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Our **2014 CAREER Webinar** for faculty interested in pursuing an NSF CAREER grant is scheduled for Thursday, March 27th from 2 – 4 pm Eastern Time. Cost is $275 per institution. A link to the registration page and more info are posted at our website ([here](#)).

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If a federal research agency program officer were to give you the following how-to advice for submitting a successful proposal in response to a specific solicitation at her agency, which research agency and program area would you guess she was talking about?

- Provide reviewers sufficient information in the proposal narrative so they do not have to guess at what you are planning to do and why you are planning to do it.
- Reviewers hate “trust me” proposals!
- Make the purpose of your research clear very early on in the proposal narrative
- Describe a vision for advancing your research goals
- Describe how your research will make a difference
- **Reviewers will judge your proposal on** —
  - How well you describe the importance of your research
  - How well you justify the importance of your research
  - How well you convince them you understand what is required to achieve your research goals
  - How well you describe how your research has been informed by prior research
- **Reviewers will want to know** —
  - What you propose to do
  - Whether your research is carefully laid out and organized in the proposal narrative
  - Whether your proposed research is novel and innovative
  - Whether your research advances the field
  - Whether your research is informed by existing research
  - How well your research serves as a research model or represents new research directions
  - The starting point and process plan that will achieve the purpose of your research
  - Whether your research questions advance theory
- **What reviewers are looking for** —
  - The research question(s) you will address
  - How carefully your research questions have been formulated (PIs are often confused by the relationship between research hypotheses and research questions—hypotheses help you develop research questions that tell reviewers exactly how you will explore your hypotheses)
  - How thoroughly your research questions are informed by the literature
  - The importance of the literature that informs your research
  - How significantly your research will contribute to the literature
  - Whether your research methods, design, and content are appropriate
**How well your research methods are matched to answering your research questions**
- How well your research questions and methods are matched to the stage of innovation of your research
- Whether your research adds to theory in such a way that it also adds to knowledge
- How easily reviewers can find answers in your proposal to all questions asked in the solicitation.

- **Your team – what will reviewers be looking for?**
  - To what extent does your team have the expertise to carry out the project?
  - To what extent has that expertise clearly been used in putting the proposal together?
  - What is your plan for using that expertise while carrying out the project?
  - How well have you articulated team member expertise, roles, collaboration, and coordination in your Collaboration and Management Plan?

Well, one response to the opening question is that the above advice on submitting a successful research proposal is sufficiently generic that it could apply to all federal research agencies and any program they fund. In this case, however, the advice came during a February 18 Cyberlearning Webinar by Dr. Janet Kolodner, a program officer for the NSF Cyberlearning and Future Learning Technologies program. She is a Regents' Professor of Computing and Cognitive Science at Georgia Tech. Her points offer you a secret decoder ring for cracking the funding success cipher at NSF and other federal research agencies as well, similar to the key research questions that must be answered according to Heilmeier’s Catechism. (Janet Kolodner, Program Officer, CISE/IIS and EHR/DRL, telephone: 703-292-8114, email: jkolodne@nsf.gov)

The above observations were made during the last 30 minutes of the 90-minute webinar, but their relevance goes well beyond the Cyberlearning program. While some webinars can be tedious repetitions of information easily gleaned from a close reading of the solicitation, this was an unusually informative webinar rich in detail, specificity, and program officer observations that provide an excellent insight not only into the Cyberlearning solicitation but into the culture of NSF’s Cross-Directorate programs as a whole.

Specific to the Cyberlearning program, there are multiple upcoming due dates for its four program areas. Cyberlearning is a Cross-Directorate program. **It is worth noting that the program also seeks projects outside of STEM learning, with webinar examples including projects related to language learning or history.** The bottom line, however, is that any proposed project must be informed by prior research. The webinar emphasized repeatedly the importance of reading the scholarly (not lay!) literature(s), particularly the extensive list of references in the solicitation that informs this program.

Also, be aware of the information available at The Center for Innovative Research in Cyberlearning (CIRCL). CIRCL works with projects in the emerging field of cyberlearning to support, synergize, and amplify their efforts. CIRCL is supported by NSF grant IIS-1233722. Information on this site will help you place your proposed project within the context of NSF’s overall objectives for the Cyberlearning program. Here again, proposers are encouraged to
make use of the *Common Guidelines for Education Research and Development*, published jointly by the National Science Foundation and the Institute of Education Sciences in the U.S. Department of Education, in developing their research methodology. However, the webinar noted that the *Common Guidelines* do not exactly fit the Cyberlearning objectives because the *Guidelines assume a sequential or linear approach to research and development and NSF assumes foundational research* in the context of Cyberlearning development. This is an important distinction, not just for this program, but for other NSF programs as well.

**The overarching vision of the Cyberlearning program makes the following assumptions--**

- New and emerging technologies will expand and transform learning—opportunities, interests, and outcomes—cradle to grave.
- The best of these will be informed by research on how people learn, how to foster learning, how to assess learning, and how to design environments for learning.
- New technologies give us new opportunities to learn more about learning.

**The purpose of the Cyberlearning program is to--**

1. Advance design and effective use of the next generation of learning technologies, especially to address pressing learning goals, and
2. Increase understanding of how people learn and how to better foster and assess learning, especially in technology-rich environments

This will be accomplished by integrating opportunities offered by emerging technologies with advances in what is known about how people learn.

**To this end, the Cyberlearning Program Scope includes--**

- Populations, disciplines, and contexts for learning
  - all (not just STEM, not just formal, *e.g.*, language learning or history)
- Technologies and interactions with them
  - all – hardware, software, combo, interactions with them, their integration into environments, must aim beyond state of the art
- Scholarly literature on learning and how people learn
  - Processes, representations, conditions, and influences associated with learning
  - Cognitive, neurobiological, behavioral, cultural, social, volitional, epistemological, developmental, affective, and other perspectives
  - Individual and collective learning

Finally, remember that what you are doing must advance current ideas about what is possible and have the potential to make a significant difference in how cyberlearning is conceived.

**Webinar Archive**

- Presentation [slides](#) and [transcript](#)
- Summary of [Q&A](#)
- [Webinar recording](#) with audio, slides, and Q&A discussion
Federal agency and foundation support for institutional diversity initiatives represents a broad spectrum of strategic planning and funding opportunities available to all institutional types, from Research 1 institutions to community colleges to K-12 partnerships. The landscape of diversity funding is itself diverse—by funding agency, by program type, by funding levels, by eligible institutions, and by eligible participants. In addition, this diversity includes competitive configurations of diversity partnerships that best capitalize on a local context related to institutional demographics of interest to the potential funding agency (see NSF Broadening Participation for Greater Diversity).

Funding for diversity can take many forms. In some cases, diversity grants are made directly to individuals, as is the case with the annual Ford Foundation Fellowship Program. However, in most cases, funding for diversity goes to an institutional PI who successfully proposes a project to a funding agency, perhaps for fellowships, or recruitment, or training of underrepresented groups. In some instances, particularly in certain STEM disciplines, women may be included in diversity plans; in other cases, low-income and/or first-generation college students may meet the sponsor’s diversity objectives. NSF’s Broadening Participation in Engineering program includes women as an underrepresented group to help meet the goal of increasing diversity in postdoctoral and faculty positions in engineering.

At NIH, for example, the Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellowships to Promote Diversity in Health-Related Research (Parent F31 - Diversity), include “individuals from disadvantaged backgrounds” in its diversity goals. Moreover, in some cases, the entire grant is focused on meeting the sponsor’s diversity objectives, while in other cases, diversity objectives are but one of several of an agency’s core funding objectives. This is often the case in large, center-level research grants that focus on core research objectives, but whose diversity goals are part of the overall program. The current competition for NSF Science and Technology Centers is one such program.

An increasingly common program component to diversity funding relates to research conducted to evaluate diversity models included in a specific grant program. In this component, an agency funds both the operational diversity models for the project as well as research examining those activities. For example, the NSF AGEP program has this “dual” requirement to both implement and to study diversity models, principally to evaluate how effectively these models can inform future solicitations at the agency. NSF’s Broadening Participation in Engineering Strategy Track (BPE-ST) similarly seeks projects that explore, develop, and implement research-based strategies promoting a more diverse engineering workforce. In addition, NSF’s Workforce Program in the Mathematical Sciences seeks to broaden participation in that discipline, including a particular interest in receiving novel, research-based, unsolicited proposals that can be duplicated at other institutions. Moreover, take note of NSF’s use of the term research-based strategies, which is becoming a common
requirement in many solicitations related to STEM education, STEM workforce development, and STEM diversity at that agency as well as others.

Other funding opportunities for diversity, such as the February 19, 2014 Dear Colleague Letter: Stimulating Research Related to the Science of Broadening Participation, focus on research funded by the Directorate for Social, Behavioral & Economic Sciences and the Directorate for Education & Human Resources that stimulate research related to the Science of Broadening Participation (SBP). According to NSF, the Science of Broadening Participation will employ the theories, methods, and analytic techniques of the social, behavioral, economic, and learning sciences to better understand the barriers that hinder and factors that enhance our ability to broaden participation in STEM. The results of these efforts will inform attempts to increase the access and involvement of underrepresented groups in STEM and to strengthen our national STEM capabilities and competitive advantage.

In the above instance, some examples of potential research questions related to the SBP include:

- What are the underlying psychological and social issues affecting the different participation and graduation rates in STEM of women, men, persons with disabilities, and racial and ethnic minorities?
- Under which conditions do behavioral, economic, and socio-legal factors influence recruitment and retention in STEM education at the individual, meso, and macro levels?
- What aspects of preK-12, informal, and higher education learning environments and workplace cultures moderate the factors impacting underrepresented minorities, women, and/or persons with disabilities?
- What behavioral or economic processes result in outcomes associated with success in STEM?
- What theoretical approaches predict success in ensuring that young people from underrepresented groups do not lose interest in science during adolescence?
- What are the impacts of a diverse STEM workforce on scientific productivity and innovation in the national economy?

Given the foregoing, several observations relevant to developing an institutional strategic plan for funding diversity are important, including: (1) developing intra- and interinstitutional diversity partnerships and pipelines; (2) establishing multidisciplinary faculty, program office, and research office collaboration to develop an action plan for funding diversity based on institutional demographics, capacities, and mission; (3) creating an institutional inventory and assessment of existing diversity programs and plans as a baseline for determining future directions and configuring competitive funding partnerships going forward; (4) developing a funding diversity communications plan to better promote interactions and synergy among existing diversity programs to better guide a diversity funding action plan; (5) creating a strategic plan for diversity integrated with a comprehensive strategic action plan for funding diversity to avoid the equivalent of “all platitudes and no dollars.”

A key first step in planning for diversity funding based on the above is to create a table or matrix of diversity opportunities offered by federal agencies and foundations that match institutional demographics, capacities, and mission. This is easily done through a search of
Grants.gov, federal agency websites, a review of foundation annual reports, professional organizations and associations, and such sites as STEMConnector: Diversity.

For example, the NIH diversity table below was generated from a Grants.gov keyword search on “diversity.” Use this information to identify open or annual funding solicitations through Grants.gov or agency websites such as NSF and NIH, etc., and immediately (in grant writing, lost time is not found again) communicate those opportunities to an institutional diversity funding team that can determine whether or not the institutional capacity and interest exists to submit a proposal. The common process of creating a strategic funding plan remains the same regardless of focus area: (1) develop a matrix of potential funding opportunities; (2) map your institutional demographics, capacities, mission, and interest to the funding matrix; and (3) decide whether or not to submit a proposal to any particular solicitation.

This matrix is typically best created and continuously maintained and updated daily, within a university research office through a partnership with potential diversity PIs, academic colleges or departments, and diversity program offices. While many faculty may be involved in diversity initiatives, either as current or future PIs, the funding matrix needs to represent an institution-wide strategic plan for diversity rather than a narrowly focused idea generated within a single academic department or program area within a department. The institutional aggregate of diversity capacities needs to be developed to maximize funding for diversity. Finally, successful diversity funding plans benefit from programmatic synergy emerging from a coordinated institutional approach of aligned capacities. Too often diversity plans fail to incorporate a funding action plan and, over time, become siloed rather than integrated. Success in diversity funding depends upon creating a configuration of institutional diversity objectives and capacities matched to external funding opportunities.

Example NIH Diversity Funding Matrix

<table>
<thead>
<tr>
<th>Funding Opportunity #</th>
<th>Opportunity Title</th>
<th>Agency</th>
<th>Open Date</th>
<th>Close Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-11-112</td>
<td>Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellowships to Promote Diversity in Health-Related Research (Parent F31 - Diversity)</td>
<td>National Institutes of Health</td>
<td>02/10/2011</td>
<td>05/07/2014</td>
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<tr>
<td>PAR-12-050</td>
<td>NCI Mentored Research Scientist Development Award to Promote Diversity (K01)</td>
<td>National Institutes of Health</td>
<td>12/15/2011</td>
<td>01/07/2015</td>
</tr>
<tr>
<td>PAR-12-052</td>
<td>NCI Mentored Patient-Oriented Research Career Development Award to Promote Diversity (K23)</td>
<td>National Institutes of Health</td>
<td>12/15/2011</td>
<td>01/07/2015</td>
</tr>
<tr>
<td>PAR-12-152</td>
<td>NINDS Faculty Development Award to</td>
<td>National</td>
<td>04/03/2012</td>
<td>05/07/2015</td>
</tr>
<tr>
<td>Grant ID</td>
<td>Description</td>
<td>Agency</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
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</tr>
<tr>
<td>PAR-12-096</td>
<td>Exploratory Grant Award to Promote Workforce Diversity in Basic Cancer Research (R21)</td>
<td>National Institutes of Health</td>
<td>02/02/12</td>
<td>11/20/14</td>
</tr>
<tr>
<td>PAR-12-062</td>
<td>The NCI Transition Career Development Award to Promote Diversity (K22)</td>
<td>National Institutes of Health</td>
<td>12/16/11</td>
<td>01/07/15</td>
</tr>
<tr>
<td>RFA-RM-13-015</td>
<td>NIH Coordination and Evaluation Center for Enhancing the Diversity of the NIH-Funded Workforce Program (U54)</td>
<td>National Institutes of Health</td>
<td>12/19/13</td>
<td>04/02/14</td>
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<tr>
<td>RFA-RM-13-016</td>
<td>NIH Building Infrastructure Leading to Diversity (BUILD) Initiative (U54)</td>
<td>National Institutes of Health</td>
<td>12/19/13</td>
<td>04/02/14</td>
</tr>
<tr>
<td>PA-12-149</td>
<td>Research Supplements to Promote Diversity in Health-Related Research (Admin Supp)</td>
<td>National Institutes of Health</td>
<td>04/06/12</td>
<td>09/29/15</td>
</tr>
<tr>
<td>PAR-12-163</td>
<td>NINDS Advanced Postdoctoral Career Transition Award to Promote Diversity in Neuroscience Research (K22)</td>
<td>National Institutes of Health</td>
<td>04/12/12</td>
<td>05/07/15</td>
</tr>
<tr>
<td>PAR-12-103</td>
<td>Mental Health Research Dissertation Grant to Increase Diversity (R36)</td>
<td>National Institutes of Health</td>
<td>02/14/12</td>
<td>12/22/14</td>
</tr>
<tr>
<td>PAR-12-016</td>
<td>NIA MSTEM: Advancing Diversity in Aging Research (ADAR) through Undergraduate Education (R25)</td>
<td>National Institutes of Health</td>
<td>11/16/11</td>
<td>01/07/15</td>
</tr>
<tr>
<td>PAR-13-152</td>
<td>Aging Research Dissertation Awards to Increase Diversity (R36)</td>
<td>National Institutes of Health</td>
<td>03/22/13</td>
<td>05/07/16</td>
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<tr>
<td>RFA-HL-14-022</td>
<td>Coordination Center for Programs to Increase Diversity Among Individuals Engaged in Health-Related Research (PRIDE) (R01)</td>
<td>National Institutes of Health</td>
<td>12/20/13</td>
<td>03/13/14</td>
</tr>
<tr>
<td>RFA-HL-14-021</td>
<td>Programs to Increase Diversity Among Individuals Engaged in Health-Related Research (PRIDE)(R25)</td>
<td>National Institutes of Health</td>
<td>12/20/2013</td>
<td>03/13/2014</td>
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<tr>
<td>PAR-12-051</td>
<td>NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity (K08)</td>
<td>National Institutes of Health</td>
<td>12/15/2011</td>
<td>01/07/2015</td>
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<tr>
<td>PAR-13-074</td>
<td>Small Grants for New Investigators to Promote Diversity in Health-Related Research (R03)</td>
<td>National Institutes of Health</td>
<td>01/07/2013</td>
<td>09/07/2015</td>
</tr>
</tbody>
</table>
NIH Concepts: Anticipating Future Funding Opportunities
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By Lucy Deckard, co-publisher

Keeping tabs on the concepts process at the ICs that fund your research will help you prepare for upcoming new NIH funding opportunities.

Most PIs who apply to NIH for funding are familiar with Program Announcements (PAs), Requests for Applications (RFAs), and other ways that NIH solicits proposals, but many PIs don’t know about NIH’s concepts process, which will help them anticipate future solicitations. In this newsletter we frequently paraphrase Wayne Gretzky’s saying that “It’s important to know where the puck is, but it’s even more important to know where the puck is going to be” because that insight is especially relevant when it comes to competing for research funding. By knowing what funding opportunities are likely to be issued in the next year or two, you will have more time to prepare and position yourself and/or your team to develop a competitive proposal. Following the concepts processes at the ICs that may fund your research will help you do that. That extra time can make the difference between a strong proposal and one that just isn’t quite there when the due date arrives.

The Concepts Process

The various NIH Institutes and Centers (ICs) have somewhat different processes and nomenclature, but the broad outlines for the concepts processes are similar. Ideas for initiatives and topics that the IC may want to fund in the future are proposed by the research community. For example at NIAID, this happens through focus groups of extramural researchers. At NHLBI, staff develop ideas and potential initiatives, which they present to the trans-NHLBI Idea Forum. Sufficiently developed initiatives are then considered by the Board of External Experts. Concepts are then proposed and go through an approval process, usually by the IC’s Advisory Council (or similar organization). Approved concepts then may become “initiatives.” The Council will determine budget levels, mechanisms and other key features of approved concepts that eventually become funding opportunities (PAs, RFA, etc.). It’s important to note, however, that not all concepts are approved, and not all approved concepts go on to become funding opportunities (factors such as funding available and scientific factors may intervene). This entire process can take around two years.

Finding Your IC’s Approved Concepts

Approved concepts, which are also called “cleared” concepts, are publicized differently by the different ICs. Some ICs post cleared concepts on easy-to-find web pages, but for many of the ICs, you have to read through the minutes of their Advisory Council meetings. This may seem tedious, but it can also be illuminating, as you’ll also find references to concepts under consideration that have not yet been cleared. Even if some of these concepts don’t end up becoming RFAs, RFPs, or PAs, the fact they made it to this stage provides a helpful window into the interests of the IC. In addition, you’ll find discussions of concepts that have progressed to the initiatives stage. Below, we list each IC and links where you can find this information. Remember, you don’t need to look through the Advisory Council minutes of every IC; instead,
determine which ICs are most likely to be interested in your research (if you aren’t sure, see our video here on how to use RePORTER to identify where within NIH your research might fit), then read everything you can about those specific ICs.

- **NCI:** NCI publishes recent cleared concepts here. The most recent cleared concept is from a year ago (Pediatric Brain Tumor Consortium), with an indication that the RFA is to be published. However, you can get a better idea of the concepts being considered by looking through the published meeting agendas for NCI’s Division of Extramural Activities (DEA) Board of Scientific Advisors, which you can find here.  

- **NEI:** Discussions of concepts being considered for clearance can be found in the National Advisory Eye Council (NAEC) minutes, posted here.

- **NIA:** Check out the meetings of the NIA Council meetings here.

- **NIAAA:** Read the minutes of their Advisory Council meetings, posted here.

- **NIAID:** True to its culture of being one of the most transparent of the ICs, NIAID publishes cleared concepts, and you can sign up to receive a notification along with notifications of other information they publish by subscribing to NIAID Email Alerts. They recently published their January 2014 approved Concepts here.

- **NIAMS:** Cleared concepts and extramural initiatives are found in the NIAMS Advisory Council minutes, posted here.

- **NIBIB:** See the minutes of the National Advisory Council for Biomedical Imaging and Bioengineering here.

- **NICHD:** NICHD has posted concepts reviewed on this page entitled “Proposed Funding Opportunities.” However, the most recent information is from 2011. For more up-to-date information, go to the minutes of the National Advisory Child Health and Human Development (NACHHD) Council meetings. Most recent minutes are posted here. It’s difficult to find minutes of previous meetings, but you can find some by typing into a Google search “council meeting minutes site:nichd.nih.gov”.

- **NIEHS:** Cleared concepts are in the NIEHS Council minutes, found here.

- **NIDA:** See minutes of National Advisory Council on Drug Abuse (NACDA) meetings here.

- **NIDCD:** See minutes of the National Deafness and Other Communication Disorders Advisory Council (NDCD) meetings here.

- **NIDCR:** Concept clearances are listed here.

- **NIDDK:** See minutes of the NIDDK Advisory Council, found here.

- **NIGMS:** You also have look through the Advisory Council Meeting minutes here to find cleared concepts.

- **NIMH:** Approved concepts are posted here.

- **NIMHD:** See their Advisory Council meeting minutes here.

- **NINDS:** See the minutes of the National Advisory Neurological Disorders and Stroke Council (NANDSC) here.

- **NINR:** See minutes of their Advisory Council here.

- **NHGRI:** See their National Advisory Council page here (they have posted tons of information here; be sure to check out the additional documents).
- **NHLBI**: Cleared concepts are found inside the NHLBI’s Advisory Council meeting minutes, some of which you can find [here](#). For example, you’ll find a report on initiative concepts under consideration in the June 2013 minutes [here](#).

**Other Resources**

- [Upcoming National Advisory Council meeting dates for all ICs](#)

- [Directory of National Advisory Committees for all ICs](#) (follow links to find rosters)
NSF recently noted that the President signed into law the Consolidated Appropriations Act of FY 2014 (also called the Omnibus). The legislation will provide NSF with $7.172 billion, an increase of $287.8 million (or 4.2 percent) over the FY 2013 Current Plan (CP) level of $6.884 billion, and is $454 million (or 6 percent) below the FY 2014 request. In the three budget categories of most interest to universities, the Research and Related Activities account receives $5.81 billion, $265 million (4.8 percent) above the CP, and $403 million (6.5 percent) below the request. The Education and Human Resources Directorate is given $846.5 million in the bill, an increase of $13.2 million (1.6 percent) over the CP, and $34 million (3.8 percent) below the request. The Major Research, Equipment and Facilities Construction account is funded at $200 million, $3.8 million (2 percent) over the CP, and $10 million (4.8 percent) below the request.

While strategic planning for increasing the size of your NSF research and education funding portfolio by anticipating budgeting outcomes from the House and Senate is a difficult task, the most important information needed for strategically planning, developing, and writing proposals to NSF is to know where NSF intends to allocate the funding it does receive.

From an institutional perspective, the most important information to glean from the NSF budgeting process relates to how NSF will define its research focus areas for the current and upcoming fiscal years, or in other communications, such as Dear Colleague Letters. Knowing how NSF is going to assign program allocations within any budget, regardless of size, is much more important than knowing how the current budget differs from the previous or requested budget.

Those numbers are more distracting glitter than strategic substance. Within an institution as a whole, there may be those who benefit from a new NSF budget and those who do not, or those who lose out because of changing focus areas irrespective of the final budget. However, from an institution-wide research development perspective, the key lies in mapping your research and educational capacities to agency planned research funding opportunities. For example, some NSF programs may be reduced or eliminated because other similar programs exist, both within NSF and at other agencies, to which principal investigators can apply for support. In other cases, a specific program may be given a narrower and more targeted focus, and hence less funding. In some cases, a program may be eliminated, for example, the IGERT, so that NSF can move in a new direction, e.g., Graduate Research Traineeships.

The past 25 years has seen a lot of concern over the size of the NSF budget, including many “Chicken Little” moments. However, the basic fact remains that NSF is an evolving research agency that continuously reinvents itself, its research and education funding priorities, and its strategic planning activities. The best strategic advice for success at NSF is to avoid expending time and energy focused on the budget process as it takes place within the political framework, since, as King Lear once observed, “Oh, that way madness lies.” The final budget will be what it is.
The key strategy is to be institutionally more competitive at NSF, and thereby increase your overall NSF funding portfolio. This is best done by understanding the current and evolving mission, culture, and investment priorities of the agency within whatever budget framework exists. As Wayne Gretzky would recommend, skate to where NSF is going to be and not to where it is, and plan, develop, and write proposals to reflect that understanding. After all, as Gretzky points out, “you miss 100 percent of the shots you don’t take,” which is excellent advice for those in research development and grant writing as well.

The starting point to this process is to keep in mind that, for the FY 2014 budget, NSF set ten performance goals so that the agency can strategically monitor and oversee progress being made on the its most important activities: **priority program investments, research infrastructure investments, and key management initiatives. Its ten goals are:**

- **Ensure that Key Program Investments are on track:** Meet critical targets for several key program investments: CEMMSS, CIF21, I-Corps, INSPIRE, SaTC, and SEES. Progress will be monitored using a set of common milestones and indicators.

- **Ensure that Infrastructure Investments are on track:** Ensure program integrity and responsible stewardship of major research facilities at varying stages of their lifecycle. This involves construction project monitoring, response to advisory reports, and deployment of the first implementation of the NSF Public Access system.

- **Use Evidence to Guide Management Decisions:** The Foundation will use evidence-based reviews to guide management investments.

- **Improve Undergraduate Education:** The Foundation will establish an NSF-wide undergraduate STEM education program that is evidence-based and evidence-building.

- **Enhance National Graduate Research Fellowships:** NSF will enhance the Graduate Research Fellowship program to provide a wider range of career development opportunities.

- **Promote Career-Life Balance Policies and Practices:** NSF aims to promote policies and practices that support more fully utilizing the talents of individuals in all sectors of the American population, principally women, underrepresented minorities, and persons with disabilities.

- **Foster an Environment of Diversity and Inclusion:** The Foundation seeks to foster an environment of diversity and inclusion while ensuring compliance with the agency’s civil rights programs.

- **Modernize Financial System:** iTRAK is the Foundation-wide effort to transition NSF from its legacy financial support system to a fully integrated financial management shared services solution to ensure continuous improvement and achieve high levels of customer service.

- **Make Timely Award Decisions:** NSF aims to inform applicants whether their proposals have been declined or recommended for funding within 182 days, or six months of deadline, target, or receipt date, whichever is later.

- **Enable Increased Use of Virtual Merit Review:** NSF seeks to incorporate technological innovations into the merit review process by expanding the use of virtual merit review panels.
In its recently released (March 6) preview of the FY2015 Budget Request to Congress, NSF proposed a budget little changed in total dollars from its FY2014 Budget (see companion article in this newsletter NSF Budget FY 2014: Focus Matters Most). However, in keeping with the theme of that article, the important information in the FY2015 request is not the amount of the request but where NSF signals it is going programmatically. On March 10, NSF published the official NSF FY 2015 Budget Request to Congress and the Budget Slides. Links to all FY2015 federal research agency budget narrative summaries are included in the table at the end of this article. These narrative profiles, much like the budget narrative in a proposal, offer significant insight into the internal budget priorities of the research agencies of interest to universities. When complemented by other agency information, those budget narrative profiles provide an important cornerstone for a strategic research funding plan that will allow you to increase your institutional research portfolio.

Those engaged in the planning, developing, and writing of large-team proposals, for example, will want to note NSF’s major continued investment in cross-agency programs. These grants require significant strategic planning in order to meet NSF’s review expectations of transformative and transdisciplinary research that is revolutionary rather than merely incremental. Moreover, as a further example, in FY 2015, SEES (Science, Engineering, and Education for Sustainability) enters a transition period toward sunsetting in FY 2017. How this transition takes place will be an important part of institutional planning in the domain of sustainability research.

By comparison, two priority funding areas for NSF include Advanced Manufacturing research ($150.70 million) and Clean Energy investments ($361.95 million). Advanced Manufacturing holds tremendous potential for significant short-term and long-term economic impact by promising entirely new and previously unattainable classes and families of products. In FY 2015, NSF’s investment emphasizes several emerging opportunities including cyber-physical systems, advanced robotics research, scalable nanomanufacturing, sensor and model-based smart manufacturing, educational activities to support training the next generation of product designers and engineers, and industry-university cooperation. The second priority area, Clean Energy investments ($361.95 million), will lead to future clean energy and energy-efficient technologies as seen throughout the NSF portfolio, both in core research programs and targeted investments, such as BioMaPS and SEES. Specific activities include research related to sustainability science and engineering, such as the conversion, storage, and distribution of diverse power sources (including smart grids), and the science and engineering of energy materials, energy use, and energy efficiency.

Furthermore, under the federal multiagency umbrella of the Opportunity, Growth, And Security Initiative (OGSI), NSF will provide $552 million to spur economic progress, promote opportunity, and strengthen national security. OGSI will accelerate progress in broad areas of science and engineering that address national priorities such as advanced manufacturing,
clean energy, cybersecurity, neuroscience, and Science, Technology, Engineering, and Mathematics (STEM) workforce development (see Funding Your STEM Workforce Ecosystem, January 15, 2014). Moreover, OGSI will support core NSF activities through the addition of 1,000 new awards from across the NSF portfolio, thereby strengthening support for NSF priority investments, including Cognitive Science and Neuroscience, CEMMSS, SaTC, and BioMaPs. It will provide $34 million for the NSF Research Traineeships (NRT) to support about 3,000 graduate students over the next 5 years and provide $20 million for CyberCorps—Scholarship for Service.

Under the 2015 budget, OGSI funding is multi-agency (see pages 11-15 The Budget for 2015, Opportunity for All), including, for example, re-establishing global leadership in basic research by providing 650 additional new National Institutes of Health grants; increasing funding for an NIH Defense Advanced Research Projects Agency (DARPA)-like initiative that will invest in breakthrough medical research; and increasing NIH’s contribution to the multiagency BRAIN Initiative (Brain Research through Advancing Innovative Neurotechnologies) that is helping to revolutionize our understanding of the human brain; developing and scaling new manufacturing technologies; investing in a thousand additional National Science Foundation grants to expand knowledge across disciplines and accelerate innovation across industries; and building a new biosafety research laboratory.

Another NSF priority under the FY2015 request is to improve the nation’s capacity in data science by investing in the development of human capital and infrastructure. By September 30, 2015, mechanisms will be implemented to support the training and workforce development of future data scientists; increase the number of multistakeholder partnerships to address the nation’s big-data challenges; and increase investments in current and future data infrastructure, extending data-intensive science into more research communities.

Other FY2015 focus initiatives by NSF will include:
- Cognitive Science and Neuroscience: $29 million
- Cyber-Enabled Materials, Manufacturing, and Smart Systems (CEMMSS): $213 million
- Cyberinfrastructure Framework for 21st Century Science, Engineering, and Education (CIF21): $125 million
- Science, Engineering, and Education for Sustainability (SEES): $139 million
- Secure and Trustworthy Cyberspace (SaTC): $100 million
- Clean Energy: $362 million
- Advanced Manufacturing: $151 million
- Research at the Interface of Biological, Mathematical and Physical Sciences, and Engineering (BioMaPS): $29 million
- NSF Innovation Corps (I-Corps): $25 million
- Graduate Research Fellowships (GRF): $333 million
- Improving Undergraduate STEM Education (IUSE): $118 million
- NSF Research Traineeships (NRT): $58 million

However, for strategic planning related to research development and grant writing, potential applicants should focus on how federal research agency budgets are reconfigured internally each year rather than on the total budget amount. In the below visual by M. Hourihan/AAAS, clear winners and losers emerge by and within research agencies.
For example, within agencies, the USDA-ARS budget is reduced by ~4% but the USDA-NIFA budget is increased by ~6%. Similarly, at DOE, nuclear is reduced by ~4% and DOE fossil is reduced by ~15%, whereas DOE EERE is a clear winner with a ~22% increase and ARPA-E with a ~16% increase. Within EERE, the budget increases funding by 15% above 2014 levels for sustainable vehicle and fuel technologies, by 39% for energy efficiency and advanced manufacturing activities, and by 16% for innovative renewable power projects, such as those in the SunShot Initiative to make solar power directly price-competitive with other forms of electricity by 2020. **Finding similar numbers by agency is key to strategic planning.**

STEM education across federal agencies is another key budget area of interest to universities, colleges, and K-12 schools (*Preparing Americans with 21st Century Skills, STEM Education in the 2015 Budget*, January 2014). To prepare Americans with STEM skills, the 2015 budget proposes $2.9 billion for federal investments in STEM education, an increase of 3.7% over 2014 funding levels. Federal agencies will coordinate to implement the Federal STEM Education 5-YEAR Strategic Plan. The budget proposes a fresh reorganization of STEM education programs to improve the effectiveness of federal investments, but backs away from the more robust FY2014 plan that met with resistance from many stakeholders.

Under the FY2015 plan, agencies should improve coordination with other agencies and focus funding on priority STEM-education investment areas as identified in the Strategic Plan, including: improving STEM instruction and learning; increasing and sustaining youth and public engagement in STEM; enhancing the STEM experience of undergraduate students; providing STEM learning opportunities to groups historically underrepresented in STEM fields; and designing graduate education for tomorrow's STEM workforce. Agencies with a strong capacity
to conduct rigorous evaluations and to build evidence should also give priority to R&D investments in the science and technology of learning with the potential to significantly improve student learning outcomes in STEM subjects, such as digital tutors, learning analytics, simulations, games, and embedded assessment (more).

**Multi-Agency Initiatives**

The 2015 budget proposes to double the federal investment in The BRAIN Initiative from about $100 million in FY 2014 to approximately $200 million in FY 2015. Proposed BRAIN investments by the NIH, DARPA, and NSF are described [here](#). Also see NSF’s **Dear Colleague Letter: BRAIN EAGERs to Enable Innovative Neurotechnologies to Reveal the Functional and Emergent Properties of Neural Circuits Underlying Behavior and Cognition**.

Moreover, a number of R&D investments are being made through multi-agency activities coordinated through the National Science and Technology Council (NSTC) and other interagency forums. Three such efforts include global change research, networking, information technology R&D, and nanotechnology R&D, as described below. Overall for FY2015, the major multi-agency investments include those at NSF $412 million; DoD $144 million; DOE $343 million; NIST $83 million; HHS (NIH) $470 million; USDA $19 million; EPA $17 million; and HS $32 million.

The take-away message here is that any strategic plan to increase your institutional funding portfolio must also identify and address both the factors that make an institution competitive in the research domain as well as factors that make an institution less competitive for federal agency funding, particularly funding for large transdisciplinary and multi-agency initiatives, such as the three examples below. **Success in funding major grants requires that an institution’s research competitiveness be complemented by institutional capacities to plan, develop, and write large proposals that transition research ideas and expertise to a funded project, typically at the center level.** Too often **research capacities go unrealized in center-level research competitions because of poor planning, poor development, and poorly written proposals that disguise the worthiness of a proposed project**. Successfully responding to multi-agency programs, such as those below, requires both significant research expertise and significant expertise in planning, developing, and writing the funding proposal.

**U.S. Global Change Research Program: The 2015 budget provides approximately $2.5 billion for the U.S. Global Change Research Program (USGCRP).** USGCRP coordinates and integrates Federal research and applications to assist the nation and the world in understanding, assessing, predicting, and responding to the human-induced and natural processes of global change and their related impacts and effects. The 2015 Budget supports the goals set forth in [USGCRP’s 2012-2021 strategic plan](#), which include: advancing scientific knowledge of the integrated natural and human components of the Earth system; providing the scientific basis to inform and enable timely decisions on adaptation and mitigation; building sustained assessment capacity that improves the United States’ ability to document changes on the regional, landscape, and local level in order to understand, anticipate, and respond to global change impacts and vulnerabilities; and advancing communications and education to broaden public understanding of global change. The 2015 Budget also supports an integrated
suite of climate change observations; process-based research; and science activities involving modeling, assessment, and adaptation.

**Networking and Information Technology R&D: The 2015 Budget proposes $3.8 billion for the Networking and Information Technology Research and Development (NITRD) Program.** The NITRD Program provides strategic planning for and coordination of agency research efforts in cybersecurity, high-end computing systems, advanced networking, software development, high confidence systems, health IT, wireless spectrum sharing, cloud computing, and other information technologies. The 2015 Budget includes a focus on research to improve our ability to accelerate scientific discoveries and derive value from the fast-growing quantities and varieties of digital data ("big data"), while appropriately protecting the privacy of personal data. The budget continues to prioritize cybersecurity research framed by the *Trustworthy Cyberspace: Strategic Plan for the Federal Cybersecurity R&D Program* to develop novel approaches and technologies that can protect U.S. systems from cyber attacks, promote R&D in high-end computing to address advanced applications, and emphasize research that advances the efficient use of wireless spectrum and spectrum-sharing technologies. Budget details for NITRD are available at [www.nitrd.gov](http://www.nitrd.gov).

**National Nanotechnology Initiative: The 2015 Budget proposes $1.5 billion for the multi-agency National Nanotechnology Initiative (NNI).** The National Nanotechnology Initiative (NNI) member agencies support R&D focused on materials, devices, and systems that exploit the unique physical, chemical, and biological properties that emerge in materials at the nanoscale (approximately 1 to 100 nanometers). Participating agencies continue to support fundamental research for nanotechnology-based innovation, technology transfer, and nanomanufacturing through individual investigator awards; multidisciplinary centers of excellence; education and training; and infrastructure and standards development, including openly-accessible user facilities and networks. Furthermore, agencies have identified and are pursuing Nanotechnology Signature Initiatives in the national priority areas of sustainable nanomanufacturing, solar energy, sustainable design of nanoengineered materials, nanoinformatics and modeling, nanoscale technology for sensors, and nanoelectronics through close alignment of existing and planned research programs, public-private partnerships, and research roadmaps. Budget details for the NNI are available at [www.nano.gov](http://www.nano.gov).

The *Budget of the United States Government, Fiscal Year 2015* contains the Budget Message of the President, information on the President’s priorities, budget overviews organized by agency, and summary tables. To download "Budget of the United States Government, Fiscal Year 2015" as a single PDF click [here](http://example.com) (212 pages, 2.5 MB).

### Budget by Agency, Fiscal Year 2015

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# Creating a 21st Century Government

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Comparing Success Rates, Award Rates, and Funding Rates at NIH

Receive Customized NIH Guide Listings via Email
Do you find yourself repeating the same NIH Guide search over and over again looking for funding opportunity announcements? If the answer is yes, then we have a new tool you are sure to love. The NIH Guide for Grants and Contracts now allows you to be notified when new NIH Guide postings match your search criteria. To get started, visit grants.nih.gov and perform your search, then from the Results page click “Save Your Search” to sign up for alerts based on that search criteria. The system can email you with new funding opportunity announcements and/or notices related to your search on a daily, weekly or monthly basis (your choice!).

The Road to NIH Funding Journeys to YouTube
New to the NIH grants process? Looking for some direction? Then grab a seat and watch our new YouTube video, The NIH Grants Process: the Big Picture, designed to help you get started on the road to NIH funding. This video, produced by the NIH Office of Extramural Research (OER), provides a high-level overview of the grants process from application to award. As you begin to navigate the NIH grants process, be sure to bookmark grants.nih.gov for many more online resources. These include guidance on the various aspects of the grants process, podcasts, webinars, policy information, the NIH Guide to Grants and Contracts, and so much more. More videos related to NIH grants information may be also be found on on YouTube.

Insider Tips to Boost your Chance of Funding Success at NIH
As current NIH Scientific Staff, we cannot stress enough the importance of engaging NIH Program Officers when developing grant applications. Their perspective is invaluable. Here we elaborate on, and encourage you to follow these four tips to increase your likelihood of funding success.

OBSSR Seeks Behavioral & Social Scientists for Big Data Initiative
At the NIH Office of Behavioral and Social Sciences Research (OBSSR), we recognize the complex interaction between human behavior and many of the diseases being studied at NIH, and we want to encourage behavioral or social scientist to look at these funding opportunities and consider applying. Be mindful when you apply that the term “biomedical” includes the behavioral and social sciences. Moving the science of Big Data forward efficiently will require scientists from all disciplines.

Get Funded at DOJ: Developing a Better Proposal (AUDIO File)
- Bernard Auchter, Acting Division Director, Violence and Victimization, Office of Research and Evaluation, National Institute of Justice, Washington D.C.
These FAQs will help you prepare your application for DOJ grant funds.

- Before Beginning
- About Online Applications and the SF-424
- About the Program Narrative
- About the Budget
- About Human Subjects and Privacy Requirements
- About Selection and Awarding
2015 Education Budget: What You Need to Know

Obama Administration 2015 Budget Prioritizes Key Education Investments to Provide Opportunities for All Americans

Connecting Individual K-12 STEM Subjects Has Potential Advantages, Poses Challenges
A new report from the National Academy of Engineering and National Research Council examines current efforts to connect the science, technology, engineering, and mathematics (STEM) disciplines in K-12 education, both in formal classroom settings and informal learning environments, and suggests research to help determine the conditions most likely to lead to positive outcomes such as greater student retention and achievement, improved college-readiness skills, and increased interest in pursuing a STEM-related career. A short video illustrating today's STEM education landscape and the potential benefits and challenges of integrated approaches also was released in conjunction with the report. The report and video note that the recently published Next Generation Science Standards, which encourage integration between science concepts and engineering practices, provide an impetus for considering integration.

Briefing Book for the 2012 National Survey of Science and Mathematics Education
The Briefing Book consists of slides showing results from the 2012 NSSME, which can be drawn upon for creating presentations about K–12 science and mathematics education. It follows the structure of the Report of the 2012 National Survey of Science and Mathematics Education, and consists of 13 sets of PowerPoint slides. The “Study Overview” describes the study design, instruments, and response rates. It also includes an acknowledgement slide that should be included in any presentation utilizing Briefing Book slides. The remaining sets of slides correspond to chapters 2–7 of the 2012 NSSME report, with two sets of slides for each chapter (one for science and one for mathematics).

STEM Integration in K-12 Education: Status, Prospects, and an Agenda for Research
STEM Integration in K-12 Education examines current efforts to connect the STEM disciplines in K-12 education. This report identifies and characterizes existing approaches to integrated STEM education, both in formal and after- and out-of-school settings. The report reviews the evidence for the impact of integrated approaches on various student outcomes, and it proposes a set of priority research questions to advance the understanding of integrated STEM education. STEM Integration in K-12 Education proposes a framework to provide a common perspective and vocabulary for researchers, practitioners, and others to identify, discuss, and investigate specific integrated STEM initiatives within the K-12 education system of the United States. STEM Integration in K-12 Education makes recommendations for designers of integrated STEM experiences, assessment developers, and researchers to design and document
effective integrated STEM education. This report will help to further their work and improve the chances that some forms of integrated STEM education will make a positive difference in student learning and interest and other valued outcomes.

**The Development of a Summer Science and Engineering Workshop for Early Childhood Teachers**

A Framework for K-12 Science Education [Frameworks], (NRC, 2012) advocates that K-12 classroom science curriculum and instruction should blend the scientific and engineering practices, core disciplinary ideas and crosscutting concepts. However, preschool and primary classrooms do not regularly teach science despite the fact that teaching science in this manner lends itself to building upon curiosity, exploration and inquiry skills that are essential to academic success.

The mission of the Fuel Cell Technologies Office (FCTO) is to enable the widespread commercialization of a portfolio of hydrogen and fuel cell technologies through applied research, technology development and demonstration, and diverse efforts to overcome institutional and market challenges. Fuel cell systems research and development (R&D) is working to reduce cost and improve durability for fuel cells used in transportation, stationary, and portable applications. Hydrogen fuel R&D continues to improve hydrogen-producing technologies from renewable resources, end use delivery, and lightweight, compact, low-cost storage systems. To accomplish this mission, FCTO has developed a strategic plan, or multi year program plan (http://www1.eere.energy.gov/hydrogenandfuelcells/mypp) to identify the technical challenges and barriers that need to be overcome. These technical challenges and barriers form the basis for FCTO to issue funding opportunities announcements (FOAs) for financial assistance awards in these specific areas. However, FCTO recognizes that there may be very novel and potentially disruptive ideas that do not necessarily satisfy the requirement of specific FOAs yet still meet the goals and mission of FCTO. The FCTO Incubator Program is intended to identify these potentially impactful ideas that are not addressed in FCTOs strategic plan or project portfolio. It is NOT intended to fund projects that are incremental improvements to current products or processes or for established work in FCTOs strategic plan or current portfolio. It is anticipated that the FOA will be open to any and all impactful ideas which significantly advance the mission of the FCTO. For more information, see the full solicitation.

NIH Notice of Technical Assistance Webinar March 18 for PAR-13-205 (MARC U-STAR (T34)) and PAR-13-196 (Research Initiative for Scientific Enhancement (R25))

The Training, Workforce Development and Diversity (TWD) Division at NIGMS will host a technical assistance webinar March 18 for potential applicants to the MARC Undergraduate Student Training in Academic Research (U-STAR) (T34) and the Research Initiative for Scientific Enhancement (RISE) (R25) programs. This workshop will examine the MARC and RISE funding opportunity announcements highlighting the elements and information needed to develop a competitive grant application. Program, review, and grants management staff will be present to discuss key information and answer questions during the allotted question and answer sessions. Anyone from an institution who would like to learn more about the MARC and RISE Programs, application content and enhanced peer-review criteria are invited to participate in this webinar.

Dear Colleague Letter: BRAIN EAGERs to Enable Innovative Neurotechnologies to Reveal the Functional and Emergent Properties of Neural Circuits Underlying Behavior and Cognition
The National Science Foundation (NSF) is a partner in President Obama’s “Brain Research Accelerated by Innovative Neurotechnologies” (“BRAIN”) Initiative. As part of a broader range of activities related to the BRAIN Initiative, the Divisions of Integrative Organismal Systems (IOS) and Biological Infrastructure (DBI) in the Biological Sciences Directorate (BIO) seek Early Concept Grants for Exploratory Research (EAGER) proposals with the potential to transform our ability to analyze brain function underlying behavioral and cognitive processes. NSF’s interests lie in highly innovative projects in their early stages that utilize new and untested but potentially ground-breaking approaches and neurotechnologies that bridge multiple spatial, temporal, and organizational scales to provide fundamental insights into the emergent properties of neural circuitry that ultimately lead to behavior and cognition.

This Dear Colleague Letter is aimed at identifying opportunities to leverage and synthesize technological and conceptual innovation across disciplines and scales to accelerate progress toward an integrated understanding of neural circuits in behavior and cognition, or more simply “catching circuits in action”. The neuroscience research community and specialists in other areas including, but not limited to genetics, physiology, synthetic biology, engineering, physics, mathematics, statistics, behavior and cognition are encouraged to work across disciplines to develop new approaches and neurotechnology focused at understanding the properties of circuits that underlie behavior and/or cognition in any organism. Projects that take advantage of existing DBI investments in informatics, computing and other infrastructure, such as the Neuroscience Gateway, in novel ways are also eligible.

**DCL: Stimulating Research Related to the Science of Broadening Participation**

Building on previous investments, the Directorate for Social, Behavioral & Economic Sciences (SBE) and the Directorate for Education & Human Resources (EHR) announce their interest in stimulating research related to the Science of Broadening Participation (SBP). The Science of Broadening Participation will employ the theories, methods, and analytic techniques of the social, behavioral, economic, and learning sciences to better understand the barriers that hinder and factors that enhance our ability to broaden participation in science, technology, engineering, and mathematics (STEM). The results of these efforts will inform approaches to increase the access and involvement of underrepresented groups in STEM and to strengthen our national STEM capabilities and competitive advantage. Ultimately, the SBP research will provide scientific evidence that STEM educators, STEM employers, and policy makers need to make informed decisions and to design effective programs and interventions. In FY 2014, SBE and EHR will partner to support SBP research proposals that will contribute to the overall understanding of the positive and negative factors impacting the participation of underrepresented individuals in STEM education and careers. SBP research proposals may focus on factors such as the following:

- Institutional and organizational factors (e.g., studies of organizational, structural, cultural or climate factors that impact STEM participation)
- Cultural and social factors (e.g., studies of psychological or behavioral factors that affect STEM participation and achievement rates)
- Economic and policy-related factors (e.g., studies of economic factors that impact STEM participation and the relationship between broader participation and social innovation)
Notice of Intent to Issue Funding Opportunity Announcement No. DE-FOA-0000984 Wind Forecasting Improvement Project in Complex Terrain

The Department of Energy's Office of Energy Efficiency and Renewable Energy intends to issue, on behalf of the Wind and Water Power Technologies Office (WWPTO), a Funding Opportunity Announcement (FOA) entitled "Wind Forecasting Improvement Project in Complex Terrain." By researching physical processes in complex terrain that drive wind and ramp events, the WWPTO is seeking proposals for improving short-term (0 to 15 hour) wind forecasts. Additionally the research is intended to benefit the day-ahead wind forecasts as well in order to benefit the U.S. wind industry. This FOA will fund one recipient to populate a study area (approximately 800 by 800 kilometers) with additional meteorological instrumentation and equipment to measure specific physical properties. The WWPTO is interested in the region between the Rocky Mountains and the Pacific coastline as a candidate area for studying these physical properties. This notice is issued so that interested parties are aware of the EERE's intention to issue this FOA in early 2014. All of the information contained in this Notice is subject to change. EERE will not respond to questions concerning this notice. Once the FOA has been released, EERE will provide an avenue for potential applicants to submit questions.

DOE NOI FOA Frontier Observatory for Research in Geothermal Energy

The purpose of this Notice is to provide potential applicants advance notice that the Department of Energy Office of Energy Efficiency and Renewable Energy intends to issue, on behalf of the Geothermal Technologies Office, a Funding Opportunity Announcement (DE-FOA-0000890) entitled Frontier Observatory for Research in Geothermal Energy (FORGE). No applications will be accepted through this notice. Please do not submit questions or respond to this Notice of Intent. This Notice is issued so that interested parties are aware of EERE's intentions to issue this FOA in the near term. Prospective applicants to the FOA should begin developing partnerships, formulating ideas, and gathering data in anticipation of the issuance of this FOA (EERE Exchange).

Notice of Intent to Publish the Reissuance of the “Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellowships to Promote Diversity in Health-Related Research (Parent F31 - Diversity)” Funding Opportunity Announcement

Notice of Intent to Publish the Reissuance of the Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellows (Parent F31)” Funding Opportunity Announcement

Notice of Intent to Publish the Reissuance of the Ruth L. Kirschstein National Research Service Awards (NRSA) for Individual Postdoctoral Fellows (Parent F32)” Funding Opportunity Announcement

Dear Colleague Letter: Special Guidelines for Submitting Collaborative Proposals under the US NSF/BIO - UK BBSRC Lead Agency Pilot opportunity

The US National Science Foundation (NSF) and the Research Councils UK (RCUK) have signed a Memoranda of Understanding (MoU) on Research Cooperation. The MoU provides an
overarching framework to encourage collaboration between US and UK research communities and sets out the principles by which jointly supported activities might be developed. The MoU provides for a lead agency arrangement whereby proposals may be submitted to either NSF (via FastLane) or one of the UK Research Councils (via Je-S). The NSF Directorate for Biological Sciences (NSF/BIO) and the Biotechnology and Biological Sciences Research Council (BBSRC) are pleased to announce a pilot program for the NSF/BIO - BBSRC lead agency arrangements under the NSF / RCUK Research Cooperation MoU. The pilot program allows for reciprocal acceptance of peer review through unsolicited mechanisms and its goal is to help reduce some of the current barriers to working internationally. The pilot will allow US and UK researchers to submit a single collaborative proposal that will undergo a single review process. The pilot will operate for fall 2014 and fall 2015 submissions and proposals will be accepted for UK-US collaborative projects in the areas of intersection between NSF/BIO and BBSRC.

National Institute of Justice
The NIJ and the Office of Juvenile Justice and Delinquency Prevention (OJJDP) are pleased to announce the first two bulletins in their new, co-produced Justice Research series. The series reports on findings from joint NIJ and OJJDP research on youth in the juvenile justice system. The first two bulletins are:

- “Delays in Youth Justice” describes research that draws from the National Juvenile Court Data Archive and from studies of three midwestern county courts that have used successful approaches to reduce delays in case processing of youth through the juvenile justice system.
- “Young Offenders: What Happens and What Should Happen” examines policies that affect youth who transition from the juvenile to the criminal justice system, with an emphasis on delinquents ages 15–17 and young adults ages 18–24 already in the criminal justice system.

Application Information – Research Design Workshop for Faculty from Minority-Serving Institutions
The National Center for Education Research (NCER) in the Institute of Education Sciences (IES) of the U.S. Department of Education is hosting a Research Design Workshop for faculty from minority-serving institutions July 21-23. The purpose of the Workshop is to provide an overview of quantitative education research design and introduce faculty from minority-serving institutions to IES research funding opportunities and application requirements. The goal of the Workshop is to increase the capacity of researchers from minority-serving institutions to develop and conduct rigorous evaluations of the impact of education interventions. All applications must be received no later than April 1, 2014. For more information about the Workshop, including the application procedures, please visit [here](#). If you need assistance, please contact Dr. Katina Stapleton at 202-219-2154 or katina.stapleton@ed.gov.
The Arc of the Academic Research Career: Issues and Implications for U.S. Science and Engineering Leadership: Summary of a Workshop

America's research universities have undergone striking change in recent decades, as have many aspects of the society that surrounds them. This change has important implications for the heart of every university: the faculty. To sustain their high level of intellectual excellence and their success in preparing young people for the various roles they will play in society, universities need to be aware of how evolving conditions affect their ability to attract the most qualified people and to maximize their effectiveness as teachers and researchers.

Gender roles, family life, the demographic makeup of the nation and the faculty, and the economic stability of higher education all have shifted dramatically over the past generation. In addition, strong current trends in technology, funding, and demographics suggest that change will continue and perhaps even accelerate in academe in the years to come. One central element of academic life has remained essentially unchanged for generations, however: the formal structure of the professorial career. Developed in the mid-nineteenth and early twentieth centuries to suit circumstances quite different from today's, and based on traditions going back even earlier, this customary career path is now a source of strain for both the individuals pursuing it and the institutions where they work.

The Arc of the Academic Research Career is the summary of a workshop convened by The Committee on Science, Engineering, and Public Policy in September 2013 to examine major points of strain in academic research careers from the point of view of both the faculty members and the institutions. National experts from a variety of disciplines and institutions discussed practices and strategies already in use on various campuses and identified issues as yet not effectively addressed. This workshop summary addresses the challenges universities face, from nurturing the talent of future faculty members to managing their progress through all the stages of their careers to finding the best use of their skills as their work winds down.

Fuel Cell Technologies Office Multi-Year Research, Development and Demonstration Plan

The Fuel Cell Technologies Office Multi-Year Research, Development, and Demonstration (MYRD&D) Plan describes the goals, objectives, technical targets, tasks, and schedules for all activities within the Fuel Cell Technologies (FCT) Office, which is part of the U.S. Department of Energy's (DOE's) Office of Energy Efficiency and Renewable Energy (EERE). The MYRD&D Plan is a living document, which is revised periodically to reflect progress in the technologies, revisions to developmental timelines and targets, updates based on external reviews, and changes in the scope of the FCT Office. The document was first published in 2003, and revised in 2005. The document was significantly revised in 2012 to reflect scientific advancements and the changing technological landscape. Any revisions made to the MYRD&D Plan are conducted through a rigorous Change Control process as documented in the Systems Integration section of this report. The hydrogen and fuel cell activities within DOE continue to receive extensive review by
stakeholders in the hydrogen and fuel cell community, including panels of the National Research Council and the National Academy of Engineering.

**Understanding the Connections Between Coastal Waters and Ocean Ecosystem Services and Human Health: Workshop Summary**

Understanding the Connections Between Coastal Waters and Ocean Ecosystem Services and Human Health discusses the connection of ecosystem services and human health. This report looks at the state of the science of the role of oceans in ensuring human health and identifies gaps and opportunities for future research. The report summarizes a workshop convened by the Institute of Medicine’s Roundtable on Environmental Health Sciences, Research, and Medicine. Participants discussed coastal waters and ocean ecosystem services in the United States in an effort to understand impacts on human health. Understanding the Connections Between Coastal Waters and Ocean Ecosystem Services and Human Health focuses on key linkages by discussing the ecosystem services provided by coastal waterways and oceans that are essential for human health and well-being; examining the major stressors that affect the ability of coastal waterways and ocean systems to provide essential services; and considering key factors that can enhance the resiliency of these systems.

**The Science of Science Communication II: Summary of a Colloquium (2014)**

Successful scientists must be effective communicators within their professions. Without those skills, they could not write papers and funding proposals, give talks and field questions, or teach classes and mentor students. However, communicating with audiences outside their profession - people who may not share scientists' interests, technical background, cultural assumptions, and modes of expression - presents different challenges and requires additional skills. Communication about science in political or social settings differs from discourse within a scientific discipline. Not only are scientists just one of many stakeholders vying for access to the public agenda, but the political debates surrounding science and its applications may sometimes confront scientists with unfamiliar and uncomfortable discussions involving religious values, partisan interests, and even the trustworthiness of science.

The Science of Science Communication II is the summary of a Sackler Colloquium convened in September 2013. At this event, leading social, behavioral, and decision scientists, other scientists, and communication practitioners shared current research that can improve the communication of science to lay audiences. In the Sackler Colloquium tradition, the meeting also allowed social and natural scientists to identify new opportunities to collaborate and advance their own research, while improving public engagement with science. Speakers provided evidence-based guidance on how to listen to others so as to identify their information needs, ways of thinking about the world, and the cultural stereotypes regarding scientists. They delved deeply into the incentive systems that shape what scientists study and how they report their work, the subtle changes in framing that can influence how messages are interpreted, the complex channels that determine how messages flow, and the potential politicization of scientific evidence.

**Describing & Measuring Undergraduate Stem Teaching Practices**
In recent years, there has been a growing emphasis on the importance of improving undergraduate education in science, technology, engineering, and mathematics (STEM) disciplines. Being able to describe teaching practices in undergraduate STEM learning environments is an important foundation for many of these improvement initiatives. Yet, there has been little systematic work to identify tools and techniques that can be used in such descriptions.

The improvement of STEM teaching is critical to the nation’s future. High attrition rates of students from STEM majors—particularly students from underrepresented groups—a growing demand for STEM professionals, and the national need for a strong science background for all students make it urgent that the problem be addressed. This sense of urgency has been recognized by organizations such as the National Science Foundation (NSF), which has supported systemic efforts to improve teaching and learning in undergraduate STEM education. But even with widespread national investments, education researchers, administrators, and faculty do not yet have shared and accepted ways to describe and measure important aspects of teaching. Developing the language and tools necessary to describe teaching practices in undergraduate education is crucial to achieving productive discussions about improving those practices.
**New Funding Opportunities**

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**Content Order**

New Funding Posted Since February 15 Newsletter

URL Links to New & Open Funding Solicitations

Solicitations Remaining Open from Prior Issues of the Newsletter

Open Solicitations and BAAs

[User Note: URL links are active on date of publication, but if a URL link breaks or changes a Google search on the key words will typically take you to a working link.]

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**New Funding Solicitations Posted Since February 15 Newsletter**

**Small Business Innovation Research Program at the Institute of Education Sciences**

The Small Business Innovation Research (SBIR) Program at the Institute of Education Sciences (Institute) provides up to $1,050,000 in funding to small business firms and partners for the research and development (R&D) of commercially viable education technology products. The program accepts proposals through two tracks: Through its education track, the Institute funds the R&D of products to improve student learning directly or indirectly (e.g., through teacher practices) in authentic education delivery settings (e.g., schools, after-school programs, or distance learning programs). For more details on the current priority area in the education track, click here. Through its special education track, the Institute funds the R&D of products for use by infants, toddlers, or students with or at risk for disabilities, or teachers (or other instructional personnel, related services providers, or family members) in early intervention or special education. For more details on the current priority area in the special education track, click here. Due March 24.

**DE-FOA-0001052 Solid Oxide Fuel Cell Core Technology Program**

The Fossil Energy Fuel Cell Program manages a robust research portfolio, including Core Technology research projects. Projects with the Core Technology moniker focus on laboratory scale research and development to support solid-oxide fuel cell (SOFC) system manufacturers. These projects are typically thirty-six months in duration and have budgets on the order of half a million dollars. In this FY2014 funding opportunity announcement (FOA), proposals are sought for applied laboratory scale R&D that will improve the reliability, robustness, and endurance of SOFC cell, stack, and/or system technology. Preference will be given to applicants who partner with an SOFC manufacturer whose technology is nearing commercial viability. Partnership with an SOFC manufacturer will enable Core teams to produce more applied results than previous SECA Core projects. This is a natural consequence of the maturation of SOFC technology, as manufacturers near commercialization their technologies are more developed and there are less areas of common intersection among the different SOFC architectures. Applicants may propose research of any SOFC cell, stack, or system component. Due March 31.
DE-FOA-0001058 Improved Reliability of Solid Oxide Fuel Cell Systems
The objective of this FOA is to competitively award applied Research and Development projects to advance low cost solid oxide fuel cell technology. Due March 31.

DE-FOA-0000974 Bioenergy Technologies Incubator
The Office of Energy Efficiency and Renewable Energy (EERE) will issue, on behalf of the Bioenergy Technologies Office (BETO), a Funding Opportunity Announcement (FOA) entitled Bioenergy Technologies Incubator. BETO’s mission is to engage in research and development (R&D) and demonstration at increasing scale activities to transform renewable biomass resources into commercially viable, high-performance biofuels, and bioproducts and biopower that enable biofuel production. To accomplish this mission, BETO develops a strategic plan, or multi-year program plan, to identify the technical challenges and barriers that need to be overcome. However, BETO recognizes that there may be novel and potentially disruptive ideas that do not necessarily align well with BETO’s current multi-year program plan yet still meet the goals and mission of BETO. The Bioenergy Incubator Program is intended to identify these potentially impactful technologies and solutions that are not meaningfully addressed in BETO’s strategic plan or project portfolio. The APPLY and SUBMIT buttons automatically disable at the defined submission deadlines. Deadline for Concept Papers: 03/31/2014 5:00 pm (EST) Deadline for Full Applications: 05/23/2014 5:00 pm (EST).

2014-NIST-SSCD-01 NIST Standards Services Curricula Development
The Standards Services Curricula Development Cooperative Agreement Program provides financial assistance to support curriculum development for the undergraduate and/or graduate level. These cooperative agreements support the integration of standards and standardization information and content into seminars, courses, and learning resources. The recipients will work with NIST to strengthen education and learning about standards and standardization. Due March 31.

S-GPI-SOIC-1-2014 Implementation of Public-Private Partnerships
The Secretary’s Office of Global Partnerships (S/GPI) at the U.S. Department of State (DOS) is pleased to issue this request for Statements of Interest and Capacity (SOIC) from organizations with the capacity to implement and manage public-private partnerships or programs that are innovative, agile and impactful to assist S/GPI with activities across sectors, industries and borders as they arise. All SOICs will be reviewed against the stated criteria outlined below in this announcement. Organizations which have submitted acceptable SOICs will be registered and placed on a list maintained by S/GPI. Pre-qualified organizations may be invited at any time in the next 5 years to submit a proposal to respond to a specific S/GPI partnership activity that would benefit from partnering with the Department of State and a non-Federal government organization. U.S. registered organizations, including non-profit and for-profit, are eligible to submit an SOIC for consideration. Due April 11.

OJJDP-2014-3765 OJJDP FY 2014 Internet Crimes Against Children Program Support
State and regional Internet Crimes Against Children (ICAC) task forces work collaboratively as a national network of law enforcement and prosecutorial agencies that prevent, interdict, and investigate technology-facilitated child sexual exploitation and Internet crimes against children. This program furthers DOJ’s mission to provide support in this area of constantly evolving technology. Through this program, OJJDP will select an awardee to provide a variety of services and support to the ICAC task force program. This program is authorized by the Providing Resources, Officers, and Technology to Eradicate Cyber Threats to Our Children Act of 2008 (PROTECT Act) (P.L. 110–401 as amended by P.L. 112-206), 42 USC 17611-17616. Due April 14.

DARPA-BAA-14-22 Mining and Understanding Software Enclaves (MUSE)
The Defense Advanced Research Projects Agency (DARPA) is soliciting innovative research proposals in the areas of program analysis, verification, and big data analytics for specifying, discovering, and understanding properties of complex software systems. Proposed research should investigate innovative approaches that enable revolutionary advances in science, methods, or systems. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice. This broad agency announcement (BAA) is being issued, and any resultant selection will be made, using procedures under Federal Acquisition Regulation (FAR) 35.016. Due April 15.

FY 2014 Request for Proposals for the Pollution Prevention Information Network
The Pollution Prevention Information Network (PPIN) grant program funds regional centers that serve both regional and national pollution prevention (P2) information needs. Grantees determine audience needs and then supply quality information and training on source reduction and related P2 practices. Grantees provide assistance and training to businesses whose lack of information may be an impediment to implementing source reduction, preventing pollution or adopting sustainable practices. Due April 15.

DOE EPSCoR Implementation Grants
The U. S. Department of Energy's Experimental Program to Stimulate Competitive Research (DOE EPSCoR) is a federal-state partnership program designed to help the Department lead the world in meeting today's and tomorrow's energy needs by increasing the geographic diversity of competitive capability to conduct energy-related research and development. Positioned within the Department's Office of Science (SC) in the Office of Basic Energy Sciences, and supporting basic and applied research and development across a wide range of DOE Programs, DOE EPSCoR hereby announces its interest in receiving applications for Implementation Grants from the academic, non-profit or industrial research community in states and territories (hereafter referred to as jurisdictions) eligible for the program. Due April 15.

SP-14-005 Minority Serving Institutions Partnerships with Community Based Organizations
The purpose of this program is to prevent and reduce substance abuse (SA) and transmission of HIV/AIDS among African-American, Hispanic/Latino, Asian American/Pacific Islander (AA/PI), and American Indian/Alaska Natives (AI/AN) young adult (ages 18-24) populations. CSAP expects MSIs to partner with one or more community-based organization(s) (CBO) to provide
integrated SA, Hepatitis-C (HCV), and HIV prevention programs to African-American, Hispanic/Latino, Asian American/Pacific Islander (AA/PI) and American Indian/Alaska Natives (AI/AN) young adults (ages 18-24) in the surrounding communities. Applicants are required to base their projects on the five steps of SAMHSA’s Strategic Prevention Framework (SPF). During the implementation phase, MSIs are expected to work with their collaborating CBOs to conduct the following tasks: Conduct focus groups to identify high risk populations on the MSI campus and in the affected community(ies); Implement evidence based substance abuse/HIV prevention and environmental prevention strategies to change community norms; Provide outreach that includes prevention education strategies to reach racial/ethnic minority young adults on MSI campuses and in the surrounding communities; Implement required strategies for HIV testing and referral services. Due April 16.

Agriculture and Food Research Initiative: Water for Agriculture Challenge Area
NIFA initiates a new challenge area to address critical water resources issues such as drought, excess soil moisture, flooding, quality and others in an agricultural context. Funding will be used to develop management practices, technologies, and tools for farmers, ranchers, forest owners and managers, public decision makers, public and private managers, and citizens to improve water resource quantity and quality. NIFA’s approach will link social, economic, and behavioral sciences with traditional biophysical sciences and engineering to address regional-scale issues with shared hydrological processes and meteorological and basin characteristics. LOI Required April 17; full August 13.

EPA-OSWER-OBLR-14-02 FY14 Brownfields Training, RESEARCH, and Training
This notice announces the availability of funds and solicits proposals from eligible entities, including nonprofit organizations, to conduct research, or provide technical assistance to communities facing brownfields cleanup and revitalization challenges. Focus areas of this announcement include: 1) technical assistance to environmental workforce development and job training grantees, 2) technical assistance on the integration of environmental justice and equitable development for brownfields-impacted communities, 3) research on the benefits of brownfields redevelopment, and 4) technical assistance on brownfields financing and economic development strategies to brownfields-impacted communities. Due April 18.

DE-FOA-0001089 Scientific Discovery through Ultrafast Materials and Chemical Sciences
The Office of Basic Energy Sciences (BES), U.S. Department of Energy (DOE), announces its interest in receiving applications from small collaborative groups of investigators for support of combined experimental and theoretical efforts to advance ultrafast chemical and materials science. A companion Program Announcement to the DOE National Laboratories (LAB 14-1089) will be posted on the SC Grants and Contracts website. Due April 21.

NIJ FY 14 Research and Development in Forensic Science for Criminal Justice Purposes
NIJ is seeking proposals for basic or applied research and development projects that will: (1) increase the body of knowledge to guide and inform 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 this 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 21.**

**Clean Energy Manufacturing Innovation Institute for Composite Materials and Structures**

Through this Funding Opportunity Announcement (FOA) The Advanced Manufacturing Office (AMO) of EERE seeks to establish a Clean Energy Manufacturing Innovation Institute for Composites Materials and Structures that will support U.S. prosperity and security; and contribute to the creation of the pilot National Network for Manufacturing Innovation. The vision for the Institute is to revitalize American manufacturing and support domestic manufacturing competitiveness. The technical topic area for this Institute is low cost, energy efficient manufacturing of fiber reinforced polymer composites. The Institute will target continuous or discontinuous, primarily carbon and glass fiber systems, with thermoset or thermoplastic resin materials. These types of composites are foundational technologies that are broadly applicable and pervasive in multiple industries and markets with potentially transformational technical and economic impact. The full Funding Opportunity Announcement 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. The Users' guide for applying to Department of Energy, Energy Efficiency and Renewable Energy’s Funding Opportunity Announcements through the Exchange website can be found at [https://eere-exchange.energy.gov/Manuals.aspx](https://eere-exchange.energy.gov/Manuals.aspx). 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. **A mandatory Concept Paper is due April 22. Full Proposal June 19.**

**Women and Minorities in Science, Technology, Engineering and Mathematics Fields Program (WAMS) USDA-NIFA-WAMS-004491**

This program supports research and extension projects that have robust collaborations to increase the participation of women and underrepresented minorities from rural areas in science, technology, engineering, and mathematics fields that are relevant to USDA priorities identified by the Secretary: (i) Promotion of a safe, sufficient, and nutritious food supply for all Americans and for people around the world; (ii) Sustainable agricultural policies that foster economic viability for small and mid-sized farms and rural businesses, protect natural resources, and promote value-added agriculture; (iii) national leadership in climate change mitigation and adaptation; (iv) Building a modern workplace with a modern workforce; and (v) Support for 21st century rural communities. **Due April 28.**

**NOAA-NMFS-FHQ-2014-2004007 2014 BREP**

The mission of the National Bycatch Reduction Engineering Program (BREP) is to develop technological solutions and investigate changes in fishing practices designed to minimize
bycatch of fish (including sponges, deep–sea corals, and shallow (tropical) corals) and protected species (including marine mammals, sturgeon, seabirds, and sea turtles) as well as minimize bycatch injury and mortality (including post-release injury and mortality). For FY2014, NMFS anticipates that approximately $2,500,000 could be made available for projects that address bycatch research as identified in the Program Priority Section (I.B.1 - I.B.3). Due April 30.

**Integrated Enhanced Geothermal Systems (EGS) Research and Development**

Through this Funding Opportunity Announcement (FOA), the Geothermal Technologies Office's (GTO) Enhanced Geothermal Systems (EGS) Subprogram seeks to advance subsurface characterization via an integrated technical approach to EGS R&D. GTO encourages the community to integrate technologies to address the challenges associated with quantifying reservoir complexity. GTO is interested in increasing the precision and accuracy of directly measured parameters and improving the ability to constrain calculated or inferred reservoir properties from these direct measurements. Critical parameters that GTO is interested in constraining include, but are not limited to: matrix to fracture heat transfer area; fluid mean residence time; in-situ stresses; fracture spacing; fracture aperture distribution; porosity; and reservoir volume. GTO seeks research projects that will facilitate a better understanding of physicochemical conditions to optimize subsurface engineering and stimulation methods, as well as assess and better understand the evolution and sustainability of a reservoir during long-term operations. Due April 30.

**20140501-PE NEH Preservation and Access Education and Training**

The Preservation and Access Education and Training program is central to NEH’s efforts to preserve and establish access to cultural heritage collections. Thousands of libraries, archives, museums, and historical organizations across the country maintain important collections of books and manuscripts, photographs, sound recordings and moving images, archaeological and ethnographic artifacts, art and material culture collections, electronic records, and digital objects. The challenge of preserving and making accessible such large and diverse holdings is enormous, and the need for knowledgeable staff is significant and ongoing. Preservation and Access Education and Training grants are awarded to organizations that offer national or regional (multistate) education and training programs. Grants aim to help the staff of cultural institutions, large and small, obtain the knowledge and skills needed to serve as effective stewards of humanities collections. Grants also support educational programs that prepare the next generation of conservators and preservation professionals, as well as projects that introduce the staff of cultural institutions to new information and advances in preservation and access practices. Due May 1.

**20140501-PR NEH Preservation and Assistance Research and Development**

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
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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.

**20140501-PG NEH Preservation Assistance Grants for Smaller Institutions**
Preservation Assistance Grants help small and mid-sized institutions such as libraries, museums, historical societies, archival repositories, cultural organizations, town and county records offices, and colleges and universities improve their ability to preserve and care for their significant humanities collections. These may include special collections of books and journals, archives and manuscripts, prints and photographs, moving images, sound recordings, architectural and cartographic records, decorative and fine art objects, textiles, archaeological and ethnographic artifacts, furniture, historical objects, and digital materials. Due May 1.

**20140501-CH Challenge Grants National Endowment for the Humanities**
NEH challenge grants are capacity-building grants, intended to help institutions and organizations secure long-term 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. Due May 1.

The Office of Fusion Energy Sciences (FES) and the Office of Advanced Scientific Computing Research (ASCR), Office of Science, U.S. Department of Energy (DOE), announce their interest in receiving applications from collaborative groups of investigators for developing an integrated simulation capability for fusion energy science. More specifically, applications are solicited for the development of advanced multiphysics and multiscale integrated simulation capabilities for magnetically confined plasmas addressing problems of direct relevance to burning plasma science and ITER. While developing a full Whole Device Modeling (WDM) simulation capability is beyond the scope of this FOA, this is intended to be a first step toward this goal. Responsive applications are expected to integrate the most critical physical processes across all relevant regions and on all relevant temporal and spatial scales, using an appropriately justified combination of first principles models and high physics fidelity reduced models. Simulation codes should be able to exploit the massive concurrency of the SC leadership class computing
facilities and not merely their high capacity. Applications focused solely on the development of computational frameworks are not responsive to this FOA. However, since advanced computational frameworks are essential for enabling and facilitating the coupling and integration of component modules, allocation of resources to adapt, maintain, upgrade, and extend existing frameworks, including those developed by the Fusion Simulation Prototype Centers, is permissible provided they satisfy the above stated requirement of exploiting the capabilities of the SC leadership computing facilities. A companion Program Announcement to DOE Laboratories (LAB 14-1096) will be posted on the SC Grants and Contracts website at: http://science.energy.gov/grants/. The full text of the Funding Opportunity Announcement (FOA) is located on FedConnect. Instructions for completing the Grant Application Package are contained in the full text of the FOA which can be obtained at: https://www.fedconnect.net/FedConnect/?doc=DE-FOA-0001096&agency=DOE. Due May 2.

**2014 DHS Scientific Leadership Awards for Minority Serving Institutions (MSI)**
The DHS Scientific Leadership Awards (SLA) program is one of several educational research programs administered by the S&T Office of University Programs. The SLA program will develop homeland security educational and research capabilities within the MSI communities. OUP invites applications from minority serving institutions to establish HS-related scientific leadership awards programs. OUP expects to fund these programs for several years to ensure a lasting capability at recipient MSIs. Critical elements of a successful SLA proposal will address the following: 1) Coordinated teaching and DHS relevant research projects or initiatives with significant involvement of an early career faculty 2) Establishment of collaborative relationships with the DHS research Centers of Excellence (COEs), DHS / DOE and other federal labs 3) HS-STEM (Homeland Security- Science, Technology, Engineering, and Mathematics) curriculum development and course content 4) Financial support for undergraduate students in the form of scholarships and other direct student support 5) Student internships and other experiential learning opportunities 6) Best practices for successful student mentoring and career guidance 7) Processes with the potential for highly successful transition of supported students to HS-STEM related careers, or admission to graduate school 8) Student success tracking, measurement, and reporting methodology. The proposal must contain a subproject that allows collaboration or faculty exchange between early career faculty and a researcher at one of the COE Research lead universities, a DHS / DOE laboratory or other related federal research center. Additional requirements may apply, see full description in Funding Announcement. Due May 5.

**NIJ FY 14 Research on Offender Decision-Making and Desistance From Crime**
The study of adult offender decision-making and desistance to commit crime typically has been approached from a rational choice perspective and a life-course perspective, respectively. With this solicitation NIJ seeks to expand the existing research by examining the process of adult offender decision-making. NIJ requests proposals that either expand the rational choice model and/or life-course model, use other theories to explain either the choice to commit crime or to desist from committing crime (e.g., behavioral economics, business models, psychology, or cognitive models), or any combination of these. Proposed research also should consider issues
such as social context, emotions, default choices, or possibly environmental context to gain a better understanding of the overall decision-making process to commit or desist from committing crimes. Due May 5.

**NIJ FY 14 Graduate Research Fellowship Program in the Social and Behavioral Sciences**

NIJ is seeking proposals for funding innovative dissertation research under the NIJ Graduate Research Fellowship (GRF) Program that provides awards for research on crime, violence, and other criminal justice-related topics to accredited academic institutions that offer research-based doctoral degrees in social and behavioral academic disciplines relevant to NIJ’s mission. 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 relevance to providing science, technology, engineering, and mathematics to better prevent and control crime and ensure the fair and impartial administration of criminal justice in the United States. Due May 12.

**NIJ FY 14 W.E.B. Du Bois Fellowship for Research on Race, Gender, Culture, and Crime**

NIJ seeks applications for the W.E.B. Du Bois Fellowship for Research on Race, Gender, Culture, and Crime FY 2014. The Fellowship program seeks to advance knowledge regarding the confluence of crime, justice, and culture in various societal contexts. The Fellowship places particular emphasis on crime, violence, and the administration of criminal justice in diverse cultural contexts within the United States. Due May 12.

**DE-FOA-0001084 Commercial Building Technology Demonstrations**

Advanced building technologies and systems can contribute to the cost-effective delivery of new buildings and retrofits that significantly lower building energy consumption. DOE seeks to fund demonstration and deployment activities for technologies that are ready for market adoption but that may be underutilized due to market barriers including perception of risk, gaps in information and data on performance as well as cost. These technologies will offer a high degree of differentiation between current industry solutions, be widely replicable across the building size, sector and application and provide significant energy savings potential (as determined by market opportunity, site savings, and total potential savings at 100% penetration). Funding through this opportunity will enhance and accelerate the deployment and adoption of a broad range of competitively-solicited high impact energy saving technologies as well as new technology integration approaches. The technical and/or non-technical products of this funding should be deployed for scale up as a part of the award agreement and will enable investment-level decision-making by building owners, investors and operators in order to produce energy savings. Due May 19.

**DHS-14-DNDO-106-001 Securing the Cities (STC) Program**

The Securing the Cities (STC) Program seeks to reduce the risk of a successful deployment of a nuclear terrorist weapon against a major metropolitan regions in the United States by
establishing sustainable capability among state, local, and tribal agencies to detect and report unauthorized radiological/nuclear (rad/nuc) materials within their jurisdictions supporting the Global Nuclear Detection Architecture (GNDA). The STC Program has three primary goals: (1) to enhance regional capabilities to detect, identify and interdict nuclear materials that are out of regulatory control; (2) to guide the coordination of Federal, State, local and tribal entities in their roles defined by the GNDA; and (3) to encourage participants to sustain base nuclear detection program over time. Due May 20.

**Bioengineering Research Partnerships (BRP) R01**

This FOA encourages bioengineering applications that will accelerate the development and adoption of promising tools and technologies that can address important biomedical research problems. The objectives are to establish these tools and technologies as robust, well-characterized solutions that fulfill an unmet need and are capable of enhancing our understanding of life science processes or the practice of medicine. Awards will focus on supporting multidisciplinary teams that apply an integrative, quantitative bioengineering approach to developing these technologies and engage biomedical researchers or clinicians throughout the project. The goal of the program is to support projects that can realize meaningful solutions within 5-10 years. Due Dates May 20, 2014, September 18, 2014, May 20, 2015, September 18, 2015.

**Bioenergy Technologies Incubator**

The Office of Energy Efficiency and Renewable Energy (EERE) will issue, on behalf of the Bioenergy Technologies Office (BETO), a Funding Opportunity Announcement (FOA) entitled "Bioenergy Technologies Incubator." BETO's mission is to engage in research and development (R&D) and demonstration at increasing scale activities to transform renewable biomass resources into commercially viable, high-performance biofuels, and bioproducts and biopower that enable biofuel production. To accomplish this mission, BETO develops a strategic plan, or multi-year program plan, to identify the technical challenges and barriers that need to be overcome. However, BETO recognizes that there may be novel and potentially disruptive ideas that do not necessarily align well with BETO's current multi-year program plan yet still meet the goals and mission of BETO. The Bioenergy Incubator Program is intended to identify these potentially impactful technologies and solutions that are not meaningfully addressed in BETO's strategic plan or project portfolio. It is NOT intended to fund projects that are incremental improvements to current products or processes or for established work in BETO's strategic plan or current portfolio. The Bioenergy Technologies Incubator FOA will be 'open' to any and all impactful proposals which significantly advance the mission of the BETO. It is expected that proposals will be at early Technology Readiness Levels (TRL) ranging from 2 (Technology concept and/or application formulated) to 4 (Component and/or breadboard validation in laboratory environment). Successful incubator projects will reduce the risk associated with potentially breakthrough approaches and technologies so that they could be viable candidates in future program roadmaps. EERE envisions awarding multiple financial assistance awards in the form of cooperative agreements. The total amount of funding for the FOA is $10 million.
The estimated period of performance for each award will be approximately 12-24 months, with an award size from $0.5 million to $2.0 million, with 20% cost-share. Due May 23.

2014-NIST-MSE-01 Measurement Science and Engineering Research Grant Programs
NIST is soliciting applications for financial assistance for Fiscal Year 2014 (FY14) under the following programs: (1) the Material Measurement Laboratory (MML); (2) the Physical Measurement Laboratory (PML); (3) the Engineering Laboratory (EL); (4) Fire Research (FR); (5) the Information Technology Laboratory (ITL); (6) the NIST Center for Neutron Research (NCNR); (7) the Center for Nanoscale Science and Technology (CNST); (8) the Office of Special Programs (OSP), and (9) the Associate Director for Laboratory Programs (ADLP). Specifics of these programs are detailed in the Full Announcement/FFO document. This funding opportunity will result in the award of grants or cooperative agreements. A grant or cooperative agreement is not the correct funding vehicle if the principal purpose is to provide products or services for the direct benefit or use of the federal government. Considered on rolling basis until June 2.

NSF Small Business Innovation Research Program Phase I Solicitation (SBIR)
The SBIR program solicits proposals from the small business sector consistent with NSF's mission. The program is governed by Public Law 112-81 (SBIR/STTR Reauthorization Act of 2011). A main purpose of the legislation is to stimulate technological innovation and increase private sector commercialization. The NSF SBIR program is therefore in a unique position to meet both the goals of NSF and the purpose of the SBIR legislation by transforming scientific discovery into both social and economic benefit, and by emphasizing private sector commercialization. Accordingly, NSF has formulated broad solicitation topics for SBIR that conform to the high-technology investment sector's interests. The topics are detailed on the SBIR/STTR topics homepage. Window: May 10 to June 10.

NSF Small Business Technology Transfer Program Phase I Solicitation (STTR)
The Small Business Technology Transfer (STTR) Program stimulates technological innovation in the private sector by strengthening the role of small business concerns in meeting Federal research and development needs, increasing the commercial application of federally supported research results, and fostering and encouraging participation by socially and economically disadvantaged and women-owned small businesses. Window: May 11 to June 11.

Clean Energy Manufacturing Innovation Institute for Composite Materials and Structures
Through this Funding Opportunity Announcement (FOA) The Advanced Manufacturing Office (AMO) of EERE seeks to establish a Clean Energy Manufacturing Innovation Institute for Composites Materials and Structures that will support U.S. prosperity and security; and contribute to the creation of the pilot National Network for Manufacturing Innovation. The vision for the Institute is to revitalize American manufacturing and support domestic manufacturing competitiveness. The technical topic area for this Institute is low cost, energy efficient manufacturing of fiber reinforced polymer composites. The Institute will target continuous or discontinuous, primarily carbon and glass fiber systems, with thermoset or thermoplastic resin materials. These types of composites are foundational technologies that are
broadly applicable and pervasive in multiple industries and markets with potentially transformational technical and economic impact. **Due June 19.**

**ONRBA14-007 FY 15 Communications and Networking Discovery and Invention**

Proposals for potential FY15 Exploratory Development/Applied Research (Budget Activity 6.2) projects are sought under the following focus areas. Highly innovative ideas in other general communications and networking areas that are not within the designated focus areas below, but nonetheless are important to the Navy/Marine Corps, as determined under the synopsis section above may also be considered: 1. Interference cancellation and tunable high-Q band-pass/band-reject filtering technologies, as well as electronic protection techniques, for bent pipe SATCOM. 2. Algorithms for multi-commodity flow optimization, with multiple priorities, and inclusive of channelized frequency allocation/management (e.g., HF-IP) for robust, automated, and dynamic traffic engineering and routing. 3. Flow control smoothing and latency/jitter reduction for networked disruption-prone directional links (e.g., airborne CDL) using predictive algorithms. 4. IP multicast techniques that work efficiently with link-state routing and strict-priority oriented automated traffic engineering (**Link to all ONR Funding Announcements**). Refer to the BAA or application instructions for White Paper due date. **Due June 30.**

**Geography and Spatial Sciences Doctoral Dissertation Research Improvement Awards**

The Geography and Spatial Sciences Program sponsors research on the geographic distributions and interactions of human, physical, and biotic systems on Earth. Investigators are encouraged to propose plans for research about the nature, causes, and consequences of human activity and natural environmental processes across a range of scales. Projects on a variety of topics qualify for support if they offer promise of contributing to scholarship by enhancing geographical knowledge, concepts, theories, methods, and their application to societal problems and concerns. **Due August 14.**

**Geography and Spatial Sciences Program (GSS)**

This solicitation provides instructions for preparation of a set of different kinds of proposals to the Geography and Spatial Sciences (GSS) Program, including regular research awards; proposals for awards for conferences, workshops, group-travel support, and community-development or community-serving activities; proposals for research coordination network (RCN) awards; and proposals for rapid-response research (RAPID) awards. This solicitation replaces instructions that had been included in the general GSS solicitation (previously **NSF 12-570**). The Geography and Spatial Sciences Program sponsors research on the geographic distributions and interactions of human, physical, and biotic systems on Earth. Investigators are encouraged to propose plans for research about the nature, causes, and consequences of human activity and natural environmental processes across a range of scales. Projects on a variety of topics qualify for support if they offer promise of contributing to scholarship by enhancing geographical knowledge, concepts, theories, methods, and their application to societal problems and concerns. **Due September 4.**
NPS-BAA-14-001 FY14 Masint Emerging Technologies Research Program

Research Areas: Measurement and Signature Intelligence (MASINT) is an intelligence discipline that employs a broad range of scientific developments to gather foreign intelligence. In our efforts to enhance this intelligence competency we are interested in stimulating and supporting research that creates new knowledge and capabilities, or the transition of current capabilities, that have the potential to enhance the following areas: Remote assessment and detection of weapons of mass destruction, specifically nuclear and radiological weapons, as well as chemical and biological weapons. Remote assessment and detection of directed energy weapons. This would include all lasers that are primarily designed as weapons as well as high-powered microwave (HPM) and electromagnetic pulse (EMP) weapons.

Bioinformatics, the science of collecting and analyzing complex biological data such as genetic codes, has become an important part of many areas of biology. Research should focus on how this science promotes the extraction of useful results from large amounts of raw data as well as how its intrinsic characteristics are applicable to many related research topics. Telematics typically is any integrated use of telecommunications and informatics, also known as ICT (Information and Communications Technology). Possible telematics applications can track vehicles, trailers, and shipping containers. Telematics is also used for relaying environmental conditions within vehicles, trailers or shipping containers, fleet management, mobile data and mobile television, wireless vehicle safety communications allowing vehicles to communicate with those around it and emergency warning system for vehicles. Navy seeks White Papers only from the most knowledgeable experts and universities in the field, with submissions briefly describing expertise. Note: Proposals for workshops, conferences, and symposia, or for acquisition of technical, engineering and other types of support services will not be considered (Link to all NPS BAA's). Due September 30.


The BioWatch Program is a cornerstone of the Department of Homeland Security’s (DHS) comprehensive strategy for countering biological terrorism. The BioWatch Program is an early warning system that is designed to detect the intentional release of select aerosolized biological agents. The BioWatch Program’s mission is to provide and maintain a continuous bio-terrorism air monitoring system in metropolitan areas and coordinate with state and local public health communities to prepare for and respond to a bioterrorist event. This mission is accomplished by serving as an early warning system which enhances the security of jurisdictions by providing the needed time to execute their comprehensive concept of operations plans to counter biological terrorism. The Biowatch Program is a critical part of an ongoing national effort to build and sustain preparedness which helps the United States to maintain momentum through targeted jurisdictional planning that highlights preventative actions necessary to allow for a proper and timely response and begin the process to recovery from a biological agent release. The BioWatch Evaluation Program (BWEP) will be conducted under the BioWatch Quality Assurance Program effective April 1, 2013. This program will consist of independent external audits (Quality Assurance) by Signature Science and internal audits (Quality Control) by BioWatch Systems Program Office field personnel. This approach will initially be conducted with a focus on adherence to the BioWatch Field Operations Standard Operating Procedure (SOP),
Version 1.3 and will eventually evolve to encompass the Field Operations Quality Assurance Program Plan (QAPP). In order to ensure a robust QA / QC program the jurisdictions may be subject to a QA external audit and a QC internal audit during the same cooperative agreement cycle (year). **Closes September 30, 2015.**

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**URL Links to New & Open Funding Solicitations**

*Links verified: Wednesday, February 19, 2014*

- HHS Grants Forecast
- American Cancer Society Index of Grants
- SAMHSA FY 2014 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 2014 Science To Achieve Results (STAR) Research Grants
- NASA Open Solicitations
- Defense Sciences Office Solicitations
- The Mathematics Education Trust
- EPA Open Funding Opportunities
- CDMRP FY 2014 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)
- SBIR Gateway to Funding
- Water Research Funding
- Fellowship and Grant Opportunities for Faculty Humanities and Social Sciences
- DARPA Current Solicitations
- Office of Naval Research Currently Active BAAs
- HRSA Health Professions Open Opportunities
- NIH Funding Opportunities Relevant to NIAID
- National Institute of Justice Current Funding Opportunities
- Funding Opportunities by the Department of Education Discretionary Grant Programs
- EPA’s Office of Air and Radiation (OAR) Open Solicitations
- NETL Open Solicitations
- DoED List of Currently Open Grant Competitions
- Foundation Center RFP Weekly Funding Bulletin

Solicitations Remaining Open from Prior Issues of the Newsletter

Folded Non-Natural Polymers with Biological Function (Fold F(x) DARPA - Defense Sciences Office DARPA-BAA-14-13
The DARPA Fold F(x) program objective is to develop processes enabling the rapid synthesis, screening, sequencing and scale-up of folded, non-natural, sequence-defined polymers with expanded functionality. The program will specifically address the development of non-natural affinity reagents that can bind and respond to a selected target, as well as catalytic systems that can either synthesize or degrade a desired target. DARPA anticipates that successful efforts will include (1) novel synthetic approaches that yield large libraries (>109 members) of non-natural sequence-defined polymers; (2) flexible screening strategies that enable the selection of high affinity/specificity binders and high activity/selectivity catalysts from the non-natural libraries; (3) demonstration that the screening approach can rapidly (<4 days) yield affinity reagents or catalysts against targets of interest to the DoD; and (4) demonstration of scalability and transferability to the DoD scientific community. Due April 3.

Secondary Education, Two-Year Postsecondary Education, and Agriculture in the K-12 Classroom Challenge Grants Program USDA-NIFA-SAECP-004424
The Secondary Education, Two-Year Postsecondary Education, and Agriculture in the K-12 Classroom Challenge Grants (SPECA) program seeks to: (a) promote and strengthen secondary education and two-year postsecondary education in agriscience and agribusiness in order to help ensure the existence in the United States of a qualified workforce to serve the food and agricultural sciences system; and (b) promote complementary and synergistic linkages among secondary, two-year postsecondary, and higher education programs in the food and agricultural sciences in order to advance excellence in education and encourage more young Americans to pursue and complete a baccalaureate or higher degree in the food and agricultural sciences. Due April 3.

National Center for Sustainable Water Infrastructure Modeling Research
The Secondary Education, Two-Year Postsecondary Education, and Agriculture in the K-12 Classroom Challenge Grants (SPECA) program seeks to: (a) promote and strengthen secondary education and two-year postsecondary education in agriscience and agribusiness in order to
help ensure the existence in the United States of a qualified workforce to serve the food and agricultural sciences system; and (b) promote complementary and synergistic linkages among secondary, two-year postsecondary, and higher education programs in the food and agricultural sciences in order to advance excellence in education and encourage more young Americans to pursue and complete a baccalaureate or higher degree in the food and agricultural sciences. **Due April 3.**

**USDA-NIFA-ICGP-004448 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 2014, 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 4.**

**DARPA - Information Innovation Office DARPA-BAA-14-21**
The Defense Advanced Research Projects Agency (DARPA) is soliciting proposals for innovative research to maintain technological superiority in the area of content indexing and web search on the Internet. Proposed research should investigate approaches that enable revolutionary advances in science, devices, or systems. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice. The Memex program envisions a new paradigm, where one can quickly and thoroughly organize a subset of the Internet relevant to one’s interests. Memex will address the inherent shortcomings of centralized search by developing technology for domain-specific indexing of web content and domain-specific search capabilities. Memex will develop technology to enable discovery, organization, and presentation of domain relevant content. The new search paradigm will provide fast, flexible, and efficient access to domain-specific content as well as search interfaces that offer valuable insight into a domain that previously remained unexplored. **Due April 8.**

**Cyber-Innovation for Sustainability Science and Engineering (CyberSEES)**
The Cyber-Innovation for Sustainability Science and Engineering (CyberSEES) program aims to advance interdisciplinary research in which the science and engineering of sustainability are enabled by new advances in computing, and where computational innovation is grounded in the context of sustainability problems. The CyberSEES program is one component of the National Science Foundation's Science, Engineering, and Education for Sustainability (SEES) activities, a Foundation-wide effort aimed at addressing the challenge of sustainability through support for interdisciplinary research and education. In the SEES context, a sustainable world is
one where human needs are met equitably without harm to the environment or sacrificing the ability of future generations to meet their own needs. **Due April 8.**

**Higher Education Challenge Grants Program, NIFA USDA-NIFA-CGP-004425**
Projects supported by the Higher Education Challenge Grants Program will: (1) address a State, regional, national, or international educational need; (2) involve a creative or non-traditional approach toward addressing that need that can serve as a model to others; (3) encourage and facilitate better working relationships in the university science and education community, as well as between universities and the private sector, to enhance program quality and supplement available resources; and (4) result in benefits that will likely transcend the project duration and USDA support. **Due April 10.**

**Geothermal Play Fairway Analysis Golden Field Office — DE-FOA-0000841**
Reducing risk through improved drilling success rates is critical to securing financing and ultimately lowering overall costs for developing geothermal power projects. This success hinges on knowledge of the geological, geophysical, and geochemical characteristics that indicate geothermal favorability; along with improved coverage of data that are signatures of the key properties of temperature, permeability, and fluid. To this end, GTO is interested in projects that apply innovative exploration technologies to collect new data and/or apply new analysis methods to extract new value from data. Successful applications will focus on one of the regions identified in GTOs Data Gap Analysis, and include a significant component of uncertainty analysis that directly demonstrates potential or real impact on success rates. Projects should lead to the development of a Geothermal Play Fairway, which details a specific region constrained through a favorable combination of structural and hydrological conditions. **Due April 11.**

**Borlaug Graduate Research Grant**
The U.S. Borlaug Fellows in Global Food Security graduate research grant program supports exceptional graduate students who are interested in developing a component of their graduate research in a developing country setting and in collaboration with a mentor from an International Agricultural Research Center (IARC), or a qualifying* National Agricultural Research System (NARS) unit. We anticipate the fellowship program will lay a foundation for launching long-term international research collaborations for the students and their affiliated faculty advisors and IARC/NARS mentors. We envision that the group of graduate students supported by the program will eventually assume leadership positions in a wide variety of organizations, and across an array of disciplines related to food security. **Due April 14.**

**Awards for Faculty National Endowment for the Humanities**
This program supports individual faculty or staff members at Hispanic-Serving Institutions, Historically Black Colleges and Universities, and Tribal Colleges and Universities pursuing 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. **Due April 15.**

**Targeted Radiochemistry and Associated Technology Development for Integrated Nuclear Medicine Research and Training with Human Application: A Joint Research Funding Opportunity Announcement NIH, DOE DE-FOA-0001075**
The U.S. Department of Energy's Office of Science, Office of Biological and Environmental Research (OBER), and the National Institutes of Health (NIH), National Institute of Biomedical Imaging and Bioengineering (NIBIB), hereby announce their interest in receiving applications for potential funding of Translational Biomarkers Development to serve two important goals: 1. Develop clinically relevant radionuclide imaging biomarkers to individualize and optimize medical care through new, improved diagnostic and theranostic approaches, and 2. Enhancement of training opportunities of young scientists and clinicians in translational nuclear medicine. Applicants must have access to existing advanced facilities and an interdisciplinary collaborative team of clinicians specialized in human disease- or disorder-specific nuclear medicine imaging techniques as well as radiochemists, synthetic chemists, and/or biochemists with the ability to support a robust research-training environment. Institutional settings should offer broad ranging research collaborations between clinical physicians and basic and translational research scientists. In addition, research applicants should have easy access to advanced nuclear medicine imaging facilities, such as positron emission tomography (PET) and single photon emission computed tomography (SPECT), and radiochemistry laboratories for radiotracer synthesis, validation and quality control. **Due April 18.**

**DE-FOA-0001082 Research and Development for Next Generation Nuclear Physics Accelerator**
The Office of Nuclear Physics (NP), Office of Science (SC), U.S. Department of Energy (DOE), hereby announces its interest in receiving applications for Research and Development (R&D) efforts directed at challenges for next generation NP accelerator facilities. A companion Program Announcement to DOE National Laboratories will be posted on the SC Grants and Contracts web site at: [http://www.science.energy.gov/grants](http://www.science.energy.gov/grants) The full text of the Funding Opportunity Announcement (FOA) is located on FedConnect. Instructions for completing the Grant Application Package are contained in the full text of the FOA which can be obtained at [https://www.fedconnect.net/FedConnect/?doc=DE-FOA-0001082&agency=DOE](https://www.fedconnect.net/FedConnect/?doc=DE-FOA-0001082&agency=DOE). **Due April 21.**

**Building Energy Efficiency Frontiers and Incubator Technologies (BENEFIT) - 2014**
The Office of Energy Efficiency and Renewable Energy (EERE) has issued, on behalf of the Building Technologies Office (BTO), a Funding Opportunity Announcement (FOA) entitled Building Energy Efficiency Frontiers and Incubator Technologies (BENEFIT) - 2014, Number DE-FOA-0001027. The **BENEFIT FOA** includes the following Areas of Interest: Incubators (Off-Roadmap): Area of Interest 1: Open Topic for Energy Efficiency Solutions for Residential and Commercial Buildings Innovative energy-efficiency technologies, approaches, or design tools
NOT already supported or targeted by BTO are eligible to apply under this area of interest, providing they show a clear application to residential and/or commercial buildings with significant primary energy savings potential. Area of Interest 2: Innovative Sensors & Sensor Systems Develop open architecture sensors and sensor systems that easily share data to enable building operators and owners to cost effectively capture energy and cost savings through the use of new and existing control system applications. Major goals in this development area are low cost, data sharing, and ease of deployment (plug-n-play methodologies). Frontiers (Roadmap-Driven): Area of Interest 3: Advanced Energy-Efficient Clothes Dryers Applications are sought for advanced energy-efficient clothes dryers (vented and ventless). Economic and technical goals are defined for this area. Furthermore, concepts with measurable non-energy benefits, which are important for market success, are particularly encouraged. Area of Interest 4: Highly Insulating Building Envelope Components Subtopic 1, Visibly transparent building envelope components: There are technical and economic goals for this area that are significant improvements of current technology. Performance metrics include ≥ R-7 (residential) and ≥ R-5 (commercial). Subtopic 2, Opaque building envelope components: The metrics and targets for this subtopic are > R-8/inch building envelope thermal insulation material that can be added to either the exterior or interior walls in existing buildings at < $0.30/ft2 installed cost premium (labor and material). Due April 21.

NIJ FY 14 Research on Gangs and Gang Violence NIJ-2014-3747
NIJ is interested in funding multiple criminal justice research projects involving research and/or evaluations of programs to improve our understanding and/or reduce gang membership and violence within the United States. Results from these projects should lead to better criminal justice policy, practice, and research, particularly at the local or state level, on issues surrounding gangs. Due April 25.

NIJ-2014-3758 NIJ FY 14 Testing Geospatial Predictive Policing Strategies
NIJ is seeking applications for funding for research that explores the relationship between theory (of any discipline) to geospatial predictive policing strategies. In particular, NIJ is seeking proposals that focus on linking theories to current policing strategies, discerning potential disconnects in the levels of analysis between theory and practice, explicating what effects this may have on findings, and, finally, addressing means of adapting theory and practice based on the results. Due April 25.

Microgrid Research, Development, and System Design National Energy Technology Laboratory DE-FOA-0000997
The objective of this Funding Opportunity Announcement (FOA) is to solicit applications for financial assistance awards to enable microgrid development. This FOA is responsive to addressing high-priority research, development and demonstration activities, identified jointly with key stakeholders, to overcome key challenges facing broad adoption of microgrids for key commercial applications. Due April 28.
NIJ Graduate Research Fellowship Program in Science, Technology, Engineering, and Mathematics NIJ-2014-3734
The NIJ Graduate Research Fellowship program in science, technology, engineering, and mathematics provides awards for research on crime, violence, and other criminal justice-related topics to accredited academic universities that support graduate study leading to 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 relevance to providing science, technology, engineering, and mathematics to better prevent and control crime and ensure the fair and impartial administration of criminal justice in the United States. Doctoral students in the fields of science, technology, engineering, or mathematics are encouraged to apply. Due April 28.

NIJ FY 14 New Approaches to Digital Evidence Processing and Storage NIJ-2014-3727
With this solicitation, NIJ seeks proposals for funding for technology research and development to develop: New, innovative means to speed the processing of large-capacity digital media in a forensically sound manner that preserves the probative value of the evidence that the media may contain; More efficient means to store the large volumes of information seized as digital evidence while preserving the probative value of that evidence. Due April 28.

NIJ FY 14 Optimizing the Use of Video Technology to Improve Criminal Justice Outcomes NIJ-2014-3723
With this solicitation, NIJ seeks proposals from research organizations partnered with state, local, or tribal criminal justice agencies for funding for research to identify, implement, and evaluate those applications of video cameras and advanced video analysis software that provide optimum crime control and prevention outcomes. NIJ is most interested in receiving proposals involving the integration of video technology into policing strategies, most particularly those involving quantitative data analysis methods. NIJ will also consider proposals dealing with criminal courts and correctional environments. Due April 28.

Sustainability Research Networks Competition (SRN), 2014 Focus: Urban Sustainability
The goal of the Sustainability Research Networks (SRN) competition is to bring together multidisciplinary teams of researchers, educators, managers, policymakers and other stakeholders to conduct collaborative research that addresses fundamental challenges in sustainability. The 2014 SRN competition will fund research networks with a focus on urban sustainability. Proposals should identify an ambitious and nationally important theme in urban sustainability, present a creative and innovative research agenda that builds upon existing work in this area, and describe how a network of researchers and other stakeholders will be supported that integrates a variety of disciplines, sectors and backgrounds in order to create new perspectives and yield significant new understanding and knowledge. The Sustainability Research Networks competition is part of the growing NSF investment in its Science, Engineering and Education for Sustainability (SEES) portfolio (www.nsf.gov/sees/). Challenges
associated with broadly based SEES goals will be met by supporting fundamental science and engineering research and education needed to understand and overcome the barriers to sustainable human and environmental wellbeing and to forge reasoned pathways to a sustainable future. NSF aims to support members of the academic research community for projects which produce discoveries and knowledge that will inform decisions leading to environmental, energy, social and cultural sustainability. NSF support will advance the frontiers of conceptual, empirical and computational research in science, engineering and education so that the nation has the knowledge base to inform policies on sustainability. Due April 29.

Low Temperature Geothermal Mineral Recovery Program Golden Field Office DE-FOA-0001016
The Energy Department seeks up to ten 1–2 year feasibility and/or applied R&D projects that will lead to commercialized technologies. Geothermal mining of rare earth and near-critical metals are the focus of this research, with the intent to effectively lower the cost of geothermal energy production while diversifying and stabilizing the supply of critical materials for domestic industries. To learn more about the `Low-Temperature Mineral Recovery Program funding opportunity, click here. Register for an informative webinar to learn more about the strategic material extraction and this opportunity. The Energy Department's Office of Energy Efficiency and Renewable Energy (EERE) accelerates development and facilitates deployment of energy efficiency and renewable energy technologies and market-based solutions that strengthen U.S. energy security, environmental quality, and economic vitality. EERE supports innovative technologies that reduce both risk and costs of bringing geothermal power online. Learn more about the Department's efforts to develop geothermal energy. Due May 2.

Agriculture Food and Research Initiative: Food Safety Challenge Area USDA-NIFA-AFRI-004434
This AFRI Challenge Area promotes and enhances the scientific discipline of food safety, with an overall aim of protecting consumers from microbial and chemical contaminants that may occur during all stages of the food chain, from production to consumption. This requires an understanding of the interdependencies of human, animal, and ecosystem health as it pertains to foodborne pathogens. The long-term outcome for this program is to reduce foodborne illnesses and deaths by improving the safety of the food supply, which will result in reduced impacts on public health and on our economy. In order to achieve this outcome, this program will support single-function Research Projects and multi-function Integrated Research, Education, and/or Extension Projects, and Food and Agricultural Science Enhancement (FASE) Grants that address one of the Program Area Priorities (see Food Safety RFA for details). LOI due February 26; application May 8.

NOAA Sea Grant Aquaculture Research Program 2014 NOAA-OAR-SG-2014-2003987
NOAA Sea Grant expects to have up to $3,000,000 available for a national competition to fund new FY 2014 marine aquaculture research projects. This is part of the overall plan to support the development of environmentally and economically sustainable ocean, coastal, or Great Lakes aquaculture. Topical priorities for this FY 2014 competition are, briefly: 1) Research to inform pending, regulatory decisions on the local, state, or federal level leading to an
information product-- such as a tool, technology, template, or model-- needed to make final decisions on a specific question regarding impacts of aquaculture; 2) Public-private research partnerships that address specific, current problems that limit a steady supply of marine or Great Lakes fingerlings; and 3) Social and/or economic research targeted to understand aquaculture issues in a larger context. Applicants must describe how their proposed work will rapidly and significantly advance U.S. marine aquaculture development in the short-term (1-2 years after project completion). This Federal Funding Opportunity includes information on application and criteria for aquaculture research proposals requesting a maximum of $500,000 in total federal funding for up to a two-year period. Matching funds are required. Awards are anticipated to start no later than September 1, 2014. Additional proposals from this competition may be selected for funding in the next fiscal year, subject to the availability of funds. **Due May 30.**

**DARPA-BAA-13-32: Information Innovation Office (I2O) Office-Wide BAA, Response Date 06/25/2014**

The Defense Advanced Research Projects Agency (DARPA) is soliciting innovative research proposals of interest to the Information Innovation Office (I2O). Proposed research should investigate innovative approaches that enable revolutionary advances in science, devices, or systems. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of the art. I2O seeks unconventional approaches that are outside the mainstream, undertaking directions that challenge assumptions and have the potential to radically change established practice. **Due June 26.**

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**Open Solicitations and BAAs**

**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 Innovative Systems for Military Missions
The Tactical Technology Office of the Defense Advanced Research Projects Agency is soliciting executive summaries, white papers and proposals for advanced research and development of Innovative Systems for Military Missions. This solicitation seeks system and subsystem level technologies that enable revolutionary improvements to the efficiency and effectiveness of the military. Novel concepts are sought in the following focus areas: Ground Systems, Maritime Systems, Air Systems, and Space Systems. Proposals may be submitted at any time while this solicitation is open. TTO may publish groups of special topics as modifications to this BAA throughout the year. **Open to April 9, 2014.**

DARPA Defense Sciences Research and Technology
DARPA is soliciting innovative research proposals of interest to the Defense Sciences Office. Proposed research should investigate innovative approaches that enable revolutionary advances in science and technology. Specifically excluded is research that results primarily in evolutionary improvements to the existing state of the art. **Open to May 22, 2014.**

Climate Change Adaptation Program (GPAP)
One important effect of global climate change is the reduction in naturally stored water resources which, for Peru, means melting glaciers and a decrease in the size of highland wetlands (paramos). The loss of these areas decreases water availability for upland and lowland communities and increases the potential for Glacial Lake Outburst Floods (GLOFs). This APS seeks to stimulate adaptation projects that assist indigenous mountain communities, rural and urban areas, and local and regional governments potentially affected by GLOFs or changes in water availability. General project outcomes will be long-term, sustainable approaches that help reduce the impact of climate change on glaciated and highland wetland ecosystems and on those that depend on these ecosystems' services. **Open to June 6, 2014.**

DARPA Strategic Technology Office (STO) Broad Agency Announcement (BAA)
DARPA is seeking innovative ideas and disruptive technologies that offer the potential for significant capability improvement across the Strategic Technology Office (STO) focus areas. This includes system and technology development related to Battle Management (BM), Command and Control (C2), Communications, Intelligence, Surveillance, and Reconnaissance (ISR), Electronic Warfare (EW), and Positioning, Navigation and Timing (PNT). Technologies of particular interest would address challenges of operating in contested, denied, and/or austere environments. **Open until June 18, 2014.**

DARPA-BAA-13-32: Information Innovation Office (I2O) Office-Wide BAA
The Defense Advanced Research Projects Agency (DARPA) is soliciting innovative research proposals of interest to the Information Innovation Office (I2O). Proposed research should investigate innovative approaches that enable revolutionary advances in science, devices, or systems. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of the art. I2O seeks unconventional approaches that are outside the mainstream, undertaking directions that challenge assumptions and have the potential to
radically change established practice. See Full Announcement, DARPA-BAA-13-32 (I2O Office Wide) pdf for further details. **Open until June 25, 2014.**

**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.**

**Agriculture and Food Research Initiative: Foundational Program National Institute of Food and Agriculture USDA-NIFA-AFRI-004412**
The AFRI Foundational Program is offered to support research grants in the six AFRI priority areas to continue building a foundation of knowledge critical for solving current and future societal challenges. The six priority areas are: Plant Health and Production and Plant Products; Animal Health and Production and Animal Products; Food Safety, Nutrition, and Health; Renewable Energy, Natural Resources, and Environment; Agriculture Systems and Technology; and Agriculture Economics and Rural Communities. Single-function Research Projects, multi-function Integrated Projects and Food and Agricultural Science Enhancement (FASE) Grants are expected to address one of the Program Area Priorities (see Foundational Program RFA for details). **Open until September 29.**

**Long Range Broad Agency Announcement (BAA) for Navy and Marine Corps Science and Technology 14-001 ONRBAAN14-001**
This BAA is intended for proposals related to basic research, applied research, or advanced technology development. For NAVY and Marine Corps Science, Technology, Engineering & Mathematics (STEM) programs, refer to ONRBAAN13-007, which may be found at the ONR Broad Agency Announcement (BAA) webpage [http://www.onr.navy.mil/Contracts-Grants/Funding-Opportunities/Broad-Agency-Announcements.aspx](http://www.onr.navy.mil/Contracts-Grants/Funding-Opportunities/Broad-Agency-Announcements.aspx). A brief description of the ONR Program Codes and the science and technology thrusts that ONR is pursuing is provided below. Additional information can be found at the ONR website at [http://www.onr.navy.mil/Science-Technology/Departments.aspx](http://www.onr.navy.mil/Science-Technology/Departments.aspx). **Open to September 30, 2014.**
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 sponsorships that are not addressed through our competitive discretionary programs. It is not a mechanism for awarding congressionally directed funds or existing funded awards. Funding for potential projects in this notice is contingent upon the availability of Fiscal Year 2014 and Fiscal Year 2015 appropriations. Applicants are hereby given notice that funds have not yet been appropriated for any potential activities in this notice. Publication of this announcement does not oblige NOAA to review an application, or to award any specific project, or to obligate any available funds. **Open to September 30, 2014.**

**W912HZ-14-BAA-01 2014 BAA Engineer Research and Development Center — DOD**
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. 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 Derek Howard at 601-634-3310 or via email at Derek.A.Howard@usace.army.mil. For questions concerning proposals to CERL, contact Wanda Huber at 217-373-6730 or via email at wanda.l.huber@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, 2015.**

**Small University Grants Open 5-Year Broad Agency Announcement**
**Open to August 26, 2015**

**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.**

**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.**

**AFRL Research Collaboration Program**

The objective of the AFRL Research Collaboration program is to enable collaborative research partnerships between AFRL and Academia and Industry in areas including but not limited to Materials and Manufacturing and Aerospace Sensors that engage a diverse pool of domestic businesses that employ scientists and engineers in technical areas required to develop critical war-fighting technologies for the nation’s air, space and cyberspace forces through specific AFRL Core Technical Competencies (CTCs). **Open until December 20, 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) Solider/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.

BAA-HPW-RHX-2014-0001 Human-Centered Intelligence, Surveillance Air Force Research Lab

This effort is an open-ended BAA soliciting innovative research concepts for the overall mission of the Human-Centered Intelligence, Surveillance, & Reconnaissance (ISR) Division (711 HPW/RHX). It is intended to generate research concepts not already defined and planned by RHX as part of its core S&T portfolio. The core RHX mission is to develop human-centered S&T that (1) enables the Air Force to better identify, locate and track humans within the ISR environment and (2) enhance the performance of ISR analysts. To accomplish this mission, the RHX core S&T portfolio is structured into three major research areas: (1) Human Signatures - develop technologies to sense and exploit human bio-signatures at the molecular and macro (anthropometric) level, (2) Human Trust and Interaction – develop technologies to improve human-to-human interactions as well as human-to-machine interactions, and (3) Human Analyst Augmentation – develop technologies to enhance ISR analyst performance and to test the efficacy of newly developed ISR technologies within a simulated operational environment. The RHX mission also includes research carried over from the Airman Biosciences and Performance Program. While not directly linked to the core S&T strategic plan, there exists a unique capability resident within RHX to address critical Air Force operational and sustainment needs resulting from chemical and biological hazards. Research areas include contamination detection, hazard assessment and management, individual and collective protection, and restoration and reconstitution of operational capability. Open to Feb. 12, 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.

Air Force BAA - Innovative Techniques and Tools for the Automated Processing and Exploitation (APEX) Center

The AFRL/RIEA branch performs Research and Development (R&D) across a broad area of Air Force Command, Control, Communications, Computers/Cyber, and Intelligence (C4I). All applicable "INTs" are investigated with emphasis on Ground Moving Target Indication (GMTI), Electronic Intelligence (ELINT), Signals Intelligence (SIGINT), Image Intelligence (IMINT), Non Traditional Intelligence, Surveillance and Reconnaissance (NTISR), and Measurement and Signature Intelligence (MASINT). The APEX Center is used to perform analysis for seedling efforts, provide baseline tool development for major programs, and to provide realistic operational systems/networks/databases for integration efforts. The APEX Center resources will be used by the Government to perform the necessary research, development, experimentation, demonstration, and conduct objective evaluations in support of emerging capabilities within the Processing and Exploitation (PEX) area. Software tools, data sets, metrics (Measures of Performance/Measures of Effectiveness), and analysis are needed for the Government to perform the vetting, maturing, and analysis of efforts related to PEX, e.g. Automatic Tracking, Activity Based Intelligence, Entity, Event & Relationship (EER) Extraction, Association & Resolution (A&R), Analysis & Visualization (A&V), Social Network Analysis, Network Analytics, Pattern Discovery, Scalable Algorithms, and Novelty Detection. The AFRL APEX Center is the AFRL/RI gateway into the cross-directorate PCPAD-X (Planning & Direction, Collection, Processing & Exploitation, Analysis & Production, and Dissemination eXperimentation) initiative. Open to FY 2018.
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.

(View Index of Articles)

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