6.

h. Current and Pending Support

This section of the proposal calls for required information on all current and pending support for ongoing projects and proposals, including this project, and any subsequent funding in the case of continuing grants. All current project support from whatever source (e.g., Federal, State, local or foreign government agencies, public or private foundations, industrial or other commercial organizations) must be listed. The proposed project and all other projects or activities requiring a portion of time of the PI and other senior personnel must be included, even if they receive no salary support from the project(s). The total award amount for the entire award period covered (including indirect costs) must be shown as well as the number of person-months per year to be devoted to the project, regardless of source of support. Similar information must be provided for all proposals already submitted or submitted concurrently to other possible sponsors, including NSF. Concurrent submission of a proposal to other organizations will not prejudice its review by NSF. The Biological Sciences Directorate exception to this policy is delineated in GPG Chapter I.G.2.

If the project now being submitted has been funded previously by a source other than NSF, the information requested in the paragraph above must be furnished for the last period of funding.

i. Facilities, Equipment and Other Resources

This section of the proposal is used to assess the adequacy of the resources available to perform the effort proposed to satisfy both intellectual merit and broader impacts review criteria. Proposers should describe only those resources that are directly applicable. Proposers should include an aggregated description of the intellectual and external resources (both physical and personnel) that the organization and its collaborators will provide to the project, should it be funded. Such information must be provided in this section, in lieu of other parts of the proposal (e.g., budget justification, project description). The description should be narrative in nature and must not include any quantifiable financial information. Reviewers will evaluate the information during the merit review process and the cognizant NSF Program Officer will review it for programmatic and technical sufficiency.

Although these resources are not considered cost sharing as defined in 2 CFR § 215.33 (OMM Circular A-110), the Foundation does expect that the resources identified in the Facilities, Equipment, and Other Resources section will be provided, or made available, should the proposal be funded. AAG Chapter I.B.1 specifies procedures for use by the awardees when there are postaward changes to objectives, scope or methodology.

j. Special Information and Supplementary Documentation

Except as specified below, special information and supplementary documentation must be included as part of the Project Description (or part of the budget justification), if it is relevant to determining the quality of the proposed work. Information submitted in the following areas is not considered part of the 10-page Project Description limitation. This Special Information and Supplementary Documentation section also is not considered an appendix. Specific guidance on the need for additional documentation may be obtained from the organization’s sponsored research office or in the references cited below.

• Postdoctoral Researcher Mentoring Plan. Each proposal must include a statement to indicate how the postdoctoral researcher(s) will be supported. If a Postdoctoral Researcher Mentoring Plan is...
Special Information and Supplementary Documentation

- Postdoctoral Mentoring Plans
- Data Management Plans
- Letters of Support versus Letters of Commitment
Mentoring for Postdoctoral Researchers

- Proposals that include funding to support postdoctoral researchers must include a description of the mentoring activities that will be provided for such individuals.

- Proposed mentoring activities will be evaluated as part of the merit review process, under NSF’s broader impacts merit review criterion.
Mentoring for Postdoctoral Researchers

• Mentoring activities may include:
  – Providing career counseling, training in the preparation of grant proposals, or training in responsible professional practices
  – Developing publications and presentations
  – Offering guidance on techniques to improve teaching and mentoring skills
  – Providing counseling on how to effectively collaborate with researchers from diverse backgrounds and disciplinary areas
Mentoring for Postdoctoral Researchers

- Proposals that identify a postdoc on the budget but do not include a maximum one-page mentoring plan as a supplementary document will be prevented from submission in FastLane.

- For collaborative proposals, the lead organization must submit a mentoring plan for all postdoctoral researchers supported under the entire collaborative project.
Data Management Plan Requirements

• All proposals are required to include, as a supplementary doc, a data management plan of up to two pages.

• Plan should describe how the proposal will conform to NSF policy on dissemination and sharing of research results.

• A valid Data Management Plan may include only the statement that no detailed plan is needed, as long a clear justification is provided.

• Plan will be reviewed as part of the intellectual merit and/or broader impacts of the proposal.
Data Management Plan Requirements

Dissemination and Sharing of Research Results

NSF Data Sharing Policy

Investigators are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the primary data, samples, physical collections and other supporting materials, created or gathered in the course of work under NSF grants. Grantees are expected to encourage and facilitate such sharing. See Award & Administration Guide (AAG) Chapter 25.G.4.

NSF Data Management Plan Requirements

Proposals submitted or due on or after January 31, 2011, must include a supplementary document of no more than two pages labeled “Data Management Plan”. This supplementary document should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results. See Grant Proposal Guide (GPG) Chapter 11.G.2.3 for full policy implementation.

Requirements by Directorate, Office, Division, Program, or other NSF Unit

Links to data management requirements and plans relevant to specific Directories, Offices, Divisions, Programs, or other NSF units, are provided below. If guidance specific to the program is not provided, then the requirements established in Grant Proposal Guide, Chapter 11.G.2.3 apply.

Please note that if a specific program solicitation provides guidance on preparation of data management plans, such guidance must be followed.

- Engineering Directorate (EGR)
  - Directorate-wide Guidance
- Geosciences Directorate (GEO)
  - Division of Earth Sciences
  - Integrated Ocean Drilling Program
  - Division of Ocean Sciences
- Mathematical and Physical Sciences Directorate (MPS)
  - Division of Astronomy & Astrophysics
  - Division of Geosciences
  - Division of Materials Research
  - Division of Polar Programs
  - Division of Mathematics
  - Division of Physics
- Social, Behavioral and Economic Sciences Directorate (SBE)
  - Directorate-wide Guidance

Data Management & Sharing Frequently Asked Questions (FABS) - updated November 30, 2010

Proposal Development Strategies

Key Questions for Prospective Investigators

• What do you intend to do?
• Why do you want to do it?
• How do you plan to do it?
• How will you know if you succeed?
• What benefits would accrue if the project is successful?

These questions apply both to the technical aspects of the proposal and the way in which the project may make broader contributions.
Proposal Development Strategies for Individual Investigators

- Determine your long-term research and education goals
- Develop your bright idea
  - Survey the literature
  - Contact other investigators currently working on the same subject
  - Prepare a brief concept paper
  - Discuss with your colleagues and mentors
- Read solicitation instructions carefully
Proposal Development Strategies for Individual Investigators

- Prepare to carry out your project
  - Determine available resources
  - Realistically assess your needs
  - Develop preliminary data
  - Present to your colleagues, mentors, and students

- Determine possible funding sources

- Understand the ground rules
Find Support for Proposal Writing

- NSF Publications
  - Program announcements and solicitations
  - Proposal & Award Policies & Procedures Guide
  - Program Web pages
  - Funded project abstracts
  - Reports and special publications

- Targeted workshops
- Program Officers
- Mentors on Campus
- Former panelists
- Sponsored Research Office
- Successful proposals

Finally, serving as a reviewer is helpful as well!
Grants for Rapid Response Research (RAPID)

The RAPID funding mechanism is for projects 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 and similar unanticipated events.
RAPID

• Requests may be for up to $200K and for one year of duration

• The project description is expected to be brief; no more than five pages

• Only internal merit review is required for RAPID proposals. Under rare circumstances, Program Officers may elect to obtain external reviews. If external merit review is to be used, then the PI will be informed
EArly-concept Grants for Exploratory Research (EAGER)

• The EAGER funding mechanism may be used to support exploratory work in its early stages on untested, but potentially transformative, research ideas or approaches.

• This work is considered especially "high risk-high payoff" because it involves radically different approaches, applies new expertise, or engages novel disciplinary or interdisciplinary perspectives.
EAGER

• Requests may be for up to $300K and for two years of duration

• Only internal merit review is required. Under rare circumstances, Program Officers may elect to obtain external reviews. If external merit review is to be used, then the PI will be informed

• No-cost extensions, and requests for supplemental funding may be requested but are subject to full external merit review
Ask Early, Ask Often!

nsf.gov/staff
nsf.gov/staff/orglist.jsp
nsf.gov/about/career_opps/rotators/index.jsp