Research Development & Grant Writing News

Volume 4, Issue 9: May 15, 2014

Table of Contents

Our New eBook!

Strategies for Planning, Developing, and Writing Large Team Grants

is a step by step "how-to" guide for faculty and research professionals facing the challenges of transitioning to center-level grants.

Order Here

Our First eBook

New Faculty Guide to Competing for Research Funding is an invaluable tool for **faculty** writing research grants and the research offices assisting them. **Table of Contents**

Contact Us For

Grant Writing Workshops
Strategic Proposal Planning
Help Red Teaming a Proposal
Editorial Review of Proposals and Articles

Research Development & Grant Writing News ©

Published monthly for faculty and research professionals by
Academic Research Funding Strategies, LLC
Mike Cronan & Lucy Deckard, co-Publishers

Subscribe Online (Hotlink)
Queries: mjcronan@gmail.com

About the co-publishers

Mike Cronan, PE (Texas 063512, inactive) has 23 years of experience developing and writing successful proposals at Texas A&M University. He was named a **Texas A&M University System *Regents Fellow*** (2001-2010) for developing and writing A&M System-wide grants funded at over $100 million by NSF and other funding agencies. He developed and directed two research development and grant writing offices, one for Texas A&M's VPR and the other for the Texas Engineering Experiment Station (15 research divisions state-wide).

Lucy Deckard (BS/MS Materials) worked in research development and grant writing at Texas A&M University and across the A&M System for nine years. She directed A&M's ***New Faculty Research Initiative (2004-09)***, helping junior faculty System-wide jumpstart their research careers with federal agency funding. She served as associate director of two research development and grant writing offices. She founded **ARFS** in 2010.

About the editor

Katherine E. Kelly, Ph.D., is a retired English professor from Texas A&M University. She is the author of several books and numerous articles and served as a contributing editor for an academic journal for five years. She provides **editorial services** to ***RD&GW News*** and to **ARFS** clients on proposals, journal articles, and manuscripts.

Topics of Interest URLs

(Back to Page 1)

Investing in Science, Engineering, & Education for the Nation's Future: NSF Strategic Plan 2014 - 2018

Reducing Investigators' Administrative Workload For Federally Funded Research

Look Out for New Mobile Friendly FOAs and Websites!

A Look at Programs Targeting New Scientists

IES Releases FY2015 Funding Announcements for Grant Competitions in Education Research

DOD CDMRP FY 2014 Funding Opportunities

AAAS Report XXXIX: Research and Development FY 2015

USDA Census of Agriculture

NSB Statement on the Frontiers in Innovation, Research, Science, and Technology Act of 2014

DCL: FY2015 Faculty Early Development (CAREER) Program for the Directorate for Engineering

Federal Grant Writing Manual, April 2014

Funds to Make Schools Safer: NIJ Dear Colleague Letter of Interest in Receiving Proposals

DOE/Bioenergy Technologies Office "Hot Topics" Webinars

eRA Database Downtime Scheduled for Late May

Big News on NIH Application Submission Policy

NIH and AHRQ Announce Updated Policy for Application Submission

NIH Data Book

NIH's Office of Disease Prevention released a new Strategic plan for 2014-2018

Comparing NIH Success Rates, Award Rates, and Funding Rates

Unemployment among Doctoral Scientists and Engineers Increased

Stimulating Research on Effective Strategies in Undergraduate STEM Education at Two-Year HSIs

Out-of-Pocket Net Price for College

Gulf War and Health, Volume 9: Long-Term Effects of Blast Exposures

DHS S&T Cyber Security Division 5-Year Broad Agency

The White House Initiative on Educational Excellence for Hispanics

Secretary of Education Arne Duncan on the U.S. Department of Education Fiscal Year 2015 Budget

Performing an Autopsy on Declined Proposals

By Mike Cronan, co-publisher

(Back to Page 1)

A declined proposal should be considered a crime scene. A forensic autopsy needs to be performed to determine its cause of death. If this step is not taken, the cause of death will never be clearly known, thereby exposing a resubmission or other future proposals to a similar unfortunate demise. Proposal death can frequently be attributed to a "*communicable disease*" that may infect other proposals in the future. For example, poor writing, one of most common communicable proposal diseases, is highly infectious, making robust ideas seem sickly, and leaving a trail of declined proposals in its wake.

Therefore, it will be important to make that determination and put in place the appropriate quarantine protocols to prevent the viral spread of narrative errors from one proposal to another. Regardless, the "*body in evidence,*" in this case the declined proposal, and the evidentiary documents, e.g., the solicitation, reviewers' and program officer comments, and any observations made by program officers, are all part of the autopsy. So when you get a declined proposal, put a toe tag on it and start the process of identifying the cause of death to help ensure future proposal do not meet a similar fate.

The forensic autopsy of a declined proposal needs to consider all factors, from an accumulation of small contributing weaknesses, none of which in and of themselves caused the demise of the proposal but in aggregate proved fatal, to the catastrophic failure of one or more major proposal components, such as the failure of the research vision and goals to excite the reviewers and convince them the research is significant and fundable. The statement of research vision and goals functions as the heart of the proposal. A failure here is always fatal. If this turns out to be the cause of a proposal's death, then some major lifestyle changes are going to have to be put in place before a resubmittal.

Any proposal autopsy will look to identify the usual causes of proposal death, for example: the research ideas did not impress the reviewers as advancing the field or agency mission in an important way; the research plan was overly ambitious, disorganized, and unrealistic; the research team did not present sufficient preliminary data or describe a history of research collaboration (e.g., funding, papers, patents); the research narrative was poorly written and poorly organized; the rationale for the research was not convincing; the management plan failed to gain the reviewers' confidence that the research goals would be achieved; the research narrative read like a collection of loosely associated rather than interdependent research objectives—silos rather than synergy, etc..

Unlike in crime procedurals, such as those portrayed by Ducky the pathologist on NCIS, you will have some help conducting an autopsy on a declined proposal--the reviewers and program manager will have conducted their own preliminary autopsy during the review process, or at the very least provide you with some "eye witness" testimony as to what caused the demise of your proposal. How helpful this information proves to be in determining your proposal's cause of death can vary greatly. It is not uncommon to review the reviewers in this process to help you make a judgment of the value of their comments to a resubmission or to a

new proposal in the future. Moreover, many failings in one proposal may well be generic to any proposal you write. So keep this in mind and be on the lookout for review comments that go beyond the particular proposal and signal flaws you might make in any proposal.

Moreover, some reviewers do an excellent job, some do a good job, and some do a poor job. But typically, with several or more reviewers, you will be provided with some solid information that will help you determine your proposal's cause of death. Keep in mind that, on a declined proposal, a conscientious fair review that is thoughtful, detailed, and specific is much more helpful than an unexplained excellent review.

In many ways, the forensic autopsy of a declined proposal is similar to the red teaming process you may have used in analyzing the solicitation and in reviewing the proposal just prior to the due date. If a red team was used in writing the proposal, then those red team members should play a role in the autopsy, particularly on proposals for which a resubmission is planned.

The real issue, however, is that too often no strategic plan exists for conducting a forensic autopsy of a declined proposal. In many cases, reviews are distributed to the team members as pdf files that may or many not be examined in any great detail, or only given a cursory review by some but not all of the research team, and are largely forgotten by the time of a resubmittal.

However, a team-based forensic autopsy of proposal reviews is of great value, particularly when the process includes as a team member someone from a research office who has helped analyze and decode reviews for many faculty for many programs across many agencies over many years. In the case of smaller, individual PI grants, particularly those such as the NSF CAREER, it is enormously helpful to conduct a forensic autopsy of the reviews with a CAREER-funded colleague or someone from a research office who has assisted many young faculty with those awards.

Of course, the forensic autopsy of a declined large-team grant is critical to going forward with a resubmittal or developing other team grants with the core research group in the future. It is often said that elite professional athletes, for example Tom Brady and Payton Manning, spend countless hours watching game films to, in part, understand the flaws and mistakes made in both execution and strategy. In many ways, large team grants characterized by interdisciplinarity and complex research challenges are the elite and most institutionally prestigious grants to obtain. Putting in place a process to conduct a forensic autopsy to determine the flaws and mistakes in the research narrative of a declined proposal is the first step in a successful resubmission.

Proposal Development Templates and Roadmaps

By Mike Cronan, co-publisher

(Back to Page 1)

Lewis Carroll's observation that "*If you don't know where you are going, any road will get you there*" too often represents the planning, developing, and writing processes of proposals, from the very small to the very large. Planes and ships almost always fly with a navigator on board. Even aviator Douglas "Wrong Way" Corrigan, who departed New York City and landed in Ireland in 1938 rather than Long Beach, California, actually knew where he was going. Google Maps makes getting lost driving or walking a rarity, even for the directionally challenged.

However, in the world of competitive research grant writing, proposals often begin the development journey with little or no attention paid to charting a course to funding. It is woefully insufficient to begin with only a starting point (solicitation) and an ending point (proposal submission), having paid little or no attention to the intervening strategic pathway and key waypoints the proposal process will take in development. While it is impossible for university or college-level research offices to substantively support every proposal written by every faculty member, it is possible to chart the key planning waypoints generic to all proposals. These take the form of proposal development templates and roadmaps that help guide faculty through the proposal production process. This is particularly important as more and more solicitations become broadly interdisciplinary and require a thoughtful synthesis of multiple research components to achieve the funding agency expectations of synergy necessary for success.

In many ways a proposal is a manufactured product and many of the production processes of such fields as operations research and production engineering now apply to proposal production, particularly in terms of improved decision making, production efficiency, integration of component parts, process planning, and understanding the management challenges of a team environment. Clearly, over the last several decades, but most notably over the past five years, federal agency research solicitations have dramatically increased in complexity (of both scope and scale), largely as a result of the required interdisciplinarity of the scientific or engineering challenges and barriers being addressed. However, other factors are at play here as well. There has been a significant amount of what might be termed "*mission creep*."

What had once been the province of large, multifaceted center proposals in terms of the breadth and scope of the research, education, training, and societal dimensions to be integrated under the center structure, is now being required for increasingly smaller-scale grants, in some cases grants of under a million dollars. It is no surprise, then, that as the scientific and engineering challenges become more complex, so, too, will the federal agency solicitations funding the research addressing these challenges.

Moreover, it is often the case that incremental change goes unnoticed, or, if noticed, largely unheeded. In this case, it is important not to be asleep at the wheel, but rather mindful that a dramatic paradigm shift has occurred, particularly over the past five years, towards

increasingly complex funding solicitations. This raises the competitive bar for everyone involved in research grant writing, including those with years of experience who may be lulled by their own past success and experience. All researchers must transition to the new reality of more complex solicitations in ways that will ensure continued success.

After all, funding success requires getting everything about the research narrative as close to perfect as possible. As the complexity of both the research challenges and the funding solicitations increases, e.g., requiring more interdisciplinarity, better integrated teams, and the synthesis of various narrative components that complement the core research, so, too, does the complexity of planning, developing, and writing the successful proposal. ***Clearly, more complex solicitations require an assessment of the proposal planning and production processes you currently use to determine whether you are adequately meeting the changing and evolving nature of funding solicitations***. As an analog, consider what happened to the once dominant and innovative Blackberry (Research In Motion) over the past five years. Failure to anticipate, innovate, and adapt to a changing and complex smart phone market led to a precipitous decline in market share to a point where the future of the company is now in doubt.

While maybe not as dramatic as the Blackberry case, the failure to anticipate, innovate, and adapt in response to changing and complex funding solicitations will diminish your competitiveness for federal agency research funding. For example, how many of those who submit a proposal to the new National Science Foundation Research Traineeship (**NRT**) Program (LOI due May 20: full proposal due June 24) will mistakenly assume the NRT is just an incremental evolution of the old IGERT program rather than a very complex solicitation seeking a new paradigm for graduate training? It is likely a significant number of unfunded IGERT proposals will be dusted off, so to speak, and some minor revisions made before submitting what had once been an IGERT to the new NRT program. Good luck with that!

Bottom line: it may be time to rethink your proposal development strategies to make sure you remain competitive. What worked successfully in 2010 may well not work as well in 2014, particularly for a certain class of proposals requiring the programmatic integration of broadly-based interdisciplinary teams.

The NRT is a good example of the complexity of many current solicitations. In the NRT project narrative, for instance, you will be expected to describe the overarching theme, vision, and goals of the proposed NRT project with a focus on ***creating new approaches*** to STEM graduate education that are ***innovative, evidence-based, sustainable, and scalable within and across institutions***. Not any easy narrative task! This and others like it are not trivial solicitations to respond to, particularly without having in place a proposal production and planning strategy that enhances your chances of successful funding, or at least makes your proposal sufficiently competitive for funding such that a successful resubmission is possible.

The take-away message is that more complex solicitations require more time spent on developing, planning, and writing the research narrative. One way to efficiently use available time is to develop generic proposal templates and planning and development schedules that keep the process on task. The NRT, for example, will likely get a cascade of applicants, all competing nationally for only ten awards. In this case, unlike in Navajo rug weaving, there is no room for an error in the proposal narrative, and certainly not for an intentional one. You have to spend the time to get it right from the get go. As legendary UCLA basketball coach John

Wooden observed, "***If you don't have time to do it right, when will you have time to do it over***?" While Benjamin Franklin is correct in his observation that "*lost time is not found again*," ***it is equally correct in grant writing that future time available can be efficiently managed using some fairly simple planning strategies***.

Two common ways of enhancing efficiency involve (1) more consistent and disciplined use of a proposal narrative template (outline) based on the solicitation (listing and responding to agency goals, objectives, and review criteria), and (2) a proposal production roadmap or schedule and task assignment table. The former provides the conceptual framework for narrative development and the latter provides the process and production framework describing who does what and when to complete the proposal. Moreover, a narrative template and production roadmap help inoculate the proposal process against two of the more deadly known forms of PI (**proposal influenza**), i.e., ***team members who do not carefully read the solicitation and team members who do not complete narrative task assignments on time***.

After all, as in manufacturing, proposal production relies heavily on "*just in time*" production processes to gain time and cost efficiencies. Likewise, time gained in the proposal production process can be allocated to describing a more compelling research vision and a more focused, and hence competitive, description of the research goals, objectives, rationale, and outcomes of the proposed research rather than lost to conceptual meandering due to poor planning. Or, as Benjamin Franklin once observed about research grant writing, "***By failing to prepare, you are preparing to fail***."

Basic Research at DoD: A Status Report

By Lucy Deckard, co-publisher

(Back to Page 1)

As we reported in a previous article (Feb. 2011), pursuing research funding from the defense agencies is a very different process compared to applying to NSF or NIH. However, if your research happens to be relevant to the DoD's interests, they can be a good source of funding to support that research. (For readers who are new to the DoD, at the end of this article we include a recap of that article, which covered the basics of pursuing funding at DoD.) With the winding down of two wars and significant budget cuts, the research priorities of the Department of Defense (DoD) are changing significantly. If you plan to pursue DoD funding, it's critical to keep abreast of these changes in DoD's mission and priorities. A number of very useful documents posted on the Defense Innovation Marketplace website provide insight into these changes. We will summarize some of them below.

Science & Technology Areas of Investment

In testimony to the US House Committee on Armed Services, Alan Shaffer, Assistant Secretary of Defense for Defense Research and Engineering provided an overview of DoD's shifting Science and Technology (S&T) priorities as reflected in the FY2015 budget request. Compared to the large overall DoD budget cuts, the FY2015 budget request for S&T is only 5.6% lower than FY2014 in real dollars. However, the DoD is shifting focus more to applied research and advanced technology development, away from basic research, and this is reflected in a 8.4% cut (in real dollars) for Basic Research. He also mentioned that funding to develop advanced capabilities is shifting from the Services (Army, Navy, Air Force) to DARPA. As a result S&T funding to the services has been cut (1.8% for the Army, 4% for the Navy and 7.9% for the Air Force) but DARPAs S&T funding has been kept constant in real dollars (which translates to a slight increase in actual dollars). Areas of emphasis (and increased investment) at the basic research level include:

- **Quantum Information Science (QIS)**: DoD is increasing its basic research investment in QIS, which exploits expanded quantum capabilities in the laboratory to engineer new properties and states of matter and light at the atomic scale.
- **Nanoengineering/Nanotechnology**: While QIS is based on the ability to control atoms, nanoengineering/nanotechnology deals with the ability to develop and engineer systems at the molecular level. Shaffer mentioned several examples, including metamaterials, engineered nanomaterials such as coatings, and nanoparticle catalysts.
- **Autonomy**: The Department has four technical areas of focus for investments in Autonomy: Human and Agent System Interaction and Collaboration; Scalable Teaming of Autonomous Systems; Machine perception, Reasoning and Intelligence; and Test, Evaluation, Validation, and Verification. The Autonomy Research Pilot Initiative is an experiment to develop in-house capacity in autonomous systems and funded seven proposals last year.
- **Human Systems**: With the proliferation of sensors and data, future conflicts may well be won by the person that can react quickest. Studies of human cognition suggest that

cognitive response times can be reduced by using display systems that present information using multiple sensory modalities. They are also interested in ways to optimize warfighter physical and cognitive performance for long durations through personalized conditioning and nutritional regiments, and how to tailor training to adapt to individual students' unique needs. (This topic aligns with a general increase in DoD's interest in biologically oriented research – an area that might not immediately come to mind when considering DoD funding.)

In the DoD Research and Engineering Enterprise public statement released May 1, 2014, two high-level tenets that depend on continued technological superiority were identified: 1) The military will be smaller and leaner, but it will be agile, flexible, ready and technologically advanced; and 2) The Department will protect and prioritize key investments in technology and new capabilities, as well as our capacity to grow, adapt and mobilize as needed. This emphasis on affordability—finding ways to enable new or extended military capabilities while cutting costs—can be seen throughout the DoD's plans. They specifically identified interest in technologies to lower life cycle costs (e.g., embedded sensors to signal when maintenance is needed, improvements in modeling and simulation capabilities) and Research and Engineering processes to reduce the cost of transition from engineering to manufacturing development (e.g., model-based design, and expanded use of prototyping).

Research & Engineering Priorities and COIs

Interestingly, as a strategy to optimize R&E investment across all DoD components, they have reintroduced *Reliance 21*, a portfolio management approach that decomposes the S&T program into **17 distinct portfolios , or Community of Interest (COI)** composed of all the people working in the technical area, along with Basic Research, which is managed as a single program through the Defense Basic Research Advisory Group. As we've discussed in the past, if you plan to pursue research funding from DoD, it is extremely important to connect with intramural researchers working in your field. For that reason, if you identify a COI related to your research topic, you'll want to track the activities of the COI (including any meetings, reports, etc.) and get to know the people who comprise that COI. Those COIs are listed below. For more information, see the descriptions starting on page 9 of the statement:

Seven Science and Technology Priorities

1. **Data to Decisions:** Human-computer interfaces, analytics and decision tools, information management, advanced computing and software development, and networks and communications, science and applications to reduce cycle time and manpower requirements for analysis and use of large data sets.
2. **Engineered Resilient Systems:** Engineering concept, science, and design tools to protect against malicious compromise of weapons systems and to develop agile manufacturing for trusted and assured defense systems.
3. **Cyber Science and Technology**: Science and Technology for efficient, effective cyber capabilities across the spectrum of joint operations.
4. **Electronic Warfare/Electronic Protection**: New concepts and technology to protect systems and extend capabilities across the electro-magnetic spectrum

5. **Counter Weapons of Mass Destruction:** Advances in DoDs ability to locate, secure, monitor, tag, track, interdict, eliminate and attribute WMD weapons and materials.
6. **Autonomy:** Science and technology to achieve autonomous systems that reliably and safely accomplish complex tasks, in all environments.
7. **Human Systems:** Science and technology to enhance human-machine interfaces to increase productivity and effectiveness across a broad range of missions.

Ten Other Significant Technology Areas

8. **Advanced Electronics:** Advancing scientific understanding of new materials and devices and S&T to enhance exploitation and insertion of advanced microelectronics and reduce microelectronics supply chain risk.
9. **Air Platforms:** Enables more efficient and effective platforms and future concepts including fixed rotary wing vehicles, unmanned aircraft systems, gas turbines, hypersonics, and aircraft power and thermal management.
10. **Biomedical:** Operates under the auspices of the Armed Services Biomedical Research Evaluation and Management Committee to develop a coordinated Defense biomedical Research, Development, Testing and Evaluation investment strategy.
11. **Counter-Improvised Explosive Devices:** Supports the objective of defeating IEDs and their threat to national security objectives and provide force-multiplying capability to address improvised explosive device threats of the future.
12. **Energy & Power Technologies:** Enhances operational effectiveness through power generation, energy storage, power control and distribution, electromechanical conversion, and thermal management technologies.
13. **Ground & See Platforms:** Enhances design and integration, survivability, mobility, modularity, and maintainability of manned and unmanned ground and sea platforms.
14. **Material and Manufacturing Processes:** Develops technology-based options for advanced materials for defense, and seeking excellence in materials technologies, processes and related research.
15. **Sensor & Processing:** Physics-based maritime, ground, air-borne, and space-borne sensing capabilities to include electro-optic and infrared sensors; radio frequency sensors; acoustic, magnetic, seismic sensors, and associated signal processing, fusion and modeling.
16. **Space:** Enhances effectiveness and affordability of space-based capabilities.
17. **Weapons:** Develop technology-based options for weapons, and seeking excellence in weapons technologies and related research, including guidance, navigation and control; ordnance; propulsion; undersea weapons; high energy lasers; radio frequency weapons; non-lethal weapons; modeling, simulation and test infrastructure.

Basic Research

Drilling down a bit more into the DoD's basic research interests, the DoD's Basic Research Directorate lists six Emerging Scientific Research Areas: Synthetic Biology, Quantum Information Science; Cognitive Neuroscience; Understanding Human and Social Behavior; Novel Engineered Materials; and Nanoscience. The Army Research & Technology's Basic Research Portfolio lists five general investment categories along with their FY2015 budget (6.1) requests: **Human Centric** ($77M), **Information Centric** ($86M), **Material Centric** ($172M), **Platform Centric** ($55M) and **Enrichment Initiatives** ($34M; these include education outreach and some

university research programs). Within these categories, they list a number of investment areas such as "neuroscience" and "behavioral and cultural" under human centric. Remember that much of this funding will go to intramural research, but some will be available to support extramural research that supports these agency priorities.

As we mentioned earlier, DARPA is being given more responsibility for some types of research. In keeping with the increased emphasis across DoD on the life science and bio-inspired technologies, DARPA established a new Biological Technologies Office (BTO) this year, which has three focus areas: restore and maintain warfighter abilities, harness biological systems, and apply biological complexity at scale. New opportunities include the Hand Proprioception & Touch Interfaces (HAPTIX) program. As we mention below, in contrast to the services, DARPA does not conduct intramural research but instead solely funds extramural research. However, their model and culture are fundamentally different from those of NSF and NIH (see the discussion in the recap below for more information if you're new to DARPA).

Other Resources

DoD Basic Research Office portal
AFRL Basic Research
Testimony by DARPA Director to House Subcommittee on Intelligence, Emerging Threats and Capabilities
Disruptive Naval Technologies presentation
Air Force Research Lab Science & Technology Overview presentation
DARPA Strategic Plan

Recap: Pursuing Funding from DoD

Overview of DoD agencies

The Department of Defense agencies that commonly fund external research are:

- Air Force Office of Sponsored Research (AFOSR)
- Office of Naval Research (ONR)
- Army Research Office (ARO)
- Defense Advance Research Projects Agency (DARPA)
- National Security Agency (NSA)
- US Army Medical Research & Materiel Command, which oversees the Congressionally Directed Medical Research Programs (CDMRP)

We will discuss the first four agencies together because of their similarities. Because CDMRP is varies significantly from the other DoD agencies in its culture, mission and procedures, we'll discuss it separately at the end of this article.

Culture and Mission (AFOSR, ONR, ARO, DARPA, NSA)

All of the Department of Defense agencies are highly mission-oriented. The missions of AFOSR, ONR and ARO are related to the management of research that supports the goals and operations of their respective services (Air Force, Navy and Army, respectively). DARPA's

mission is to oversee high risk, high pay-off research that has the potential to significantly benefit any of the DoD's branches. These DoD agencies therefore are looking for research that has a close connection to defense, and particular technologies and problems of interest are identified by the various funding agencies in Broad Agency Announcements (BAAs).

Usually, time horizons for research to be translated into applications is relatively short. Program Officers in the various DoD agencies are given a large amount of discretion in making funding decisions, and having a relationship with the Program Officer is extremely important to potential applicants. Establishing a relationship with a Program Officer is not difficult; they are often receptive to phone calls and e-mails and are usually happy to discuss a potential applicants' research and whether it fits into the agency's needs; they also attend professional conferences on research topics of interest to their organizations. One caveat to this is that once a Request for Proposals (RFP) has been issued, Program Officers are usually not allowed to discuss the program in order to avoid the appearance of giving any of the applicants an unfair advantage. This is another reason that it is important to be engaged with the Program Officer early, before the RFP is issued.

Funding Opportunities

The Department of Defense classifies research according to how basic or applied it is.

- 6.1 - the most basic research and is usually the type of research that may be funded at a university
- 6.2 - applied research and may be a continuation of 6.1 research as it becomes closer to application in a defense system. This type of research is often funded at a defense company, which may partner with a university for the more basic aspects of the research.
- 6.3 - application research, where a new technology is applied to a defense system and tested. This type of research is usually performed by a defense company, perhaps in partnership with the potential user.

Like many mission agencies, ARO, AFOSR and ONR fund both intramural (internally conducted) and extramural (externally conducted) research. It's always a good idea for researchers aspiring to win funding from these agencies to get to know the internal DoD researchers who are working in their research areas. It's often expected that externally funded projects will be conducted in a collaborative fashion with DoD scientists; e.g., building on their results, utilizing specialized testing equipment at DoD labs, or designing components or systems based on criteria specified by DoD scientists. Furthermore, these DoD scientists are often involved in the proposal review process; therefore, having prior connections can enhance competitiveness of your proposal.

The defense agencies announce funding opportunities in a variety of ways, including Broad Agency Announcements (BAAs). Each agency typically issues a "**Long Range BAA**," which outlines technical research interests and priorities of the agency over a several-year range covered by the BAA, as well as **targeted BAAs**, which address more specific competitions, and **other targeted solicitations**. University research is often funded through unsolicited proposals based on the Long Range BAA. Web sites for the Long Range BAAs for each Research Office are

given below by agency. Solicitations for programs targeted specifically or predominantly for University researchers are listed in the section on targeted programs below.

DARPA differs from ARO, AFOSR and ONR in that its mission benefits all areas of defense. DARPA's mission, according to its website, is "to maintain the technological superiority of the U.S. military and prevent technological surprise from harming our national security by sponsoring revolutionary, high-payoff research that bridges the gap between fundamental discoveries and their military use." DARPA does not conduct intramural research, but each of its Program Managers is given an extraordinary amount of autonomy in setting research priorities and making funding decisions. The Program Managers are often well-known researchers in the technical field they are overseeing and very often rotate into and out of their position at DARPA from academia or industry. As with dealing with the other research offices, it is extremely important to develop a relationship with the DARPA Program Manager before submitting a proposal. Furthermore, since DARPA's interests lie in transitioning new technology into military use as quickly as possible, faculty researchers are well-advised to team with defense industry or defense lab researchers when proposing new research.

Unsolicited Proposals

If you who would like to propose a research project addressing research priorities outlined in the Long Range BAA, you should typically contact the Program Officer to discuss your project idea. If the Program Officer is interested, she will request a white paper (also called a preliminary proposal). White papers are short summaries of the project idea, and rules for white paper length and format can be found in the agency long range BAA or will be designated by the Program Officer. If the Program Officer likes the white paper, she will request a full proposal.

Targeted Programs

DoD agencies periodically issue targeted BAAs or RFPs to address some specific need or priority pertaining to their service. As with unsolicited proposals, you will be in the best position if you have already talked to the program officer and were aware that the funding opportunity was coming before it was issued. You can accomplish this by getting to know the program officers and intramural researchers who conduct research in your field and talking to them about programs that they see coming down the pike. Often, the agency will hold a conference or workshop for potential applicants before the RFP or BAA is issued, and this can be a great opportunity to find partners as well as to learn more about the program. If the agency anticipates a large number of applicants, they may first require preliminary proposals or "quad charts." Based on those submissions, they will invite full proposals from selected applicants. (We discussed how to develop quad charts and white papers in an article in the October issue.)

DoD also oversees programs that are aimed specifically or predominantly at university researchers or at partnerships that may include university researchers (listed below). In competing for most of these programs, it is extremely helpful to have already developed a relationship with a DoD program officer and preferably to have been funded by the DoD on a related research project.

Note: when looking at BAAs, check to see which services are participating. Some BAAs (particularly those for universities) are issued and administered by ONR but may also have participation by AFOSR and ARO.

Programs for Universities
Minerva Initiative (University-based Social Science Research Initiative)
Programs for universities (ONR list)

- Multidisciplinary University Research Initiative (MURI)
- Defense University Research Instrumentation Program (DURIP)
- Young Investigator Program
  - ONR Young Investigator Program
  - AFOSR Young Investigator Program (FY 2015 not announced yet)
- Faculty Exchanges and Summer Facility Positions in DoD Labs
  - Summer Faculty Research Program (ONR)
  - University Resident Research Program (AFOSR)
- Historically Black Colleges and Universities Program

Other programs that may include industry/university partnerships:

- Small Business Innovations Research (SBIR)
- Small Business Technology Transfer (STTR)
- Targeted programs

All funding opportunities for DoD are included in the Grants.gov web page - select Department of Defense under "Agency" to see all recent funding opportunities issued by DoD agencies. They are also announced on FedBizOpps.

Positioning Yourself to Compete for DoD Funding

As we've already mentioned several times, if you plan to pursue DoD funding, you will need to find out who in DoD is likely to be interested in your research. Remember that DoD, unlike NSF, is not interested in funding research simply for the sake of advancing science. They have very specific needs and challenges arising from their defense missions, and they fund research that will help them meet those needs and challenges. You need to understand their needs as thoroughly possible so that you can describe how your research will help them address those needs. One excellent way to do this is by working in a DoD lab during the summer as part of their summer faculty positions program. To get one of these positions, you'll need a program officer or researcher within DoD to sponsor you, and you'll need an idea for a joint project that you will conduct with DoD lab researchers during the summer, so you'll need to have already engaged them. But if they are excited by your research they are often very happy to host you, and these summer positions typically lead to more funding after you return to your university.

Remember also that DoD funds research at universities not only for the research results, but also as a way to recruit graduate students into research positions at DoD. By involving your graduate students integrally in your DoD research projects and encouraging interaction of your graduate students with DoD scientists and the program officer, you'll be providing your

graduate students with potential networking and employment opportunities, and you may be able to establish yourself as a good source of employees for the DoD lab. In that case, the DoD agency may see consistently funding one or two of the students your lab as an excellent investment.

If you expect to pursue DoD funding over the long term, you should consider developing collaborative relationships with defense companies and research corporations (?). These companies can provide you with insight into potential applications of your research, and they may look to you for basic research that they may not have the time or resources to conduct. Often, 6.2 type research (which tends to involve much higher funding levels) may include some basic research that a university can best conduct along with applied research that requires the capabilities of a defense company. If you have developed these collaborations, these companies are likely to seek you out for such opportunities.

Special Considerations

If you are considering pursuing DoD funding, remember that DoD culture is very different from academic culture. While many DoD program officers have worked extensively with universities, this is not always the case, and there is significant turnover among program officers. Make sure that you and your PO are on the same page regarding outcomes and expectations. Does the PO expect a "feelie" (DoD jargon for some piece of hardware) on his desk at the end of 18 months? If so, are you comfortable that you can provide one? Does your PO expect schedules with milestones down to the week, or does she understand that you're working with graduate students and your schedule will be a bit more fluid? Are there any clearance issues or restrictions on foreign students participating in the research? This is not usually the case for 6.1 research, but it can be an issue for 6.2 research. What are the procedures for publication and presentation of research results? In most cases, the DoD sponsor requires that a draft of the article or presentation be sent to the sponsor so that it can be reviewed for restricted information, and several weeks must be allocated for that process.

Despite these concerns, many researchers have found working with DoD to be a very rewarding experience.

Useful links for AFOSR, ONR, ARO and DARPA

All DoD

Defense Innovation Marketplace - excellent website that brings together new solicitations, strategic documents, news, etc. for all of DoD Science and Technology) and includes RSS feed
DoD TechMatch

Air Force Office of Scientific Research (AFOSR)

Homepage
Organization
AFRL Research Areas
Funding Opportunity Websites:

- Broad Agency Announcements
- General Research Interests Broad Agency Announcement

Office of Naval Research (ONR)
Homepage
Funding Opportunity Websites:

- Current BAAs

Army Research Office (ARO)
Homepage
Organization
Funding Opportunity Website:

- Current BAAs

Defense Advanced Research Projects Office (DARPA)
Homepage
Organization
Funding Opportunity Websites
DARPA Biological Technologies BAA

National Security Agency (NSA)
Homepage
Unsolicited Proposals

Congressionally Directed Medical Research Programs (CDMRP)

Culture and Organization

The culture and operating procedures of the CDMRP are closer to those of the basic research agencies such as NSF and NIH than those of DoD, with the exception that the priorities of the office are very closely tied to Congressional direction and can therefore change significantly from year to year.

According to the CDMRP's website, "dollars for the CDMRP are not considered part of the DoD's core mission, and are therefore not included in the DoD's requested budget. Rather, the dollars to fund CDMRP are added every year during the budget approval cycle by members of the House or Senate, in response to requests by consumer advocates and disease survivors." More information on the funding process can be found here . CDMRP's current research programs are listed here.

Funding Opportunities

Funding opportunities are made public via Program Announcements, which can be found at the websites for each of the research programs or at the grants.gov site. The CDMRP uses a wide range of funding mechanisms, all of which are listed in the "Award Mechanisms" pull-down menu on the award search site . Not all award mechanisms are available for all research programs; each program has a web site describing awards available through that program.

Useful Links for CDMRP

Home page
Mission
Organization
Awards Search

Resources for Evidence-Based STEM Models

By Mike Cronan, co-publisher

(Back to Page 1)

One of the more common components included in federal research grants is a STEM educational outreach program, typically engaging students and teachers K-12 in both formal and informal settings. This component at NSF often appears as a broader impacts option in solicitations of all sizes, from center-level proposals such as the current ERC to individual CAREER proposals. At the federal mission agencies, such as NOAA, DOE, DOD, NASA, etc., it may appear as part of a STEM workforce development and training requirement. Moreover, the content and structure of STEM outreach components increasingly require ***models that are validated by evidence-based research***. The domain of "*evidence-based research*" as the foundation of any educational outreach program model proposed as part of a research plan, particularly to NSF, adds another level of complexity to the PI's task as she prepares to write a proposal.

At some institutions, PIs are fortunate enough to have a research development professional highly experienced in assisting faculty in the planning, content, structure, and evaluation of STEM outreach models K-12. In other cases, PIs are left to their own devices to plan and develop this section of the proposal. Moreover, in some cases, STEM educational components can help determine whether or not a research proposal will be funded. So it is incumbent on the PI to get this right, and to avoid an attitude of indifference, or, worse, to dismiss the value of the educational component. Keep in mind that the long-time mantra at NSF has been "***the integration of research and education***." For example, all other things being equal in a description of the significance of the proposed research, the quality and credibility of the educational component of an NSF CAREER proposal can be a determining factor in a proposal's success, although this can vary across NSF directorates, divisions, and programs, for example, from chemistry to engineering.

Finding good advice on any required educational component is step one—but making this determination may require some self-directed study. A good starting point at NSF is the recently released (March 2014) NSF Strategic Plan for 2014 – 2018, ***Investing in Science, Engineering, and Education for the Nation's Future***. The core educational strategy detailed in this report, as NSF states, focuses on integrating research and education to equip the continuous flow of STEM graduates with the latest ideas, technological know-how, and networks of contacts and to ensure that diversity remains at the forefront of all of NSF's internal and external activities to develop the Nation's intellectual potential.

This strategic plan does not dictate a PI checklist of educational models and operational details to use, but it does provide guidance on the NSF vision and strategic educational objectives that will allow PIs to better align any proposed educational component with NSF long-range strategic planning, ***thereby making your proposal more competitive***. In essence, familiarity with this strategic plan will help you better understand where NSF is going, thereby ensuring that your proposed educational components are not out of bounds or, most importantly, insufficiently innovative and lacking evidence-based justification. After all, the

major reason for requiring evidence-based models is to ensure that, as one NSF program officer famously observed, "***you do not reinvent the flat tire***" in your proposed educational component on research grants, or any STEM education grant for that matter.

Keep in mind that this strategic plan is complemented by the Common Guidelines for Education Research and Development, a report from the Institute of Education Sciences, U.S. Department of Education and the National Science Foundation released in August of 2013. This document addresses the six types of STEM education research that form a "pipeline" of evidence beginning with basic and exploratory research, moving to design and development of interventions or strategies, and, for interventions or strategies with initial promise, resulting in an examination of the effectiveness for improving learning or another related education outcome. It is now often cited in NSF solicitations as a foundational reference to those proposing educational research at the agency, as well as those submitting research proposals with a required educational or broader impacts requirement.

NSF's *Widening Implementation & Demonstration of Evidence-Based Reforms* (**WIDER**) solicitation is a good reference for evidence-based models related to STEM education at all levels. While relevant to a broader scope of STEM education proposal components at federal mission agencies, it is particularly helpful for NSF proposals. Here as well, the NSF-sponsored *The Math and Science Partnership Network* (**MSPNet**), an electronic community that serves all educators interested in improving Science, Technology, Engineering, Mathematics, and Computer Science, offers an excellent source of information related to the design and structure of K-12 models. The majority of resources generated by NSF projects are available to the public at large at the MSPNet site, including the library, MSPnet Academy webinars and the opportunity to sign up for a newsletter.

An excellent source of data and statistics that may be needed for reference in the narrative section of an educational component of a research grant can be found in *The National Center for Education Statistics* (**NCES**)--the primary federal entity for collecting and analyzing data related to education. NCES is one of four centers that comprise the *Institute of Education Sciences* (**IES**), whose mission is to provide rigorous and relevant evidence on which to ground educational practice and policy and share this information broadly. By identifying what works, what doesn't, and why, IES aims to improve educational outcomes for all students, particularly those at risk of failure.

IES also includes the Education Resources Information Center (ERIC), an internet-based digital library of education research and information sponsored by the Institute of Education Sciences (IES) of the U.S. Department of Education. ERIC provides access to bibliographic records of journal and nonjournal literature from 1966 to the present. ERIC also contains a growing collection of materials in Adobe PDF format. ERIC's mission is to provide a comprehensive, easy-to-use, searchable Internet-based bibliographic and full-text database of education research and information for educators, researchers, and the general public. Activities that fulfill the ERIC mission are broadly categorized as collection development, content authorizations and agreements, acquisitions and processing, database and website operations, and communications.

These resources are good starting points for planning the development of evidence-based models required by NSF and other funding agencies in both research and education

proposals. Reviewing information at these sites can make a significant contribution to planning, developing, and writing a more competitive educational section of a larger research proposal, particularly as it will help to ground such components in the funding agencies' expectations.

NSF NRT Webinar: Decoding Future Directions

By Mike Cronan, co-publisher

(Back to Page 1)

Whether or not you plan to submit an NRT proposal to NSF (LOI due May 20; full June 24), there are benefits to be gained from viewing the NRT webinar and accompanying PP slides (URL links below). They will help you gain a deeper, and hence more competitive, understanding of how that agency is encouraging the integrating of research and graduate education. This webinar pushes the NSF horizon further out, and if you listen to the program officers' comments, you will gain insights that go well beyond the specifics of the NRT program. For example, you can assume that many future NSF programs and solicitations will both echo and rhyme with NSF's vision for the NRT.

[*The NRT Webinar PowerPoint slides are available for download here, and a recording of the Tuesday, April 29, 2014 NRT Webinar is now available at the same location. The NRT program solicitation can be found here. The NRT program solicitation was recently changed to remove the requirement that institutions provide health insurance to trainees on stipend (Sections V.A.7a and V.A.9) and to add "Results from Prior NSF Support" to the "Project Description" (Section V.A.4j). The solicitation number is the same (14-548) and the solicitation with revisions is currently available at the link above*.]

A key takeaway from the webinar, for example, is that NSF continues to evolve as an agency with a keen focus on developing new, scalable models for research and education at all levels together with the assessment of those models to inform both NSF and the broader NSF community. The focus on developing new models is clearly an agency wide dynamic, and not one focused on the NRT as differentiated from the former IGERT. In the webinar, NSF program officers describe the NRT as a "***testing environment***," but that characterization clearly applies more broadly across the agency, particularly going forward.

Moreover, new NSF directions seem characterized by fewer highly prescriptive solicitations, which the IGERT program became as it evolved for well over a decade, so that it is often the case now that the core of NSF new program areas is defined in more general, open-ended terms, e.g., high priority research, interdisciplinarity, transformative research, evidence-based education models, innovation ecosystems, and many others. However, the trend at NSF is to use general, some may say vague, superlatives, meant to place programs on the cusp of new discoveries and educational models. This often results in many questions being raised about what these terms actually mean and how NSF defines them. While many applicants often complain about highly prescriptive solicitations, others are equally confused by more open-ended, less prescriptive ones.

The NSF viewpoint on this was made clear in this webinar in a way that transcends the immediate practical issues of submitting an NRT proposal. The "definitions" questions came up in the webinar in various ways, for example, ***about what is the definition of high priority research, or what is the actual scope and scale of interdisciplinary research, or what does scalability mean***, etc. Program officers' advice for defining these terms in relation to the NRT is

to accept that there are no strict definitions or rules for these terms that fixes them with certainty. NSF throws these definition questions largely back to the applicant with instructions to define them sufficiently to "***convince a panel of your peers***" that, for example, your research is a high national priority , that it is transformative and interdisciplinary, and that it includes an educational model both new and innovative, etc. Similar advice was given in the last NSF webinar on the STC program when a caller asked the STC program officer "What is the meaning of transformative research?" The NSF program officer replied, "***You tell us***."

To be successful in this new, less prescriptive NSF environment, you will have to think both about your proposed research and about how to describe the proposed research. These types of NSF programs require some strategic thinking to be successful. It is somewhat mindful of the comment Nobel laureate physicist I.I. Rabi made to members of his research team at Columbia after the Manhattan Project ended, "*Well, our budget has been cut and there is no more money for equipment, so now we are going to have to think*." This is good advice to take to heart when confronted by many of the newer NSF solicitations.

Moreover, in terms of the NRT, NSF makes clear in the webinar and the PP presentation that the NRT does not fund research. It funds traineeship goals that fundamentally change your institution with the expectation that those changes will be both sustainable after funding goes away and scalable to other domains beyond the immediate beneficiaries of the program. NSF clearly feels the pedagogies of graduate education have been neglected and is looking for new ideas together with assessment strategies that will test and improve new models. Finally, ask yourself the key question that reviewers will what to know: "***What is your proposed unit of change in STEM graduate education at your institution***?"

Research Grant Writing Web Resources

(Back to Page 1)

AFRI Nutrition, Food Quality, and Food Safety Grantsmanship Webinar Recording

Federal Grant Writing Manual, April 2014

One challenge that many organizations, coalitions, businesses, groups and networks face is lack of funding. This can be particularly hard when limited resources, such as staff time or money, are available to allocate to writing grants. This Federal Grant Writing Manual was developed specifically to help grant applicants prepare for – and write – a federal grant proposal. It starts from the very basics of looking at what a grant is and assessing whether or not an applicant is qualified to apply for a federal grant. The Manual then delves deeper into the art of grant writing by delivering information on specific parts of proposals including: developing goals and objectives; putting together a budget; developing work plans; and outlining specific frameworks to use to help an applicant stay organized and focused during the grant writing process. It also includes information on project sustainability and how to evaluate the grant project.

SBIR/STTR Webinar Resources Available Online. Materials from the NIH SBIR/STTR Presubmission Updates Webinar are now posted, including video, slides, and transcript.

Save the Date for Future Small Business Conferences. This year's NIAID SBIR/STTR Workshop will take place in Cambridge, Massachusetts, on September 4 and 5, while the NIH SBIR/STTR Conference will be held in Albuquerque, New Mexico, from October 21-23.

NIH Guidance for Preparing a Multiproject Research Application

- Features of Multiproject Grants
- Your Options for Grant Type
- May You Submit a Multiple PI Application?
- Contact NIAID and Obtain Preapproval
- Option to Submit Simultaneously as an R01
- How a Multiproject Application Is Reviewed
- Advice for Writing the Application
- Avoid Common Pitfalls
- Prepare for Electronic Submission
- Additional Resources

Algal Biofuels Strategy Workshop – Fall Event

This event was held on November 19–20, 2013 at Arizona State University. The Algal Biofuels Strategy Workshop proceedings are detailed in the chapters below. Note: These proceedings summarize the results of a public workshop sponsored by DOE/EERE in Mesa, Arizona, on November 19–20, 2013. The views and opinions of the workshop attendees, as summarized in

this document, do not necessarily reflect those of the United States government or any corresponding agency. Contents:

Evaluation of National Institute of Justice-Funded Geospatial Software Tools: Technical and Utility Assessments to Improve Tool Development, Dissemination, and Usage (pdf, 123 pages)

This report documents an evaluation of 14 geospatial software tools developed for law enforcement with NIJ funds. The evaluation, conducted by the Information and Geospatial Technologies Center of Excellence, concluded that 12 of NIJ's tool-development awards resulted in fully functional products for the law enforcement community that offer new, expanded, or different capabilities for addressing crime. The report also presents recommendations for maximizing the benefits that future geospatial tool developments can have for law enforcement.

Educational Grant Writing Web Resources

(Back to Page 1)

Investing in Science, Engineering, and Education for the Nation's Future: NSF Strategic Plan for 2014 - 2018

NSF's new Strategic Plan, Investing in Science, Engineering, and Education for the Nation's Future: NSF Strategic Plan for 2014 – 2018 lays out two strategic goals that embody the dual nature of NSF's mission to advance the progress of science while benefitting the Nation: Transform the Frontiers of Science and Engineering and Stimulate Innovation and Address Societal Needs through Research and Education. A third goal, Excel as a Federal Science Agency, directs NSF to hold itself accountable for achieving excellence in carrying out its mission. This goal structure enables NSF to link its investments to longer-term outcomes. To bridge the gap between these strategic goals and measurable outputs, the Strategic Plan establishes a set of strategic objectives for each strategic goal."

IES FY 2015 Requests for Applications

The Requests for Applications describe the substantive requirements for research and research training applications, as well as provide information on how to prepare and submit applications electronically through Grants.gov. See the Federal Register notice for more information.

Research Programs

Education Research Grants (FY 2015) – 84.305A

Application deadline | August 7, 2014

Download, view, & print as a PDF (1.3 MB)

Download, view, & print in MS Word format (449 KB)

Special Education Research Programs (FY 2015) – 84.324A

Application deadline | August 7, 2014

Download, view, & print as a PDF (509 KB)

Download, view, & print in MS Word format (289 KB)

Education Research and Development Centers (FY 2015) – 84.305C

Application deadline | August 7, 2014

Coming soon!

Statistical and Research Methodology in Education (FY 2015) – 84.305D

Application deadline | August 7, 2014

Coming soon!

Partnerships and Collaborations Focused on Problems of Practice or Policy (FY 2015) – 84.305H

Application deadline | August 7, 2014

Coming soon!

Research Training Programs

Research Training Programs in the Education Sciences (FY 2015) – 84.305B

Application deadline | August 7, 2014

Coming soon!

Research Training Program in Special Education: Early Career Development and Mentoring (FY 2015) – 84.324B
Application deadline | August 7, 2014
Coming soon!

Elementary Mathematics Leaders

Building A Case for Mathematics Specialist Programs
In 2004, the 'Mathematics Specialists in K-5 Schools: Research and Policy Pilot Study' garnered support from the Teacher Professional Continuum (TPC) of the National Science Foundation (NSF). The project's focus was to determine the effectiveness of a school-based Mathematics Specialist program in grades K-5. Preparation, deployment, and support of twenty-four Mathematics Specialists in two cohorts of 12 was at the heart of the project, utilizing well-designed research to gauge the impact on teachers who are supported by Mathematics Specialists, and on the mathematics achievement by these teachers' students.

Agency Research News

(Back to Page 1)

NIH Summary of Other Fiscal Year 2013 Updates

- The NIH Success Rates page has many spreadsheets to help you understand the success rates of different funding mechanisms and activities. Also provided are tools that allow you to explore success rates by Institute or Center (FY1997-2013) or by Type and Activity Code
- Awards by Location now uses frozen fiscal year 2013 data, and includes R&D contract data
- NIH Budget and Spending page with fiscal year 2013 reports on Research Grants and Contracts are now available
- Funding Facts has been updated with fiscal year 2013 application, award, and success rate data.
- Many new reports are available on Report Catalog, use the All Years search filter and select fiscal year 2013
- ExPORTER project data files for 2013, 2012, 2011, and 2010 are now available from the ExPORTER data catalog

DE-FOA-0001116 RFI: Hydrogen Contamination Detectors Golden Field Office

The Fuel Cell Technologies Office is a key component of the Department of Energy's (DOE) Energy Efficiency and Renewable Energy (EERE) portfolio. EERE seeks to provide clean, safe, secure, affordable, and reliable energy from diverse domestic resources, along with the benefits of increased energy security and reduced criteria pollutants and greenhouse gas emissions. DOE seeks input from interested stakeholders on existing and potential hydrogen contamination detectors and related factors such as performance characteristics, system integration requirements, costs, deployment guidance, and R&D needs. Information on where to submit questions regarding the content of the Request for Information (RFI) and where to submit responses can be found in the full RFI document posted on the EERE Exchange website at https://eere-exchange.energy.gov.

DE-FOA-0001133 Request for Information (RFI): Research and Development Needs and Technical Barriers for Fuel Cells

The Fuel Cell Technologies Office (FCTO) is seeking feedback **by June 2** from the research community and relevant stakeholders to assist in the development of topics for a potential Funding Opportunity Announcement (FOA) for fuel cells and fuel cell systems designed for transportation, stationary, and early market applications as well as cross-cutting stack and balance of plant (BOP) component technology. The purpose of this RFI is to solicit feedback on R&D needs for and technical barriers to the widespread commercialization of fuel cells for transportation, stationary, and early market segments. Feedback from industry, academia, research laboratories, government agencies, and other stakeholders is sought. FCTO is specifically interested in information on R&D needs and priorities concerning the development

of low-cost fuel cell components and pathways leading to improved fuel cell performance and durability. Input received from this RFI will be considered prior to FCTO issuing a fuel cell FOA (subject to Congressional appropriations). Information on where to submit questions regarding the content of the announcement and where to submit questions regarding submission of responses can be found in the full RFI posted on the EERE Exchange website at https://eere-exchange.energy.gov.

DE-FOA-0001124 Request for Information (RFI): Input on Biofuel Pathways

The Department of Energy (DOE) seeks stakeholder input by **May 30** regarding the eight (8) representative biofuel pathways that the Office of Energy Efficiency and Renewable Energy's (EERE) Bioenergy Technologies Office (BETO) has selected to guide its Research and Development (R&D) strategy in the near-term. DOE also seeks input on other pre-commercial pathways that they should consider in the near- to long-term. This is a Request for Information (RFI) only. DOE will not pay for information provided under this RFI and no project will be supported as a result of this RFI. This RFI is not accepting applications for financial assistance or financial incentives. DOE may or may not issue a Funding Opportunity Announcement (FOA) based on consideration of the input received from this RFI. Information on where to submit questions regarding the content of this RFI and where to submit questions regarding submission of responses can be found in the full RFI posted on the EERE Exchange website at https://eere-exchange.energy.gov. All responses to this RFI must be provided as an attachment in an e-mail message addressed to PathwaysRFI@ee.doe.gov with the subject line "Response to RFI" no later than 5:00pm (EDT) on MAY 30TH, 2014. Responses must be provided as a Microsoft Word (.doc/.docx) or PDF attachment of no more than 5 pages in length, 12 point font, 1 inch margins, not to exceed 2.5MB in size. Only electronic responses will be accepted. Responses submitted by any other means will not be considered by DOE.

DE-FOA-0001135 Grand Challenges in Subsurface Engineering Department of Energy

The purpose of this RFI (due May 23) is to seek information from industry, academia, national laboratories, and other federal agency stakeholders on critical subsurface knowledge and/or technology gaps that, if filled, will enable significant improvements in our understanding of the character and behavior of the subsurface environment and improve our ability to access, predict, manipulate and monitor the subsurface. The goal of the DOE SubTER Tech Team and any potential funding opportunities that are implemented as a result of this RFI is to enhance efficient and safe use of the subsurface for a growing range of uses, including energy production, CO2 storage and waste-water disposal while promoting safe environmental management practices. The DOE is seeking specific information in four technical areas that have been identified as priorities based on the DOE's strategies and technology roadmaps as well as on results from an internal workshop held to gather input from the National Labs: (1) intelligent wellbores; (2) induced seismicity; (3) control of fractures and subsurface fluid flow; and (4) new subsurface signals.

NIH and AHRQ Announce Updated Policy for Application Submission

The National Institutes of Health (NIH) and the Agency for Healthcare Research and Quality (AHRQ) announce a change in policy on application submissions. Effective immediately, for application due dates **after April 16, 2014**, following an unsuccessful resubmission (A1) application, applicants may submit the same idea as a new (A0) application for the next appropriate due date. The NIH and AHRQ will not assess the similarity of the science in the new (A0) application to any previously reviewed submission when accepting an application for review. Although a new (A0) application does not allow an introduction or responses to the previous reviews, the NIH and AHRQ encourage applicants to refine and strengthen all application submissions.

Background. During the Enhancing Peer Review initiative, the NIH and AHRQ reduced the number of allowable resubmission applications from two to one (NOT-OD-09-003; NOT-HS-10-002), and stipulated that any subsequent submission for that project must demonstrate significant changes in scientific direction compared to the previous submissions. Those policies were implemented to address the growing trend for resubmission applications to be scored more favorably, which in essence created a queue for meritorious applications before success in funding.

Effective immediately, the NIH and AHRQ will accept a new (A0) application following an unsuccessful resubmission (A1) application. The subsequent new application need not demonstrate substantial changes in scientific direction compared to previously reviewed submissions, and must not contain an introduction to respond to the critiques from the previous review.

EERE Announces NOI to Issue Funding Opportunity Announcement "Clean Energy Supply Chain and Manufacturing Competitiveness Analysis for Hydrogen and Fuel Cell Technologies"

The Office of Energy Efficiency and Renewable Energy intends to issue, on behalf of the Fuel Cell Technologies Office (FCTO), a FOA entitled "Clean Energy Supply Chain and Manufacturing Competitiveness Analysis for Hydrogen and Fuel Cell Technologies." Significant challenges must be overcome to scale-up the production of today's hydrogen and fuel cell components and systems, which are currently built using laboratory-scale fabrication technologies, to commercially viable products at high-volume. FCTO's Manufacturing R&D Program aims to improve processes and reduce the cost of manufacturing components and systems for hydrogen production and delivery, hydrogen storage, and fuel cells for multiple applications. As the market for hydrogen and fuel cells grows, the need to develop a robust supply chain to support mass production of these systems has been identified as a high priority need. In addition, key opportunities must be identified in the hydrogen and fuel cell supply and value chain where the United States can achieve or maintain a competitive advantage.

Funds to Make Schools Safer: NIJ Dear Colleague Letter of Interest in Receiving Proposals

The National Institute of Justice is interested in receiving proposals for an upcoming solicitation: "Developing Knowledge about What Works to Make Schools Safe." This solicitation, part of NIJ's Comprehensive School Safety Initiative, marries the school safety needs of America's public schools with strong, independent research that assesses the potential solutions to those needs and builds evidence on what works in enhancing school safety. The Comprehensive

School Safety Initiative uses a variety of research and data collection efforts to learn which personnel, programs, policies, and practices either individually or in concert are effective in making schools safer. Our goal is to significantly advance the development of knowledge regarding approaches to school safety.

Fiscal Year 2013 NIH Data Book Released

The federal fiscal year 2013 closed in September and the NIH and RePORT team have summarized information about extramural research in fiscal year 2013. The latest version of the NIH Data Book is now available, and includes over 80 updated charts in the following categories:

Research Grants

- Small Business Research (SBIR / STTR)
- Success Rates and Funding Rates
- The NIH-Funded Research Workforce
- New NIH Investigators
- Data by Gender
- Trends in Research Career Development (K) Awards
- NIH Research Training Grants and Fellowships

The NIH Data Book provides basic summary statistics on extramural grants and contract awards, grant applications, the organizations that NIH supports, the trainees and fellows supported through NIH programs, and the national biomedical workforce. On the RockTalk blog, you can read about the fiscal year 2013 highlights and learn more about success rates and pay lines. Current and historical versions of the NIH Data Book are available at http://report.nih.gov/nihdatabook/index.aspx. As part of this release we also added additional data on two slides, providing more details on the actual numbers of applicants and awardees. See the Data tabs of these two slides:

Research project grants: success rates, by gender

R01-equivalent grants, new (type 1): success rates, by career stage of investigator

Dear Colleague Letter - Stimulating Research on Effective Strategies in Undergraduate STEM Education at Two-Year Hispanic Serving Institutions

NSF invites proposals that address effective approaches in undergraduate science, technology, engineering, and mathematics (STEM) education for students at two-year Hispanic-Serving Institutions (HSIs). This Dear Colleague Letter (DCL), which encourages research on the science of broadening participation and related STEM education areas, is one of two DCLs highlighting funding opportunities focused on students at HSIs in STEM in fiscal year 2014.

NSF encourages the submission of proposals for Early Concept Grants for Exploratory Research (EAGER) and Conferences, Symposia, and Workshops that focus on evidence-based practices that have been shown to be particularly effective for students at HSIs, as well as exploratory research that may lead to new models and best practices. Examples of appropriate topics include:

- Understanding factors that will lead to improved retention of students in STEM programs at two-year HSIs

- Understanding barriers and challenges that prevent the transfer of students at two-year HSIs to four-year colleges; understanding factors that promote the transfer of students including articulation agreements
- Improving the quality of STEM undergraduate academic and research experiences at two-year HSIs
- Research on strategies that enhance interest and motivation of students and improve persistence and graduation rates in undergraduate STEM programs at HSIs through innovations in STEM curricula, instructional materials, and research experiences
- Building capacity at HSIs through collaborations with majority institutions

Dear Colleague Letter: FY2015 Faculty Early Development (CAREER) Program for the Directorate for Engineering, NSF 14-532

The purpose of this DCL is to announce an increase in the minimum CAREER award size for the Directorate for Engineering beginning in the FY15 competition (July 22, 2014 deadline). The minimum CAREER award size, including indirect costs, will total $500,000 for the 5-year duration. Specifically, this increase applies only to CAREER proposals submitted to programs in the following Divisions in the Engineering Directorate:

- Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
- Civil, Mechanical and Manufacturing Innovation (CMMI)
- Electrical, Computer and Cyber Systems (ECCS)
- Engineering Education and Centers (EEC)

Additional guidelines for the preparation of CAREER proposals are provided in the solicitation NSF 14-532, which may be found at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf14532. Any questions can be directed to the Engineering CAREER Contacts:

- Mary Toney, ENG/CMMI, mtoney@nsf.gov, (703) 292-8360
- Rose Wesson, ENG/CBET, rwesson@nsf.gov, (703) 292-8320
- Dominique Dagenais, ENG/ECCS, ddagenai@nsf.gov, (703) 292-8339
- Donna Riley, ENG/EEC, driley@nsf.gov, (703) 292-8380

Dear Colleague Letter - Mathematical Sciences Innovation Incubator (MSII)

The National Science Foundation (NSF) Division of Mathematical Sciences (DMS) aims to enhance the synergistic relationships between the mathematical sciences and other NSF-supported disciplines through the Mathematical Sciences Innovation Incubator (MSII) activity. The MSII activity encourages and supports new research collaborations among mathematical scientists and other scientists and engineers working in NSF-supported research areas of high national priority by:

- facilitating DMS co-review and co-funding of multi-disciplinary research collaborations involving mathematical scientists;
- providing leverage for investments of non-DMS NSF programs in projects that include mathematical scientists; and
- providing a uniform mechanism through which collaborative research teams involving mathematical scientists can request DMS co-review.

The ideas, tools, and language of mathematics and statistics play important roles in every area of science and engineering research supported by the NSF, and it is widely recognized that interactions between the mathematical sciences and other fields catalyze developments in both.

The MSII activity will emphasize scientific research areas of high national priority that would benefit from innovative developments in mathematics and statistics. As pointed out, modern communication, transportation, science, engineering, technology, medicine, manufacturing, security, and finance all depend on the mathematical sciences. Success in meeting crucial challenges currently facing the nation in these areas will rest on advances in mathematical sciences research. The increasingly important challenges of deriving knowledge from huge amounts of data, whether numerical or experimental, of simulating complex phenomena accurately, and of dealing with uncertainty effectively are some of the areas where the mathematical sciences will play a central role. Other promising areas where mathematical scientists could play larger roles include research on the power grid, the brain, and optics and photonics. Collaborative research projects involving mathematical scientists have the potential to transform the nation's ability to respond to these and many other challenges.

Areas of national high-priority scientific research in fiscal year 2014 identified by the U.S. Office of Science and Technology Policy include:

- Advanced Manufacturing
- Clean Energy
- Global Climate Change
- Research and Development for Informed Policy-Making and Management
- Information Technology Research and Development
- Nanotechnology
- Biological Innovation

Agency Reports, Workshops & Research Roadmaps

(Back to Page 1)

Investing in Science, Engineering, and Education for the Nation's Future: NSF Strategic Plan for 2014 - 2018

NSF's new Strategic Plan, Investing in Science, Engineering, and Education for the Nation's Future: NSF Strategic Plan for 2014 – 2018 lays out two strategic goals that embody the dual nature of NSF's mission to advance the progress of science while benefitting the Nation: Transform the Frontiers of Science and Engineering and Stimulate Innovation and Address Societal Needs through Research and Education. A third goal, Excel as a Federal Science Agency, directs NSF to hold itself accountable for achieving excellence in carrying out its mission. This goal structure enables NSF to link its investments to longer-term outcomes. To bridge the gap between these strategic goals and measurable outputs, the Strategic Plan establishes a set of strategic objectives for each strategic goal."

Convergence: Facilitating Transdisciplinary Integration of Life Sciences, Physical Sciences, Engineering, and Beyond (2014)

Convergence of the life sciences with fields including physical, chemical, mathematical, computational, engineering, and social sciences is a key strategy to tackle complex challenges and achieve new and innovative solutions. However, institutions face a lack of guidance on how to establish effective programs, what challenges they are likely to encounter, and what strategies other organizations have used to address the issues that arise. This advice is needed to harness the excitement generated by the concept of convergence and channel it into the policies, structures, and networks that will enable it to realize its goals.

Convergence investigates examples of organizations that have established mechanisms to support convergent research. This report discusses details of current programs, how organizations have chosen to measure success, and what has worked and not worked in varied settings. The report summarizes the lessons learned and provides organizations with strategies to tackle practical needs and implementation challenges in areas such as infrastructure, student education and training, faculty advancement, and inter-institutional partnerships.

New Funding Opportunities

(Back to Page 1)

Content Order

New Funding Posted Since April 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.]

New Funding Solicitations Posted Since April 15 Newsletter

USDA-FS-WERC-2014-SWET 2014 Statewide Wood Energy Teams Request for Proposals
The U.S. Forest Service is providing leadership and funding on behalf of a USDA multiagency Wood to Energy Initiative by offering this Request for Proposals to support collaborative statewide wood energy teams that advance the installation of commercially viable wood energy systems in the public and private sectors that use woody biomass generated from National Forest System lands and other land ownerships. Public-private statewide teams are invited to seek funding to support the development of geographic and/or sector-based clusters of wood energy projects. Activities may include, but are not limited to, a) workshops and assistance that provide technical, financial, and environmental information; b) preliminary engineering assessments; and c) community outreach needed to support development of wood energy projects in the public and private sectors. Only proposals for work planned in States that have National Forest System lands will be considered. **Due May 20.**

ED-GRANTS-042314-003 Office of Postsecondary Education (OPE):Training Program
the Federal TRIO Programs to improve the operation of these projects. Applications for grants under the Training Program, CFDA Number 84.103A, must be submitted electronically using the Governmentwide Grants.gov Apply site at www.Grants.gov. **Due May 23.**

USDA-NIFA-SLBCD-004528 Smith-Lever Special Needs Competitive Grants Program
Within the states and territories, the Cooperative Extension System has repeatedly served as the trusted community organization that has helped to enable families, communities, and businesses to successfully prepare for, respond to and cope with disaster losses and critical incidents. Once a disaster has occurred, the local extension outreach includes: 1) Communicating practical science-based risk information, 2) Developing relevant educational experiences and programs, 3) Working with individuals and communities to open new communication channels, and 4) Mitigating losses and facilitating recovery. NIFA intends to fund Special Needs projects to implement applied scientific programs that serve public needs in preparation for, during and after local or regional emergency situations. **Due June 2.**

USDA-FS-WERC-2014-W2E 2014 Hazardous Fuels Wood to Energy Grant Program

The U.S Forest Service Wood Education and Resource Center (WERC) requests proposals for wood energy projects that require engineering services necessary for final design and cost analysis. The Hazardous Fuels Wood to Energy (W2E) Grant Program will fund projects for which some or all of the woody biomass is generated from National Forest Service System lands as a result of hazardous fuel treatments, forest restoration activities, insect and disease mitigation, catastrophic weather events, or thinning overstocked stands. Projects that use woody biomass from multiple land ownerships (State, Tribal, or private lands) and multiple sources (wood products facilities, urban wood waste, etc.) will be considered as long as some of the woody biomass is generated from National Forest System lands. Projects that do not anticipate using any wood from National Forest System lands will not be eligible. The woody biomass must be used in commercially proven wood energy systems to produce thermal, electrical, liquid, or gaseous energy. Examples of projects might include, but are not limited to, engineering design of a woody biomass boiler that generates steam at a sawmill, hospital, or school; a nonpressurized hot water system; a biomass power generation facility; or geographic or sector-based clusters of wood energy systems. The lack of a professional engineering design often limits the ability of an applicant to secure Federal, State, or private funding. This program is intended for applicants seeking financial assistance to complete the necessary engineering design work, including permitting or other preconstruction analyses, required to secure public or private funding for construction of wood energy projects. An example of public funding is the USDA Rural Development grants and loan programs that might help fund construction of such facilities. This year, the W2E grant emphasizes geographic or sector-based clusters (e.g. hospitals, prisons, inmate conservation camps, school campuses, poultry houses, etc.) that should leverage project similarities to improve economies of scale and expand the use of woody biomass for energy. **Due June 3.**

USDA-NIFA-RHSE-004522 Rural Health and Safety Education

Focus of the Rural Health and Safety Education Program in FY2014 is on community-based, outreach education and extension programs that provide individuals and families with: a) Information as to the value of good health at any age; b) Information to increase individual or family's motivation to take more responsibility for their own health; c) Information regarding rural environmental health issues that directly impact on human health; d) Information about and access to health promotion and educational activities; and e) Training for volunteers and health services providers concerning health promotion and health care services for individuals and families in cooperation with state, local and community partners. **Due June 6.**

DE-FOA-0001081 Marine/ Hydrokinetic Demonstrations at the Navy's Wave Energy Test Site

The Water Program is seeking applications from wave energy conversion technology developers that are in advanced stages of technology development and are prepared to design, build and test technology at close to full-scale in the ocean environment. This FOA seeks to deploy two (2) wave energy converter (WEC) systems, one at each of the Department of Navy's Wave Energy Test Site (WETS) berths located at 60 meters and 80 meters depths in Kaneohe, HI for testing, evaluation and comparison of performance, reliability and levelized cost of energy

(LCOE). This effort will provide the industry with the opportunity to test the most current and effective technology archetypes. Project results will be used to inform the Program's research and development portfolio planning, provide data for validating design and cost models and tools, and identify deployment issues that can be addressed through government action. Through this initiative, DOE and the Navy will collect important performance and cost data, while supporting the Department of Defense's renewable energy goals. A comprehensive set of measurements will be taken over the duration of the deployment to enable quantitative comparisons of WEC system performance and reliability. Metrics of success include annual energy production, availability, reliability, operations and maintenance cost, and overall LCOE. The funding opportunity will be conducted in two budget periods. **Due June 11.**

USDA-NIFA-BFR-004518 Beginning Farmer and Rancher Development Program

Beginning farmer education for adult and young audiences in the United States can be generally traced back to the advent of the 1862 and the 1890 Morrill Land Grant Acts. But for the first time, the Food, Conservation, and Energy Act of 2008 (Pub .L. No. 110-234, Section 7410), appropriated $75 million for FY 2009 to FY 2012 to develop and offer education, training, outreach and mentoring programs to enhance the sustainability of the next generation of farmers. The Agriculture Act of 2014 provided an additional $20 million per year for 2014 through 2018. The reasons for the renewed interest in beginning farmer and rancher programs are: the rising average age of U.S. farmers, the 8% projected decrease in the number of farmers and ranchers between 2008 and 2018, and the growing recognition that new programs are needed to address the needs of the next generation of beginning farmers and ranchers. **Due June 12.**

DHS-14-DN-077-ARI-001 Domestic Nuclear Detection Office: Academic Research Initiative

The ARI Program has two primary objectives: 1) Engage the academic community to advance fundamental knowledge for nuclear and radiological threat detection, nuclear forensics and related sciences with emphasis on fundamental research to solve long-term, high-risk challenges and 2) Develop human capital for the nuclear science and engineering profession. Further, the program works to sustain a long-term commitment to basic research in this field and coordinates research efforts across the federal government. The ARI program seeks novel cross-cutting research that will enhance the nation’s ability to detect and interdict nuclear or radiological material outside of regulatory control, and otherwise help prevent nuclear or radiological attacks. This year’s Solicitation topics will emphasize original early-stage research which demonstrates quantifiable improvements over existing methods. **Due June 13.**

ECA-ECAAS-15-001 FY 2015 Teacher Exchange Program Department of State

The Office of Global Educational Programs of the Bureau of Educational and Cultural Affairs (ECA), U.S. Department of State, announces an open competition for up to three assistance awards to administer components of the Office's Teacher Exchange Program in Fiscal Year 2015. Public and private non-profit organizations or consortia or other combinations of eligible organizations meeting the provisions described in Internal Revenue Code section 501(c)(3) may submit proposals to cooperate with the Bureau in the administration of the Teacher Exchange

Program as categorized below. To facilitate effective communication between ECA's Teacher Exchange Branch (ECA/A/S/X) and the organization(s) cooperating on these programs, applicant organizations should have offices and staffs located in Washington, D.C. at the time of application. **Due June 19.**

ED-GRANTS-042314-001 Office of Innovation and Improvement Investing in Innovation Fund

The Investing in Innovation Fund (i3), established under section 14007 of the American Recovery and Reinvestment Act of 2009 (ARRA), provides funding to support (1) local educational agencies (LEAs), and (2) nonprofit organizations in partnership with (a) one or more LEAs or (b) a consortium of schools. Applications for grants under the i3 program, CFDA number 84.411A (Scale-up grants), must be submitted electronically using the Governmentwide Grants.gov Apply site at www.Grants.gov .You may access the electronic grant application for the i3 program at www.Grants.gov. You must search for the downloadable application package for this program this competition by the CFDA number. Do not include the CFDA number's alpha suffix in your search (e.g., search for 84.411, not 84.411A). The telephone number for the Grants.gov Helpdesk is 1-800-518-4726 or e-mail: support@grants.gov. **Due June 24.**

ED-GRANTS-042314-002 Office of Innovation and Improvement (OII): Investing in Innovation (I3): Validation Grants

The Investing in Innovation Fund (i3), established under section 14007 of the American Recovery and Reinvestment Act of 2009 (ARRA), provides funding to support (1) local educational agencies (LEAs), and (2) nonprofit organizations in partnership with (a) one or more LEAs or (b) a consortium of schools. Applications for grants under the i3 program, CFDA number 84.411B (Validation grants), must be submitted electronically using the Governmentwide Grants.gov Apply site at www.Grants.gov . You may access the electronic grant application for the i3 program at www.Grants.gov. You must search for the downloadable application package for this program this competition by the CFDA number. Do not include the CFDA number's alpha suffix in your search (e.g., search for 84.411, not 84.411B). **Due June 24.**

Jacob K. Javits Gifted and Talented Students Education Program

The purpose of the Jacob K. Javits Gifted and Talented Students Education (Javits) program is to carry out a coordinated program of scientifically based research, demonstration projects, innovative strategies, and similar activities designed to build and enhance the ability of elementary and secondary schools nationwide to meet the special educational needs of gifted and talented students. Catalog of Federal Domestic Assistance (CFDA) Number: 84.206A. **Due June 24.**

USDA-NIFA-OP-004529 Biodiesel Fuel Education Program

The goals of the Biodiesel Fuel Education Program as originally established in Sec. 9004 of the Farm Security Investment Act of 2002 (7 U.S.C. 8104) were to stimulate biodiesel consumption and to stimulate the development of a biodiesel infrastructure. The information and outreach activities to raise awareness of the benefits of biodiesel fuel use complemented the incentives provided by the Energy Policy Act of 2005 (EPAct) (Pub. L. 109-58), and the Energy

Independence and Security Act of 2007 (Pub. L. 110-140). As a result of increased awareness and consumption of biodiesel over the past decade, the FY 2014 Biodiesel Education program will focus on educational programs which will support advances in infrastructure, technology transfer, fuel quality, fuel safety and increasing feedstock production. **Due June 26.**

FANRP2014001 Competitive Grant to Establish a USDA Center for Behavioral Economics and Healthy Food Choice Research

The U.S. Department of Agriculture (USDA's) Economic Research Service (ERS), in collaboration with USDA's Food and Nutrition Service (FNS), invites proposals for a competitive grant to establish and fund a USDA Center for Behavioral Economics and Healthy Food Choice Research. The USDA Center will facilitate new and innovative research on the application of behavioral economics theory to healthy food choice behaviors that would contribute to enhancing the nutrition, food security, and health of American consumers. The USDA Center will complement the work currently being conducted by the USDA-funded Cornell Center for Behavioral Economics in Child Nutrition Programs (Cornell BEN Center). With the exception of work that would be duplicative of the Cornell BEN Center, all food choice behavioral factors that are relevant to USDA policy issues will be within the scope of the USDA Center for Behavioral Economics and Healthy Food Choice Research. There is, however, a requirement that the USDA Center shall devote a substantial portion of its efforts to factors that would facilitate healthy and cost-effective food choices by participants in (a) the Supplemental Nutrition Assistance Program (SNAP) and (b) the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). The USDA Center will be expected to (1) establish an innovative research program on behavioral economics and healthy food choice that addresses questions of public policy interest and importance; (2) broaden the network of social scientists who participate in research that applies principles and theories of behavioral economics to the study of healthy food choice behaviors that will lead to improvement of nutrition, food security, and health outcomes; and (3) disseminate information obtained via its research program to a diverse stakeholder audience, including other researchers, policy and program officials, and the general public. We anticipate that up to $1.9 million will be available in fiscal year 2014 to support this activity over the next 3 years. And, subject to availability of funds and the viability of USDA Center expansion, additional funds may be available in subsequent years. This publication describes USDA Center responsibilities and application requirements. **Due June 30.**

USDA-NIFA-ICGP-004527 National Integrated Water Quality Program

The goal of the National Integrated Water Quality Program (NIWQP) is to contribute to the improvement of the quality of surface water and groundwater resources through research, education, and extension activities. Projects funded through this program will work to solve water resource problems by advancing and disseminating the knowledge base available to agricultural, rural, and urbanizing communities. Funded projects should lead to science-based decision making and management practices that improve the quality of the Nations surface water and groundwater resources in agricultural, rural, and urbanizing watersheds. See RFA for priority areas. **Due July 3.**

Humanities Collections and Reference Resources

The Humanities Collections and Reference Resources (HCRR) program supports projects that provide an essential underpinning for scholarship, education, and public programming in the humanities. 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, and digital objects. Funding from this program strengthens efforts to extend the life of such materials and make their intellectual content widely accessible, often through the use of digital technology. Awards are also made to create various reference resources that facilitate use of cultural materials, from works that provide basic information quickly to tools that synthesize and codify knowledge of a subject for in-depth investigation. HCRR offers two kinds of awards: 1) for implementation and 2) for planning, assessment, and pilot efforts (HCRR Foundations grants). **Due July 17.**

National Research Center for The Education of Gifted and Talented Children and Youth

The purpose of the National Research Center for the Education of Gifted and Talented Children and Youth is to conduct research on improving academic outcomes for underserved students with high academic potential. These students (often low-income students, racial/ethnic minority students, English learners, students living in small towns or rural communities, and/or students with disabilities) are disproportionally underrepresented in programs for students with high academic potential in the United States. In its first two years, the Center will focus on studying the implementation of at least two or three academic programs established to serve these students and the ways in which students are identified, selected into, and participate in these academic programs. The Center will explore how these academic programs and their selection procedures relate to student academic outcomes (i.e., achievement in the core academic content areas). Also, in the second year, the Center will submit an impact evaluation plan to the Institute describing the programs and procedures to be evaluated from among those identified as promising during the Center's first two years, the evaluation designs to be used, and evidence of a willingness to collaborate in the evaluation by state and local education agencies. **Due July 22.**

BAA-RIK-2014-0008 Centers of Excellence: Autonomy, Cyber Security, and Research Data Analysis at Historically Black Colleges and Universities and Other Minority-Serving Institutions of Higher Education

DoD announces its intent to establish Centers of Excellence (hereafter, “Center” or “Centers,” depending on the context) at HBCUs/MIs (see Section III.1, Eligibility Information – Eligible Applicants, for a definition) in each of the following areas of importance to the DoD mission and support of the warfighter: autonomy, cyber security, and research data analysis hereafter, “area(s) of research emphasis.” Each Center will be funded for a 5-year period of performance. **Due July 22.**

Decision Frameworks for Multi-Hazard Resilient and Sustainable Buildings (RSB)

The goal of the Decision Frameworks for Multi-Hazard Resilient and Sustainable Buildings (RSB) solicitation is to advance knowledge for new concepts for multi-hazard resilient and sustainable SFSE building systems using decision frameworks for selection among alternative building system designs. Research for multi-hazard resilient and sustainable SFSE building systems supported under the this solicitation must include the consideration of a rational decision framework, preferences, concepts for SFSE systems, and design optimization methods for generating and choosing among alternative SFSE systems. Multidisciplinary collaborations are essential for this research. Proposals must broadly integrate across the fields of architecture; engineering; material, environmental, social, behavioral, and economic sciences; and other disciplines necessary to address the research scope. Research supported under this solicitation may include computational, analytical, and/or experimental work. Research may also undertake the collection of new data or the use of existing data, but the data must be integral to the decision framework. This solicitation does not support research that generically addresses materials research or decision frameworks outside the context of decision making for multi-hazard resilient and sustainable SFSE building systems. **Due July 24.**

RFA-HG-14-004 Predoctoral Training in Biomedical Big Data Science (T32)

The purpose of this Funding Opportunity Announcement (FOA) is to solicit applications for graduate training programs in Big Data Science, for the expressed purpose of training the next generation of scientists who will develop computational and quantitative approaches and tools needed by the biomedical research community to work with biomedical Big Data in the biomedical sciences (see definition under Funding Opportunity Description). This proposed training initiative should prepare qualified individuals for careers in developing new technologies and methods that will allow biomedical researchers to maximize the value of the growing volume and complexity of biomedical data. **Due July 28.**

NSF Opportunities for Promoting Understanding through Synthesis

All four clusters within the Division of Environmental Biology (Population and Community Ecology, Ecosystem Science, Evolutionary Processes, and Systematics and Biodiversity Science) encourage the submission of proposals aimed at synthesizing a body of related research projects conducted by a single individual or a group of investigators over an extended period. OPUS proposals will often be appropriately submitted in mid-to-late career, but will also be appropriate early enough in a career to produce unique, integrated insight useful both to the scientific community and to the development of the investigator's future work. In cases where multiple scientists have worked collaboratively, an OPUS award will provide support for collaboration on a synthesis. **Due August 1.**

Cultural Anthropology Program - Doctoral Dissertation Research Improvement Grants

As part of its effort to encourage and support projects that explicitly integrate education and basic research, CA provides support to enhance and improve the conduct of doctoral dissertation projects carried out by doctoral students enrolled in U.S. universities who are conducting scientific research that enhances basic scientific knowledge. **Due August 15.**

14-SN-0012 Compact High-Density Tactical Energy Storage Office of Naval Research
The Office of Naval Research (ONR) is interested in receiving proposals on the topic of "Compact High-Density Tactical Energy Storage." The objective is to encourage innovation, advance technology development, and foster technology transition that benefits future war-fighters and meets US Marine Corps future needs. One example of USMC future needs for energy storage is documented in the 2012 Marine Corps Science & Technology Strategic Plan1 that identifies Expeditionary Energy Science & Technology Objective, EE STO-04, entitled "Energy Storage Other than Liquid" as a technology needed to bridge the gap between on-site energy harvesting and demand. Another example is the 2011 Marine Corps Initial Capabilities Document (ICD) for Expeditionary Energy, Water and Waste2 which identifies five gaps to be addressed by its Mobile Electric Hybrid Power Sources (MEHPS) initiative: 1) Lack of existing capability to automatically match load to demand (3.LC.1); 2) Lack existing capability to autonomously and automatically match power production to consumption (6.LC.1); 3) Lack of existing capability to efficiently integrate multiple energy sources (6.LC.2); 4) Lack of common and/or renewable power sources (14.LC.1); and 5) No scalable expeditionary energy storage capability (22.LC.1). See BAA for whitepaper instructions. **Due August 20.**

DARPA-BAA-14-30 Hand Proprioception DARPA - Biological Technologies Office
The HAPTIX program will develop new science and technology to achieve closed-loop control of dexterous mechatronic prostheses that will provide amputees with prosthetic limb systems that feel and function like natural limbs. HAPTIX will focus on development of implantable peripheral interfaces for volitional motor recording and sensory feedback signals; implantable electronic systems to transferport information between these interface(s) and the prosthesis; and sophisticated encoding and decoding algorithms to transform recorded volitional motor control signals into limb movements and patterned stimulation into naturalistic touch and proprioceptive sensations. System performance and the ultimate benefit to prosthetic users will be determined in a year-long, take-home trial before the end of the HAPTIX program. **Due September 10.**

NPS-BAA-14-002 FY14 Acquisition Research Program, Naval Supply Systems Command
The Government is interested in stimulating and supporting scholarly research in academic disciplines that bear on public policy and management in the field of government acquisition. These include economics, finance, financial management, information systems, organization theory, operations management, human resources management, risk management, and marketing, as well as the traditional acquisition areas such as contracting, program/project management, logistics, test and evaluation and systems engineering management. The ARP primarily supports scholarly research through assistance vehicles that will benefit the general public and/or private sector to a larger extent than any direct benefits that may be gained by the Department of Defense (DOD). Studies of government processes, systems, or policies should focus on expanding the body of knowledge, theory and/or research methodologies that are also relevant to processes, systems, or policies outside the DOD. The Government in this BAA is interested only in proposals that will provide unclassified and non-proprietary findings suitable for publication in open scholarly literature. Offerors bear prime responsibility for the

design, management, direction, and conduct of research, and exercise judgment and original thought toward attaining the goals within broad parameters of the research areas proposed and the resources provided. **Due September 30.**

DARPA-BAA-14-25 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. TTO also welcomes classified submissions. A copy of the Broad Agency Announcement, DARPA-BAA-14-25, has been posted to the Federal Business Opportunities (FedBizOpps.gov) website at https://www.fbo.gov/spg/ODA/DARPA/CMO/DARPA-BAA-14-25/listing.html . Open to April 24, **2015**.

HM0210-14-BAA-0001 National Geospatial-Intelligence Agency Academic Research Program

NGA welcomes all innovative ideas for path-breaking research that may advance the GEOINT mission. The NGA mission is to provide timely, relevant, and accurate geospatial intelligence (GEOINT) in support of national security objectives. GEOINT is the exploitation and analysis of imagery and geospatial information to describe, assess, and visually depict physical features and geographically referenced activities on the Earth. GEOINT consists of imagery, imagery intelligence, and geospatial information. NGA offers a variety of critical GEOINT products in support of U.S. national security objectives and Federal disaster relief, including aeronautical, geodesy, hydrographic, imagery, geospatial and topographical information. The NGA Academic Research Program (NARP) is focused on innovative, far-reaching basic and applied research in science, technology, engineering and mathematics having the potential to advance the GEOINT mission. The objective of the NARP is to support innovative, high-payoff research that provides the basis for revolutionary progress in areas of science and technology affecting the needs and mission of NGA. This research also supports the National System for Geospatial Intelligence (NSG), which is the combination of technology, systems and organizations that gather, produce, distribute and consume geospatial data and information. This research is aimed at advancing GEOINT capabilities by improving analytical methods, enhancing and expanding systems capabilities, and leveraging resources for common NSG goals. The NARP also seeks to improve education in scientific, mathematics, and engineering skills necessary to advance GEOINT capabilities. It is NGA's intent to solicit fundamental research under this BAA. Fundamental research means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from Industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reason. (National Security Decision Directive (NSDD) 189, National Policy on the Transfer of Scientific, Technical, and Engineering Information). NGA seeks proposals from eligible U.S.

institutions for path-breaking GEOINT research in areas of potential interest to NGA, the DoD, and the Intelligence Community (IC). **Open to September 30, 2017.**

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

BJS-2014-3867 2014 Visiting Fellows: Criminal Justice Statistics Programs
The Bureau of Justice Statistics (BJS) is pleased to announce that it is seeking applications for funding for one or more BJS Visiting Fellows to work in its Criminal Justice Statistics Programs. The overall purpose of this program is to address substantive, methodological, and analytic issues to enhance or inform BJS statistical programs; to support the scholarly use of BJS data collections, expand the body of policy-relevant research that uses these data, in order to further knowledge about and understanding of the operation of the criminal justice system. **Due May 28.**

DE-FOA-0001098 Marine and Hydrokinetic Research and Development University Consortium
The objective of the Marine and Hydrokinetic (MHK) Research and Development University Consortium FOA is to leverage the field Research and Development expertise and intellectual capital of domestic universities to advance MHK technology in the U.S. in the following strategic opportunity areas: Device and/or array operation and maintenance logistics development; High-fidelity resource characterization and/or modeling technique development and validation; Distributed application device development and techno-economic studies; Array-specific component technology development (e.g. moorings and foundations, transmission, and other offshore grid components); Array performance testing and evaluation; Novel cost-effective environmental monitoring techniques and instrumentation testing and evaluation. The full Funding Opportunity Announcement (FOA) is posted on the EERE eXCHANGE website at https://eere-exchange.energy.gov . Applications must be submitted through the EERE eXCHANGE website to be considered for award. The applicant must first register and create an account on the EERE eXCHANGE website. A User Guide for the EERE eXCHANGE can be found on the EERE website https://eere- exchange.energy.gov/Manuals.aspx after logging in to the system. Information on where to submit questions regarding the content of the announcement and where to submit questions regarding submission of applications is found in the full FOA posted on the EERE eXCHANGE website. **Due May 30.**

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.**

DE-FOA-0000984 Wind Forecasting Improvement Project in Complex Terrain

This Funding Opportunity Announcement is aimed at improving the physical understanding of atmospheric processes which directly impact the wind industry forecasts and incorporate the new understanding into the foundational weather forecasting models. The awardee, in partnership with Department of Energy, National Oceanic and Atmospheric Administration, and a Balancing Authority, will conduct a field campaign in an area of complex terrain to assess how physical processes alter wind speeds at hub heights. From this research, the team will work to develop physical modeling schemes or atmospheric theories that can be incorporated in foundational weather models to improve wind forecasting. The full Funding Opportunity Announcement is posted on the EERE eXCHANGE website at https://eere-exchange.energy.gov . Applications must be submitted through the EERE eXCHANGE website to be considered for award. The applicant must first register and create an account on the EERE eXCHANGE website. A User Guide for the EERE eXCHANGE can be found on the EERE website https://eere-exchange.energy.gov/Manuals.aspx after logging in to the system. Information on where to submit questions regarding the content of the announcement and where to submit questions regarding submission of applications is found in the full FOA posted on the EERE eXCHANGE website. **Due June 5.**

Innovative Programs to Enhance Research Training (IPERT) (R25)

The NIH Research Education Program (R25) supports research education activities in the mission areas of the NIH. The Innovative Programs to Enhance Research Training (IPERT) R25 funding opportunity announcement from NIGMS seeks applications that propose creative and innovative educational activities to complement and/or enhance the training of a workforce to meet the nation's biomedical, behavioral and clinical research needs. The goal of this NIGMS R25 program is to support educational activities that complement and/or enhance the training of a workforce to meet the nation's biomedical, behavioral and clinical research needs. To this end, this funding opportunity announcement encourages activities with a primary focus on courses for skills development, structured mentoring activities, and outreach programs. **Due June 9.**

Social Science Research on Implementation, Dissemination, and Translation FY 2014

NIJ seeks proposals for funding for research and a research fellowship to examine how scholarly research influences criminal justice implementation practices through dissemination and translation. NIJ proposes two distinct research activities under this solicitation: 1) Incorporating the Use of Research in Policy Decisions: NIJ seeks to support up to five case studies on incorporating the use of research evidence into criminal justice practice and policy decisions. 2)

A Translational Criminology Research Fellowship: NIJ seeks a Research Fellow to examine the dissemination of NIJ-funded research. Applicants may apply to one or both sections of the solicitation; however, proposal titles should clearly identify the section of the solicitation for which the proposal is being submitted. **Due June 9.**

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: Open 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: Open to June 11.**

NEH Digital Projects for the Public
NEH's Division of Public Programs supports activities that engage millions of Americans in understanding significant humanities works and ideas. At the center of every NEH-funded public humanities project is a core set of humanities ideas developed by scholars, matched to imaginative formats that bring humanities ideas alive for people of all ages and all walks of life. The Digital Projects for the Public program supports projects such as websites, mobile applications, games, and virtual environments that significantly contribute to the public's engagement with humanities ideas. Projects must be analytical and deeply grounded in humanities scholarship in a discipline such as history, religion, anthropology, jurisprudence, or art history. **Due June 11.**

NEH Bridging Cultures through Film: International Topics
NEH's Division of Public Programs supports activities that engage millions of Americans in understanding significant humanities works and ideas. The Bridging Cultures through Film: International Topics program supports films that examine international themes and subjects in the humanities. The films are meant to spark Americans' engagement with the broader world by exploring countries and cultures outside of the United States. The Division of Public Programs encourages innovative nonfiction storytelling that presents multiple points of view in creative formats. At the center of every NEH-funded film is a core set of humanities ideas developed by scholars, matched to imaginative formats that bring the humanities alive for

people of all ages and all walks of life. The proposed film must be analytical and deeply grounded in humanities scholarship. It may be as short as thirty minutes or as long as a feature-length film. **Due June 11.**

Cultivating Cultures for Ethical STEM (CCE STEM)

Cultivating Cultures for Ethical STEM (CCE STEM) funds research projects that identify factors that are efficacious in the formation of ethical STEM researchers in all the fields of science and engineering that NSF supports. CCE STEM solicits proposals for research that explores the following: 'What constitutes ethical STEM research and practice? Which cultural and institutional contexts promote ethical STEM research and practice and why?' Factors one might consider include: honor codes, professional ethics codes and licensing requirements, an ethic of service and/or service learning, life-long learning requirements, curricula or memberships in organizations (e.g. Engineers without Borders) that stress social responsibility and humanitarian goals, institutions that serve under-represented groups, institutions where academic and research integrity are cultivated at multiple levels, institutions that cultivate ethics across the curriculum, or programs that promote group work, or do not grade. Do certain labs have a 'culture of academic integrity'? What practices contribute to the establishment and maintenance of ethical cultures and how can these practices be transferred, extended to, and integrated into other research and learning settings? Successful proposals will include a comparative dimension, either between or within institutional settings that differ along these or other factors. **Due June 17.**

DOJ-2014-3797 National Center for Building Community Trust and Justice

The Department of Justice, through its components the Office of Justice Programs (OJP), the Community Oriented Policing Services Office (COPS), the Office on Violence against Women (OVW), and the Community Relations Service (CRS), is seeking applications for funding under this National Center for Building Community Trust and Justice grant announcement. The purpose of this initiative is to enhance procedural justice, reduce bias, and support racial reconciliation. This initiative furthers the Department's mission to ensure public safety and to ensure fair and impartial administration of justice for all Americans. **Due June 18.**

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.**

Specialty Crop Research Initiative (SCRI)

The purpose of the SCRI program is to address the critical needs of the specialty crop industry by awarding grants to support research and extension that address key challenges of national, regional, and multi-state importance in sustaining all components of food and agriculture, including conventional and organic food production systems. Projects must address at least one of five focus areas: Research in plant breeding, genetics, genomics, and other methods to improve crop characteristics; Efforts to identify and address threats from pests and diseases, including threats to specialty crop pollinators; Efforts to improve production efficiency, handling and processing, productivity, and profitability over the long term (including specialty crop policy and marketing); new innovations and technology, including improved mechanization and technologies that delay or inhibit ripening; and methods to prevent, detect, monitor, control, and respond to potential food safety hazards in the production efficiency, handling and processing of specialty crops. **Due June 20.**

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.**

Innovation Corps Sites Program (I-Corps Sites)

The National Science Foundation (NSF) seeks to develop and nurture a national innovation ecosystem that builds upon research to guide the output of scientific discoveries closer to the development of technologies, products and processes that benefit society. In order to contribute to a national innovation ecosystem, NSF established the NSF Innovation Corps Sites Program (NSF I-Corps Sites). **Due June 27.**

ONRBAA14-007 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.**

Coupling, Energetics, and Dynamics of Atmospheric Regions (CEDAR)
CEDAR is a broad-based, community-guided, upper atmospheric research program. The goal is to understand the behavior of atmospheric regions from the middle atmosphere upward through the thermosphere and ionosphere into the exosphere in terms of coupling, energetics, chemistry, and dynamics on regional and global scales. These processes are related to the sources of perturbations that propagate upward from the lower atmosphere as well as to solar radiation and particle inputs from above. The activities within this program combine observations, theory and modeling. **Due July 17.**

Jan S. Bashinski Criminalistics Graduate Thesis Assistance Grant
The Jan Grant Award is to provide Graduate Students with -financial assistance to complete their thesis or independent research project as required for a graduate degree in Criminalistics/Forensic Sciences. The thesis or research project must be in the field of Criminalistics/Forensic Sciences. **Due July 31.**

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.**

DoD Amyotrophic Lateral Sclerosis Therapeutic Development Award
The Therapeutic Development Award supports the preclinical assessment of therapeutics for ALS. The proposed studies are expected to be empirical in nature and product-driven but may have a hypothesis-driven approach, provided the focus is on therapeutics. It is anticipated that the agents and/or data generated from these awards will lead to the advancement of new therapies for ALS. **Due August 20.**

DoD Amyotrophic Lateral Sclerosis Therapeutic Idea Award
The Therapeutic Idea Award is designed to promote new ideas that are still in the early stages of development with the potential to yield highly impactful data and new avenues of investigation for novel therapeutics for ALS treatment. This mechanism supports conceptually innovative, high-risk/high-reward research that could ultimately lead to critical discoveries or major advancement in ALS therapeutics. Proposed research projects should include a well-formulated, testable hypothesis based on strong scientific rationale that holds translational potential to improve ALS treatment and/or advances a novel treatment modality. Projects that

focus primarily on investigating the pathophysiology of ALS are outside the scientific scope of this mechanism. **Due August 20.**

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.**

NEH/DFG Bilateral Digital Humanities Program

The National Endowment for the Humanities in the United States and the German Research Foundation (Deutsche Forschungsgemeinschaft e.V., DFG) are working together to offer support for projects that contribute to developing and implementing digital infrastructures and services for humanities research. **Due September 25.**

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.**

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.**

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 ONRBAA14-001

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 ONRBAA13-007, 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 . 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 . **Open to September 30, 2014.**

NOAA-NFA-NFAPO-2014-2003949 FY 2014 - 2015 Broad Agency Announcement (BAA)

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/ 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

DHS-2014-OHA-BIOWATCH BioWatch Program: 2014-2015
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.**

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**.

Academic Research Funding Strategies, LLC (Page 1)

http://academicresearchgrants.com/home
ph: 979-693-0825
LDeckard@academicresearchgrants.com
mjcronan@gmail.com

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)