Check Out Our eBook!

New Faculty Guide to Competing for Research Funding provides an invaluable tool to faculty writing research grants, or for use by research offices developing grantwriting workshops to help faculty write more competitive proposals. [View Table of Contents and Order]

This year we will again offer a CAREER Webinar for faculty interested in pursuing an NSF CAREER grant. The webinar is scheduled for Thursday, April 18th from 2 – 4 pm Eastern Time. Cost is $275 per institution. A link to the registration page and more info is posted at our website ([here]).

Table of Contents

- No Squishy Commitments or Weasel Clauses
- Proportionality & Sequence in the Narrative
- Time to Start on Your NSF CAREER Proposal
- National Center for Environmental Research
- The Role of Self-Assessment in Grant Success
- Research Grant Writing Web Resources
- Educational Grant Writing Web Resources
- Agency Research News
- Agency Reports, Workshops & Roadmaps
- New Funding Opportunities
- About Academic Research Funding Strategies

Topics of Interest

Impact of FY 2013 Sequestration Order on NSF Awards
NIH Operation Plan in the Event of a Sequestration
AAAS Sequestration Resources
Congressional Budget Office Sequestration Reports
NIH Operations Under the Sequester
NEH Sequestration: A Public Notice
NSF Notice Regarding Automated Compliance Checking
Expanded Public Access to Federally Funded Research Results
The Bittersweet Task of Running a Grant Program
NEH Fellowships in the Humanities
U.S. Borlaug Fellows in Global Food Security Program
Research Opportunities Europe: NSF CAREER Awardees
New Titles from the National Academies Press
Grid Engineering for Accelerated Renewable Energy
ASPH Graduate Training Programs
DOJ Current Funding Opportunities
Recent Trends in Environmental Research Funding

About the editorial staff

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Many proposals require various commitments of resources such as space, facilities, administrative support, and related institutional commitments, including cost sharing and matching funds, specific to the funding agency and the particular solicitation. In some cases, these commitments are made in the form of letters of support included in the proposal as an appendix, or placed in a section following the project description dedicated to this purpose. The letters may detail commitments to the project made by various university administrators, such as a provost, vice president for research, dean, department head, etc., or the letters may detail commitments of partner institutions, e.g., other universities, research laboratories, instrumentation centers, etc., or perhaps school districts, science centers, museums, or other stakeholder groups impacted by the project in some significant way.

When the required commitments are very specifically described in the solicitation, e.g., matching funds as a defined percentage of the total funding requested, then the applicant cannot resort to ambiguity—either the required matching funds are described and available in an identified account, or they are not. When the sponsors of the solicitation detail and prescriptively define matching commitments, they leave no room for smoke and mirrors. However, in other cases, commitments may be defined in more general terms in a specific solicitation, or by a specific funding agency, particularly when the commitments required are unique to the programmatic configuration of each proposal submitted in response to a common solicitation. In this case, the solicitation may give general guidance on letters of support, including noting whether the letters are optional rather than required, and thereby may leave it up to the proposer to include commitments that she feels best strengthen the proposed project.

In these instances, when letters of support are unique to what is being proposed in the project description, the funding agency guidance on the content of the support letters will allow great latitude to the applicant. Proposal guidelines that offer flexibility rather than prescriptive rigidity on structure and content are always to be preferred. However, it can open the door for letters of support that might generally be described as “squishy,” or otherwise vague, ambiguous, or non-specific when the funding agency expects detail and specificity and, most of all, substantive commitments that clearly advance the proposed project in some important way. Letters of support characterized in this way are often referred to as “smoke and mirrors.” In other cases where the letter of support is preconditioned on multiple “contingencies” that must take place before the support is given, the letter might be said to be filled with “weasel clauses.”

Squishy letters of commitment can be written for several reasons. In some cases, the principal investigators are so focused on writing the research narrative that they pass on the task of drafting or obtaining commitment letters to someone with only a general or vague understanding of the project. Or they may ask a colleague to write a commitment letter without sufficiently informing them about the project itself, or the requester’s role in it.
Unfortunately, in other cases, squishy letters of support occur because, in fact, the support given the project is actually squishy and not substantive, specific, or detailed. While the former may occur when those responsible for garnering letters of support do not fully understand the perhaps at times unstated requirement that letters of support be grounded on substance rather than superlatives, squishy support letters can lead reviewers and program officers to the conclusion that the applicant is trying to “pull the wool over their eyes,” somewhat along the lines of the sixteenth-century trick of pulling woolen wigs down over a person’s eyes. It is definitely not a good thing when reviewers and program officers think your letters of support are trying to pull the wool over their eyes. Once that seed is planted in their minds, it may lead them to question the actual substance of other elements of your proposal.

Letters of support written in flowery language with glowing superlatives of support but without a detailed knowledge of the project should not be included in your proposal—they will do more harm than good. Don’t insult the program officers and reviewers with letters that give the illusion of support but amount essentially to empty promises, somewhat like a politician running for office on a platform of free beer and wide roads. You don’t want reviewers reading your letters of support and asking themselves, like the elderly woman in the Wendy’s ad, “where’s the beef?”

For example, avoid “where’s the beef letters” that sound like the one below, signed by various academic or research officers, or partner institutions:

“I am honored and excited to offer the full and enthusiastic support of My Office to advance the critical goals and compelling objectives described in this groundbreaking proposal. I can assure Funding Agency that this proposed effort is fully and uniquely aligned with the strategic research objectives of this University. Moreover, the exciting and transformative research described in this proposal will clearly impact the field in novel ways and have profound and long-lasting implications for our national research enterprise. The research proposed herein is clearly seminal and will profoundly advance the field for decades if not generations to come, often in unimaginable ways. My commitment to supporting and sustaining this extraordinary research project is made with a profound sense of obligation to use the power and resources entrusted to me under my fiduciary responsibilities as High Ranking Administrator to ensure this project is successful in making an enormous impact at both national and global scales and thereby making an extraordinary contribution to the future of Human Kind.”

In conclusion, if in doubt, either when drafting a letter of support you would like someone to sign for inclusion in your proposal, or when providing someone with points to make in a letter of support, keep in mind that the fundamental objective of a letter of support is to align additional resources with your project in ways that clearly make it stronger, more robust, or better able to achieve the vision, goals, and objectives described in your research narrative. Letters of support are not meant to be letters of “bon voyage” wishing you good fortune on your research journey, the functional equivalent of well wishers standing on the pier waving “good luck” as your ship departs to explore new research frontiers. Letters of support need to indicate that the person signing the letter will actually make the voyage of exploration with you and contribute in specific, defined, and substantive ways that will enhance your success.
Proportionality and Sequence in the Project Narrative

Proportionality and sequence contribute significantly to the overall quality and readability of the project description, and hence to the competitiveness of your proposal. Proportionality in the project narrative is the linguistic analog of the geometric aesthetic expressed in the Golden Ratio or Golden Rectangle that has charmed artists and architects since ancient times. Proportionality brings balance to the project narrative in a way that establishes the relative importance of the component sections at various scales (e.g., sentence, paragraph, section, etc.), that, in aggregate, comprise the project description. Sequence provides the underlying order or logic to the narrative structure, ensuring that it unfolds in a way that meets readers’ expectations for an orderly presentation of ideas and a convincing, stepwise rationale for funding the proposed project.

Moreover, it is important to recall that proportionality is a limited property of the project description, i.e., it is bounded by the page limit allowed for the project description, as well as sometimes limited by internal page allocations for proposal sections set by the solicitation. Therefore, poorly proportioned and sequenced narrative text amounts to a highly inefficient use of space. Think of the page limit as a page budget, much as you would a monetary budget that determines the available money you have to allocate to various personal expenditures on a monthly basis. Therefore, within this limit, you must allocate your page budget in a way that best reflects a hierarchical ordering of the importance of what you most need to communicate to program officers and reviewers about the significance of your proposed research. You are attempting to put forward a compelling case for funding.

Keep in mind, too, that funding agencies are not Keynesians when it comes to page limits—there is a zero tolerance for page inflation, not only for page limits but for any attempts to circumvent the intent of page limits by using smaller font sizes than those allowed, perhaps by the excessive placement of narrative text into tables, footnotes, figures, and graphics where smaller fonts are allowed. Of course, the quality of your ideas does not increase as a function of decreasing font size or highly compressed narrative text, but the irritability of reviewers certainly does.

Therefore, while proportionality and sequence establish the argumentative symmetry or balance of the project description, many perturbations can degrade the needed symmetry. For example, one of the more common perturbations to the balance and symmetry of the research narrative is the excessively long background section used to introduce the reader to the research topic. Narrative generalities meant to set the stage for the importance of the proposed research topic can have the unintended effect of losing the reviewers’ interest, and, more importantly, squandering the space allocations of your page budget.

In other cases, excessive background particularities can imbalance the project narrative with a blizzard of minutiae meant to demonstrate your grasp of the research. This, too, can have the unintended effect of losing the reviewers’ interest, and, more importantly, squandering the space allocations of your page budget. Too much general detail and too much
minute detail commonly plague many first drafts of the research narrative, and, unfortunately all too often, carry over into the final submitted draft as well. Much like the NASA search for a “Goldilocks Planet” that balances perfectly within a star’s habitable zone and whose gravity approximates that of the earth, successful grant writing involves a perpetual search for the “Goldilocks Narrative,” one that is perfectly balanced, or “just right.”

Fortunately, it is fairly easy to plan the project narrative to ensure that both proportionality and sequence will optimize the narrative’s balance. Simply using the solicitation as a narrative template will take you a long way towards understanding the relative importance the funding agency assigns to the topics you must address in the project description. Using the solicitation as an organizational template will also set the basic framework for the sequence in which the narrative addresses topics. Of course, some solicitations may define the structure, scope, and scale of the project narrative and the key questions and topics the agency wants addressed; others, however, may give the proposer latitude in organizing the proposal narrative to most effectively communicate the case for funding the proposed project.

Ultimately, however, optimizing proportionality and sequence in the project narrative follows from a series of good decisions made by the author(s) while drafting the project narrative. These good decisions are based on a keen sense of what is and what is not important to communicate to the reviewers (e.g., if buffers are not important to the research, don’t belabor the buffers). Moreover, the most pertinent information must be assigned an order of relative importance to achieving the end goal—a funded project. Astute authors assign value to information as they write, thereby determining what to emphasize the most and the least, as well as where specific information falls on a value scale from the most important to the least important.

Moreover, the relative value of information can be either enhanced or degraded by the logical sequence in which it is presented to the reviewers in the project narrative. A well written proposal amounts to a persuasive argument made to program officers and reviewers convincing them to fund your project. Persuasive arguments have an internal logic dictating the sequence in which information is presented. In this regard, a proposal is not unlike a novel or a movie. It creates its own, self-contained reality. The proposal contains all that the funding agency and review panel should need to know about your capabilities and your capacity to perform.

Except for very large grants, an agency bases its decision to fund or not fund entirely on your proposal and the persuasive reality it creates. Proportionality and sequence are two key attributes of the reality you create that enables program officers and reviewers to better understand, appreciate, and support your research. These attributes lie at the core of the competitive proposal. They represent the essential framework upon which you craft and structure the logical, internal connectedness and balance of your proposal to ensure that you submit a Goldilocks Proposal—one that is just right.
Time to Get Started on Your NSF CAREER Proposal

Some of you are still slogging through the snow from the most recent winter storm, so you may find it hard to believe that July is not far off, but if you’re planning to submit an NSF CAREER proposal, it’s time to get started. You may not have large blocks of time right now to dedicate to writing, but you can complete lots of tasks in the background while you’re finishing up the Spring semester.

Make sure you’ve selected the right NSF program and talk to the program director.

NSF CAREER proposals must be submitted to a specific NSF core program; if you choose a program that doesn’t fit your research, even a great proposal may be doomed. (Sometimes, the program director will make a special effort to redirect your proposal to the correct program, but you shouldn’t count on that.) If you’re not sure which program is the best for you, first use the NSF website to find and read the Program Descriptions and the abstracts of projects recently funded by each program you’re considering. We’ve posted a video showing, step-by-step, how to do that here. Once you’ve narrowed it down, contact the program director. The best way to contact the program director is to first email her with a concise description of your research topic (don’t attach anything — include two or three short paragraphs in the body of the email describing your project). Ask in the email if it would be possible to set up a time to talk to her on the phone. The purpose of this call is two-fold: (1) make sure that your research topic is, indeed, something that fits that particular program; and (2) make the program director aware that you’ll be applying and solicit advice from her. Most program directors strongly encourage PIs to contact them before submitting—particularly in the case of CAREER proposals—and this is a good time to start trying to schedule that conversation.

Start sketching out your research plan.

If you are currently pursuing more than one line of inquiry in your research, it’s time to decide which one you’ll focus on in this proposal. Remember that you need to be proposing something exciting, not incremental, for a CAREER. On the other hand, you need to have a track record of publications in the topic area or, failing that, strong preliminary results. CAREER reviewers commonly fault these proposals for failing to show sufficient impact in the field. Your program director can advise you whether your proposal seems to meet the CAREER impact threshold.

Once you’ve settled on your research topic, you’ll need to scope your project plan to fit a five-year CAREER grant. Decide what your specific research questions and project outcomes will be, and sketch out a rough flow chart showing your major research tasks and the time required to complete each of them. This project should take you substantially along the path toward a long-term research goal that will significantly enhance your career. At the same time, the outcomes of the project itself should be significant. CAREER PIs commonly fail to scope
their projects appropriately. Often, reviewers state that the project is overly ambitious and can’t realistically be completed in five years. On the other hand, you don’t want to promise too little. It can be helpful to talk to your colleagues and mentors about your project ideas and get their input on whether the scope is reasonable.

Start working on your Education Plan.

The NSF CAREER differs from other NSF grants in setting much higher expectations for the project’s Education Component. Just as you couldn’t make up your research plan in the three weeks before the proposal is due, don’t expect to pull your Education Plan out of a hat. If you haven’t yet settled on the topics you’ll address in your Education Plan, this is a good time to start working on that. What issues and needs do you see related to education in your discipline, at your institution, or in your region? What are you passionate about? What’s already going on at your institution that you could tie into? Be sure that you have at least one activity that addresses enhancing diversity in your field. Remember that if you win this grant, you’ll spend considerable effort on the Education Component of your project, and it will likely form the basis for more education activities that will be a part of future proposals to NSF, so be sure to propose something that you would really like to work on. If you’ve already done something related to that topic, that’s even better—you’ll want to include a discussion in your proposal of those preliminary activities and how they inspired your proposed Education Plan.

Start your literature search.

Once you’ve settled on the topics of your Research and Education Components, conduct fresh literature searches on both topics to ensure that you’re up-to-date on the state of the art in those specific areas. For your Education Component, read the literature cited in the CAREER solicitation, but also research the educational literature specifically related to your specific educational topic or topics. So, for example, if you want to introduce research-type activities into the second-year Statistics class that you teach, look to see what others have done to develop research skills in undergraduates in classroom settings. You’ll want to cite this literature in your proposal and draw from it when deciding exactly what your plan will be. A good place to start searching the educational literature is the Education Resources Information Center (ERIC).

Start recruiting collaborators, if needed.

The NSF CAREER allows only a PI—no co-PIs or Senior Personnel. However, you can have unpaid collaborators who provide limited assistance or resources needed for your project. These might include access to an instrument or hard-to-get material, or advice from an expert in Educational Psychology on how to conduct educational assessments as part of your Education Component. A local school principal might agree to work with you to develop an after-school science activity, or the PI of a Research Experiences for Teachers site at your institution could commit to arrange for two teachers to participate in research in your lab. As with most collaborations, you’ll have more success if you approach your potential collaborators early and solicit their advice on exactly how to structure the activity. For example, the school principal is likely to have excellent advice for you on what has and hasn’t worked in after-school
outreach activities. The researcher providing you with the hard-to-get materials may have advice for you on processing methods for the material.

So start identifying potential collaborators now, schedule a time to talk to them face-to-face if you can, and include them in your planning process. Remember, also, that you’ll need to get a letter of collaboration from each of your collaborators, so discuss with them what should be in that letter.

Start roughing out your first draft.

Once you’ve finished steps 1 through 4, go ahead and outline your project description and start filling it in with notes describing what each section should contain. Keep this draft very rough, and use it as an instrument to help you solidify your ideas and identify holes. For example, it may become obvious that you need to run an additional experiment to address a technical issue. Or it may become clear that you need to find some papers to substantiate a particular point. By putting together a very rough draft months before the proposal is due, you’ll give yourself the time and space to work on your ideas without the pressure to get everything right immediately (a sure prescription for writer’s block). Many of these activities can be done piecemeal as you have time over the rest of this semester, and by starting now, you’ll have time for ideas to percolate. The result will be a better thought-out project plan, which will make the proposal writing easier.

Other Resources
CAREER FAQs
Upcoming NSF CAREER Webinar (April 18th)
The mission of the Environmental Protection Agency’s National Center for Environmental Research (NCER) is to support external research that improves the scientific basis for national environmental decisions. NCER RFAs (Request for Applications) focus on research related to exposure, effects, risk assessment, and risk management. NCER supports extramural research through competitions for STAR grants, fellowships, and research contracts under the Small Business Innovative Research Program. Within NCER, the Peer Review Division (PRD) conducts external peer reviews of extramural research proposals submitted in response to NCER RFAs.

All grant, fellowship, and/or SBIR contract research funding opportunities appear in the form of specific solicitation announcements or RFAs. Any application submitted to NCER must be in response to an open solicitation posted to the NCER Funding Opportunities page. It is important to follow the application instructions of the particular solicitation to which you respond. Each solicitation may have its own specific set of application instructions. Moreover, NCER STAR is a competitive grant program. It awards grants only in response to a specific RFA. It does not fund unsolicited applications.

University researchers and those university offices that support faculty research should keep several key factors in mind when looking to EPA/NCER to fund your research, or that of your students. EPA is a mission agency, not a basic research agency such as NSF or NIH, although like NIH, EPA funds both intramural and extramural research. However, keep in mind that the mission of a mission agency is the predominant factor in determining which research will be funded and who will be selected to perform the research.

For example, while NCER uses a three-stage review process for evaluating external research proposals, only the first stage is conducted by external peer review. The second and third review stages are internal reviews, the latter made by the director of NCER who makes the final funding determination based on mission-critical priorities. This is a good reason to develop a relationship with EPA/NCER program managers, or intramural researchers as well, particularly if securing EPA funding will be a component of your future research plan. The U.S. Environmental Protection Agency Peer Review Handbook of 190 pages will tell you all you need to know about EPA’s peer review process in great detail.

Mission agencies fund research that advances their mission in some critical way through value-added benefits that accrue from the research specifically requested in the solicitation. Mission agencies do not issue “Star Trek Solicitations” with the single goal of taking the research where no other researcher has gone before, or to explore new research worlds. While basic research agencies such as NSF, NIH, or DARPA fund research that explores the frontiers of new knowledge, perhaps aboard “Starship Research,” mission agencies like EPA fund only mission-focused research. You can think of mission agencies and their program managers, such as at EPA/NCER, as the border collies of research funding—their sole purpose is an intense
focus on energetically herding you into very tightly clustered research boundaries that clearly define the critical mission objectives of the agency.

Moreover, while the external funding opportunities (RFAs) at NCER are published at Grants.gov, and noted through email alerts, it is important to be vigilant in identifying current and pending solicitations at NCER, particularly in the current budget climate. They are subject to change or cancellation over the fiscal year, something particularly relevant given the current budget sequestration. You can join the NCER RFA e-mail list and receive e-mail notifications when new RFAs are posted, and you can receive continuous announcements related to the status of current or planned RFAs. Recall also that you can sign up for Grants.gov’s RSS feeds that immediately notify you when program announcements are modified by an agency. Funding opportunities at NCER may change as a result of fiscal constraints or changes in mission focus. In general, funding opportunities at mission agencies are not as predictable as they are at NSF, for example.

In addition, NCER periodically establishes large research centers in specific areas of national concern. These centers currently focus on children’s health, particulate matter, computational toxicology, and biological threats to homeland security. Research areas of previous centers have included hazardous substances, estuarine and coastal ecosystems, and environmental statistics. Moreover, NCER’s mission includes ensuring an adequate and well-trained scientific workforce able to address complex environmental issues. Therefore, NCER supports several fellowship programs focusing on current and future environmental professionals.

NCER receives approximately 2,000 to 2,500 proposals each year for its STAR research and graduate fellowship programs. Each year, STAR awards about 150 research grants and 125 graduate fellowships. NCER also makes awards under joint RFAs with partnering agencies.

Given the percentage of grants funded by NCER and the current uncertainty related to the research budgets of all federal research agencies, it is critical that any proposal submitted to NCER be as competitive as possible in the three-stage review process. One factor that can contribute significantly to the competitiveness of a proposal you submit in response to an NCER RFA is to know what that agency defines as the common characteristics of a successful application.

According to NCER, the best applications demonstrate the following attributes: (1) scientific merit; (2) responsiveness to the RFA; (3) appropriate level of effort; (4) simplicity (where appropriate); (5) clarity; (6) knowledge of the subject; and (7) appropriate expertise. According to NERC, many applications show great promise but fail to score well on one or more of these attributes.

1. **Scientific Merit.** The originality and creativity of the proposed research, and the appropriateness and adequacy of the research methods, are some of the most important characteristics of a successful application. Some questions to consider are: Is the research approach practical and technically defensible, and can the project be performed within the proposed time? Will the research contribute to scientific knowledge in the topic area? Will the results be disseminated broadly to enhance scientific and technological understanding? Are there benefits of the proposed activity...
to society? Is the proposal prepared with supportive information that is self-explanatory or understandable?

2. **Responsiveness.** RFAs describe some scientific questions or subject areas in which EPA, and perhaps our federal partners (NSF, DOJ, NIH, NIEHS, USDA, DOE, etc.), have an interest. There is room for interpretation within the general area described in an RFA. However, we do not stretch the definitions of an RFA to accommodate any distantly related research.

3. **Appropriate Level of Effort.** The appropriate level of effort, cost, and related complexity differ for each RFA and every project. In almost all cases, NCER assigns maximum limits on the amount of funding for an application. Any applications requesting more than the maximum amount identified in the RFA will be returned without review.

4. **Simplicity.** Focus your application on a limited number of research objectives that you can adequately and clearly identify to meet the RFA requirements. This is particularly important for smaller grants, i.e., those that range from $50,000 to $300,000 for two- or three-year projects. Page limitations for the research proposal may require you to provide less detail than you would like and, therefore, it is better for you to focus on a small number of well-defined areas than to pursue a scattershot approach that inadequately touches on multiple research objectives.

5. **Clarity.** Explicitly state the main hypotheses that you will investigate, the data you will create or use, the analytical tools you will use to investigate these hypotheses or analyze these data, and the results you expect to achieve. For example, the statement: “We will evaluate the data using the usual statistical methods” is not specific enough for peer reviewers.

6. **Knowledge of Subject Matter.** Demonstrate that you know the current literature related to your proposed research area, since peer review panelists will be very knowledgeable about your subject and the pertinent literature.

7. **Appropriate Expertise.** Note that, especially in multidisciplinary projects, gaps in expertise in your research team tend to show up dramatically in peer review.
We have no way of knowing with certainty whether or not Plato’s maxim “Know Thyself” originated as part of a peripatetic workshop on grant writing. However, while scholars may debate the maxim’s origins, it still stands today as excellent advice for those developing and writing research grants to federal agencies and foundations. The role of self-assessment in grant success cannot be overstated. It motivates and informs every aspect of successful proposal writing.

Your capacity for self-assessment will inform every part of competitive grant writing, particularly in answering such questions as listed below, keeping in mind the old geologists’ adage “if you don’t ask the right questions, the rock won’t answer.” You want to ask the right questions because when you submit a proposal you want the reviewers to acknowledge you answered the right questions in your research narrative and to say “Yes, fund it!”

Moreover, successful grant writing is essentially a knowledge-based enterprise. The more you know about what characterizes a successful proposal, the more successful you will be in securing research funding to advance your long-term research plans—you will answer the questions reviewers want answered in order to recommend funding. This requires exceptional expertise in your chosen research domain, in your capacity to plan, develop, and write successful proposals, and in your capacity to conduct a very frank, open, and clear-headed self-assessment of your capacity to best map your research expertise to the research vision, goals, and objectives of the sponsoring agency.

As Richard Feynman famously observed in his lectures on physics at Caltech, “Science is a way of trying not to fool yourself. The first principle is that you must not fool yourself, and you are the easiest person to fool.” So if Plato, Socrates, and Feynman all argue for realistic self-assessment, it certainly behooves those who write research grants, as well as those who support them in that process, to make sure you have identified a series of self-assessment questions that can guide you in your quest to plan, develop, and write funded proposals by answering the right questions for reviewers and program officers. Some common questions on this self-assessment list include the examples given below, although many others will come to mind as you begin the self-assessment process. To paraphrase Jack Nicholson’s comment to Helen Hunt in the movie As Good as It Gets, self-assessment will make you want to be a better grant writer.

1. Is my research of interest to this particular funding agency?
   1.1. Does my research expertise fit the goals and objectives of a specific solicitation?
      1.1.1. How well do I understand the agency goals and objectives in the solicitation?
      1.1.2. Can I address all the research goals and objectives required by the solicitation?
         1.1.2.1. Do I need research collaborators for a competitive submission?
      1.1.3. Am I understanding the solicitation for what it is—not what I want it to be?
1.1.4. Is there sufficient time to plan, develop, and write a competitive proposal?

1.2. Can I make a compelling case for the significance of my research to the solicitation?
   1.2.1. Why is my research significant?
      1.2.1.1. Why should an agency want to fund my research?
      1.2.1.1.1. Can I explain why my research is exciting and novel?
   1.2.2. What are my research objectives?
      1.2.2.1. Is my research hypothesis-driven?
      1.2.2.2. If so, can I state the hypothesis clearly?
      1.2.2.3. How will my research lead to new knowledge?
      1.2.2.4. Is my proposed research based on prior research support?
      1.2.2.5. Do I have preliminary data that bolsters my case for funding?
   1.2.3. Do I have a realistic research plan?
      1.2.3.1. Can I make clear what I propose to do?
      1.2.3.2. Can I make clear why I propose to do it?
      1.2.3.3. Can I make clear why it is important to do it?
      1.2.3.4. Can I make clear that I have the expertise to do it?
      1.2.3.5. Can I demonstrate that my research plan is believable and not overly ambitious?
      1.2.3.6. Can I present a research plan based on a stepwise logic and approach?
      1.2.3.7. Can I instill in reviewers a confidence in my capacity to perform?
   1.2.4. Is my research basic or applied?
      1.2.4.1. Do I know the difference between basic and applied research?
      1.2.4.2. Is the agency a basic research agency or a mission agency?
      1.2.4.3. Do I know the difference between a basic and a mission agency?
      1.2.4.4. Do I know how this distinction is made at the agency of interest?
   1.2.5. Am I considering the appropriate agency program for my research?
      1.2.5.1. Is there more than one agency program for which my research is fitted?
      1.2.5.2. Does the agency accept unsolicited proposals?
      1.2.5.2.1. Do I know the process for submitting an unsolicited proposal?
   1.3. What are my research strengths?
      1.3.1. How do I most effectively emphasize my research strengths?
      1.3.1.1. Can I do this succinctly, clearly, and simply?
      1.3.1.2. Can I make a convincing case to a nonexpert in my field?
      1.3.2. What is the significance of my research expertise to the agency and program?
      1.3.3. Is my research disciplinary, multidisciplinary, interdisciplinary, transdisciplinary?
      1.3.4. Is my area of expertise addressed in the agency strategic plan?
      1.3.4.1. How would my research advance the agency strategic plan?
   1.3.5. Does my research bring value-added benefits to the agency and program?
   1.3.6. Does my research advance the mission priorities of the agency?
   1.4. What are my research weaknesses?
      1.4.1. Do I lack preliminary data; if so, how will I address that?
      1.4.2. Do I lack experience and expertise in the field; if so, how will I address that?
      1.4.3. Do I need research collaborators; if so, how will I address that?
1.4.4. Am I trying to force fit my expertise onto a solicitation which it does not fit?

1.5. Should I talk to a program officer?

1.5.1. Do I have specific, well thought out questions I want answered?

1.5.2. Have I read and reread the solicitation?

1.5.3. Have I informed myself about the agency's mission and culture?

1.5.4. Have I informed myself on the mission and culture of the program area?

1.5.5. Have I carefully read information posted to the agency website?

1.5.6. Do I have an idea whose fittedness I want to discuss with the agency?

1.5.7. Do I understand I will not be asking about the likelihood of being funded?

1.5.8. Do I understand the call will not be a meandering fishing expedition?

1.6. Do I have a strategic plan for my research?

1.6.1. Where am I going and how do I plan to get there?

1.6.1.1. Why is it important that I do this research?

1.6.2. How do I best characterize the significance of my current research/expertise

1.6.2.1. To the field?

1.6.2.2. To the agency?

1.6.2.3. To an agency mission?

1.6.3. Where will my research be in five years, or even ten or twenty years?

1.6.4. Does my research require my engagement in "team science" and collaborations?

2. Do I understand how the agency will review my proposal?

2.1. Do I understand the overarching review criteria used by the agency?

2.1.1. Do I understand how basic research agencies review proposals?

2.1.2. Do I understand how mission agencies review proposals?

2.1.2.1. Do I understand the role of mission-critical priorities in the review process?

2.2. Do I understand the program or solicitation's specific review criteria?

2.3. Do I understand the role of the program officer in the review process?

2.3.1. Are reviews binding on the program officer?

2.3.2. Can the program officer consider some reviews advisory only?

2.4. Will my proposal be peer-reviewed and by what format?

2.4.1. Will there be a panel review?

2.4.2. Will there be a mail review?

2.4.3. Will some other process be used?
**NEH's Application Review Process**

Ever wanted to know what happens to your application once you submit it to NEH? The flowchart [here](#) breaks down the steps in the journey that your application takes. We’re always looking for scholars and experts in their field to serve as peer reviewers. If you’re interested in serving on an application review panel, please add your name to the [PRISM database](#). Who serves on the National Council on the Humanities? [Read short biographies](#) of the twenty-six members. A biography of NEH Chairman, [Jim Leach](#), is also available.

**Become a PEER Reviewer at NEH**

The Panelist/Reviewer Information System (PRISM) is a database of prospective reviewers used by the staff of the National Endowment for the Humanities. The NEH peer review system relies on the advice of humanities scholars and experts in other relevant fields. The information you provide will be used only by the NEH for the purpose of identifying and selecting panelists and reviewers. If you have questions, see the [Instructions](#) or the [PRISM Frequently Asked Questions](#).

Sample Application Narratives for NEH Fellowship Grants due May 1, 2013

- [American Studies, American Nervousness in the Nineteenth Century](#) (PDF)
- [Asian Studies, Law and Custom in Korea](#) (PDF)
- [British Literature, Nonconformist British Women Writers](#) (PDF)
- [European History, Cosmopolitan London, 1880-1945](#) (PDF)
- [Latin American Studies, The Making of Modern Mexico](#) (PDF)
- [Middle Eastern Studies, The Modernization of Nineteenth-Century Izmir](#) (PDF)
- [Music, William Schuman and the Shaping of America’s Musical Life](#) (PDF)
- [Philosophy, Nietzsche and the Ancient Skeptical Tradition](#) (PDF)
- [Political Science, The Nationalization of American Party Organizations](#) (PDF)

Sample Application Narratives for NEH Humanities Initiatives at Hispanic-Serving Institutions due June 27, 2013

- [University of Puerto Rico, Mayaguez, the Convergence of Culture and Science in the Humanities Curriculum](#) (PDF)
- [University of Puerto Rico, Rio Piedras, the Humanities and the Healing Arts](#) (PDF)
- [University of the Incarnate Word, Unifying the Humanities Curriculum around Water and Culture](#) (PDF)

Sample Application Narratives Humanities Initiatives at Historically Black Colleges and Universities, due June 27, 2013
• **Albany State University, Albany, Georgia, as the Gateway to the National Civil Rights Struggle (PDF)**
• **Alcorn State University, Embedding Narrative Medicine in the Sciences, English, and Nursing Curricula (PDF)**
• **Claflin University, Classical and Contemporary Literature from South Asia (PDF)**

**National Science Foundation Update, Fall 2012**

Topics Covered
- NSF Personnel Changes
- NSF Fiscal Year 2013 Budget Request
- ARRA Waiver Process and Update
- Revised NSF Merit Review Criteria
- Upcoming PAPPG Revisions
- Cost Sharing Update
- Research Performance Progress
- Report Implementation

**NSF Grants Conference hosted by George Mason University - October 22-23, 2012**

- **Introduction and NSF Overview**
- **Proposal Preparation**
- **NSF Merit Review Process**
- **Award Management**
- **Revised NSF Merit Review Process**
- **Crosscutting and Special Interest Programs**
- **Office of International Science and Engineering**
- **Office of the Inspector General**
- Breakout Sessions:
  - Biological Sciences
  - Post-Award Monitoring and Compliance
  - Computer and Information Science and Engineering
  - Education and Human Resources
  - Engineering
  - Faculty Early Career Development (CAREER) Program
  - Geosciences
  - Mathematical and Physical Sciences
  - Merit Review 2.0
  - NSF Award Payment & Financial Report Processes
  - Office of Cyberinfrastructure
  - Office of Integrative Activities
  - Policies and Procedures Q&A
  - Science, Engineering & Education for Sustainability (SEES)
  - Social, Behavioral and Economic Sciences
National Institute of Justice Proposal Review

Be a Peer Reviewer

Help to ensure the validity and integrity of criminal justice research by becoming a peer reviewer for NIJ.

Learn about:

- Grant Application Peer Review
- Standing Scientific Review Panel Pilot Project — New in 2012
- Unsolicited Proposals

Grant Application Peer Review

Proposals received under a solicitation are reviewed by independent peer panels comprised of reviewers from academia, industry, and government organizations, along with practitioners from federal, state, and local agencies. Once reviewers have completed evaluations, NIJ Program Managers recommend individual proposals to the NIJ Director, who makes final award decisions.

Learn more about NIJ's current peer review process in sections "III. Conflict of Interest — Peer Review" and "IV. Peer Reviewers Final Scores and Consensus Review" of Guidelines on the Administration and Management of NIJ Grant Programs (pdf, 23 pages).

Standing Scientific Review Panel Pilot Project — New in 2012

For fiscal year 2012, in addition to current review activity, we are piloting new Scientific Review Panels to provide external scientific peer reviews for research applications submitted to NIJ. The Scientific Review Panels will be "standing panels" to which reviewers are appointed to serve for three years. Each Scientific Review Panel will comprise 15 scientific reviewers and three practitioner reviewers who will meet in person each year to review research proposals. Individual Scientific Review Panels will be established to support the social, physical and forensic science programs of NIJ.

Learn more about the pilot project.

Unsolicited Proposals

Although you may submit unsolicited proposals, you are discouraged from doing so unless you have discussed the concept with NIJ staff and been asked to submit a proposal that does not fit into a specific solicitation. Unsolicited proposals may receive either an external peer review or an internal review. If the proposal fits into an already established solicitation category, it will be returned with a recommendation to resubmit it under that solicitation.
How to Apply for a U.S. EPA P3 Grant: Audio Podcast and PowerPoint Slide Presentation
Open the Power Point Presentation: View the PowerPoint Presentation (PPT) (23 pp, 740 K)
Listen to the Audio Podcast as you go through the PowerPoint slides
Part 1: Slides 1 - 7
  Listen Now (MP3) (7:03, 6.45 MB) | Read Transcript (PDF) (4 pp, 16 K)
Part 2: Slides 8 - 13
  Listen Now (MP3) (5:53, 5.39 MB) | Read Transcript (PDF) (4 pp, 16 K)
Part 3: Slides 14 - 23
  Listen Now (MP3) (7:55, 7.25 MB) | Read Transcript (PDF) (5 pp, 18 K)
EPA requests applications for the P3 (People, Prosperity and the Planet) competition and awards once each year. The Request for Applications (RFA) generally opens in August or September and remains open for three (3) to four (4) months. Grants are awarded for the following academic year of study.
The P3 competition is open exclusively to teams of undergraduate and/or graduate students attending U.S. colleges, universities and other post-secondary educational institutions. Applicants (both student team members and faculty advisors) must be citizens of the United States or its territories or be lawfully admitted to the United States. Students must be enrolled in the college, university, or post-secondary educational institution they will be representing. Interdisciplinary teams, including representatives from multiple engineering departments and/or departments of chemistry, architecture, industrial design, business, economics, policy, social science, and others, are encouraged to apply.

What Works in Professional Development?
A massive study of professional development yielded some unexpected findings regarding professional development and its links to student learning. This research synthesis confirms the difficulty of translating professional development into student achievement gains despite the intuitive and logical connection. Those responsible for planning and implementing professional development must learn how to critically assess and evaluate the effectiveness of what they do.

Conceptualizing Professional Development in Mathematics: Elements of a Model
This theoretical paper discusses the concept of models for mathematics professional development. After examining the related literature, we propose a definition of this concept that includes four elements: goals, theories, contexts, and structure. We present aspects of professional development that comprise each element.

Reviewing the Evidence on How Teacher Professional Development Affects Student Achievement
A systematic review of the evidence on the effects of teacher professional development on student achievement; a study supported by U.S. Department of Education, Institute of
Education Science, National Center for Education Evaluation and Regional Assistance, Regional Laboratory Southwest.

**Videos from The Critical Issues in Mathematics Education Workshop**
The wide adoption of the Common Core State Standards for Mathematics (CCSSM) offers a helpful curricular coherence to the environment of teacher education. And so the CCSSM present both an opportunity and a challenge to teacher education. An opportunity because of the greater focus made possible. A challenge because not only of the ambitious level of the CCSSM, but also of the prominent role in them of Mathematical Practices. While most mathematicians will find these congenial, much needs to be done to make them meaningfully understood by teachers and teacher educators, and, still more, how to enact them as an organic aspect of instruction. The CIME workshop aims to gather and stimulate ideas for how to meet this opportunity and challenge.

**Education R&D Partnership Tool**
The Community Advancing Discovery Research in Education (CADRE) released a tool to help improve researcher-practitioner partnerships in education R&D. It accompanies and grows out of a brief intended for education researchers and developers. Often districts and schools are asked to participate in education research and development projects, and yet, there is little guidance in the field regarding strategies to make project partnerships effective and mutually beneficial. Based on the hard-won lessons of education practitioners, researchers, and developers who have partnered on R&D projects, this tool is intended to help others assess and improve their own R&D partnerships. Organized around six themes for establishing and nurturing successful partnerships, the Education R&D Partnership Tool includes a Work Sheet that prompts reflection and discussion. It includes tips for starting and sustaining a partnership dialogue and an appendix that elaborates on the six themes.

**Previous IES Research Funding Opportunities Webinars**
The National Center for Special Education Research (NCSER) and the National Center for Education Research (NCER) within the Institute of Education Sciences (IES) periodically host a series of webinars related to research funding opportunities. The FY 2013 funding opportunities webinar series will begin in March 2012. *Presentations and transcripts from the FY 2013 webinars will be posted on this page as they become available.*

For more information on the upcoming FY 2013 funding opportunities webinars, browse [here](#).**Basic Webinars**

- **Basic Overview:** During this webinar, IES staff provided a general overview of IES, NCSER and NCER research topics, the IES goal structure, and the peer review process.
  - Download PPT | View html version
  - [View, download, and print the transcript as a PDF file](#) (568 KB)
- **Application Process:** During this webinar, IES staff will provide information regarding the grant submission process. The webinar will focus on information in the application instructions package, including content and formatting requirements, human subjects clearance, and application forms.
Research Development & Grant Writing News

- National Center for Special Education Research: Overview
  In this webinar, NCSER Commissioner Speece presents the history, structure, current status of investments, and current initiatives of the National Center for Research in Special Education.
  Download PPT | View html version
  View, download, and print the transcript as a PDF file (502 KB)

- Early Career Development and Mentoring Program in Special Education Research:
  During this webinar, IES staff provided an overview of NCSER's Research Training Program in Special Education: Early Career Development and Mentoring competition, as well as a brief overview of the application submission and peer review processes.
  Download PPT | View html version
  View, download, and print the transcript as a PDF file (442 KB)

- Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative:
  During this webinar, IES staff provided an overview of NCSER's Accelerating the Academic Achievement of Students with Learning Disabilities Research Initiative, as well as a brief overview of the application submission and peer review processes.
  Download PPT | View html version
  View, download, and print the transcript as a PDF file (438 KB)

Grant Writing Overviews
- Grant Writing Workshop:
  During this workshop, IES staff provided more in-depth information about preparing applications in response to current requests for applications and the IES goal structure.
  Download PPT | View html version
  View, download, and print the transcript as a PDF file (455 KB)

- Grant Writing Workshop for Early Career Investigators:
  During this presentation, IES staff will provide more in-depth information about preparing applications in response to current requests for applications and the IES goal structure, with special focus on advice for early career investigators who are new to submitting IES proposals.
  Download PPT | View html version
  View, download, and print the transcript as a PDF file (412 KB)

- Grant Writing Workshop for Minority Serving Institutions:
  During this presentation, IES staff will provide more in-depth information about preparing applications in response to current requests for applications and the IES goal structure. Topics focus on general research requirements, preparing a research narrative, building a strong research team, and forming partnerships with schools.
  Download PPT | View html version
  View, download, and print the transcript as a PDF file (565 KB)

Grant Writing Workshops for 84.305A and 84.324A
- Grant Writing Workshop for Exploration Projects:
  During this workshop, IES staff will provide in-depth information on preparing an Exploration (Goal 1) application. Topics
include methodological requirements for the Exploration goal and developing a research plan.

**Grant Writing Workshop for Development & Innovation Projects:** During this workshop, IES staff will provide in-depth information on preparing a Development & Innovation (Goal 2) application. Topics include methodological requirements for the Development & Innovation goal and developing a research plan.

**Grant Writing Workshop for Efficacy and Replication Projects and Effectiveness Projects:** During this workshop, IES staff will provide in-depth information on preparing Efficacy and Replication (Goal 3) applications and Effectiveness (Goal 4) applications. Topics will include methodological requirements for both goals and developing a research plan.

**Grant Writing Workshop for Measurement Projects:** During this workshop, IES staff will provide in-depth information on preparing a Measurement (Goal 5) application. Topics will include methodological requirements for the Measurement goal and developing a research plan.

**Overviews of Specific Funding Opportunities**

**Overview of the Researcher & Policymaker Training Program:** The Researcher & Policymaker Training Program was established to help current education researchers maintain and upgrade their methodological skills and to provide education practitioners and policymakers working on a specific program or policy with evidence from rigorous education research. During this webinar, IES staff will provide an overview of the training program and the requirements for training projects aimed at researchers and the requirements for training projects aimed at policymakers and practitioners. IES staff will also discuss training plan development and the grant review criteria.

**Overview of the Postdoctoral Research Training Program in the Education Sciences:** The Postdoctoral Research Training Program in the Education Sciences (84.305B) was established to increase the supply of scientists and researchers in education who are prepared to conduct rigorous and relevant education research addressing issues that are important to education leaders and practitioners. During this webinar, IES staff will
provide an overview of the requirements for the postdoctoral training program, training plan development, and the grant review criteria.

Download PPT | View html version
View, download, and print the transcript as a PDF file (276 KB)

- Overview: Funding Opportunities for Researcher-Practitioner Partnerships in Education Research:

  The Researcher-Practitioner Partnerships in Education Research grant program was established to support partnerships composed of research institutions and State or local education agencies that will identify an education issue with important implications for improving student achievement that is of high priority for the education agency, carry out initial data analyses regarding the education issue, and develop a plan for further research on the issue culminating in an application to one of the Institute's research grant programs. During this webinar, IES staff will provide an overview of the partnership program. Topics will include requirements for the researcher-practitioner partnerships, research plan development, and the grant review criteria.

Download PPT | View html version
View, download, and print the transcript as a PDF file (1 MB)
Impact of FY 2013 Sequestration Order on NSF Awards

NIH Operation Plan in the Event of a Sequestration

AAAS Sequestration Resources

Congressional Budget Office Sequestration Reports

NEH Sequestration: A Public Notice

Celebrating the 150th Anniversary of the National Academy of Sciences

NASA Casts a Wide Net for STEM Education Partners
NASA is inviting potential partners to help the agency achieve its strategic goals for education. Using its unique missions, discoveries, and assets, NASA supports education inside and outside the formal classroom to inspire and motivate educators and learners of all ages in science, technology, engineering and mathematics (STEM). The agency is seeking unfunded partnerships with organizations to engage new or broader audiences across a national scale.

NASA recognizes the benefit of leveraging those unique resources and abilities that partners can provide in order to improve efficiency and maximize impact of its STEM efforts. This announcement requests information from organizations interested in working with NASA to improve STEM education in America.

Potential partnership activities are varied, and NASA is receptive to a wide range of possibilities. All categories of domestic groups, including U.S. federal government agencies, are eligible to respond to this announcement. NASA particularly seeks responses from creative organizations with wide-ranging areas of expertise that can affect systemic change for improving STEM education. NASA will accept responses through Dec. 31, 2014. Review of responses will begin April 1. Organizations interested in responding to this education opportunity can access the announcement at: http://go.nasa.gov/VgRZYt

Increasing Access to the Results of Federally Funded Scientific Research
The Office of Science and Technology Policy (OSTP) hereby directs each Federal agency with over $100 million in annual conduct of research and development expenditures to develop a plan to support increased public access to the results of research funded by the Federal Government. This includes any results published in peer-reviewed scholarly publications that are based on research that directly arises from Federal funds, as defined in relevant OMB circulars (e.g., A-21 and A-11). It is preferred that agencies work together, where appropriate, to develop these plans (more).
National Science Foundation Collaborates with Federal Partners to Plan for Comprehensive Public Access to Research Results

The National Science Foundation (NSF), along with federal partners, announced its commitment to expand public access to the results of its funded research. Public access is intended to accelerate the dissemination of fundamental research results that will advance the frontiers of knowledge and help ensure the nation's future prosperity. This announcement follows a memorandum issued from the White House Office of Science and Technology Policy directing science-funding agencies to develop plans to increase access to the results of federally funded research and improve the management of digital data produced through such research. "Scientific progress depends on the responsible communication of research findings, and NSF has been engaged in efforts to expand public access for several years," said NSF Director Subra Suresh. "Full public access will require changes in policies, procedures and practices from the many stakeholders who participate in NSF’s broad research portfolio spanning all scientific and engineering disciplines. We stand with our federal science colleagues, as well as our non-governmental partners, to collaborate in accomplishing this transition on behalf of science and our nation's future."

NSF Notice Regarding Automated Compliance Checking of FastLane Proposal Submissions

Beginning March 18, 2013, the NSF will enhance the FastLane System to begin automated compliance checking for all required sections of full proposals. This will bring NSF systems in line with long-standing proposal preparation requirements as outlined in the NSF Proposal and Award Policies and Procedures Guide (PAPPG) (Chapter II.C.2 of the Grant Proposal Guide (GPG)). Preliminary proposals are not affected by this system enhancement. The GPG-required sections of a proposal include:

- Project Summary
- Budget Justification
- Project Description Current and Pending Support
- References Cited
- Facilities, Equipment and Other Resources
- Biographical Sketch(es)
- Data Management Plan
- Budget Postdoctoral Mentoring Plan (if applicable)

*These proposal sections are already being auto compliance checked at the time of proposal submission by FastLane.

FastLane will check to ensure whether or not a document is included; it will not check formatting, page length, or content requirements. (The one exception is the Project Summary, for which page length is checked.)

Proposal submission instructions for conferences, symposia or workshops; international travel grants; or program solicitations may deviate from the GPG instructions. If the submission instructions do not require one of the above sections to be provided, proposers will need to insert text or upload a document in that section of the proposal that states, "Not Applicable." Doing so will enable FastLane to accept the proposal. Additionally, proposers providing Biographical Sketches and/or Current and Pending Support information for Principal Investigators (PIs), co-PI(s) or Senior Personnel in a single PDF file associated with the PI, must insert text or upload a document in that section of the proposal that states, "Not Applicable," for any co-PI or Senior Personnel so that FastLane will accept the proposal.
PIs will receive a warning message if any of the GPG-required sections is missing, however, the PI will still be able to forward the proposal to the organization's Sponsored Project Office (SPO). If the SPO attempts to submit a proposal that is missing any of the required sections, they will receive an error message identifying the missing section(s), and FastLane will prevent submission to NSF. After obtaining all required sections, the SPO may submit the proposal to NSF in accordance with established deadline date policy. Proposals submitted through Grants.gov must include all GPG-required sections or include a document stating that the section is "Not Applicable."

We encourage you to share this information with your respective communities so that they are aware of this system enhancement. Additional information is available on the NSF website at: http://www.nsf.gov/bfa/dias/policy/autocompliance.jsp Please contact policy@nsf.gov with any further questions.

NSF Alerts
- NSF awardees must stop submitting project reports in FastLane starting on February 1, 2013. On March 18, 2013, NSF will transfer its current project reporting service from FastLane to Research.gov. As part of this transition, FastLane reports must be frozen. To assist the community with this transition, the overdue date will be extended for all project reports that are currently scheduled to become overdue between January 31 and April 30, 2013. Note, this advisory does not apply to organizations already in the Project Reporting Pilot. A list of those organizations is accessible from the link below. Project Reporting on Research.gov
- For additional assistance, contact the Research.gov Help Desk – 7 AM to 9 PM – EST, Monday through Friday at 1.800.381.1532 or by emailing rgov@nsf.gov. Research.gov

System Notices

MPS AGEP-GRS Dear Colleague Letter
The Directorate for Mathematical and Physical Sciences (MPS) encourages Principal Investigators (PIs) of current MPS awards to support one (additional) Ph.D. student per award, through a partnership with the Division of Human Resource Development (HRD) in the Directorate of Education and Human Resources (EHR). This opportunity is available to PIs with current MPS research awards whose institutions and/or academic units are either currently participating in the EHR-sponsored "Alliances for Graduate Education and the Professoriate" (AGEP) program; or whose institutions and/or academic units have participated in the AGEP program in the past (AGEP Legacy institutions). Such PIs may apply to MPS for a supplement to defray the costs for: stipend, tuition, benefits and indirect costs for a graduate research student working on the MPS-funded research. For the purposes of this Dear Colleague Letter, this funding opportunity will be abbreviated to: AGEP - Graduate Research Supplements (AGEP-GRS).

Dear Colleague Letter: US-China Collaborative Software Research
The NSF Division of Advanced Cyberinfrastructure (ACI), formerly known as the Office of Cyberinfrastructure, is interested in encouraging collaborations with China-based researchers
who are currently funded by or seeking funding from the National Natural Science Foundation of China (NSFC). This interest is one outcome from the US and China Workshop Series to Build a Collaborative Framework for Developing Shared Software Infrastructure, which was supported jointly by the NSF and the NSFC (workshop website: http://www.nsf-nsfc-sw.org/), and builds on a previous Dear Colleague Letter (NSF 12-096). US-based researchers can submit proposals that involve collaboration with China-based researchers who are currently funded by or seeking funding from the National Natural Science Foundation of China (NSFC) to the Software Infrastructure for Sustained Innovation (SI2) cross-cutting program (NSF 13-525) led by ACI.

**NIH Requires Use of RPPR for All SNAP and Fellowship Progress Reports, and Expands RPPR Functionality**

The use of the eRA Research Performance Progress Report (RPPR) Module for submitting Streamlined Noncompeting Award Process (SNAP) and Fellowship progress reports will be required for awards with start dates on or after July 1, 2013 (i.e., due dates on or after May 15, 2013, for SNAP awards and May 1, 2013, for Fellowships). The functionality of the RPPR is also expanding on April 18, 2013 to include requests from the awarding Institutes and Centers (ICs) for additional materials following submission of an RPPR and electronic submission of the additional materials by the grantee.

**NIH Changes to Public Access Policy Compliance Efforts Apply to All Awards with Anticipated Start Dates on or after July 1, 2013**

**Dear Colleague Letter: Research Opportunities in Europe for NSF CAREER Awardees**

To further scientific and technological cooperation between the European Community and the United States, an Implementing Arrangement was signed on July 13, 2012 to enable U.S.-based scientists and engineers with NSF-funded CAREER awards and Postdoctoral Research Fellowships to pursue research collaboration with European colleagues supported through EU-funded European Research Council (ERC) grants. Connecting researchers with complementary strengths and shared interests promotes scientific progress in solving some of the world’s most vexing problems. This international research opportunity is mutually beneficial to the U.S. participants and their hosts through cooperative activities during research visits and also by establishing international research partnerships to enrich future research activities in Europe and the U.S. Under the Arrangement, the ERC Executive Agency (ERCEA) identifies ERC-funded research groups who wish to host CAREER awardees for research visits of up to one year within their ERC funding. This letter invites current CAREER awardees to apply for research visits to any identified, appropriate European research group. Further the letter gives instructions on how to apply and other relevant policies and requirements. A similar Dear Colleague Letter invites NSF Postdoctoral Research Fellows to participate (see here).

**Research.gov Webinars**

**March 8, 2013**

Webinar: NSF Proposal Submission and Project Report Update
Outreach
Agencies: National Science Foundation, NSF

March 10 - 12, 2013
Financial Research Administration Conference
Conference
Agencies: National Science Foundation, NSF

March 11 - 12, 2013
NSF Grants Conference
Conference
Agencies: National Science Foundation, NSF

March 28, 2013
Webinar - ACM$: A New Approach to Award Payments
Outreach
Agencies: National Science Foundation, NSF

May 13 - 14, 2013
FDP General Meeting
Conference
Agencies: National Science Foundation, NSF

August 4 - 7, 2013
NCURA Annual Meeting
Conference
Agencies: National Science Foundation, NSF

September 10 - 12, 2013
FDP General Meeting (September)
Conference
Agencies: National Science Foundation, NSF

October 26 - 30, 2013
SRA International Annual Meeting
Conference
Agencies: National Science Foundation, NSF

AAAS Sequestration Resources
Websites
- AAAS Membership: Personal Testimony from Scientists
- Science Works for U.S. (Impacts on states)
- Association of American Universities
- Coalition Health Funding- NDD United
- Coalition for Life Sciences (CLS) Sequestration Action Zone
Research Development & Grant Writing News

- Society for Neuroscience Sequestration Action
- FasterCure Sequestration Station
- NSF Advocacy Clearinghouse
- Aerospace Industries Association
- American Geological Institute
- ScienceWorksForUs.org

Reports and Analyses
- AAAS Sequestration Brief
- Ad Hoc Group For Medical Research
- AIBS Sequestration report
- Bipartisan Policy Center (sequestration)
- Congressional Budget Office
- FASEB Analysis
- FASEB Fact Sheets (summaries of NIH funding by state)
- FASEB Fact Sheets (sequestration loss estimates)
- ITIF
- Research!America (February update)
- Research!America (updated report)
- Research! America
- Senator Tom Harkin (report)
- Third Way

Testimony
- AAMC
- AIA President Marion C. Blakely
- AIBS President Susan Strafford
- AIBS Action Alert
- American Heart Association
- American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America Petition
- Defense Contractors
- Department of Agriculture
- Department of Defense
- Department of Education Secretary Arne Duncan
- Department of Energy
- Department of Health and Human Services
- HHS Responds on Sequester Impact
- NASA
- National Science Foundation
- OMB Director Jeffrey Zients
- United for Medical Research

Video
- AAAS Sequestration Briefing
- AAU, APLU, and The Science Coalition
- Stand With Science: What's Next: An Unproductive Use of Desk Space
- Society for Neuroscience
Research Development & Grant Writing News

- AIBS Fiscal Cliff
- American Chemical Society

Articles
- "Bad Medicine." The Economist. 2 March 2013.
- "Mapping the Effects of the Sequester on Science." NPR. 1 March 2013.
- "Obama says sequester would take 'meat cleaver' to government." The Hill. 19 February 2013.
- "A crucial role in innovation." Politico. 5 February 2013.

November 2012.

Congressional Response/Congressional Commissions
- National Commission on Fiscal Responsibility and Reform (Simpson-Bowles report)
- Bipartisan Policy Center (Domenici report)

Executive Branch
- Office of Management and Budget

Events
- September: Society for Neuroscience Webinar
- November 14: AAAS Hill Briefing on R&D Sequester, 2212 Rayburn House Office Building
- FASEB Stand Up for Science Contest
The competitiveness of proposals can be enhanced by grounding the arguments you make in the proposal narrative, as appropriate, on national reports, agency research roadmaps, and research workshops that demonstrate your understanding of the national research agenda and how your research advances and maps to that agenda.

**Investing in Technology to Enable the Future: NASA Creates Space Technology Mission Directorate**

As part of the Obama Administration’s recognition of the critical role that space technology and innovation will play in enabling both future space missions and bettering life here on Earth, NASA Administrator Charles Bolden has announced the creation of the **Space Technology Mission Directorate**. The directorate will be a catalyst for the creation of technologies and innovation needed to maintain NASA leadership in space while also benefiting America's economy.

The Space Technology Mission Directorate will develop the cross-cutting, advanced and pioneering new technologies needed for NASA's current and future missions, many of which also benefit America's aerospace industries, other government agencies, and address national needs. NASA will focus leadership responsibility for the existing Space Technology Program in the mission directorate, improving communication, management and accountability of critical technology investment activities across the agency.

"A robust technology development program is vital to reaching new heights in space -- and sending American astronauts to new destinations like an asteroid and Mars," NASA Administrator Charles Bolden said. "A top priority of NASA is to invest in cross-cutting, transformational technologies. We focus on collaboration with industry and academia that advances our nation's space exploration and science goals while maintaining America's competitive edge in the new innovation economy."

Associate Administrator Michael Gazarik will head the organization. He previously served as the director of the Space Technology Program within the Office of the Chief Technologist. Serving as the Deputy Associate Administrator for Programs, James Reuther brings years of expertise in technology development, research and project management to oversee the nine programs within the mission directorate. Reuther previously served as deputy director of the Space Technology Program within the Office of the Chief Technologist. Dorothy Rasco, formerly the business manager of the Space Shuttle Program and the manager of the Space Shuttle Program Transition and Retirement, will join the directorate as the Deputy Associate Administrator for Management, assisting with the organizations strategic planning and management.

The Space Technology Mission Directorate will employ a portfolio approach, spanning a range of discipline areas and technology readiness levels. Research and technology development will take place within NASA centers, in academia, and industry, and leverage collaboration with other government and international partners.

NASA's Chief Technologist Mason Peck serves as the NASA administrator's principal advisor and advocate on matters concerning agency wide technology policy and programs.
Peck's office will lead NASA's technology transfer and commercialization efforts, integrating, tracking, and coordinating all of NASA's technology investments across the agency. The Office of the Chief Technologist also will continue to develop strategic innovative partnerships, manage agency-level competitions and prize activities, as well as document and communicate the societal impacts of the agency's technology efforts.

**Report Highlights Latest Data on Women, Minorities and Persons with Disabilities in Science and Engineering**

Women, persons with disabilities and three racial and ethnic groups--African Americans, Hispanics and American Indians--continue to be underrepresented in science and engineering (S&E) according to a new report released by the National Science Foundation.

The report, *Women, Minorities, and Persons with Disabilities in Science and Engineering: 2013*, highlights the most recent data on S&E education and employment patterns for these groups. Data in the report demonstrate that women earn a smaller proportion of degrees in many S&E fields of study, although their participation has risen during the last 20 years in most S&E fields. Women's participation is greatest in psychology, where more than 70 percent of degrees in that field were awarded to women. Women's participation is lowest in computer science and engineering--18 to 28 percent of degrees in those fields were awarded to them since 1991. Underrepresented minorities' shares of S&E bachelor's and master's degrees have been rising during the last 20 years. Since 1991, the greatest rise in the share of S&E bachelor's degrees earned by underrepresented minorities has been in psychology, the social sciences and computer sciences.

Since 2000, underrepresented minorities' shares in engineering and the physical sciences degrees have been flat, and participation in mathematics has dropped. Unemployment rates are higher for minority scientists and engineers than for Caucasian scientists and engineers, and the rate is higher for Asian females than for Asian male scientists and engineers. Among employed scientists and engineers in all racial and ethnic groups, women are more likely than men to be employed part-time. Caucasian women are the most likely to be employed part-time.

This report includes an interactive digest that highlights key issues and trends through graphics and text, along with detailed statistical tables that provide data on higher education enrollments, degrees, institutions and financial support and on employment status, occupations, sectors and salaries. Links to other NSF and non-NSF sources of data are also provided in the report.

For more information on this report, please contact the National Center for Science and Engineering Statistics. Please visit the NSF's National Center for Science and Engineering Statistics webpage for more reports and other products.

**Handbook for 2013 Atmospheric & Geospace Sciences Postdoctoral Research Fellows**

This document summarizes the terms and conditions for the National Science Foundation Atmospheric and Geospace Sciences Postdoctoral Research Fellowship (AGS-PRF) and provides general information for use during your tenure. Read it carefully and refer to it whenever you have a question about your Fellowship.
Entering Mentoring: A Seminar to Train a New Generation of Scientists
The Wisconsin Program for Scientific Teaching
Supported by the Howard Hughes Medical Institute Professors Program

Effective mentoring can be learned, but not taught. Good mentors discover their own objectives, methods, and style by mentoring. And mentoring. And mentoring some more. Most faculty learn to mentor by experimenting and analyzing success and failure, and many say that the process of developing an effective method of mentoring takes years. No two students are the same or develop along the same trajectory, so mentoring must be continually customized, adjusted, and redirected to meet each student’s needs. A skilled mentor’s decisions and actions are guided by a reflective philosophy, a well-developed style, and an ability to assess student needs. There is certainly no book that can tell us how to deal with every student or situation, but a systematic approach to analyzing and discussing mentoring may lead us to a method for tackling the knotty challenges inherent in the job.

The goal of the seminar outlined in this manual is to accelerate the process of learning to be a mentor. The seminar provides mentors with an intellectual framework to guide them, an opportunity to experiment with various methods, and a forum in which to solve mentoring dilemmas with the help of their peers. Discussing mentoring issues during the seminar provides every mentor with experience—direct or indirect—working with diverse students, tackling a range of mentoring challenges, and considering a myriad of possible solutions.

Members of the seminar may hear about, and discuss, as many mentoring experiences as most of us handle in a decade, thereby benefiting from secondhand experience to learn more quickly. We hope that, when mentors complete the seminar, they will have articulated their personal style and philosophy of mentoring and have a toolbox of strategies they can use when faced with difficult mentoring situations.
Robust Affordable Next Generation Energy-Storage (RANGE)
This program aims to maximize specific energy and minimize cost of energy storage systems at the vehicle level. Central to this system-level approach is the use of robust design principles for energy storage systems. Robust design is defined as electrochemical energy storage chemistries and/or architectures (i.e. physical designs) that avoid thermal runaway and are immune to catastrophic failure regardless of manufacturing quality or abuse conditions. In addition, this program seeks multifunctional energy storage designs that use these robust storage systems to simultaneously serve other functions on a vehicle (for example, in the frame, body, and/or crumple zone), thus further reducing an energy storage system’s effective weight when normalized to the entire electric vehicle weight. It is anticipated that the core technologies developed under this program will advance all categories of electrified vehicles (hybrid, plug-in hybrid, extended-range electric, and all-electric vehicles); however, the primary focus of this program is on all-electric vehicles, referred to hereafter as electric vehicles (EVs). , and the Reply to Reviewer Comments are provided as appendices to the FOA. Fillable versions of these templates are available at https://arpa-e-foa.energy.gov . Required forms for Full Applications are also available at https://arpa-e- foa.energy.gov. Due March 21.

Physics of Reliability: Evaluating Design Insights for Component Technologies in Solar (PREDICTS)
Physics of Reliability: Evaluating Design Insights for Component Technologies in Solar (PREDICTS) The Physics of Reliability: Evaluating Design Insights for Component Technologies in Solar (PREDICTS) Funding Opportunity Announcement (FOA) that is being issued by the U.S. Department of Energy (DOE) is seeking applications that attempt to identify and evaluate only fundamental, intrinsic failure mechanisms. This FOA is NOT intended to determine or otherwise evaluate extrinsic failures. In addition to addressing intrinsic failure mechanisms, solar component lifetime and reliability evaluations must transition from a correlation-based approach to a causation-based approach. This transition will require the development of physics-based models that allow for the accurate and precise determination of the lifetime and the failure/degradation mechanisms of solar installation systems and components based upon their fundamental composition, method of assembly, and (accelerated) environmental exposure conditions. In describing the causation of system/component failure, such models will need to evaluate the probability of discrete, indivisible event sequences occurring in concert within the system or component and affecting a macroscopic failure. An in-depth
understanding of the chemistry and physics that constitute these event quanta will inform the improvement of current systems and components and also guide the development of future systems and components. The ultimate goal is to accurately predict and extend system and component lifetimes, increase their reliability, decrease risk, accelerate research, and reduce the costs of systems and components used in solar field installations. **This FOA includes two distinct and separate Topic Areas to which an applicant can apply.** Any single application must pertain to only one topic area and must be submitted to that topic area. Background on these topic areas is located within the FOA, which is attached. The full Funding Opportunity Announcement (FOA) is posted on the EERE eXCHANGE website at [https://eere-exchange.energy.gov](https://eere-exchange.energy.gov). Applications must be submitted through the EERE eXCHANGE website to be considered for award. The applicant must first register and create an account on the EERE eXCHANGE website. A User Guide for the EERE eXCHANGE can be found on the EERE website [http://eere.energy.gov/financing/exchangeExchange/Manuals.aspx](http://eere.energy.gov/financing/exchangeExchange/Manuals.aspx) after logging in to the system. Information on where to submit questions regarding the content of the announcement and where to submit questions regarding submission of applications is found in the full FOA posted on the EERE Exchange website. **Concept paper due March 22; full April 29.**

**Solar Manufacturing Technology (SolarMat)**
The solar industry has entered a phase of consolidation, thereby reducing or eliminating available funds for developing and adopting new manufacturing technology. This funding opportunity intends to spur PV and CSP manufacturing in the U.S. by aiding the development of innovative cost reducing and/or efficiency increasing technology in the manufacturing processes. Ideally, this opportunity will create the next generation of solar industry-standard manufacturing technology. The full Funding Opportunity Announcement (FOA) is posted on the EERE eXCHANGE website at [https://eere-exchange.energy.gov](https://eere-exchange.energy.gov). Applications must be submitted through the EERE eXCHANGE website to be considered for award. The applicant must first register and create an account on the EERE eXCHANGE website. A User Guide for the EERE eXCHANGE can be found on the EERE website [http://eere.energy.gov/financing/exchangeExchange/Manuals.aspx](http://eere.energy.gov/financing/exchangeExchange/Manuals.aspx) after logging in to the system. Information on where to submit questions regarding the content of the announcement and where to submit questions regarding submission of applications is found in the full FOA posted on the EERE Exchange website. **Required concept paper March 22; invited full April 26.**

**Diversity in Science and Technology Advances National Clean Energy in Solar (DISTANCE-Solar)**
The Diversity in Science and Technology Advances National Clean Energy in Solar program (DISTANCE-Solar) contributes to a successful U.S. solar industry with SunShot (and beyond SunShot) science and technology research advances paired with the development of a diverse and innovative workforce. The long term desired outcomes of this program are to increase innovation in solar, with a greater diversity of innovative ideas being driven by greater representation from members of currently underrepresented groups in science, technology, engineering, and math (STEM), spur new job creation in the U.S., and integrate more solar into the U.S. energy supply. The near term goal of the program regarding workforce and
underrepresented groups is to create a more diverse professional solar workforce, through students’ direct research participation and the exposure of more students to solar-related content in courses. The near term goal of the program regarding solar technology research is to contribute scientifically to technologies that can help achieve (or exceed) the SunShot Program objective to make solar energy cost-competitive with other forms of electricity by the end of the decade. At the intersection of the goals for diverse workforce and solar technology is the near term goal to build Minority Serving Institution (MSI) solar research capabilities. Individual or teams of primary investigators from MSIs can apply to this FOA with proposals that include 3 year projects describing an Education and Workforce Development Plan paired with a Solar Research Technical Plan. EERE anticipates providing, under DISTANCE-Solar, $1,500,000 - $3,000,000 total DOE funding over three years subject to the availability of annual appropriations. Due March 25.

Innovative Partnerships for Enhancing End to End Early Warning Systems for Hydrometeorological Hazards in South Asia
The program is expected to bring significant new, non-public resources - whether money, ideas, technologies, experience or expertise - to address current weaknesses in early warning systems. OFDA intends to provide the catalytic resources needed to bring partners together, coordinate their involvement, and develop a better understanding of each partner's role as well as how each partner might benefit or further its own objectives through the proposed partnership. The proposed partnership should be able to continue beyond the duration of this program seeking new and innovative solutions to improving the effectiveness of early warning content and dissemination; and further enhancing community resilience without additional external donor resources. Due March 27.

The U.S. Borlaug Fellows in Global Food Security Program
The U.S. Borlaug Fellows in Global Food Security program is funded by the United States Agency for International Development (USAID) to expand the pool of U.S. food security professionals who have the scientific base needed to effectively study and manage the global landscapes in support of sustainable food systems. The program is comprised of two key elements; a Graduate Research Fellowship Grant Program and a Summer Institute on Global Food Security. The intended objectives of the U.S. Borlaug Fellows in Global Food Security program are:

- To help train a new generation of interdisciplinary U.S. scientists with fluency in global food security and the skills to strengthen the capacity of developing countries to apply new innovations and technologies,
- To support the key research themes of the Feed the Future initiative and increase understanding of the links between agricultural production, nutritional status, natural resource conservation, and development,
- To foster cross-cultural understanding and dialog and the kinds of long-term relationships that are developed through on-the-ground collaborative work, and
- To work with international partners to sustain a growing global learning community. Due April 1.

Dwight D. Eisenhower Fellowship Program
The EISENHOWER GRADUATE FELLOWSHIP (provides funding for the pursuit of Masters or Doctorate Degrees in transportation related discipline. The program objectives are: 1) to attract the nation's brightest minds to the field of transportation, 2) to enhance the careers of transportation professionals by encouraging them to seek advanced degrees, and, 3) to retain top talent in the transportation industry of the United States. The Program is intended to bring innovation and enhance the breadth and scope of knowledge of the entire transportation community in the United States. The Eisenhower Graduate Fellowship Program encompasses all modes of transportation. Due April 1.

Woody Biomass Utilization Grant
Woody Biomass Utilization Restoration Activities on All Priority Forestlands Goals of the grant program are: Promote projects that target and help remove economic and market barriers to using woody biomass for renewable energy. Assist projects that produce renewable energy from woody biomass while protecting the public interest. Reduce the public’s cost for forest restoration by increasing the value of biomass and other forest products generated from hazardous fuels reduction and forest health activities on forested lands. Create incentives and/or encourage business investment that uses woody biomass from our nation’s forestlands for renewable energy projects. Note: The federal government’s obligation under this program is contingent upon the availability of 2013 appropriated funds. No legal liability on the part of the government for any payment may arise until funds are made available to the grant officer for this program. Due April 8.

Environmental Workforce Development and Job Training Grants
This notice announces the availability of funds and solicits proposals from eligible entities, including non-profit organizations, to deliver environmental workforce development and job training programs that recruit, train, and place local, unemployed and under-employed residents with the skills needed to secure full-time employment in the environmental field, with a focus on solid and hazardous waste remediation, environmental health and safety, and wastewater-related training. Under this competition, applicants may choose to serve dislocated workers, or those laid off as a result of recent manufacturing plant closures, as well as those severely under-employed or unemployed in the target community. Due April 9.

National Oceanographic Partnership Program (NOPP)
ONR funding supporting this BAA is for applied research and valued at approximately $6.7M. Other NOPP-contributing agencies may support other areas of research; resulting in an estimated Target Funding of up to $15M over a five year period. The $15M includes partner funds that may be dollars or in-kind resources and infrastructure support from NOPP member agencies, to further our predictive capabilities for the global coupled environment. b. Total Amount of Funding Available: Approximately $1.25M (or more) per year over three years, subject to appropriation and final approval by the Interagency Working Group on Ocean Partnerships (IWG-OP). The size of awards depends upon the types of proposals submitted, but will likely range from $100K to $500K per year for three years, with the possibility of an additional two year option. The upper bound is intended to allow for the possibility of
partnerships between multiple institutions if a larger team effort is proposed. c. Anticipated Number of Awards: 4-8. An Offeror may propose on more than one Topic. d. Anticipated Range of Individual Award Amounts: from $100,000 to $500,000 per year. e. Anticipated Period of Performance for Awards: 1 to 3 years, with the potential for an additional two-year option. Due April 12.

**Research Training Program for College and University Students**
The objective of this [RFP](#) is to support the training of undergraduate and graduate students in environmental research. The Program will substantially benefit future environmental scientists and technicians. It is envisioned that the goal of increasing both the effectiveness and number of future environmental scientists and technicians will be achieved by allowing students to collaborate with senior ORD scientists while working in a fully operational federal research laboratory. Research training will be conducted at EPA’s facilities in Cincinnati, Ohio. Some examples of the field of study for desirable student participants include (but are not limited to) those majoring in chemistry, engineering, biology, computer science, physical sciences, life sciences, ecology, and urban planning. Due April 15.

**Advanced Reactor Research and Development**
The U.S. Department of Energy (DOE) Office of Nuclear Energy (NE) sponsors a program of research, development, and demonstration related to advanced non-light water reactor concepts. A goal of the program is to facilitate greater engagement between DOE and industry. During FY12 DOE established a Technical Review Panel (TRP) process to identify R&D needs for viable advanced reactor concepts in order to inform DOE-NE R&D investment decisions. That process involved the use of a Request for Information (RFI) to solicit concept information from industry and engage technical experts to evaluate those concepts. Having completed this process, DOE desires to conduct a procurement action to partner with industry to conduct cost-shared R&D for selected technology needs identified by the TRP process. The intent of this funding opportunity announcement (FOA) is to solicit proposals to conduct such cost-shared R&D activities. Program funding will be provided at a minimum of 20% industry cost-share and 80% Federal cost-share to the awardee(s) for the purposes of specific needs identified through the Advanced Reactor Concepts TRP process. In this FOA nine R&D activities are identified. However, due to limited funding, only three to six of the activities will be funded from this FOA in FY13. The total Government funding available for awards under this FOA is estimated at $3 million for FY13. For FY14 additional funding is anticipated, subject to the availability of funds. It is expected that only one R&D activity per applicant will be funded from this FOA. This FOA is available at Fedconnect located at www.fedconnect.net under reference number DE-FOA-0000818. Applicants must register and acknowledge the FOA at fedconnect.net in order to submit questions and receive DOE notifications including responses to questions and submittals. The DOE intends to allow approximately 60 days from date of posting on Fedconnect for applicant’s to respond to this FOA. The application due date is 16 April 2013. Letters of intent are due at the DOE no later than 20 March 2013. The DOE will conduct a Webinar on 14 March at 1:00 p.m. (EST) covering project details and FOA application instructions. Webinar login instructions are contained in appendix "D" of the FOA. Due April 16.
Advanced Technologies for Monitoring CO2 in Geologic Storage and Utilization Operations
The primary purpose of this Funding Opportunity Announcement (FOA) is to solicit projects that develop and validate technologies to enhance the monitoring, verification, and accounting (MVA) of Carbon Dioxide (CO2) injected underground for the purpose of long-term geologic storage and/or for enhanced recovery of oil and gas reserves. **April 17.**

DOE SBIR/STTR FY 2013 Phase II Release 2
The Department of Energy (DOE) invites only DOE SBIR/STTR Phase I Release 2 Awardees from FY 2012 to submit Phase II grant applications. The purpose of Phase II is to perform the research and development required to meet the DOE objectives stated in the technical topic of the Phase I Funding Opportunity Announcement (FOA). In addition, it is intended that the small business grantee would be in a position to pursue commercial applications of the R&D at the end of Phase II. In many cases, Phase II results in a prototype product or a working process that can be demonstrated to a potential investor or customer (either in the private sector or in the Federal government, including the Department of Energy). This FOA is supplemental to the FY 2012 SBIR/STTR Phase I Release 2 FOA (DE-FOA-0000628); therefore, general information already provided in the FY 2012 FOA also applies to this Phase II process. If a conflict arises, this Phase II FOA will govern. **Due April 17.**

Desalination and Water Purification Research and Development (DWPR)
Through this Funding Opportunity Announcement (FOA), the U.S. Department of the Interior (DOI), Bureau of Reclamation (Reclamation), is accepting applications for projects to be funded by the Desalination and Water Purification Research and Development Program (DWPR). Through this program, Reclamation is forming partnerships with private industry, universities, water utilities, and others to address a broad range of desalting and water purification needs. The research program follows the recommendations of the National Research Council’s publication Desalination: A National Perspective, April 2008. Reclamation is particularly interested in research where the benefits are widespread but where no private-sector entities are willing to make the investment and assume the risks. Reclamation is also interested in research that would have a national significance—where the issues are of large-scale concern and the benefits accrue to a large sector of the public. **Due April 18.**

NOAA Sea Grant Aquaculture Extension and Technology Transfer 2013
Depending on availability of funds, NOAA Sea Grant expects to have available about $1,600,000 for each of FY 2013 and FY 2014 for a national competition to fund marine aquaculture extension and technology transfer efforts, as part of the overall plan to support the development of environmentally and economically sustainable ocean, coastal and Great Lakes aquaculture. Aquaculture that occurs in the Great Lakes or its coastal zone is considered marine aquaculture for this competition. This Federal Funding Opportunity includes information on application and criteria for aquaculture extension proposals requesting a maximum of $300,000 in total federal funding for up to a two-year period. Matching funds are required. Proposals are required to include a partnership (e.g., with local community governments, state and Federal
agencies, regional management efforts, industry, non-governmental organizations). Awards are anticipated to start no later than September 1, 2013. Additional proposals from this competition may be selected for funding in the next fiscal year, subject to the availability of funds. **Due April 18.**

**Grid Engineering for Accelerated Renewable Energy Deployment (GEARED)**
The Grid Engineering for Accelerated Renewable Energy Deployment (GEARED) Funding Opportunity Announcement (FOA) that is being issued by the U.S. Department of Energy (DOE) is seeking applications that help to support the increased power system research, development, and analytical capacity while simultaneously growing the expertise and preparedness of current and incoming electric utility sector professionals for high penetrations of solar and other distributed energy technologies. In order to achieve this joint capability and human capacity development, Grid Engineering for Accelerated Renewable Energy Deployment (GEARED) will support two activities: training consortia that focus on quickly bringing their findings into training and educational initiatives; and a national coordination network that will link these consortia to one another and other relevant power system R&D and training activities. The full Funding Opportunity Announcement (FOA) is posted on the EERE eXCHANGE website at https://eere-exchange.energy.gov. Applications must be submitted through the EERE eXCHANGE website to be considered for award. The applicant must first register and create an account on the EERE eXCHANGE website. A User Guide for the EERE eXCHANGE can be found on the EERE website http://eere.energy.gov/financing/exchangeExchange/Manuals.aspx after logging in to the system. Information on where to submit questions regarding the content of the announcement and where to submit questions regarding submission of applications is found in the full FOA posted on the EERE Exchange website. **Due April 19.**

**NOAA Sea Grant Community Climate Adaptation Initiative 2013**
NOAA Sea Grant expects to make available up to $1,000,000 (pending Congressional appropriation) for a national competition to fund climate adaptation efforts for FY 2013-2014 as part of an overall plan to enhance climate adaptation in coastal communities. This Federal Funding Opportunity includes information on how to apply for this funding opportunity and criteria for climate adaptation projects requesting a total of up to $100,000 in federal funds. Matching funds are required. Climate adaptation projects are expected to be conducted in partnership with local community governments, state and Federal agencies. Projects selected in this competition will be awarded and funded in FY 2013-2014 and should be completed by January 31, 2015. **Due April 19.**

**Advanced Gasification Technologies Development and Gasification Scoping Studies for Innovative Initiatives**
Gasification is used to convert a solid feedstock such as coal, pet coke or biomass into a gaseous form, referred to as syngas, which is composed primarily of hydrogen and carbon monoxide (CO). With gasification-based technologies, pollutants can be easily captured and then disposed of or converted to useful products. In the Department of Energy’s vision for clean power using gasification, steam is added to syngas in a water-gas shift (WGS) reactor to convert the CO to
carbon dioxide (CO₂) and to produce additional hydrogen. The hydrogen and CO₂ are separated, the hydrogen is combusted to make power and the CO₂ is captured and sent to storage, converted to useful product, or used for enhanced oil recovery (EOR). The Gasification Systems Technology Area takes full advantage of the flexibility inherent in gasification. For instance, technologies designed to clean syngas to chemical production standards also clean syngas for power production (i.e., integrated gasification combined cycle [IGCC]), often with significantly lower contaminant levels than the Environmental Protection Agency’s (EPA) criteria for power plant emissions. Technologies that lower the cost of producing high-hydrogen syngas for fuels or chemical production will also reduce the carbon footprint of IGCC. Advanced technologies being developed under the Gasification Systems Technology Area will provide a more efficient and economical platform for the capture and utilization of CO₂. Due April 22.

**USDA Farm to School Grant Program**

The purpose of the USDA Farm to School Grant Program is to assist eligible entities in implementing farm to school programs that improve access to local foods in eligible schools. On an annual basis, USDA awards up to $5 million in competitive grants for training, supporting operations, planning, purchasing equipment, developing school gardens, developing partnerships, and implementing farm to school programs.

In this funding round, USDA is soliciting applications for three types of grants:

1. **Planning grants** are intended for school districts or schools just starting to incorporate farm to school program elements into their operations.
2. **Implementation grants** are intended for school districts or schools to help scale or further develop existing farm to school initiatives.
3. **Support Service grants** are intended for state and local agencies, Indian tribal organizations, agricultural producers or groups of agricultural producers, and non-profit entities working with school districts or schools to further develop existing farm to school initiatives and to provide broad reaching support services to farm to school initiatives. Due April 24.

**Physics of Reliability: Evaluating Design Insights for Component Technologies in Solar (PREDICTS)**

The Physics of Reliability: Evaluating Design Insights for Component Technologies in Solar (PREDICTS) Funding Opportunity Announcement (FOA) that is being issued by the U.S. Department of Energy (DOE) is seeking applications that attempt to identify and evaluate only fundamental, intrinsic failure mechanisms. This FOA is NOT intended to determine or otherwise evaluate extrinsic failures. In addition to addressing intrinsic failure mechanisms, solar component lifetime and reliability evaluations must transition from a correlation-based approach to a causation-based approach. This transition will require the development of physics-based models that allow for the accurate and precise determination of the lifetime and the failure/degradation mechanisms of solar installation systems and components based upon their fundamental composition, method of assembly, and (accelerated) environmental exposure conditions. Due April 29.
Solar Utility Networks - Replicable Innovations in Solar Energy (SUNRISE)
The two FOA topics are intended to support two types of entities - those that are experienced in solar PV resource management, interconnection, and deployment; and those that have little to no experience in photovoltaics (PV) deployment, management and interconnection. This FOA is part of the DOE SunShot Initiative and addresses the Energy Efficiency and Renewable Energy (EERE) performance metric of increasing the viability and deployment of renewable energy technologies. Launched in 2011, the SunShot Initiative aims to make subsidy-free solar energy cost-competitive with conventional forms of energy by 2020. Under this FOA, applicants are invited to propose work scope in either Topic A or Topic B or both to be reviewed and considered for award. Within Topic A, applicants can choose either A-1 or A-2 or both to address in their proposal to be reviewed and considered for award. For a more detailed explanation for each topic area and a breakdown of each requirement, please see the FOA. Due May 1.

Fellowships for Advanced Social Science Research on Japan
The Fellowship Program for Advanced Social Science Research on Japan is a joint activity of the Japan-U.S. Friendship Commission (JUSFC) and the National Endowment for the Humanities. Awards support research on modern Japanese society and political economy, Japan’s international relations, and U.S.-Japan relations. The program encourages innovative research that puts these subjects in wider regional and global contexts and is comparative and contemporary in nature. Research should contribute to scholarly knowledge or to the general public’s understanding of issues of concern to Japan and the United States. Appropriate disciplines for the research include anthropology, economics, geography, history, international relations, linguistics, political science, psychology, public administration, and sociology. Awards usually result in articles, monographs, books, digital materials, archaeological site reports, translations, editions, or other scholarly resources. Due May 1.

NEH Fellowships
Fellowships support individuals pursuing advanced research that is of value to humanities scholars, general audiences, or both. Recipients usually produce articles, monographs, books, digital materials, archaeological site reports, translations, editions, or other scholarly resources in the humanities. Projects may be at any stage of development. Due May 1.

NEH Challenge Grants
NEH challenge grants are capacity-building grants, intended to help institutions and organizations secure long-term improvements in and support for their humanities programs and resources. Through these awards, many organizations and institutions have been able to increase their humanities capacity and secure the permanent support of an endowment. Grants may be used to establish or enhance endowments or spend-down funds that generate expendable earnings to support and enhance ongoing program activities. Challenge grants may also provide capital directly supporting the procurement of long-lasting objects, such as acquisitions for archives and collections, the purchase of equipment, and the construction or renovation of facilities needed for humanities activities. Funds spent directly must be shown to
bring long-term benefits to the institution and to the humanities more broadly. Grantee institutions may also expend up to 10 percent of total grant funds (federal funds plus matching funds) to defray costs of fundraising to meet the NEH challenge. Because of the matching requirement, these NEH grants also strengthen the humanities by encouraging nonfederal sources of support. Applications are welcome from colleges and universities, museums, public libraries, research institutions, historical societies and historic sites, scholarly associations, state humanities councils, and other nonprofit humanities entities. Programs that involve collaboration among multiple institutions are eligible as well, but one institution must serve as the lead agent and formal applicant of record. Due May 1.

**Vanishing Programmable Resources (VAPR)**
Sophisticated electronic microsystems can now be made at such low cost that they are increasingly pervasive throughout the battlefield and large numbers can be widely proliferated and used for applications such as distributed remote sensing and communications. However, it is nearly impossible to track and recover every device, resulting in unintended accumulation in the environment as well as subsequent unauthorized use. DARPA seeks innovative proposals to address this pervasive challenge by developing electronic systems capable of physically disappearing in a controlled, triggerable manner. The goal of the Vanishing Programmable Resources (VAPR) BAA is to develop and establish a basis set of materials, components, integration, and manufacturing capabilities to undergird this new class of electronics. Due May 14.

**Military Medical Photonics Program**
AFOSR is seeking research proposals from medical and scientific organizations for research that is aimed at using lasers and other light source technology to develop applications in medicine, photobiology, surgery, and closely related materials sciences. Proposals for work of up to three years duration to be conducted by interdisciplinary teams of physicians, biomedical scientists, physical scientists, and engineers are desired. Applications to combat casualty care and other military medicine are a high priority. Proposals will be evaluated by peer review. Awards may take the form of grants or contracts. Due May 15.

**NIJ FY 13 Social Science Research on Forensic Science**
NIJ is seeking applications for funding social science research on forensic science. Some of the forensic disciplines, particularly in the area of DNA, have experienced numerous advances over the last decade. NIJ is interested in stimulating research to examine the impact of these forensic advances on the criminal justice system and changes in policies to adapt to the greater use of forensic evidence. Due May 15.

**Nanotechnology Undergraduate Education (NUE) in Engineering**
This solicitation aims at introducing nanoscale science, engineering, and technology through a variety of interdisciplinary approaches into undergraduate engineering education. The focus of the FY 2013 competition is on nanoscale engineering education with relevance to devices and systems and/or on the societal, ethical, economic and/or environmental issues relevant to
nanotechnology. Related funding opportunities are posted on the web site for the National Nanotechnology Initiative, www.nsf.gov/nano. In addition, research and education projects in nanoscale science and engineering will continue to be supported in the relevant NSF programs and divisions. Due May 22.

**Theoretical Research in Magnetic Fusion Energy Science**
The Office of Fusion Energy Sciences (FES) of the Office of Science (SC), U.S. Department of Energy (DOE), hereby announces its interest in receiving new or renewal grant applications for theoretical and computational research relevant to the U.S. magnetic fusion energy sciences program. Applications selected in response to this Funding Opportunity Announcement (FOA) will be funded in Fiscal Year 2014, subject to the availability of appropriated funds. The specific areas of interest are: 1. Macroscopic Stability 2. Confinement and Transport 3. Boundary Physics 4. Plasma Heating & Non-inductive Current Drive, and 5. Energetic Particles Specific information about each topical area is included in the supplementary information section in the FOA document which is located on FedConnect. Due May 22.

**NIJ Graduate Research Fellowship Program**
The NIJ Graduate Research Fellowship (GRF) program provides awards for research on crime, violence, and other criminal justice-related topics to accredited universities that offer research-based doctoral degrees. NIJ invests in doctoral education by supporting universities that sponsor students who demonstrate the potential to successfully complete doctoral degree programs in disciplines relevant to the mission of NIJ and who are in the final stages of graduate study. Applicants sponsoring doctoral students are eligible to apply only if the doctoral research dissertation has direct implications for criminal justice policy and practice in the United States and is in an NIJ-supported discipline; e.g., social and behavioral sciences, operations technology, information and sensors research and development, and investigative and forensic sciences. Awards are granted to successful applicants in the form of a grant to cover a doctoral student fellowship. The GRF award for research projects using qualitative research methods is anticipated to be $30,000. The GRF award for research projects using a quantitative approach is anticipated to be $25,000. Applicants should submit an appropriate funding request based on the type of research proposed. Final award decisions, including decisions on funding amounts, will be made by the Director of the National Institute of Justice. Due May 23.

**NSF Research Experiences for Undergraduates**
The Research Experiences for Undergraduates (REU) program supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. REU projects involve students in meaningful ways in ongoing research programs or in research projects specifically designed for the REU program. This solicitation features two mechanisms for support of student research: (1) REU Sites are based on independent proposals to initiate and conduct projects that engage a number of students in research. REU Sites may be based in a single discipline or academic department or may offer interdisciplinary or multi-department research opportunities with a coherent intellectual theme. Proposals with an international dimension are welcome. (2) REU Supplements may be
included as a component of proposals for new or renewal NSF grants or cooperative agreements or may be requested for ongoing NSF-funded research projects. Undergraduate student participants in either REU Sites or REU Supplements must be U.S. citizens, U.S. nationals, or permanent residents of the United States. Students do not apply to NSF to participate in REU activities. Students apply directly to REU Sites or to NSF-funded investigators who receive REU Supplements. To identify appropriate REU Sites, students should consult the directory of active REU Sites on the Web at http://www.nsf.gov/crssprgm/reu/reu_search.cfm. Due May 24.

**Antarctic Artists and Writers Program**
The Antarctic Artists and Writers Program furnishes U.S. Antarctic Program operational support, and round-trip economy air tickets between the United States and the Southern Hemisphere, to artists and writers whose work requires them to be in the Antarctic to complete their proposed project. The Program does not provide any funding to participants, including for such items as salaries, materials, completion of the envisioned works, or any other purpose. U.S. Antarctic Program infrastructure consists of three year-round stations and numerous austral-summer research camps in Antarctica, research ships in the Southern Ocean, and surface and air transportation. These assets support the artist and writer projects. The main purpose of the U.S. Antarctic Program is scientific research and education. The Antarctic Artists and Writers Program supports writing and artistic projects specifically designed to increase understanding and appreciation of the Antarctic and of human activities on the southernmost continent. The program does not support short-term projects that are essentially journalistic in nature. Due May 31.

**Bioengineering Research Grants (BRG) (R01)**
The purpose of this funding opportunity announcement is to encourage collaborations between the life and physical sciences that: 1) apply a multidisciplinary bioengineering approach to the solution of a biomedical problem; and 2) integrate, optimize, validate, translate or otherwise accelerate the adoption of promising tools, methods and techniques for a specific research or clinical problem in basic, translational, or clinical science and practice. An application may propose design-directed, developmental, discovery-driven, or hypothesis-driven research and is appropriate for small teams applying an integrative approach that can increase our understanding of and solve problems in biological, clinical or translational science. Due June 5.

**Science for Sustainable and Healthy Tribes Climate Change Impacts**
The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is seeking applications proposing research on science for sustainable and healthy tribes. This solicitation is focused on research to develop sustainable solutions to environmental problems that affect tribes. The objectives of the awards to be made under this solicitation are to improve understanding of: 1) the health impacts of climate change on tribal populations; and 2) the health impacts of indoor air pollution exposures that derive from or are directly affecting traditional tribal life-ways and cultural practices. In both cases, projects should focus on impacts to vulnerable sub-populations of the Tribal communities. Proposals should
also consider sustainable, culturally appropriate and acceptable pollution prevention, and adaptation/mitigation strategies. EPA plans to host three webinars to discuss this RFA and respond to questions. **Due June 25.**

**Early Career Projects: Science for Sustainable and Healthy Tribes Climate Change Impacts**
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Partnerships for Biodefense (R01)
This Funding Opportunity Announcement (FOA) issued by the National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH), invites research applications for projects that support preclinical development of lead candidate therapeutics, vaccines and related technologies, or diagnostics against NIAID Category A, B, or C priority agents. Applications must include a Product Development Strategy attachment and demonstrate substantive investment by at least one industrial participant. Due July 2.

Links to New & Open Funding Solicitations

- SAMHSA FY 2013 Grant Announcements and Awards
- DARPA Microsystems Technology Office Solicitations
- Open Solicitations from IARPA (Intelligence Advanced Research Projects Activity)
- Bureau of Educational and Cultural Affairs, Open Solicitations, DOS
- ARPA-E Funding Opportunity Exchange
- DOE Funding Opportunity Exchange
- NIAID Funding Opportunities List
- NPS Broad Agency Announcements (BAAs)
- NIJ Current Funding Opportunities
- NIJ Forthcoming Funding Opportunities
- Engineering Information Foundation Grant Program
- Comprehensive List of Collaborative Funding Mechanisms, NORDP
- ARL Funding Opportunities — Open Broad Agency Announcements (BAA)
- HHS Grants Forecast
- American Psychological Association, Scholarships, Grants and Awards
- EPA 2013 Science To Achieve Results (STAR) Research Grants
- NASA Open Solicitations
- Defense Sciences Office Solicitations
- The Mathematics Education Trust
- EPA Open Funding Opportunities
- DOE Funding Opportunity Exchange
- CDMRP FY 2013 Funding Announcements
- Office of Minority Health
- Department of Justice Open Solicitations
- DOE/EERE Funding Opportunity Exchange
- New Funding Opportunities at NIEHS (NIH)
- National Human Genome Research Institute Funding Opportunities
- Army Research Laboratory Open Broad Agency Announcements (BAA)
EPA/NSF Networks for Sustainable Molecular Design and Synthesis
This solicitation is jointly sponsored between the U.S. Environmental Protection Agency (EPA) and the National Science Foundation (NSF) Divisions of Chemistry and Chemical, Bioengineering, Environmental, and Transport Systems (CBET) to encourage synergistic research activities and to enhance cooperation among the chemical sciences, materials research, geosciences, engineering, and biomedical and public health communities. The agencies jointly issue the solicitation, but will separately fund awards for Networks for Sustainable Molecular Design and Synthesis (NSMDS). Due March 18.

EPA/NSF Networks for Characterizing Chemical Life Cycle
This solicitation is jointly sponsored by the U.S. Environmental Protection Agency (EPA) and the U.S. National Science Foundation (NSF) Division of Chemistry (CHE) to encourage synergy and enhance cooperation in examining the life cycles of synthetic chemicals and materials as they relate to their manufacture, use, transport, and disposal or recycle. The Networks for Characterizing Chemical Life Cycle (NCCLCs) will promote development of trans-disciplinary, systems- and molecular-level understanding of the life cycle of important (relevant) synthetic chemicals and materials (including nanomaterials) as these distribute and are potentially altered through use in society and interaction with the built and natural environments. Due March 18.

University Transportation Centers Open Competition 2013
The Research and Innovative Technology Administration (RITA) of the U.S. Department of Transportation (US DOT) is seeking applications from non-profit institutions of higher education to operate National, Regional and Tier 1 University Transportation Centers (UTCs or Centers). The purpose of these Centers is to advance U.S. technology and expertise in the many modes
and disciplines comprising transportation through the mechanisms of research, education, and technology transfer; to provide a critical transportation knowledge base outside the US DOT; and to address vital workforce needs for the next generation of transportation leaders. **Due March 19.**

**Robert Noyce Teacher Scholarship Program**
The Robert Noyce Teacher Scholarship Program seeks to encourage talented science, technology, engineering, and mathematics majors and professionals to become K-12 mathematics and science teachers. The Noyce Scholarship Track provides funds to institutions of higher education to support scholarships, stipends, and academic programs for undergraduate STEM majors and post-baccalaureate students holding STEM degrees who earn a teaching credential and commit to teaching in high-need K-12 school districts. The NSF Teaching Fellowship/Master Teaching Fellowship Track provides funding to support STEM professionals who enroll as NSF Teaching Fellows in master's degree programs leading to teacher certification by providing academic courses, professional development, and salary supplements while they are fulfilling a four-year teaching commitment in a high-need school district. **Due March 20.**

**ICECool Applications (ICECool Apps)**
ICECool is exploring disruptive thermal technologies that will mitigate thermal limitations on the operation of military electronic systems, while significantly reducing size, weight, and power consumption. The specific goal of ICECool Applications is to enhance the performance of RF power amplifiers and embedded computing systems through the application of chip-level heat removal with kW-level heat flux and heat density with thermal control of local submillimeter hot spots, while maintaining these components in their commonly-accepted temperature range by judicious combination of intra- and/or interchip microfluidic cooling and on-chip thermal interconnects. See full [DARPA-BAA-13-21](#) document attached. **Due March 22.**

**FY2013 NETL University Turbine Systems Research (UTSR) Program**
The goal of this Funding Opportunity Announcement is to solicit and competitively award cost-shared applications from U.S. universities, colleges, and university-affiliated research institutions to facilitate the development and demonstration of next-generation turbine technology with the goal of producing reliable, affordable, clean, efficient, and cost-effective energy supplies and to address the need for engineering and scientific solutions for gas turbines fueled with coal derived hydrogen, synthesis gas and natural gas fuels. **Due March 27.**

**Biotechnology Risk Assessment Grants Program**
The purpose of the BRAG program is to support the generation of new information that will assist Federal regulatory agencies in making science-based decisions about the effects of introducing into the environment genetically engineered organisms (GE), including plants, microorganisms (including fungi, bacteria, and viruses), arthropods, fish, birds, mammals and other animals excluding humans. Investigations of effects on both managed and natural environments are relevant. The BRAG program accomplishes its purpose by providing Federal
regulatory agencies with scientific information relevant to regulatory issues. See RFA for details. Due March 31.

**Next-Generation National Nanotechnology Infrastructure Network (NG NNIN)**
The National Nanotechnology Infrastructure Network (NNIN) will reach its ten year authorized award life at the end of Fiscal Year 2013. The National Science Foundation is announcing in this solicitation an open competition to establish a Next-Generation National Nanotechnology Infrastructure Network (NG NNIN) for Fiscal Years 2014-2018.

NNIN has enabled major discoveries, innovations, and contributions to education and commerce within all disciplines of nanoscale science, engineering, and technology through NSF support of a national network of university-based user facilities. These facilities have provided open access to leading-edge nanotechnology fabrication and characterization tools, instrumentation, and expertise for users across the nation from academia, small and large industry, and government. The core mission of NNIN has included national-level education and outreach programs to enable a diverse science and engineering workforce, the study of societal and ethical implications of nanotechnology including issues of environment, health, and safety, as well as important modeling and simulation capabilities.

The new competition for the NG NNIN will build on the concept of NNIN with a much broadened scope and user base. Support is being provided by all NSF Directorates and the Office of International Science and Engineering as an integral part of the NSF investment in Nanoscale Science and Engineering. Required LOI April 1; full May 13.

**Applied Research and Development in Forensic Science for Criminal Justice Purposes**
With this solicitation, NIJ seeks proposals for applied research and development projects that will: (1) increase knowledge or understanding necessary to guide forensic science policy and practice or (2) result in the production of useful materials, devices, systems, or methods that have the potential for forensic application. The intent of the Applied Research and Development in Forensic Science for Criminal Justice Purposes Program is to direct the findings of basic scientific research, research and development in broader scientific fields applicable to forensic science, and ongoing forensic science research toward the development of highly discriminating, accurate, reliable, cost-effective, and rapid methods for the identification, analysis, and interpretation of physical evidence for criminal justice purposes. Due April 1.

**Basic Scientific Research to Support Forensic Science for Criminal Justice Purposes**
With this solicitation, NIJ seeks proposals for funding basic scientific research in the physical, life, and cognitive sciences that is designed to increase the knowledge underlying forensic science disciplines intended for use in the criminal justice system. Due April 1.

**NASA Undergraduate Student Instrument Project 2013**
The NASA Science Mission Directorate (SMD) is releasing this Undergraduate Student Instrument Project (USIP) Educational Flight Opportunity (EFO) to solicit U.S. university proposals to develop an Earth or space science payload that will fly on a NASA suborbital vehicle, such as a sounding rocket, balloon, aircraft, or commercial suborbital reusable launch vehicle. SMD designed USIP to promote interest and proficiency in science, technology,
Research and mathematics (STEM) education and to develop careers in the STEM related fields through offering NASA’s unique suborbital research platforms for student educational flight opportunities. This EFO is intended to provide multidiscipline undergraduate student teams an exciting hands-on project, while at the same time promoting the technical and project management skills necessary to train the country’s future science and technology leaders. The maximum funding available from SMD for a proposed project, including the design, development, and testing of the science payload, is $50K. Due April 5.

Office of Naval Research STEM Workforce
The Office of Naval Research (ONR) is interested in receiving proposals for developing innovative solutions that directly support the development and maintenance of a robust STEM workforce. Successful efforts will be targeted towards one or more of the following: K-12, Undergraduate, Graduate STEM education. The goal of any proposed effort should be to provide "game changing" solutions that will establish and maintain a diverse pipeline of U.S. citizens who are interested in participating in Naval STEM education programs and who ultimately will be interested in STEM careers. This BAA also separately requests proposals for the evaluation of current and future Naval STEM programs. This includes implementing methodologies and processes for data collection, analysis, and reporting, as well as methods for effectively evaluating programs and calculating return on investment for chosen programs.

FY 2013 Request for Proposals for the Pollution Prevention Information Network (PPIN) Grant
Pollution Prevention Information Network (PPIN) grant program seeks to improve development and dissemination of P2 information by funding regional P2 information centers. These centers serve state, tribal, and local government needs in addition to providing P2 information directly to businesses. The regional centers collaborate and coordinate on P2 information development and dissemination activities nationally in order to decrease duplication of effort and promote efficiency. Information and training are used to assist businesses in identifying better environmental strategies for reducing or eliminating waste and conserving natural resources. Grantees of this program have created a national network called the Pollution Prevention Resource Exchange (P2Rx) which provides information and services on their websites (see: http://www.epa.gov/oppt/p2home/pubs/p2rx.html ). Due April 5.

Innovation for Increasing Cybersecurity for Energy Delivery Systems (I2CEDS) - 2013
The U.S. Department of Energy’s Office of Electricity Delivery and Energy Reliability, in collaboration with the U.S. Department of Homeland Security’s Science and Technology Directorate and Energy Sector Control Systems Working Group (ESCSWG) in support of the Electricity Sub-sector Coordinating Council, Oil and Natural Gas Sector Coordinating Council, and the Government Coordinating Council for Energy under the Critical Infrastructure Partnership Advisory Council (CIPAC) Framework, facilitated the development of the Roadmap to Achieve Energy Delivery Systems Cybersecurity. The Roadmap synthesizes expert input from the energy delivery control systems community, including owners and operators, commercial vendors, national laboratories, industry associations, and government agencies. The Roadmap presents a strategic framework supported by key milestones that must be met to achieve the
Research Development & Grant Writing News

Roadmap vision that by 2020 resilient energy delivery systems are designed, installed, operated and maintained to survive a cyber-incident while sustaining critical functions. **Due April 5.**

**Organic Transitions Program**
The overall goal of the Organic Transitions Program (ORG) is to support the development and implementation of research, extension and higher education programs to improve the competitiveness of organic livestock and crop producers, as well as those who are adopting organic practices. In FY 2013, ORG will continue to prioritize environmental services provided by organic farming systems in the area of soil conservation and climate change mitigation, including greenhouse gases (GHG). Two new priorities have been added to support (1) the development of educational tools for Cooperative Extension personnel and other agricultural professionals who advise producers on organic practices and (2) the development of cultural practices and other allowable alternatives to substances recommended for removal from the National Organic Programs National List of Allowed and Prohibited Substances. Practices and systems to be addressed include those associated with organic crops, organic animal production, and organic systems integrating plant and animal production. **Due April 5.**

**Foundational Program to Advance Cell Efficiency II (FPACE II) - Model Systems**
With this Funding Opportunity Announcement (FOA), the Department of Energy (DOE) SunShot Initiative is soliciting collaborative research teams to define and fabricate model systems that utilize a single p-n junction device structure and have the potential to approach Shockley-Queisser power conversion efficiency limits (for a chosen bandgap and absorber material). The emphasis of this FOA is assembling cohesive and highly diverse teams of experts within and outside the PV community who can achieve the goals of creating a model system concept and a subsequent device that can approach theoretical limits. DOE SunShot anticipates significant collaboration between experts in fundamental materials, characterization, device physics, ab-initio simulations, and PV device integration to adequately address these issues. The full Funding Opportunity Announcement (FOA) is posted on the EERE eXCHANGE website at [https://eere-exchange.energy.gov](https://eere-exchange.energy.gov). Applications must be submitted through the EERE eXCHANGE website to be considered for award. The applicant must first register and create an account on the EERE eXCHANGE website. A User Guide for the EERE eXCHANGE can be found on the EERE website [http://eere.energy.gov/financing/exchangeExchange/Manuals.aspx](http://eere.energy.gov/financing/exchangeExchange/Manuals.aspx) after logging in to the system. Information on where to submit questions regarding the content of the announcement and where to submit questions regarding submission of applications is found in the full FOA posted on the EERE Exchange website. **Due April 8.**

**Special Program for 2013: Basic Research Challenges in the Science of Autonomy**
The Office of Naval Research (ONR) basic research programs in autonomy address critical multi-disciplinary fundamental challenges that cut across different scientific and engineering disciplines and system domains (air, sea, undersea, and ground systems) with a focus on problems with particular naval relevance. Five new basic research focus areas have been identified and are “Understanding Satisficing in Human, Animal, and Engineered Autonomous Systems for Fast Decision-making with Limited Data,” “Cognitively Compatible Semantic and

**Agriculture and Food Research Initiative - Childhood Obesity Prevention**
This Challenge Area Focuses on the societal challenge to end obesity among children, the number one nutrition-related problem in the US. Food is an integral part of the process that leads to obesity and USDA has a unique responsibility for the food system in the United States. This program is designed to achieve the long-term outcome of reducing the prevalence of overweight and obesity among children and adolescents 2-19 years. The Childhood Obesity Program supports Multi-function Integrated Research, Education, and/or Extension Projects and Food and Agricultural Science Enhancement (FASE) Grants. Due April 11.

**Google Faculty Research Awards**
Google Research Awards are one-year awards structured as unrestricted gifts to universities to support the work of world-class full-time faculty members at top universities around the world. Faculty members can apply for Research Awards by submitting a proposal to one of our two 2013 funding rounds. Our 2013 deadlines are April 15 and October 15. Recipients are selected through a comprehensive internal review process and notified of their awards within 4 months of the initial submission. Faculty members can apply for up to 150,000 USD in eligible expenses, but actual award amounts are frequently less than the full amount requested. Most awards are funded at the amount needed to support basic expenses for one graduate student for one year. Please see our FAQs for more details on eligibility and budgets. Due April 15.

**NEH Awards for Faculty**
This program supports individual faculty or staff members at Hispanic-Serving Institutions, Historically Black Colleges and Universities (HBCUs), and Tribal Colleges and Universities, who pursue research of value to humanities scholars, students, or general audiences. Awards are designed to be flexible, allowing applicants to define the audience, type of research, award periods, and administrative arrangements that best fit their projects. Awards can be used for a wide range of projects that are based on humanities research. Eligible projects include pursuing research in primary and secondary materials; producing articles, monographs, books, digital materials, archaeological site reports, translations, editions, or other scholarly resources; and conducting basic research leading to the improvement of an existing undergraduate course or the achievement of institutional or community research goals. Common to all applications—regardless of their outcome—must be humanities research supporting the goals of the project. Due April 16.

**Systems Biology Enabled Research on the Role of Microbial Communities in Carbon Cycling**
The Office of Biological and Environmental Research (BER) of the Office of Science (SC), U.S. Department of Energy (DOE) hereby announces its interest in receiving applications for research that supports the Genomic Science research program (http://genomicscience.energy.gov). In this Funding Opportunity Announcement (FOA), applications are solicited for: i.) systems biology studies on regulatory and metabolic networks of microbes, microbial consortia, and microbe-plant interactions involved in biogeochemical cycling of carbon, ii.) development of genomics approaches to investigate microbial community functional processes involved in carbon cycling in terrestrial ecosystems, and iii.) development of genomics enabled methods and technologies for imaging and analysis of microbially-mediated carbon cycling processes in terrestrial ecosystems. FedConnect. Due April 19.

**Endangered Language Fund**
You can download a PDF of this Request for Proposals here. The Endangered Language Fund provides grants for language maintenance and linguistic field work. The work most likely to be funded is that which serves both the native community and the field of linguistics. Work which has immediate applicability to one group and more distant application to the other will also be considered. Publishing subventions are a low priority, although they will be considered. Proposals can originate in any country. The language involved must be in danger of disappearing within a generation or two. Endangerment is a continuum, and the location on the continuum is one factor in our funding decisions. Eligible expenses include consultant fees, tapes, films, travel, etc. Overhead is not allowed. Grants are normally for a one year period, though extensions may be applied for. We expect grants in this round to be less than $4,000 in size, and to average about $2,000. Due April 22.

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The Impact of Safety Equipment Modalities on Reducing Correctional Officer Injuries
NIJ seeks proposals to conduct research on differences in safety equipment modalities; that is, policies and practices among correctional agencies regarding what safety equipment staff may use, when and how it may be used, and how those modalities affect officers’ physical safety.
For the purpose of this solicitation, safety equipment is defined as equipment used by correctional officers to protect them from assaults and to reduce injuries. **Due April 25.**

**Evaluating the Efficacy of Lighting, Markings, and Paint Schemes in Reducing the Incidence of Law Enforcement Vehicle Crashes**
The purpose of the National Institute of Justice (NIJ) Research, Evaluation, and Development Project Grants program is to encourage and support research, development, and evaluation to improve criminal justice policy and practice in the United States. With this solicitation, NIJ seeks proposals to conduct evaluations of the impact of alternative lighting, markings, and painting schemes for law enforcement vehicles on the incidence of traffic accidents involving law enforcement vehicles. NIJ is also interested in determining how these schemes may otherwise affect law enforcement operations. **Due April 25.**

**NIJ FY 13 Establishing a National Criminal Justice Technology Research, Test, and Evaluation Center**
NIJ seeks proposals to establish a Criminal Justice Technology Research, Test, and Evaluation (RT&E) Center within the NIJ-funded NLECTC System. This Center will conduct focused RT&E activities to inform NIJ’s non-forensic technology research and development (R&D) efforts. It will also conduct RT&E activities to support NIJ’s efforts to inform practitioners, policymakers, and researchers (‘the field’) regarding technologies or technology-related issues for purposes of improving criminal justice policy and practice. **Due April 25.**

**NIJ FY 13 Identifying the Highest Priority Criminal Justice Technology Needs**
NIJ seeks proposals to help inform development of NIJ’s technology research, development, test, and evaluation (RDT&E) investments. Many different considerations shape the goals and objectives of NIJ’s technology RDT&E programs. The most important are the technology needs of the criminal justice practitioner. This solicitation seeks applications to assist NIJ in identifying and assessing the highest priority technology needs of law enforcement, courts, and corrections agencies and potential solutions to those needs. **Due April 25.**

**NIJ FY 13 Applied Technology Research and Development to Optimize Criminal Justice Use of Social Media in the "Web 3.0" Environment**
NIJ seeks proposals for research and development leading to the introduction into practice of needed technologies to enhance the ability of criminal justice agencies to use social media as “Web 3.0” continues to develop and mature. **Due April 25.**

**NIJ FY 13 Applied Technology Research and Development for Criminal Justice Purposes**
NIJ seeks proposals for applied technology research and development projects leading to the introduction into practice of improved technologies for use by law enforcement, courts, and corrections agencies. NIJ is particularly interested in (1) the application of expert systems technologies to enhance the performance of non-expert practitioners and (2) improved devices to locate and track offenders that are under supervision in the community. NIJ will also entertain proposals for applied technology research and development to meet other
demonstrated, high-priority needs of law enforcement, courts, and corrections agencies.  **Due April 25.**

**Research and Evaluation on the Impact of Social Media on Policing**
NIJ seeks proposals for research that will explore the impact of the current state of social media technology on police practices and outcomes. Although social media technology is now ubiquitous in our society and particularly within law enforcement agencies, it is unclear how this technology is being used by departments, both officially and unofficially, and how this use has translated into public safety outcomes.  **Due April 26.**

**The Impact of Probation/Parole Officer Home Visits on Offender Outcomes**
NIJ seeks proposals for research on the impact that probation/parole officer home visits have on offender outcomes, specifically what practices agencies are using, what offender outcomes can be attributed to these practices, and what dosage is needed to achieve these outcomes.  **Due April 26.**

**Research and Evaluation on Justice Systems: Investigator-Initiated**
NIJ seeks proposals for social and behavioral science research on, and evaluations related to, justice systems topics relevant to State, local, tribal, or Federal criminal and juvenile justice policy and practice. Application titles should clearly indicate the justice systems focus area selected. Most justice systems topics, including but not limited to general policing, corrections (institutional, community, and offender reentry), and courts (prosecution, defense including indigent, adjudication, and sentencing) that are relevant to policymakers and practitioners are eligible for consideration.  **Due April 26.**

**Research and Evaluation on Policing**
NIJ seeks proposals to conduct research on policing to promote officer safety and wellness, understand the impact of police technology on crime control and disorder, promote police integrity, and explore the costs and benefits of the consolidation of police agencies at the State, local, and tribal levels. Effective practices in these areas are of critical importance to improving law enforcement operations and ensuring trust and confidence in the police in communities throughout the country.  **Due April 26.**

**Broadening Participation Research Initiation Grants in Engineering 2013 (BRIGE)**
The Broadening Participation Research Initiation Grants in Engineering (BRIGE) solicitation is designed to promote the development of early career faculty who will become champions for diversity and broadening participation of underrepresented groups in engineering throughout their careers. BRIGE awards will enable early career faculty to integrate effective diversity and broadening participation strategies in their engineering research, education, and innovation activities.  **Due April 29.**

**The Impact of Safety Equipment Modalities on Reducing Correctional Officer Injuries**
NIJ seeks proposals to conduct research on differences in safety equipment modalities; that is, policies and practices among correctional agencies regarding what safety equipment staff may use, when and how it may be used, and how those modalities affect officers’ physical safety. For the purpose of this solicitation, safety equipment is defined as equipment used by correctional officers to protect them from assaults and to reduce injuries. Due April 25.

**Evaluating the Efficacy of Lighting, Markings, and Paint Schemes in Reducing the Incidence of Law Enforcement Vehicle Crashes**

The purpose of the National Institute of Justice (NIJ) Research, Evaluation, and Development Project Grants program is to encourage and support research, development, and evaluation to improve criminal justice policy and practice in the United States. With this solicitation, NIJ seeks proposals to conduct evaluations of the impact of alternative lighting, markings, and painting schemes for law enforcement vehicles on the incidence of traffic accidents involving law enforcement vehicles. NIJ is also interested in determining how these schemes may otherwise affect law enforcement operations. Due April 25.

**NIJ FY 13 Establishing a National Criminal Justice Technology Research, Test, and Evaluation Center**

NIJ seeks proposals to establish a Criminal Justice Technology Research, Test, and Evaluation (RT&E) Center within the NIJ-funded NLECTC System. This Center will conduct focused RT&E activities to inform NIJ’s non-forensic technology research and development (R&D) efforts. It will also conduct RT&E activities to support NIJ’s efforts to inform practitioners, policymakers, and researchers (‘the field’) regarding technologies or technology-related issues for purposes of improving criminal justice policy and practice. Due April 25.

**NIJ FY 13 Identifying the Highest Priority Criminal Justice Technology Needs**

NIJ seeks proposals to help inform development of NIJ’s technology research, development, test, and evaluation (RDT&E) investments. Many different considerations shape the goals and objectives of NIJ’s technology RDT&E programs. The most important are the technology needs of the criminal justice practitioner. This solicitation seeks applications to assist NIJ in identifying and assessing the highest priority technology needs of law enforcement, courts, and corrections agencies and potential solutions to those needs. Due April 25.

**NIJ FY 13 Applied Technology Research and Development to Optimize Criminal Justice Use of Social Media in the "Web 3.0" Environment**

NIJ seeks proposals for research and development leading to the introduction into practice of needed technologies to enhance the ability of criminal justice agencies to use social media as “Web 3.0” continues to develop and mature. Due April 25.

**NIJ FY 13 Applied Technology Research and Development for Criminal Justice Purposes**

NIJ seeks proposals for applied technology research and development projects leading to the introduction into practice of improved technologies for use by law enforcement, courts, and corrections agencies. NIJ is particularly interested in (1) the application of expert systems
technologies to enhance the performance of non-expert practitioners and (2) improved devices to locate and track offenders that are under supervision in the community. NIJ will also entertain proposals for applied technology research and development to meet other demonstrated, high-priority needs of law enforcement, courts, and corrections agencies. **Due April 25.**

**Research and Evaluation on the Impact of Social Media on Policing**
NIJ seeks proposals for research that will explore the impact of the current state of social media technology on police practices and outcomes. Although social media technology is now ubiquitous in our society and particularly within law enforcement agencies, it is unclear how this technology is being used by departments, both officially and unofficially, and how this use has translated into public safety outcomes. **Due April 26.**

**The Impact of Probation/Parole Officer Home Visits on Offender Outcomes**
NIJ seeks proposals for research on the impact that probation/parole officer home visits have on offender outcomes, specifically what practices agencies are using, what offender outcomes can be attributed to these practices, and what dosage is needed to achieve these outcomes. **Due April 26.**

**Research and Evaluation on Justice Systems: Investigator-Initiated**
NIJ seeks proposals for social and behavioral science research on, and evaluations related to, justice systems topics relevant to State, local, tribal, or Federal criminal and juvenile justice policy and practice. Application titles should clearly indicate the justice systems focus area selected. Most justice systems topics, including but not limited to general policing, corrections (institutional, community, and offender reentry), and courts (prosecution, defense including indigent, adjudication, and sentencing) that are relevant to policymakers and practitioners are eligible for consideration. **Due April 26.**

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Preservation and Access Research and Development grants support projects that address major challenges in preserving or providing access to humanities collections and resources. These challenges include the need to find better ways to preserve materials of critical importance to the nation’s cultural heritage—from fragile artifacts and manuscripts to analog recordings and digital assets subject to technological obsolescence—and to develop advanced modes of searching, discovering, and using such materials. Applicants should define a specific problem, devise procedures and potential solutions, and explain how they would evaluate their projects and disseminate their findings. Project results must serve the needs of a significant number of humanists. Due May 1.

Initiative for Conservation in the Andean Amazon Phase II
The United States Agency for International Development (USAID) is seeking concept papers and later, applications, from Non-Governmental Organizations (NGOs), education institutions, partnerships and consortia to implement activities to support the Initiative for Conservation in the Andean Amazon (ICAA) with Landscape-based programs. Please note, at this time we are not accepting full applications or proposals. Only concept papers will be reviewed. Instructions on how to prepare a concept paper are provided within this APS. Open to May 2, 2013.

NIJ FY 13 Research on Firearms and Violence
This solicitation seeks applications for research on firearms and violence such as, but not limited to, the effects of criminal justice interventions on reducing gun violence, improving data systems for studying gun violence, illicit gun markets, and the effects of firearm policies and legislation on public safety. Due May 2.

ONR Electronic Warfare Technology
The goal of Electronic Warfare (EW) is to control the Electro-Magnetic Spectrum (EMS) by exploiting, deceiving, or denying enemy use of the spectrum while ensuring its use by friendly forces. To that end, the Office of Naval Research (ONR) EW Discovery and Invention (D&I) program invests in Science and Technology (S&T) initiatives that will provide naval forces (including Navy and Marine Corps) with improved threat warning systems; Electronic warfare Support (ES); decoys and countermeasures against weapon tracking and guidance systems; Electronic Attack (EA) against adversary Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR); and Electronic Protection (EP) of our own weapons and C4ISR from intentional and unintentional interference. Due May 7 (See BAA for White Paper Due Dates).

Desistance From Crime Over the Life Course
This solicitation seeks proposals to conduct research that enhances knowledge of the process of desistance from crime. NIJ encourages applicants to submit proposals for bold, innovative approaches to enhancing understanding of the processes underlying desistance from crime. Due May 9.
**Violet and Cyril Franks Scholarship**
The APF Violet and Cyril Franks Scholarship supports graduate-level scholarly projects that use a psychological perspective to help understand and reduce stigma associated with mental illness. The scholarship helps address research which shows that stigma is a significant barrier to treatment and recovery for many of the 50 million Americans living with mental illness. **Due May 15.**

**NIH Summer Research Experience Programs (R25)**
The purpose of the NIH Summer Research Experience Program (referred to as the Summer Research Program) is to provide a high quality research experience for high school and college students and for science teachers during the summer academic break. The NIH expects that such programs will: help attract young students to careers in science; provide opportunities for college students to gain valuable research experience to help prepare them for graduate school; and enhance the skills of science teachers and enable them to more effectively communicate the nature of the scientific process to their students. The programs would also contribute to enhancing overall science literacy. Summer Research Programs that expand and complement existing summer educational and training programs are encouraged. Note: Not all participating Institutes and Centers (ICs) support all aspects of this program. Therefore, prospective applicants must consult the Table of IC-Specific Information, Requirements and Staff Contacts in this announcement to determine if your application will be accepted for review, and should contact staff at the relevant IC (see also Section VII) to discuss the proposed Program. **Due May 21.**

**Agriculture and Food Research Initiative: Foundational Program**
The U.S. Department of Agriculture (USDA) established the Agriculture and Food Research Initiative (AFRI) under which the Secretary of Agriculture may make competitive grants for fundamental and applied research, education, and extension to address food and agricultural sciences (as defined under section 1404 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA) (7 U.S.C. 3103)), as amended, in six priority areas. The six priority areas include: 1) plant health and production and plant products; 2) animal health and production and animal products; 3) food safety, nutrition, and health; 4) renewable energy, natural resources, and environment; 5) agriculture systems and technology; and 6) agriculture economics and rural communities. **Due May 22.**

**Digitizing Historical Records**
The National Historical Publications and Records Commission seeks proposals that use cost-effective methods to digitize nationally significant historical record collections and make the digital versions freely available online. Projects must make use of existing holdings of historical repositories and consist of entire collections or series. The materials should already be available to the public at the archives and described so that projects can re-use existing information to serve as metadata for the digitized collection. **Due June 11.**

**Consolidated Innovative Nuclear Research**
The Department of Energy’s (DOE) Office of Nuclear Energy (NE) conducts crosscutting nuclear energy research and development (R&D) and associated infrastructure support activities to develop innovative technologies that offer the promise of dramatically improved performance for advanced reactors and fuel cycle concepts while maximizing the impact of DOE resources. NE funds research activities through both competitive and direct mechanisms, as required to best meet the needs of NE. These efforts are essential to balancing NE’s R&D portfolio and encourage new nuclear power deployment with creative solutions to the universe of nuclear energy challenges. The competitive portion of NE’s R&D portfolio is accomplished in part by promoting integrated and collaborative research conducted by university, industry, international and national laboratory partners under the direction of Office of Nuclear Energy’s programs: Nuclear Energy University Programs (NEUP), elements of the Nuclear Energy Enabling Technologies (NEET) Crosscutting Technology Development Program, the Advanced Test Reactor (ATR) National Scientific User Facility (NSUF), and Small Business Innovative Research (SBIR) / Small Business Technology Transfer (STTR). Specifically, NE designates up to 20 percent of funds appropriated to its R&D programs for R&D and infrastructure support at university and research institutions, through open, competitive solicitations. Additionally, through the NEET Crosscutting Technology Development Program, NE provides direct and competitive awards for university, industry and national laboratory-led research that crosscuts the NE R&D portfolio. The primary objective of consolidating fiscal year (FY) 2013 competitive research sought by NE in the area of innovative nuclear research into a single FOA is to promote efficiency and the effective use of resources. Due June 12.

**Water Sustainability and Climate**
The goal of the Water Sustainability and Climate (WSC) solicitation is to enhance the understanding and predict the interactions between the water system and land use changes (including agriculture, managed forest and rangeland systems), the built environment, ecosystem function and services and climate change/variability through place-based research and integrative models. Studies of the water system using models and/or observations at specific sites, singly or in combination, that allow for spatial and temporal extrapolation to other regions, as well as integration across the different processes in that system are encouraged, especially to the extent that they advance the development of theoretical frameworks and predictive understanding. Due September 10.

**High-End Instrumentation Grant Program (S10)**
The ORIP High-End Instrumentation Grant (HEI) program encourages applications from groups of NIH-supported investigators to purchase a single major item of equipment to be used for biomedical research that costs at least $750,000. The maximum award is $2,000,000. Instruments in this category include, but are not limited to, biomedical imaging systems, NMR spectrometers, mass spectrometers, electron microscopes and supercomputers. Due Sept. 13.

**Long Range Broad Agency Announcement for Navy and Marine Corps Science and Technology**
This BAA is intended for proposals related to basic research, applied research, or advanced technology development. **Open to September 2013.**

**APS for Food Security, Nutrition, Biodiversity and Conservation**
The U.S. Agency for International Development (USAID) continues its commitment to foster more strategic alliances with the private sector’s “solution holders” who are often well positioned to address specific development challenges. The purpose of this APS is to announce USAID/Uganda’s plans to fund a limited number of Public Private Alliances to enhance food security and address issues of biodiversity and conservation. Competition under this APS will consist of a two-step process where applicants first submit a Concept Paper for an initial competitive review. **All Concept Papers received will be evaluated for responsiveness to the application criteria specified in this APS. Open to September 15, 2013.**

**National Oceanic and Atmospheric Administration (NOAA)**
The purpose of this notice is to request applications for special projects and programs associated with NOAA's strategic plan and mission goals, as well as to provide the general public with information and guidelines on how NOAA will select proposals and administer discretionary Federal assistance under this Broad Agency Announcement (BAA). This BAA is a mechanism to encourage research, education and outreach, innovative projects, or sponsorship that are not addressed through our competitive discretionary programs. It is not a mechanism for awarding congressionally directed funds or existing funded awards. **Open until September 30, 2013.**

**National Geospatial-Intelligence Agency Academic Research Program**
The National Geospatial-Intelligence Agency (NGA) is releasing this solicitation for its sponsored academic research program. This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Department of Defense (DoD) Grant and Agreement Regulations (DoDGARs) 22.315(a). Awards will take the form of grants. However, other instruments may be considered as appropriate based on the proposals. **Open to September 30, 2013.**

**FY 2013 Continuation of Solicitation for the Office of Science Financial Assistance Program**
The Office of Science of the Department of Energy hereby announces its continuing interest in receiving grant applications for support of work in the following program areas: Advanced Scientific Computing Research, Basic Energy Sciences, Biological and Environmental Research, Fusion Energy Sciences, High Energy Physics, Nuclear Physics, and Workforce Development for Teachers and Scientists. This annual FOA DE-FOA-0000768 succeeds FOA DE-FOA-0000600, which was published September 30, 2011. **Open to September 30, 2013.**

**U.S. Army Medical Research and Materiel Command Broad Agency Announcement for Extramural Medical Research**
The U.S. Army Medical Research and Materiel Command's (USAMRMC) mission is to provide solutions to medical problems of importance to the American Warfighter at home and abroad. The scope of this effort and the priorities attached to specific projects are influenced by
changes in military and civilian medical science and technology, operational requirements, military threat assessments, and national defense strategies. The extramural research and development program plays a vital role in the fulfillment of the objectives established by the USAMRMC. General information on USAMRMC can be obtained at: (https://mrmc.detrick.army.mil/). This Broad Agency Announcement (BAA) is intended to solicit extramural research and development ideas, and is issued under the provisions of the Competition in Contracting Act of 1984 (Public Law 98-369), as implemented in Federal Acquisition Regulation 6.102(d)(2) and 35.016. This announcement provides a general description of USAMRMC’s research programs, including research areas of interest; general information; proposal/application preparation instructions; and the evaluation and selection criteria. This fiscal year’s BAA contains several changes from previous USAMRMC BAAs. Read each section carefully. Open to September 30. 2013.

**Long Range BAA for Navy and Marine Corps Science and Technology**
ONR is constantly looking for innovative scientific and technological solutions to address current and future Navy and Marine Corps requirements. We want to do business with educational institutions, nonprofit and for-profit organizations with ground-breaking ideas, pioneering scientific research and novel technology developments. The following list includes currently active broad agency announcements (BAAs) -- each announcement provides technical and contracting points of reference. Required: All BAAs incorporate a standardized template for the submission of technical and cost proposals for all contract awards. Guidance and assistance in completing the form and spreadsheet can be obtained from points of contact provided in the BAA. Download the forms (updated for 2012) | Email your feedback Open to September 30, 2013.

**FAA Center of Excellence for Environment and Energy**
The FAA is forming a Center of Excellence for Environment and Energy during FY-13. The COE will be a consortium of the FAA, university partners, and private industry affiliates selected by the FAA Administrator to work collectively on business and operational issues of mutual interest and concern. Due October 4, 2013.

**Nuclear Energy University Programs - Fellowship and Scholarship**
This program supports education and training for future nuclear scientists, engineers and policy-makers who are attending U.S. universities and colleges in nuclear-related graduate, undergraduate and two-year study programs. These are zero-dollar awards that will be funded as students apply through the Department of Energy, Office of Nuclear Energy. Open until November 30, 2015.

**Research Interests of the Air Force Office of Scientific Research**
AFOSR plans, coordinates, and executes the Air Force Research Laboratory’s (AFRL) basic research program in response to technical guidance from AFRL and requirements of the Air Force; fosters, supports, and conducts research within Air Force, university, and industry laboratories; and ensures transition of research results to support USAF needs. The focus of
AFOSR is on research areas that offer significant and comprehensive benefits to our national warfighting and peacekeeping capabilities. These areas are organized and managed in three scientific directorates: Aerospace, Chemical and Material Sciences, Physics and Electronics, and Mathematics, Information and Life Sciences. **Open until superseded.**

**Research Interests of the Air Force Office of Scientific Research**
AFOSR solicits proposals for basic research through this general Broad Agency Announcement (BAA). This BAA outlines the Air Force Defense Research Sciences Program. AFOSR invites proposals for research in many broad areas. These areas are described in detail in Section I, Funding Opportunity Description. AFOSR is seeking unclassified, white papers and proposals that do not contain proprietary information. We expect our research to be fundamental. **Open until superseded.**

**DARPA Microsystems Technology Office-Wide**
The Microsystems Technology Office (MTO) supports DARPA’s mission of maintaining technological superiority and preventing technological surprise by investing in areas such as microelectromechanical systems (MEMS), electronics, system architecture, photonics, and biotechnology. In recent years, the proliferation of commercial components and manufacturing processes has allowed our adversaries to achieve capabilities that were previously not possible. **Open to September 1, 2014.**

**NINDS SBIR Technology Transfer (SBIR-TT [R43/R44])**
This Funding Opportunity Announcement (FOA) encourages Small Business Innovation Research (SBIR) grant applications from small business concerns (SBCs) for projects to transfer technology out of the NIH intramural research labs into the private sector. If selected for SBIR funding, the SBC will be granted a royalty-free, non-exclusive internal research-use license for the term of and within the field of use of the SBIR award to technologies held by NIH with the intent that the SBC will develop the invention into a commercial product to benefit the public. **Open November 5, 2011, to September 8, 2014.**

**Army Engineer Research and Development Center BAA**
The U.S. Army Engineer Research and Development Center (ERDC) has issued a Broad Agency Announcement (BAA) for various research and development topic areas. The ERDC consists of the Coastal and Hydraulics Lab (CHL), the Geotechnical and Structures Lab (GSL), the Environmental Lab (EL) and the Information Technology Lab (ITL) in Vicksburg, Mississippi; the Cold Regions Research and Engineering Lab (CRREL) in Hanover, New Hampshire; the Construction Engineering Research Lab (CERL) in Champaign, Illinois; and the Topographic Engineering Center (TEC) in Alexandria, Virginia. The ERDC is responsible for conducting research in the broad fields of hydraulics, dredging, coastal engineering, instrumentation, oceanography, remote sensing, geotechnical engineering, earthquake engineering, soil effects, vehicle mobility, self-contained munitions, military engineering, geophysics, pavements, protective structures, aquatic plants, water quality, dredged material, treatment of hazardous waste, wetlands, physical/mechanical/ chemical properties of snow and other frozen precipitation, infrastructure and environmental issues for installations, computer science,
telecommunications management, energy, facilities maintenance, materials and structures, engineering processes, environmental processes, land and heritage conservation, and ecological processes. **This research is conducted by Government personnel and by contract with educational institutions, non-profit organizations and private industries.** The BAA is available at [http://erdc.usace.army.mil/](http://erdc.usace.army.mil/) and is open until superseded. Proposals may be accepted at any time. For questions regarding proposals to CHL, EL, GSL, TEC & ITL, contact Allison Hudson at 601-634-5233 or via email at Allison.B.Hudson@usace.army.mil. For questions concerning proposals to CERL, contact Jim Dowling at 217-373-4479 or via email at james.p.dowling@usace.army.mil or Andrea Krouse at 217-373-6746 or via email at andrea.j.krouse@usace.army.mil. For questions concerning proposals to CRREL, contact Wendy Adams at 603-646-4323 or via email at Wendy.A.Adams@usace.army.mil. Contact the technical personnel listed at the end of each topic area for questions concerning the topic areas themselves. **Open to January 31, 2014.**

**Science, Technology, Engineering & Mathematics BAA**

ERDC solicits basic research proposals in the general DoD STEM Education and Outreach Program from colleges, universities, and non-profit organizations. Depending upon the availability of appropriated funds, ERDC may: (1) Make multiple awards under this BAA; and (2) Consider options exercisable for multi-year performance. Area of performance for proposals may be limited to one of the selected locations listed above or may address multiple locations. Funding is limited and proposals are primarily sought in the not-to-exceed $30,000 range; however, larger awards may be considered when appropriate. Geographically targeted. **Open to January 31, 2014.**

**Small University Grants Open 5-Year Broad Agency Announcement**

Open to August 26, 2015

**FY2011 – 2016 Basic Research for Combating Weapons of Mass Destruction (C-WMD) Broad Agency Announcement (BAA)**

This **BAA is focused on soliciting basic research projects** that support the DTRA mission to safeguard America and its allies from WMD (e.g., **chemical, biological, radiological, nuclear, and high-yield explosives**) by providing capabilities to reduce, eliminate, and counter the threat and mitigate its effects. **Open Solicitations from IARPA (Intelligence Advanced Research Projects Activity)**

**Army Research Laboratory Broad Agency Announcement for Basic and Applied Scientific Research**

This Broad Agency Announcement (BAA), which sets forth research areas of interest to the **Army Research Laboratory** (ARL) Directorates and Army Research Office (ARO), is issued under the paragraph 6.102(d)(2) of the Federal Acquisition Regulation (FAR), which provides for the competitive selection of basic research proposals. Proposals submitted in response to this BAA and selected for award are considered to be the result of full and open competition and in full compliance with the provision of Public Law 98-369, "The Competition in Contracting Act of 1984" and subsequent amendments. **Open June 1, 2012 to March 31, 2017.**
ARL Core Broad Agency Announcement for Basic and Applied Scientific Research for Fiscal Years 2012 through 2017

Air Force Research Laboratory, Directed Energy Directorate
University Small Grants Broad Agency Announcement
This is a five-year, open-ended Broad Agency Announcement (BAA) to solicit research proposals for the United States Air Force Research Laboratory (AFRL) Directed Energy (RD) Directorate. This BAA is a university grant vehicle that can provide small grants of $100k or less to students/professors in a timely manner for the purpose of engaging U.S./U.S. territories’ colleges and universities in directed energy-related basic, applied, and advanced research projects that are of interest to the Department of Defense. Open to April 1, 2017.

United States Army Research Institute for the Behavioral and Social Sciences Broad Agency Announcement for Basic, Applied, and Advanced Scientific Research (FY13-18)
Announcement for Basic, Applied, and Advanced Scientific Research. This Broad Agency Announcement (BAA), which sets forth research areas of interest to the United States Army Research Institute for the Behavioral and Social Sciences, is issued under the provisions of paragraph 6.102(d)(2) of the Federal Acquisition Regulation (FAR), which provides for the competitive selection of proposals. Proposals submitted in response to this BAA and selected for award are considered to be the result of full and open competition and in full compliance with the provisions of Public Law 98-369 (The Competition in Contracting Act of 1984) and subsequent amendments. The US Army Research Institute for the Behavioral and Social Sciences is the Army’s lead agency for the conduct of research, development, and analyses for the improvement of Army readiness and performance via research advances and applications of the behavioral and social sciences that address personnel, organization, training, and leader development issues. Programs funded under this BAA include basic research, applied research, and advanced technology development that can improve human performance and Army readiness. The funding opportunity is divided into two sections- (1) Basic Research and (2) Applied Research and Advanced Technology Development. The four major topic areas of research interest include the following: (1) Training; (2) Leader Development; (3) Team and Inter-Organizational Performance in Complex Environments; and (4) Soldier/Personnel Issues. Funding of research and development (R&D) within ARI areas of interest will be determined by funding constraints and priorities set during each budget cycle. Open to February 5, 2018.

Research Interests of the Air Force Office of Scientific Research
The Air Force Office of Scientific Research (AFOSR) manages the basic research investment for the U.S. Air Force (USAF). To accomplish this task, AFOSR solicits proposals for basic research through this general Broad Agency Announcement (BAA). This BAA outlines the Air Force Defense Research Sciences Program. AFOSR invites proposals for research in many broad areas. These areas are described in detail in Section I of the BAA, Funding Opportunity Description. AFOSR plans, coordinates, and executes the Air Force Research Laboratory’s (AFRL) basic research program in response to technical guidance from AFRL and requirements of the Air
Force; fosters, supports, and conducts research within Air Force, university, and industry laboratories; and ensures transition of research results to support USAF needs. The focus of AFOSR is on research areas that offer significant and comprehensive benefits to our national warfighting and peacekeeping capabilities. These areas are organized and managed in five scientific directorates: Dynamical Systems and Control (RTA), Quantum & Non-Equilibrium Processes (RTB), Information, Decision, and Complex Networks (RTC), Complex materials and Devices (RTD), and Energy, Power, and Propulsion (RTE). The research activities managed within each directorate are summarized in Section I of the BAA. **Open until superseded.**
What We Do--

We provide consulting for colleges and universities on a wide range of topics related to research development and grant writing, including:

- Strategic Planning - Assistance in formulating research development strategies and building institutional infrastructure for research development (including special strategies for Predominantly Undergraduate Institutions and Minority Serving Institutions)

- Training for Faculty - Workshops, seminars and webinars on how to find and compete for research funding from NSF, NIH, DoE and other government agencies as well as foundations. Proposal development retreats for new faculty.

- Large proposals - Assistance in planning and developing institutional and center-level proposals (e.g., NSF ERC, STC, IGERT, STEP, Dept of Ed GAANN, DoD MURI, etc.)

- Assistance for new and junior faculty - help in identifying funding opportunities and developing competitive research proposals, particularly to NSF CAREER, DoD Young Investigator and other junior investigator programs

- Facilities and Instrumentation - Assistance in identifying and competing for grants to fund facilities and instrumentation

- Training for Staff - Professional Development for research office and sponsored projects staff

Workshops by Academic Research Funding Strategies
We offer workshops on research development and grant writing for faculty and research professionals based on all published articles.
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