March 1, 2009 Research Funding Opportunities

A listing of research and educational funding for the academic community

Office of Proposal Development
Research and Graduate Studies
Texas A&M University

Hotlink to SUBSCRIBE or UNSUBSCRIBE: MikeCronan@tamu.edu

Research Development & Grant Writing Resources
OPD's monthly E-newsletter

If you don't write grants, you won't get any…

OPD recommended grant writing resources to enhance the competitiveness of research and educational proposals to federal agencies & foundations.

"Don't reinvent the flat tire…" an NSF Program Officer's comment on why background information is important to successful grant writing.

Grant Writing Resources
(CTRL+Click)

- **Grant Writing Resources**
  - ✓ **New Agency Reports**
  - ✓ **New Web Resources**
  - ✓ **Junior Faculty**
  - ✓ **Post Doctoral**
  - ✓ **Graduate Students**
  - ✓ **NSF**
  - ✓ **NIH**
  - ✓ **Open Solicitations**
- **New OPD Seminars**

Grant Funding
(CTRL+Click)
Due Date by Month
March
April
May & Later

Grant Writing Articles
(CTRL+Click #)

1. Writing Goals & Objectives
2. Grant Strategies
3. Proposal Scheduling
4. Evaluation Resources on Web
5. Writing NIH Specific Aims

Articles By **Mike Cronan** , **Lucy Deckard**, **John Ivy** & **Robyn Pearson**

[Topic Suggestions Welcome]

OPD-Web (http://opd.tamu.edu/)

a resource for the development and writing of research and educational proposals to federal agencies and foundations

New funding opportunities are posted to OPD-Web daily and clustered by week
http://opd.tamu.edu/funding-opportunities

New Subscribe to OPD-Web Research Funding Opportunities RSS Feeds
http://opd.tamu.edu/funding-opportunities/subscribe-to-rss-feeds-for-discipline-specific-funding-opportunities

OPD-Web Content Manager: Lucy Deckard (L-Deckard@tamu.edu)

Assistant Web Content Manager: Nadja Prcic (NPrcic@vprmail.tamu.edu)

What's New in Federal Research Budget: R&D Budget & Policy Updates
http://www.aaas.org/spp/rd/new.htm

http://www.aaas.org/spp/rd/fy09.htm
by Kei Koizumi, Director, R&D Budget and Policy Program
American Association for the Advancement of Science

Research Funding Opportunities in the Humanities

The Melbern G. Glasscock Center for Humanities Research
Texas A&M University
http://glasscockcenter.blogspot.com/ (funding blog)
http://glasscock.tamu.edu/

Sign up for information from the Newberry Library Listserv
http://www.newberry.org/events/L3eaddcontent.html

Humanities Resource Center Online
A Project of the American Academy of Arts and Sciences
http://www.humanitiesindicators.org/

About the Humanities Indicators Prototype
http://www.humanitiesindicators.org/humanitiesData.aspx

Initiative for Humanities and Culture
http://www.amacad.org/projects/humanities.aspx

UCLA team creates virtual library of medieval manuscripts
http://manuscripts.cmrs.ucla.edu/

Subscribe to the NEA RSS Feed
http://www.arts.gov:80/about/NEAFeed.html

New Agency Reports (Top)

New Sign up for email alerts from Recovery.gov
http://www.recovery.gov/

New NIH Announcement: American Recovery & Reinvestment Act of 2009
http://www.nih.gov/about/director/02252009statement_arra.htm

New AAAS Final Stimulus Bill Updates
http://www.aaas.org/spp/rd/stim09c.htm

New National Science Board to Discuss Spending and Oversight of NSF's $3 Billion Stimulus to Invest in America's Scientific Enterprise
http://www.nsf.gov/news/newsroom.jsp
http://www.nsf.gov/nsb/meetings/index.jsp#recent

New Education Department: American Recovery and Reinvestment Act of 2009
http://www.ed.gov:80/policy/gen/leg/recovery/index.html

New U.S. Department of Education: Major RSS Communications on the American Recovery and Reinvestment Act of 2009
http://www.ed.gov/rss/arracomms.xml

New American Recovery and Reinvestment Act State Tables for the U.S. Department of Education
http://www.ed.gov/about/overview/budget/statetables/recovery.html

New DOE Secretary Chu Announces Changes to Expedite Economic Recovery Funding Restructuring will lead to new investments in energy projects within months
http://www.energy.gov/news2009/6934.htm

New Office of Energy Efficiency and Renewable Energy
http://apps1.eere.energy.gov/news/

The EERE News site offers a variety of resources and news for media and others who are interested in learning more about the Office of Energy Efficiency and Renewable Energy (EERE). Here you'll find press releases, newsletters, speeches, featured stories and links from the EERE home page, and other resources detailing EERE's most recent activities and efforts.

DOE provides a variety of materials via e-mail and RSS
http://www.energy.gov/news2009/email_updates.htm
http://apps1.eere.energy.gov/news/rss/

New Burroughs Wellcome Fund Suspends Grant Programs New
http://www.bwfund.org/pages/389/President-Message---February-2009/

University-Private Sector Research Partnerships in the Innovation Ecosystem
President's Council of Advisors on Science and Technology, Nov. 2008
http://www.ostp.gov/galleries/PCAST/past_research_partnership_report_BOOK.pdf

Survey Samples Life Scientists' Views on 'Dual Use' Research and Bioterrorism; Some Respondents Already Taking Action to Avert Misuse of Research
http://www.nationalacademies.org/morenews/20090205.html
National Research Council/American Association for the Advancement of Science.

Effectiveness of National Biosurveillance Systems: BioWatch and the Public Health System. Interim Report
http://www.iom.edu/CMS/3740/58811/62347.aspx

American Journal of Preventive Medicine
http://www.activelivingresearch.org/resourcesearch/journalspecialissues
A new supplemental issue of the American Journal of Preventive Medicine was released in February 2009. The issue highlights the first six years of Active Living Research and evaluates the program's success in developing the transdisciplinary field of active living research.

AGI releases the report 'Status of the Geoscience Workforce: K-12 through Community College'
http://www.agiweb.org:80/workforce/reports.html

New Web Resources   (Top)

Federal R&D Project Summaries
Descriptions of Federally Funded Research Awards
http://www.osti.gov/fedrnd/

New Grants.gov Daily System Status Blog New
http://grants-gov.blogspot.com/

New Grants.gov Tips & Resources From Grantors New
http://www.grants.gov/applicants/tips_resources_from_grantors.jsp#9
26 Federal Agencies and their grant resources

Subscribe to Grants.gov RSS Feeds
New & Modified Funding Opportunities by Agency and Category
http://www.grants.gov:80/help/rss.jsp

Forecast Of Funding Opportunities Under The Department Of Education Discretionary Grant Programs For Fiscal Year (FY) 2009
http://www.ed.gov/fund/grant/find/edlite-forecast.html

Department of Health and Human Services' Grants Forecast FY2009
https://extranet.acf.hhs.gov/hhsgrantsforecast/
The Department of Health and Human Services' Grants Forecast is a database of planned grant opportunities proposed by its agencies. Each Forecast record contains actual or estimated dates and funding levels for grants that the agency intends to award during the fiscal year.

USGS Programs Managed by the Water Resources Discipline
http://water.usgs.gov/programs.html

Funding Sources for Water Quality
http://www.nal.usda.gov/wqic/funding.shtml
A listing of funding resources put together by The Water Quality Information Center of the National Agricultural Library

Water Resources Research National Competitive Grants Program
Fiscal Year 2009 Request for Proposals, Closes March 6
https://niwr.net/competitive_grants/RFP

HHS Funding Opportunities
http://www.hhs.gov/grantsnet/FundOther.htm
http://www.hhs.gov/grantsnet/

U.S. Department of Justice Open Solicitations 2009
http://www.ojp.usdoj.gov/funding/solicitations.htm

Research.gov
http://www.research.gov/rgov/anonymous.portal
Led by the National Science Foundation, Research.gov is a partnership of federal research-oriented grant making agencies with a shared vision of increasing customer service for the research community, while streamlining and standardizing

business processes amongst partner agencies.

RSS Feeds: Proceedings National Academy of Sciences
http://www.pnas.org/rss/

Latest Issue RSS Feeds from Project MUSE
http://feeds.muse.jhu.edu/latest_issues.html
Project MUSE is a unique collaboration between libraries and publishers, providing 100% full-text, affordable and user-friendly online access to a comprehensive selection of prestigious humanities and social sciences journals.

CDC RSS Feeds and Podcasts
http://www2a.cdc.gov/podcasts/rss.asp

Federal Awards Made Databases
http://research.unc.edu/grantsource/awards_made.php#private
Listing by GrantSource Library, University of North Carolina-Chapel Hill

Grant Writing Resources   (Top)

Many of DARPA's solicitations encourage the submission of a white paper or abstract. What to include in a white paper? Review solicitation instructions or try these websites (STO, IPTO, MTO, DSO, and TTO)

Proposal Writing Guide
Written by Janet S. Rasey, Ph.D.
Research Funding Service University of Washington
http://www.washington.edu/research/osp/writing.html

Writing Grants to Foundations and Non-Profits
Proposal Writing Short Course by The Foundation Center
http://foundationcenter.org/getstarted/tutorials/shortcourse/index.html

Grant Writing Tools for Non-Profit Organizations
http://www.npguides.org/guide/index.html

Top Giving Foundations: Texas
http://www.tgci.com/funding/top.asp?statename=Texas&statecode=TX
Community Foundations: Texas
http://www.tgci.com/funding/cfs.asp?statename=Texas&statecode=TX
Corporate Giving Programs: Texas
http://www.tgci.com/funding/cgps.asp?statename=Texas&statecode=TX

Earth Science Research: A Guide For The Submission Of Unsolicited Proposals Department Of The Interior, U.S. Geological Survey
http://www.usgs.gov:80/contracts/grants/unsolbk.html

Technical Assistance Workshop: Bridges to the Baccalaureate Program
http://grants.nih.gov/grants/guide/notice-files/NOT-GM-09-012.html

Technical Assistance Workshop: Bridges to the Doctorate Program

http://grants.nih.gov/grants/guide/notice-files/NOT-GM-09-013.html

Junior Faculty Resources   (Top)

Overview, Programs for Junior Faculty by OPD
http://opd.tamu.edu/the-craft-of-writing-workbook/toolkit-for-programs-for-junior-faculty

NIH New and Early Stage Investigators
http://grants.nih.gov/grants/new_investigators/index.htm

Resources for Post Docs (Top)

New Science Careers Basics Booklet New
http://sciencecareers.sciencemag.org:80/careerbasicspdf
http://sciencecareers.sciencemag.org/pdf/career_basics_2009/career_basics_book.pdf
Struggling with your next career step? Science Careers' editorial team brings you "Career Basics: Advice and Resources for Scientists." The booklet provides advice and help on preparing CVs and resumes, writing grants and scientific papers, networking, and much more. Read each article in the booklet online, or download each chapter or the entire booklet as a PDF. All for free. It is one more tool Science Careers provides to help you jump-start your career, be it in academia or outside the ivory tower!

Resources for Addressing NSF's Postdoctoral Mentoring Requirement
http://opd.tamu.edu/proposal-resources/resources-for-postdoc-requirement/resources-for-addressing-nsfs-postdoctoral-mentoring-requirement

National Postdoctoral Association
http://www.nationalpostdoc.org/site/c.eoJMIWOBIrH/b.1388059/k.DBBE/NPA_Home.htm

Minority Postdoc
http://www.minoritypostdoc.org/

URL Links to Post Doc Resources
http://web.mit.edu/career/www/infostats/respostdoc.html

NIH Academic and PostDoc Opportunities
http://www.training.nih.gov/careers/careercenter/academ.html
http://www.training.nih.gov/careers/careercenter/advice.html#acad

Resources for Graduate Students (Top)

Congressional Hispanic Caucus Institute Fellowships
http://apply.chci.org/applications/
Various due dates upcoming

2008-2009 Graduate Student Funding Opportunities Guide
http://www.tc.columbia.edu/administration/osp/
Office of Sponsored Programs, Teachers College, Columbia University

External Funding and Grants for Humanities Graduate Students
http://humanities.osu.edu:80/studentinfo/grads/gradexternalfunding.cfm

The Ohio State University College of Humanities
Proposal Writing: The Art Of Persuasion http://www.holycross.edu:80/departments/gradstudies/website/proposewrite.htm **Holy Cross Office of Distinguished Fellowships and Graduate Studies**
Cornell University Graduate School Fellowship Database http://www.gradschool.cornell.edu:80/?p=132

National Science Foundation (Top)

National Science Board **STEM Education Recommendations for the Obama Administration** http://www.nsf.gov/nsb/publications/2009/01_10_stem_rec_obama.pdf
Other Types of NSF Proposals **Small Grants for Exploratory Research (SGER) Proposals** http://www.nsf.gov/pubs/gpg/nsf04_23/2.jsp#IID1 **Proposals for Equipment** http://www.nsf.gov/pubs/gpg/nsf04_23/2.jsp#IID4 **Proposals for Conferences, Symposia and Workshops** http://www.nsf.gov/pubs/gpg/nsf04_23/2.jsp#IID7 **Facilitation Awards for Scientists and Engineers with Disabilities** http://www.nsf.gov/pubs/gpg/nsf04_23/2.jsp#IID2
NSF 09-013, NSF-Supported Research Infrastructure: Enabling Discovery, Innovation and Learning http://www.nsf.gov:80/news/nsf09013/index.jsp?govDel=USNSF_124
NSF Hispanic Serving Institution Listening Session http://www.nsf.gov/news/news_summ.jsp?cntn_id=114154 On Sunday, March 1, NSF is holding a listening session to collect stakeholder input on Section 7003 of the America COMPETES Act. This legislation authorizes the Foundation to establish a new program to support Hispanic-serving institutions. Please see the Federal Register notice for complete information on this important project.
NSF Proposal and Award Policies and Procedures Guide, April 2009 http://www.nsf.gov:80/pubs/policydocs/pappguide/nsf09_29/index.jsp?govDel=USNSF_109
Science and Engineering Visualization Challenge http://www.nsf.gov/news/special_reports/scivis/index.jsp
Dear Colleague Letter: Multi-scale Modeling http://www.nsf.gov/pubs/2009/nsf09032/nsf09032.jsp?govDel=USNSF_25
Dear Colleague Letter: Environment, Society, and the Economy http://www.nsf.gov/pubs/2009/nsf09031/nsf09031.jsp?govDel=USNSF_25
Dear Colleague Letter: Update - Emerging Topics in Biogeochemistry http://www.nsf.gov/pubs/2009/nsf09030/nsf09030.jsp?govDel=USNSF_25

Learn How NSF Reviews Your Proposal
http://www.nsf.gov/bfa/dias/policy/meritreview/

Mentoring Requirement for Postdoctoral Research Fellows
http://www.nsf.gov/pubs/policydocs/pappguide/nsf09_1/gpg_sigchanges.jsp

Chapter II – Section C.2d(i), Project Description, has had entirely new guidance added regarding mentoring activities. This was done to address the mentoring requirement of the America COMPETES Act. Each proposal that requests funding to support postdoctoral researchers must include, as a separate section within the 15-page project description, a description of the mentoring activities that will be provided for such individuals. Examples of such activities are provided and the mentoring plan will be evaluated during the merit review process, under the Broader Impacts criterion. Proposals that do not include a separate section on mentoring activities within the Project Description will be returned without review.

NSF RSS Feeds and Podcasts
http://www.nsf.gov:80/rss/

NSF Grant Proposal Guide, Effective date: January 5, 2009
http://www.nsf.gov/pubs/policydocs/pappguide/nsf09_1/gpg_index.jsp
Summary of Significant Changes:
http://www.nsf.gov/pubs/policydocs/pappguide/nsf09_1/gpg_sigchanges.jsp

The NSF Grant Proposal Guide (GPG) (now part of a larger document, the Proposal and Award Policies and Procedures Guide) provides the basic policies for both solicited and unsolicited proposals.

NSF Pertinent Workshops, Studies and Reports on Undergraduate Education for Preparing CCLI Proposals

- *Recommendations for Action in Support of Undergraduate Science, Technology, Engineering, and Mathematics* and *Recommendations for Urgent Action Project Kaleidoscope 2002, 2006* reports calling for "collective action" to share ideas and materials so that projects build on, connect to, and enhance the work of others.
  http://www.pkal.org/documents/_ReportonReports.pdf and
  http://www.pkal.org/documents/ReportOnReportsII.cfm.
- *How Students Learn,* a 2005 NRC report on effective teaching mechanisms (emphasizes the importance of teaching subject matter in depth, eliciting and working with students' preexisting knowledge, and helping students develop the skills of self-monitoring and reflection).
  http://www.nap.edu/books/0309074339/html/
- *Invention and Impact: Building Excellence in Undergraduate Science, Technology, Engineering and Mathematics Education,* a 2004 report from an AAAS organized meeting of CCLI active faculty describing some of the successful efforts supported by the CCLI program and its predecessors (the Course and Curriculum Development (CCD), Instruction and Laboratory Improvement (ILI), and Undergraduate Faculty Enhancement (UFE) programs).
  http://www.aaas.org/publications/books_reports/CCLI
- *Rising Above the Gathering Storm: Energizing and Employing America for a*

Brighter Economic Future Committee on Prospering in the Global Economy of the 21st Century: An Agenda for American Science and Technology, Committee on Science, Engineering, and Public Policy, a 2007 National Academies Press publication. http://www.nap.edu/catalog.php?record_id=11463

Best Practices for IGERT Sustainability
http://depts.washington.edu/cirgeweb/c/wp-content/uploads/2008/08/best_practices_for_igert_sustainability_fin4.pdf
Tami Blumenfield, Renate Sadrozinski & Maresi Nerad, U. Washington

National Institutes of Health (Top)

NIH Encourages Applicants to Take Advantage of Subscription-based Electronic Mailing Lists for Updates on Electronic Applications and the eRA Commons
http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-047.html

Funding Opportunities Now Available in RSS Format
February 17, 2009
If you are looking for up-to-the-minute postings of funding opportunities and notices published in the "NIH Guide for Grants and Contracts", just point your news aggregator to http://grants.nih.gov/grants/guide/newsfeed/fundingopps.xml .
The RSS feed contains the same information found at http://grants.nih.gov/grants/guide/WeeklyIndex.cfm .

Clinical Research Study Investigator's Toolbox
http://www.nia.nih.gov/ResearchInformation/CTtoolbox/

Health Disparities Toolbox
http://www.nia.nih.gov/ResearchInformation/HDToolbox.htm

NIAID Funding News and Email Alerts Subscription Center
http://www.niaid.nih.gov/ncn/newsletters/default_subscribe.htm
Register to receive instant emails for NIAID Funding News, new initiatives, concepts, policy notices through our newsletter, and more.

Open Solicitations (Top)

Enhancing Ecosystem Services From Agricultural Lands: Management, Quantification, And Developing Decision Support Tools
http://es.epa.gov:80/ncer/rfa/2009/2009_star_ecosystem_services.html
Solicitation Opening Date: February 25, 2009
Solicitation Closing Date: May 26, 2009, 4:00 pm Eastern Time
The U. S. Department of Agriculture (USDA), as part of its Agricultural and Food Research Initiative (AFRI) Competitive Grants Program and the U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, are seeking applications proposing research on the ecosystem services provided by agricultural lands. Ecosystem services are the goods and services derived from natural and managed ecosystems upon which human welfare depends.

Because of the global intensification of land use, these services are in decline, especially in agricultural ecosystems. Ecosystem services are essential in maintaining both human welfare as well as ecological integrity, yet these services can be affected by natural changes and management actions. In addition, agricultural lands are experiencing significant land use changes as demonstrated by the rapid conversion of these lands from traditional farming use, to alternate farming practices, to urban development, and to non-agricultural use.

Funding Opportunities - National Center for Research Resources
http://www.ncrr.nih.gov:80/research_funding/funding_opportunities/

Space-Based Advanced Sensing --5 year BAA
http://www07.grants.gov/search/search.do;jsessionid=0KvyJlfb7ps6qtJn2dF3Lc22MJ5J1hyTNyJq2vJcLbH8vbb02ftf!2022393237?oppId=45100&flag2006=false&mode=VIEW

Open to May 12, 2012

This is a 5-year, opened-ended Broad Agency Announcement (BAA) to solicit research proposals for the United States Air Force Research Laboratory's (AFRL) Space-Based Advanced Sensing and Protection Branch, which is looking to conduct research and development of space payload technologies including phenomenology, advanced focal plane components and arrays, cryogenic systems, passive and active surveillance, and protection capabilities for contemporary and future space systems. Multiple awards of contracts and/or assistance instruments of various values are anticipated with a period of performance ranging from 6 to 60 months. Periodically over the 5-year period, proposal call announcements (CALLS) may be issued in the FedBizOps/EPS and GRANTS.GOV/FIND to request proposals for specific research efforts under technical topic areas. These subsequent CALLS will contain specific descriptions of the research effort to be addressed, anticipated period of performance, information peculiar to the specific research technical topic area, and the expected dollar range for proposals received under the CALL.

Microsystems Technology Office-Wide Broad Agency Announcement
http://www07.grants.gov/search/search.do;jsessionid=gYyRJbvSslylVtvGxpXzGWKQY72S8SWnzdMSX2NqHwSGMDtyfXSB!448014197?oppId=45351&flag2006=false&mode=VIEW

Open to Feb. 17, 2010

The Microsystems Technology Office's (MTO) mission is to exploit breakthroughs in materials, devices, circuits, and mathematics to develop beyond leading edge Microsystems components with revolutionary performance and functionality to enable new platform capability for the Department of Defense. To execute this mission, MTO supports revolutionary research in electronics, photonics, MEMS, algorithms, and combined Microsystems technology to deliver new capabilities to sense, communicate, energize, actuate, and process data and information for the war fighter. MTO regularly publishes Broad Agency Announcements requesting responses to specific program topics.

Understanding the Role of Nonchemical Stressors and Developing Analytic Methods for Cumulative Risk Assessments
http://es.epa.gov:80/ncer/rfa/2009/2009_star_cumulative_risk.html

Open Feb. 13; close June 17

The U.S. Environmental Protection Agency, as part of its Science to Achieve

Results (STAR) program, is seeking applications from interdisciplinary teams to address research needs that currently limit the ability to conduct cumulative risk assessments. Exposure to different combinations of environmental stressors can contribute to increased risk for negative health consequences. It has become clear that cumulative risk assessments should include both chemical and nonchemical stressors, exposures from multiple routes, and factors that differentially affect exposure or toxicity to communities. This RFA is focusing on two challenges that exist in conducting cumulative risk assessments: (a) STAR-E1: The development of statistical and other analytical techniques that will enable the analysis of disparate types of data, and (b) STAR-E2: The evaluation of the combined effects of nonchemical and chemical stressors.

Measurement Science and Engineering (MSE) Research Grants Programs

http://www07.grants.gov/search/search.do;jsessionid=Zw6hJf7KQXpzrZh1Nh96JQCf25fg9LFBZ8SVJDdjt2pSrmxTg10t!448014197?oppId=45413&flag2006=false&mode=VIEW

Posted Feb. 20; continuous

Note that NIST is receiving funding under the stimulus bill: National Institute of Standards and Technology (NIST): $475 million total for NIST including: $307 million for renovation of NIST facilities and new laboratories using green technologies; $168 million for scientific and technical research at NIST to strengthen the agency's IT infrastructure; provide additional NIST research fellowships; provide substantial funding for advanced research and measurement equipment and supplies; increase external grants for NIST-related research.

For all programs listed in this notice applications will be considered on a continuing basis. Applications received after June 1, 2009 may be processed and considered for funding under this solicitation in the current fiscal year or in the next fiscal year, subject to the availability of funds. Applications, paper and electronic, must be received prior to the publication date in the Federal Register of the FY 2010 solicitation for the NIST MSE Research Grants Programs in order to be processed under this solicitation. Executive summary: The National Institute of Standards and Technology (NIST) announces that the following programs are soliciting applications for financial assistance for FY 2009: (1) the Electronics and Electrical Engineering Laboratory Grants Program; (2) the Manufacturing Engineering Laboratory Grants Program; (3) the Chemical Science and Technology Laboratory Grants Program; (4) the Physics Laboratory Grants Program; (5) the Materials Science and Engineering Laboratory Grants Program; (6) the Building Research Grants and Cooperative Agreements Program; (7) the Fire Research Grants Program; (8) the Information Technology Laboratory Grants Program; (9) the NIST Center for Neutron Research Grants Program; and (10) Center for Nanoscale Science and Technology Grants Program.

Department of Energy Solicitations by Date
https://e-center.doe.gov:443/iips/faopor.nsf/Solicitation+By+Date?OpenView

Department of Energy Office of Science
Grants and Contracts Web
http://www.sc.doe.gov/grants/grants.html

USAF Directed Energy Materials Program
https://www.fbo.gov/index?s=opportunity&mode=form&id=e3c1bd55cc417de2b01137a3c94c
fae7&tab=core&_cview=0
Opened January 26, 2009
The Air Force is in pursuit of materials technology advances for directed energy systems for high energy laser systems, high power microwave systems and midinfrared laser source and laser development.

Defense Sciences Office Current Solicitations
http://www.darpa.mil/dso/solicitations/solicit.htm

NSPIRES
http://nspires.nasaprs.com:80/external/solicitations/solicitations.do?method=open
&stack=push

Office of Naval Research Currently Active BAAs
http://www.onr.navy.mil/02/baa/

Office of Naval Research ONR Overview of Budget/Funding
http://www.ncura.edu/content/educational_programs/sites/50/handouts/docs/T10_1130AM_G3.PPT

Army Research Office ARO Budget/Funding Update
http://www.ncura.edu/content/educational_programs/sites/50/handouts/docs/T10_1130AM_G2.PPT

Air Force Office of Scientific Research (AFOSR) Update
http://www.ncura.edu/content/educational_programs/sites/50/handouts/docs/T10_1130AM_G1.PPT

DARPA Zeno-based Opto-Electronics (ZOE)
http://www.darpa.mil/dso/solicitations/solicit.htm
Open to Dec. 10, 2009

Defense Sciences Office within DARPA, Current Solicitations
http://www.darpa.mil/dso/solicitations/solicit.htm

Harnessing Infrastructure for Building Reconnaissance (HIBR)
http://www.darpa.mil/STO/solicitations/BAA09-08/index.html
DARPA is developing broad and diverse technologies necessary for external sensing deep inside buildings with the objective of providing a suite of sensing technologies for situational awareness both above- and below-ground suitable across a broad range of building environments. The component technologies must support all external ISR concepts of operations ranging from pre-mission planning through detailed assessment of targeted structures, and live updates during mission execution. The intent of this solicitation, DARPA-BAA-09-08, Harnessing Infrastructure for Building Reconnaissance, is to investigate individual technological approaches that leverage building infrastructure to opportunistically collect information for interior awareness. DARPA believes that opportunistic sensing may be exploited to infer urban interior building awareness using exterior observations. Open to 10/9/2009.

DARPA Mathematical Challenges Open to 9/25/09
http://www.darpa.mil/dso/solicitations/baa08-65.html

DARPA Strategic Technologies
http://www1.fbo.gov/spg/ODA/DARPA/CMO/BAA08%2D10/listing.html

DARPA is soliciting proposals under this BAA for the performance of research, development, design, and testing that directly supports Strategic Technology Office (STO). This includes Space and Near-Space Sensors and Systems; Strategic and Tactical Networks; Information Assurance; Counter Underground Facilities; Weapons of Mass Destruction Defense; Small Unit Operations; Maritime Operations; and Core Strategic Technologies. Open to 2/12/09

DARPA Microsystems Technology Office-Wide BAA
http://www.darpa.mil/mto/solicitations/index.html

MTO supports revolutionary research in electronics, photonics, MEMS, algorithms, and combined Microsystems technology to deliver new capabilities to sense, communicate, energize, actuate, and process data and information for the war fighter. Open to 2/13/09

DARPA Reactive Material Structures
https://www.fbo.gov/index?s=opportunity&mode=form&id=e8068d5029d0c7a9b9897d029eca8187&tab=core&_cview=0&cck=1&au=&ck=

DARPA is soliciting innovative research proposals for the Reactive Material Structures program. The overall goal of the program is to develop and demonstrate reactive material structures that provide both structural integrity and enthalpic energy within the same material system, and the ability to rapidly release that energy to produce a high intensity blast upon demand. Open to 4/16/09.

FY2008-2010 Basic Research for Combating Weapons of Mass Destruction Broad Agency Announcement" (HDTRA 1-08-10-BRCWMD-BAA)
http://www.dtra.mil:80/baa/index.cfm
http://www.dtra.mil/documents/newsservices/news-releases/pdf/080906_NewsRelease_Grants_Final.pdf

NOTE Young Investigator Awards: Proposals that focus on exploratory aspects of a unique problem, a high risk approach, or innovative research in subjects with potential for high impact to C-WMD science from non-tenured faculty who received a Ph.D. or equivalent degree on or after 1 October 2003. Young Investigator Awards will average $100K a year with a POP of up to two (2) years.

Long Range BAA for Research & Education Initiatives at the Naval Postgraduate School
http://www.nps.edu/research/WorkingWithNPS.html

NPS is interested in receiving proposals for research and education initiatives which offer potential for advancement and improvement in the NPS core mission of graduate education and research. Deadline: 3/31/09

Long Range Broad Agency Announcement (BAA 09-001) for Navy and Marine Corp Science and Technology
http://www.onr.navy.mil/02/baa/

This BAA is an announcement to declare ONR's broad role in competitive funding of meritorious research across a spectrum of science and engineering disciplines. Work funded under this BAA may include basic research, applied research and some

advanced technology development. Open to 9/30/09.

Office of Naval Research Currently Active BAAs
http://www.onr.navy.mil/02/baa/

ONR's Education/University Research Initiative Programs
http://www.onr.navy.mil/education/default.asp

United States Army Medical Research and Material Command's Broad Agency Announcement (BAA) 08-1 (Open to 9/30/09)
https://www.fbo.gov/index?s=opportunity&mode=form&id=8a632d0224aebc9e04aa1181c835
1a3b&tab=core&_cview=0

Army Research Office Broad Agency Announcement
http://www.arl.army.mil/www/DownloadedInternetPages/CurrentPages/DoingBusinesswit
hARL/research/07r0003-02.pdf

ARO solicits proposals for basic and applied scientific research in mechanical sciences, environmental sciences, mathematical and computer sciences, electronics, computational and information sciences, physics, chemistry, life sciences, and materials science. Open FY 2007 - FY 2011

Innovative Technologies and Methodologies for Reducing Various Environmental Problems, Open to March 2009
https://www.fbo.gov/index?s=opportunity&mode=form&id=f939bdaf1a93d60ea5e662f0b58f
258b&tab=core&_cview=1

This announcement seeks out technologies and methodologies to reduce environmental impacts from current and past Air Force (AF) operations and apply to Air Force installations worldwide. The key focus of this effort is to further develop demonstration/field-tested remediation, contaminated site characterization and monitoring, and pollution prevention technologies and methodologies that serve as an innovative means to save money and time while achieving compliance with all air, soil, and water regulatory requirements and Air Force policies and technical guidance.

DOD CDMRP Research Funding for 2009
http://cdmrp.army.mil/pubs/press/2008/08fundingann.htm

Research topics under the FY09 Peer Reviewed Medical Research Programs are restricted to: Alcoholism, Autoimmune Diseases, Blood Cancer, Childhood Asthma, Drug Abuse, Epilepsy, Kidney Cancer, Listeria Vaccine for infectious disease and cancer, Lupus, Mesothelioma, Molecular Signatures in Tumors, Neuroblastoma, Osteoporosis and related bone disease, Paget's Disease, Pediatric Cancer, Polycystic Kidney Disease, Social Work Research, Tinnitus, West Nile Virus Vaccine. Program Announcements are anticipated to be released this fall in 2008 and early in 2009 with detailed descriptions of funding mechanisms, evaluation criteria, submission requirements, and deadlines.

Upcoming EPA 2009 Environmental Research Grant Announcements
http://es.epa.gov/ncer/rfa/

- Research for Outcomes and Accountability: Development of Novel Environmental Health Outcome Indicators - *Opens: December 2008*

- **Community-based Cumulative Risk Assessment Research - *Opens: January 2009***
- **Targeted Measurements to Improve Air Pollution Emission Inventories - *Opens: January 2009***
- **Air Research Centers - *Opens June 2009***
- **Children's Environmental Health and Disease Prevention Research Centers: Formative Centers (with NIEHS) - Opens: November 2008**
- **Enhancing Ecosystem Services from Agricultural Lands: Developing Tools for Quantification and Decision Support - Opens: January 2009**
- **Nanotechnology Research Grants: Investigating Environmental Effects of Manufactured Nanomaterials: a Joint Research Solicitation - EPA, NSF & UK - Opens: March 2009**
- **SBIR Phase I - Opens March 2009**

Center for Disease Control and Prevention
Upcoming Grant Funding Opportunity Announcements
http://www.cdc.gov/od/pgo/funding/FOAs.htm

Presolicitation Notice of the BAA entitled "Personnel Security Thesis, Dissertation, and Institutional Research"
https://www.fbo.gov/index?s=opportunity&mode=form&tab=core&id=2d0c50802449d712f26e9f942abef5c7

A solicitation will be issued on or around 01 December 2008 for the Personnel Security Research Center (PERSEREC) to announce (through its contracting agency, the Department of Interior, National Business Center (DOI/NBC)) a program to help fund research addressing issues pertinent to personnel security policy. By providing financial support for master's theses, doctoral dissertations and institutional research, PERSEREC intends to respond to needs identified by the industrial and personnel security research communities and to reiterate the Department of Defense's commitment to fostering innovation within the field of personnel security.

Department of Defense Neurofibromatosis Research Program Funding Opportunities for Fiscal Year 2009
http://cdmrp.army.mil/pubs/press/2008/09nfrppreann.htm

The Fiscal Year 2009 (FY09) Defense Appropriations Act provides $10 million to the Department of Defense Neurofibromatosis Research Program (NFRP) to find and fund the best research to eradicate the clinical impact of neurofibromatosis (NF) and Schwannomatosis. This program is administered by the US Army Medical Research and Materiel Command through the Office of the Congressionally Directed Medical Research Programs (CDMRP).

March (Top)

Academic-Community Partnership Conference Series (U13) http://grants.nih.gov/grants/guide/pa-files/PAR-09-092.html This announcement solicits NICHD Cooperative Agreement Conference (U13) applications to conduct health disparities-related meetings, workshops, and symposia. The objectives of these meetings will be to establish academic-community partnerships, identify community-research priorities, and develop long-term collaborative agendas. Areas of focus for these partnerships may include one or more of the following community-health issues infant mortality; sudden infant	**LOI March 1; full March 31**

death syndrome (SIDS); violence prevention; techniques for outreach and information dissemination; childhood, adolescent, and/or adult obesity; health literacy; uterine fibroid tumors; and pediatric and maternal HIV/AIDS prevention.	
The MCEAS Dissertation Fellowship Program for Early American Studies http://www.mceas.org/dissertationfellowships.htm Doctoral candidates from any PhD-granting institution who are in the research or writing stage of the dissertation are eligible to compete for these fellowships. Any project dealing with the histories and cultures of North America in the Atlantic world before 1850 will be considered.	**March 1**
Arete Initiative at the University of Chicago http://scienceofvirtues.org/Arete/ResearchGrants.aspx The Arete Initiative at the University of Chicago is pleased to announce a new $3 million research program on a New Science of Virtues. This is a multidisciplinary research initiative that seeks contributions from individuals and from teams of investigators working within the humanities and the sciences. We support highly original, scholarly projects that demonstrate promise of a distinctive contribution to virtue research and have the potential to begin a new field of interdisciplinary study. In 2010, about twenty (20), two-year research grants will be awarded ranging from $50,000 to $300,000. Scholars and scientists from around the world are invited to submit Letters of Intent (LOI) as entry into a research grant competition. For a description of the required Letter of Intent and more information about a New Science of Virtues, please read the content within the sidebar links.	**March 2**
Robotics Collaborative Technology Alliance (CTA) http://www.arl.army.mil/www/default.cfm?Action=93&Page=392 The U.S. Army is currently involved in preliminary discussions on the possibility of establishing a new Collaborative Technology Alliance (CTA) in the area of Robotics. The Army envisions this alliance will bring together government, industrial, and academic institutions to address some of the fundamental scientific and technological underpinnings to enable the future deployment of highly autonomous unmanned systems, including ground, air, and surface vehicles, on the battlefield. The technical areas of interest include (1) perception, (2) intelligence, (3) human-robot interaction, (4) dexterous manipulation and unique mobility, and (5) integrated performance. Contingent upon available funding, the Army expects to support the Robotics alliance for five years with an option for an additional five years at approximately eleven million dollars per year. The Army expects to invite interested consortia from industry and academia to submit proposals in connection with the program in the next few months. UPDATE AS OF 29 JANUARY 2009! Here is the Model Cooperative Agreement for the Robotics CTA. http://www.arl.army.mil/www/DownloadedInternetPages/CurrentPages/CTA/Documents/ROBModelCoopAgreement29Jan09.pdf	**March 2**
2009 Conservation Innovation Grants http://www07.grants.gov/search/search.do;jsessionid=ySSIJwyWpRmW4F8LLMs9cRGh5fQmDHYF4GYQ15n0RNmZjKhJYKC5!1216815379?oppId=44803&flag2006=false&mode=VIEW The purpose of CIG is to stimulate the development and adoption of innovative conservation approaches and technologies while leveraging the Federal investment in environmental enhancement and protection, in conjunction with agricultural production. CIG projects are expected to lead to the transfer of conservation technologies, management systems, and innovative approaches (such as market-based systems) into NRCS technical manuals, guides, and references or to the private sector. CIG does not fund projects targeting innovative on-the-ground conservation, including pilot projects and field demonstrations. NRCS will accept applications for single or multi-year projects, not to exceed 3 years, submitted to NRCS from eligible entities including Federally-recognized Indian Tribes, State and local governments, and non-governmental	**March 2**

organization and individuals. Applications are accepted from all 50 States, the Caribbean Area (Puerto Rico and the Virgin Islands), and the Pacific Islands Area (Guam, American Samoa, and the Commonwealth of the Northern Marianna Islands).	
National Geospatial-Intelligence Agency HBCU/MI/HSI research program FY09 http://www07.grants.gov/search/search.do;jsessionid=yXZhJwvcYGJTFK8FQSKSfqJ78y5P6tvL2LgMHZ1bZZTdTWIcQCTn!1691723039?oppId=44792&flag2006=false&mode=VIEW This BAA by NGA describes the Fiscal Year 2009 (FY09) research grant competition for the NGA Historically Black Colleges and Universities and Minority Institutions Educational Research Initiative (HBCU/MI ERI) program. The purpose of this program is to enhance the capabilities of U.S. HBCU/MI schools to perform research and related education in science and engineering areas critical to NGA's mission and the national defense. Specifically, this program seeks to strengthen the geospatial science and technology research capabilities of HBCU/MI schools (1) to enhance geospatial intelligence (GEOINT)-based educational research to help in educating minority students in GEOINT enabling sciences, mathematics, and engineering and (2) to recruit and encourage highly-qualified minority students, especially those who are U.S. citizens, to pursue undergraduate and graduate degrees in those disciplines through research opportunities. An applicant institution may propose any one of several different types of projects, and the project may involve interaction with NGA subject matter experts. It is intended and presumed that all work and data will be unclassified.	**March 2**
Library Company of Philadelphia - Visiting Research Fellowships in Early American History and Culture http://www.librarycompany.org/ The Library Company of Philadelphia and the Historical Society of Pennsylvania offer Visiting Research Fellowships in Early American History and Culture. These two independent research libraries, adjacent to each other in Center City Philadelphia, have complementary collections capable of supporting research in a variety of fields and disciplines relating to the history of America and the Atlantic world from the 17th through the 19th centuries, and the history of the Philadelphia region well into the 20th century. These fellowships will provide scholars the opportunity to use the collections held by the Library Company, the Historical Society and the Balch Institute for Ethnic Studies.	**March 2**
Microbial Genome Sequencing Program http://www.csrees.usda.gov/funding/rfas/afri_rfa.html The Microbial Genome Sequencing Program is a collaborative interagency activity of the Cooperative State Research, Education, and Extension Service (CSREES) of the U.S. Department of Agriculture and the National Science Foundation (NSF). The program supports (i) high-throughput sequencing of the genomes of a broad range of microorganisms (including plasmids, viruses, bacteria, archaea, fungi, oomycetes, protists, microeukaryotes and agriculturally important nematodes) and the metagenomes of microbial communities and (ii) the development and implementation of strategies, tools and technologies to make currently available genome sequences more valuable to the user community.	**March 2**
2009 Summer Programs in the Humanities for Teachers http://www.neh.gov/projects/summer09.html **Summer Seminars and Institutes for College and University Teachers** Summer Seminars and Institutes for College and University Teachers allow college and university faculty to gain a deeper knowledge of current scholarship in key fields of the humanities. **Landmarks of American History and Culture Workshops for Community College Faculty**	**March 2**

Landmarks of American History and Culture Workshops provide community college educators with the opportunity to engage in intensive study and discussion of important topics in American history.

Landmarks of American History and Culture Workshops for School Teachers
Landmarks of American History and Culture Workshops provide the opportunity for K-12 educators to engage in intensive study and discussion of important topics in American history.

Summer Seminars and Institutes for School Teachers
Summer Seminars and Institutes for School Teachers provide K-12 educators with a means to deepen scholarship in the humanities.

Fellowship Program for Advanced Social Science Research on Japan **http://www.neh.gov/grants/guidelines/fellowships-japan.html** The Fellowship Program for Advanced Social Science Research on Japan is a joint activity of the Japan-U.S. Friendship Commission (JUSFC) and the National Endowment for the Humanities. Awards support research on modern Japanese society and political economy, Japan's international relations, and U.S.-Japan relations. The program encourages innovative research that puts these subjects in wider regional and global contexts and is comparative and contemporary in nature. Research should contribute to scholarly knowledge or to the general public's understanding of issues of concern to Japan and the United States. Appropriate disciplines for the research include anthropology, economics, geography, history, international relations, linguistics, political science, psychology, public administration, and sociology.	**Open March 3 to May 1**
THE CCWH CATHERINE PRELINGER AWARD **http://theccwh.org/prelinger/prelingeraward.htm** The CCWH will award $20,000 to a scholar, with a Ph.D. or A.B.D., who has not followed a traditional academic path of uninterrupted and completed secondary, undergraduate, and graduate degrees leading to a tenure-track faculty position. Although the recipient's degrees do not have to be in history, the recipient's work should clearly be historical in nature. In accordance with the general goals of CCWH, the award is intended to recognize or to enhance the ability of the recipient to contribute significantly to women in history, whether in the profession in the present or in the study of women in the past. It is not intended that there be any significant restrictions placed on how a given recipient shall spend the award as long as it advances the recipient's scholarship goals and purposes. All recipients will be required to submit a final paper to CCWH on how the award was expended and summarizing the scholarly work completed.	**March 3**
Hydrologic Research **http://www07.grants.gov/search/search.do;jsessionid=Jv2JvQTMwrQp1t0f9swHGxZRL1xhdJ8JZqmPQyJtnY6LbZQHfW9G!2000808250?oppId=44571&flag2006=false&mode=VIEW** This program represents a NOAA/NWS effort to create a cost-effective continuum of basic and applied research through collaborative research between the Hydrology Laboratory of the NWS Office of Hydrologic Development and academic communities or other private or public agencies which have expertise in the hydrometeorologic, hydrologic, and hydraulic routing sciences, as well as those aspects of social sciences that apply to hydrologic and water resources forecasting and how information on those forecasts is distributed and assimilated by managers and the public. These activities will engage researchers and students in basic and applied research to improve the scientific understanding of river forecasting. Ultimately these efforts will improve the accuracy of forecasts and warnings of rivers and flash floods by applying scientific knowledge and information to NWS research methods and techniques, resulting in a benefit to the public.	**March 3**

American Educational Research Association Research Grants Program www.aera.net/grantsprogram/res_training/res_grants/RGFly.html The program's goals are: (1) to stimulate research on issues related to U.S. education policy and practice using NCES and NSF data sets; (2) to improve the educational research community's firsthand knowledge of the range of data available at the two agencies and how to use them; and (3) to increase the number of educational researchers using the data sets. The program supports research projects that are quantitative in nature, include the analysis of existing data from NCES and NSF, and have U.S. education policy relevance. Underrepresented minority researchers are strongly encouraged to apply. Awards for Research Grants are up to $20,000 for 1-year projects, or up to $35,000 for 2-year projects. Dissertation grants are also available for up to $15,000 for 1-year projects.	**March 6**
Innovations in Engineering Education, Curriculum, and Infrastructure (IEECI) http://www.nsf.gov/pubs/2008/nsf08610/nsf08610.htm?govDel=USNSF_25 The Innovations in Engineering Education, Curriculum, and Infrastructure (IEECI) program supports research which addresses four aspects of engineering education: (1) how students best learn the ideas, principles, and practices to become creative and innovative engineers, and how this learning is measured (2) how application of cyberlearning resources of networked computing and communication, interactive visualization capabilities, and well designed user interfaces can be used to develop easily transportable tools and systems with low barriers to adoption which significantly improve learning, (3) integration of sustainability into engineering education, and (4) future directions of U.S. engineering doctoral programs.	**March 9**
National STEM Education Distributed Learning http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf09531 This program aims to establish a national network of learning environments and resources for science, technology, engineering, and mathematics (STEM) education at all levels. The program has four tracks: Pathways projects are expected to provide stewardship for the content and services needed by major communities of learners. Targeted research will focus primarily on educational impact. Services projects are expected to develop services that support users and resource collection providers that enhance the impact, efficiency, and value of the NSDL network.	**LOI March 11; full April 15**
Innovations in Engineering Education, Curriculum and Infrastructure http://www.nsf.gov/pubs/2008/nsf08610/nsf08610.htm The Innovations in Engineering Education, Curriculum, and Infrastructure (IEECI) program supports research which addresses four aspects of engineering education: (1) how students best learn the ideas, principles, and practices to become creative and innovative engineers, and how this learning is measured (2) how application of cyberlearning resources of networked computing and communication, interactive visualization capabilities, and well designed user interfaces can be used to develop easily transportable tools and systems with low barriers to adoption which significantly improve learning, (3) integration of sustainability into engineering education, and (4) future directions of U.S. engineering doctoral programs.	**March 11**
Planning grants to demonstrate the need for health services in the community https://grants.hrsa.gov/webExternal/FundingOppDetails.asp?FundingCycleId=19DABEF9-224F-4D7A-8525-6CE9304704E3&ViewMode=EU&GoBack=&PrintMode=&OnlineAvailabilityFlag=&pageNumber=&version=&NC=&Popup= The purpose of planning grants is to demonstrate the need for health services in the community from public or non-profit organzations seeking a grant to plan for the development of a comprehensive primary care health center under the Health Center Program authorized under Section 330 of the Public Health Service Act. The purpose of the Health Center Program is to extend comprehensive primary and preventive health services (including mental health, substance	**March 13**

abuse and oral health services) and supplemental services to populations currently without access to such services, and to improve their health status. The program includes: 1) Community Health Centers, section 330(e); 2) Migrant Health Centers, section 330(g); 3) Health Care for the Homeless program, section 330(h); and 4) Public Housing Primary Care, section 330(i). The populations served by these programs include: 1) medically underserved populations in urban and rural areas; 2) migratory and seasonal agricultural workers and their families; 3) homeless people, including children and families; and 4) residents of publicly subsidized housing. A high poverty area funding priority (5 points) will be awarded to eligible applicants that demonstrate that the proposed service area for the planning grant funding has a poverty rate which is greater than the national rate of 12.5% as determined by the Bureau of Census.	
Human Origins (HOMINID) http://www.nsf.gov/pubs/2009/nsf09521/nsf09521.htm This competition is directed towards increasing our knowledge of the complex biological, physical, and behavioral interrelationships that led to the development of our species and that are responsible for both the shared and variable features that characterize living human populations. It recognizes that understanding of the processes and pathways of human evolution requires input from a wide range of disciplines which examine our species from multiple perspectives and across both time and space. Accomplishing this goal requires a large scale initiative which allows research activities that go beyond the smaller, shorter duration, single investigator awards that disciplinary programs have been able to provide in the past. The Human Origins: Moving In New Directions (HOMINID) competition will support large scale, long term, integrative research and infrastructure projects through awards of up to $500,000 per year for up to five years. Contingent on the availability of funds, the program expects to make two awards in each fiscal year.	**March 13**
Integrative Graduate Education and Research Traineeship Program (IGERT) http://www.nsf.gov/pubs/2009/nsf09519/nsf09519.htm?govDel=USNSF_25 The Integrative Graduate Education and Research Traineeship (IGERT) program has been developed to meet the challenges of educating U.S. Ph.D. scientists and engineers who will pursue careers in research and education, with the interdisciplinary backgrounds, deep knowledge in chosen disciplines, and technical, professional, and personal skills to become, in their own careers, leaders and creative agents for change. The program is intended to catalyze a cultural change in graduate education, for students, faculty, and institutions, by establishing innovative new models for graduate education and training in a fertile environment for collaborative research that transcends traditional disciplinary boundaries. It is also intended to facilitate diversity in student participation and preparation, and to contribute to a world-class, broadly inclusive, and globally engaged science and engineering workforce.	**Prelim March 13; invite to full Sept. 14**
Digging into Data Challenge http://www.neh.gov/grants/guidelines/diggingintodata.html The Digging into Data Challenge is an international grant competition sponsored by four leading research agencies, the Joint Information Systems Committee (JISC) from the United Kingdom, the National Endowment for the Humanities (NEH) from the United States, the National Science Foundation (NSF) from the United States, and the Social Sciences and Humanities Research Council (SSHRC) from Canada . The advent of what has been called "data-driven inquiry" or "cyberscholarship" has changed the nature of inquiry across many disciplines, including the sciences and humanities, revealing new opportunities for interdisciplinary collaboration on problems of common interest. The creation of vast quantities of Internet accessible digital data and the development of techniques for large-scale data analysis and visualization have led to remarkable new discoveries in genetics, astronomy, and other fields, and—importantly— connections between academic disciplinary areas. New techniques of large-scale data analysis	**LOI March 15; full July 15**

allow researchers to discover relationships, detect discrepancies, and perform computations on data sets that are so large that they can be processed only using computing resources and computational methods developed and made economically affordable within the past few years. With books, newspapers, journals, films, artworks, and sound recordings being digitized on a massive scale, it is possible to apply data analysis techniques to large collections of diverse cultural heritage resources as well as scientific data. How might these techniques help scholars use these materials to ask new questions about and gain new insights into our world? To encourage innovative approaches to this question, four international research organizations are organizing a joint grant competition to focus the attention of the social science and humanities research communities on large-scale data analysis and its potential application to a wide range of scholarly resources.

Graduate Assistance in Areas of National Need (GAANN) 84.200A http://www.ed.gov/programs/gaann/index.html http://edocket.access.gpo.gov/2009/pdf/E9-3163.pdf This program provides fellowships, through academic departments and programs of IHEs, to assist graduate students with excellent records who demonstrate financial need and plan to pursue the highest degree available in their course study at the institution in a field designated as an area of national need. Areas of National Need: A project must provide fellowships in one or more of the following areas of national need: Biology, Chemistry, Computer and Information Sciences, Engineering, Mathematics, Nursing, Physics, and Educational Assessment, Evaluation, and Research. Educational Assessment, Evaluation, and Research Programs that focus on preparing students at the Master's or Ph.D. level who will be trained in statistics and measurement theory to become psychometricians. These psychometrics programs focus on the principles and procedures for designing, developing, implementing, and evaluating test and other mechanisms used to measure learning, evaluate student progress, and assess the performance of specific teaching tools, strategies and curricula. Project Period: Up to 36 months. Stipend Level: The Secretary will determine the fellowship stipend for GAANN for the academic year 2009–2010 based on the level of support provided by the graduate fellowships of the National Science Foundation, as of February 1, 2009. We estimate that $22,773,000 will be available for new awards for this program in FY 2009.	**March 16**
IMLS Calls for 21st Century Museum Professionals Grant Applications http://www.imls.gov/news/2008/121808b.shtm The Institute of Museum and Library Services (IMLS) is calling for proposals from museums, museum service organizations, and universities for projects that will enhance the professional development of museum staff. The 21st Century Museum Professionals grants are intended to have an impact on multiple institutions by reaching broad groups of museum professionals throughout cities, counties, states, regions, and the nation. Funding will support projects involving core management skills such as planning, leadership, finance, program design, partnership, and evaluation. Projects may also focus on collections care and management, interpretation, marketing and audience development, staff retention, visitor services, governance, and other areas of museum operations. Click here for descriptions of the awarded proposals from 2008. Applicants may request from $15,000 - $500,000 for a grant period of up to three years. The application deadline is March 16, 2009. Downloadable guidelines and fill-in forms are available on the IMLS Web site.	**March 16**
Superfund Basic Research and Training Program (P42) http://grants.nih.gov/grants/guide/rfa-files/RFA-ES-08-005.html The National Institute of Environmental Health Sciences (NIEHS) is announcing the continuation of the Superfund Hazardous Substances Basic Research and Training Program [referred to as the	**LOI March 16; full April 15**

Superfund Basic Research Program (SBRP)]. SBRP grants will support coordinated, multi-project, interdisciplinary research programs to address the mandates legislated under the Superfund Amendments and Reauthorization Act of 1986. These mandates include the development of (1) methods and technologies to detect hazardous substances in the environment; (2) advanced techniques for the detection, assessment, and evaluation of the effect on human health of hazardous substances; (3) methods to assess the risks to human health presented by hazardous substances; and (4) basic biological, chemical, and physical methods to reduce the amount and toxicity of hazardous substances. The objective for the SBRP is to develop a holistic research agenda for the protection of human health. This is accomplished by the establishment of interdisciplinary programs that link and integrate biomedical research with related engineering, hydrogeologic, and ecologic components within the context of unique scientific themes developed by the applicant.	
McDonnell Foundation 21st Century Research Awards/Studying Complex Systems http://www.jsmf.org/apply/research/index.htm The Complex Systems program supports scholarship and research directed toward the development of theoretical and mathematical tools that can be applied to the study of complex, adaptive, nonlinear systems. It is anticipated that research funded in this program will address issues in fields such as biology, biodiversity, climate, demography, epidemiology, technological change, economic development, governance, or computation. While the program's emphasis is on the development and application of theoretical models used in these research fields and not on particular fields per se, JSMF is particularly interested in projects attempting to apply complex systems approaches to meaningful problems. Proposals attempting to apply complex system tools and models to problems where such approaches are not yet considered usual or mainstream (for example, differentiating normal physiology from disease) are encouraged.	**March 17**
Texas General Land Office Seek Award Grants for Research, Testing, and Development of Oil Discharge Prevention and Response Technology and Training http://esbd.cpa.state.tx.us:80/bid_show.cfm?bidid=81102	**March 18, 3 pm**
2009 NGA University Research Initiatives (NURI) BAA http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=45194 The objective of the FY09 NURI program is to enhance the capabilities of U.S. universities to perform research in topics that are important for geospatial intelligence and, related research and research-education in science and engineering areas that are important for U.S. national security. The NURI program is a component of the NGA Academic Research Program (NARP). General information about NGA can be found on the Internet at http://www.nga.mil . Specific information about the NARP can be found at http://www.nga.mil/narp. Additional information that describes in detail the scope of geospatial intelligence can be found in the Geospatial Intelligence (GeoINT) Basic Doctrine (GEOINT Publication 1, June 2004) at http://www.nga.mil/NGASiteContent/StaticFiles/OCR/geopub1.pdf . This FY09 NURI solicitation is specifically for the research topics described in Section 6 (Page 15 attached, and listed below). Depending on the quantity and quality of proposals received in response to this BAA, NGA may elect to make no award in one or more topic areas. All awards will be based on merit competition. Each grant will be awarded for two base years, with a potential for optional, follow-on work for up to three years. The level of each award is anticipated to be a two year base at up to $150,000 per year with up to three one year options valued at up to $150,000 each year. NGA expects to make eight to nine such new awards this year. The exact number of grants that will be awarded is subject to the availability of funds, but NGA intends to award all FY09 funds that are made available for this program. Only grants will be issued as a result of this BAA.	**March 19**

Shared Instrumentation Grant Program (S10) http://grants.nih.gov/grants/guide/pa-files/PAR-09-028.html The NCRR Shared Instrument Grant (SIG) program solicits applications from groups of NIH-supported investigators to purchase or upgrade commercially available instruments that cost at least $100,000. The maximum award is $500,000. Types of instruments supported include confocal and electron microscopes, biomedical imagers, mass spectrometers, DNA sequencers, biosensors, cell sorters, X-ray diffraction systems, and NMR spectrometers among others.	**March 23**
USDA Distance Learning & Telemedicine Grant Program http://www.usda.gov/rus/telecom/dlt/dlt.htm The Distance Learning and Telemedicine (DLT) Program is specifically designed to meet the educational and health care needs of rural America through the use of advanced telecommunications technologies. In the grant program, the focus is primarily on funding user equipment that operates via telecommunications to connect students and teachers or medical providers and patients at separate locations.	**March 24**
Scholarships for short-term research in Switzerland www.thinkswiss.org ThinkSwiss offers 15 scholarships for a research stay in Switzerland. This scholarship program supports highly motivated and qualified U.S. undergraduate and graduate students to do research at a public Swiss university or research institute for 2 to 3 months. The scholarship is open to students of all fields.	**March 31**
Schumpeter Fellowships for Future Leaders in Business Studies, Economics, Law, and the Social Sciences http://www.volkswagenstiftung.de/foerderung/strukturen-und-personen/schumpeter-fellowships.html?L=1 http://www.volkswagenstiftung.de/fileadmin/downloads/merkblaetter/MB_87_e.pdf The Schumpeter Fellowships – named after Joseph Alois Schumpeter, one of the most successful economists and social scientists of the 20th century – aim at supporting outstanding young scholars in economics, social science, and law who wish to open up new areas of research in interdisciplinary projects. The projects should fathom and transcend the boundaries of disciplines regarding subjects and methods or contribute to academic reorientation by cooperating beyond the common combination of disciplines. A prerequisite for eligibility is an outstanding PhD ("summa cum laude") obtained within the last five years.	**March 31**
Long Range BAA for Research and Education Initiatives at the Naval Postgrad School http://www.grants.gov/search/search.do;jsessionid=HyvNxbsGqhnp7JjLkGmjgypn2X2ZsnPvKwTmrydXz5ctt3QYS9x0!-1577941054?oppId=41138&flag2006=false&mode=VIEW The Naval Postgraduate School is interested in receiving proposals for research and education initiatives which offer potential for advancement and improvement in the NPS core mission of graduate education and research. Readers should note that this is an announcement to declare NPS's broad role in competitive funding of meritorious research and education initiatives across a spectrum of science and engineering, business and policy, operational and informational sciences, and interdisciplinary disciplines that support the NPS' graduate education and research mission.	**March 31**

April (Top)

William T. Grant Foundation Invites Letters of Inquiry for Field-Initiated Grants www.wtgrantfoundation.org/info-url5243/info-url_show.htm?doc_id=646398 The Foundation supports research to understand and improve the settings of youth ages 8 to 25	**April 1**

in the United States. Important settings include schools, youth-serving organizations, neighborhoods, families, and peer groups. Our interests in youth's settings fit into two areas. First, we are interested in studies that strengthen our understanding of how settings work; how they affect youth development; and how they can be improved. Second, we are interested in studies that strengthen our understanding of how and under what conditions research is used to influence policies and practices that affect youth's settings. The Foundation is particularly seeking proposals that have one or more of the following elements demonstrated in a sophisticated and creative way: 1) Interdisciplinary work, mixed-methods work, and project teams that include people from multiple roles (e.g., researchers, practitioners, policymakers); 2) Teams that combine senior and junior staff in ways that mentor junior staff; 3) Projects led by members of underrepresented groups; and 4)Projects that generate data useful to other researchers and that make the data available in public use files. Grants are typically between $200,000 and $500,000 and cover two to three years of support. Projects involving secondary data analysis are at the lower end of the budget range whereas projects involving new data collection and sample recruitment can be at the higher end.

The John Hope Franklin Dissertation Fellowship http://www.amphilsoc.org/grants/johnhopefranklin.htm This American Philosophical Society fellowship is designed to support an outstanding doctoral student at an American university who is conducting dissertation research.	**April 1**
Integrated Radiochemistry Research Projects of Excellence https://e-center.doe.gov/iips/faopor.nsf/UNID/68EF2036BDBD5BEB8525753C005EDD07?OpenDocument The Office of Biological and Environmental Research (BER) of the Office of Science (SC), U.S. Department of Energy (DOE) advances world-class biological and environmental research programs and scientific facilities for DOE missions in energy, environment, and basic research. BER hereby announces its interest in receiving applications for potential funding of Integrated Radiochemistry Research Projects of Excellence (Projects) to serve two important goals: 1) Integrated involvement of graduate-student and postdoctoral trainees in the fundamental research that seeks improvements in radiolabeling and radiotracer development chemistry in the following areas of interest to BER: a) Development of new chemical reactions for high specific activity probe synthesis, b) Models to study reactivity at the tracer mass scale, c) Nanoparticle platforms that can incorporate one or more imaging agents and d) Automation technology for radiotracer synthesis, and 2) Enhancement of training opportunities in radiochemistry to ensure the future availability of human resources for important radiochemistry applications.	**April 2**
Foundations of Data and Visual Analytics (FODAVA) http://www.nsf.gov/pubs/2009/nsf09525/nsf09525.htm?govDel=USNSF_25 Individuals working in areas as diverse as science, engineering, finance, medicine, and national security all face the challenge of synthesizing information and deriving insight from massive, dynamic, ambiguous and possibly conflicting digital data. The goal of collecting and examining these data sets is not to merely acquire information, but to derive increased understanding from them and to facilitate effective decision-making. To capitalize on the opportunities provided by these data sets, research in Data and Visual Analytics seeks to facilitate analytical reasoning through the use of interactive visual interfaces. To be successful, this research must extend beyond traditional scientific and information visualization to include statistics, mathematics, knowledge representation, management and discovery technologies, cognitive and perceptual sciences, decision sciences, and more. With this solicitation, the National Science Foundation (NSF) and the Department of Homeland Security (DHS) invite research proposals whose outcomes will enable data stakeholders to detect the expected and discover the unexpected in massive data sets. Research outcomes will be applicable across broad application areas, establishing a solid	**April 2**

scientific foundation for visual analytics systems of the future. Proposals should focus on creating fundamental research advances that will be widely applicable across scientific, engineering, commercial, and governmental domains that utilize visualization and analytics to gain insight and derive knowledge from massive, often streaming, dynamic, ambiguous and possibly conflicting, data sets. Research activities proposed should emphasize novel data transformations, while also demonstrating research relevance to visual analytics systems by including a research component in areas such as, but not limited to, visualization, human-computer interaction, and cognitive psychology.

Radiological/Nuclear Medical Countermeasure Product Development Program (SBIR[R43/R44]) http://grants.nih.gov/grants/guide/pa-files/PA-09-093.html This Funding Opportunity Announcement (FOA) encourages Small Business Innovation Research (SBIR) grant applications from small business concerns (SBCs) that propose to continue and expand non-clinical and pre-clinical efforts for product development of radiological/nuclear medical countermeasures effective for 1) the mitigation or treatment of acute radiation syndromes and long-term or delayed effects, 2) the treatment of internal radionuclide contamination with decorporation agents, and 3) the determination of individual radiation exposure levels with radiation biodosimetry products for potential use during a radiological emergency. Applications proposing candidate product(s) that mitigate and/or treat acute and long-term radiation injury due to lethal exposures or facilitate the elimination of internal radionuclide contamination; or that propose means of accurately estimating radiation dose received (biodosimetry) are solicited. Applications should support product development efforts leading to the submission of Investigational New Drug Applications (IND) or Investigational Device Exemptions (IDE) to the U.S. Food and Drug Administration (FDA) to facilitate eventual licensure and potential inclusion in the Strategic National Stockpile (SNS).	**April 5;** **August 5**
CDC Grants for Public Health Research Dissertation http://grants.nih.gov/grants/guide/pa-files/PAR-07-231.html The CDC dissertation award supports dissertation research costs for students in accredited research doctoral programs in the United States (including Puerto Rico, and other U.S. Territories or possessions). Grants to support dissertation research will provide no more than $35,000 in direct costs per year, and are awarded for up to one year, with the possibility of extension without additional funds for up to 12 months. This program does not require cost sharing or matching.	**April 10;** **Aug. 10**
NSF RIDGE 2000 http://www.nsf.gov/pubs/2009/nsf09527/nsf09527.htm Ridge 2000 is a science initiative focused on integrated geological, biological, and geochemical studies of the Earth-encircling mid-ocean ridge system. Central to the Ridge 2000 program is the recognition that the origin and evolution of life in deep-sea hydrothermal ecosystems are inextricably linked to, and perhaps an inevitable consequence of, the flow of energy and material from Earth's deep mantle to the seafloor and ocean via magmatic and hydrothermal systems. To sharpen our knowledge of mid-ocean ridge systems, the first phase of the Ridge 2000 program involved integrated field, laboratory, and modeling studies of three representative, but geographically limited study sites. Research activities spanned a broad range of disciplines: from geophysics to geochemistry and from geology to biology to hydrothermal vent fluid dynamics. With this solicitation, Ridge 2000 moves into its integration and synthesis phase where results from previous and on-going interdisciplinary field expeditions and laboratory studies are to be brought to bear on advancing our conceptual and quantitative understanding of mid-ocean ridge systems and the processes that link geological, geophysical, geochemical, hydrothermal, and biological processes. As such, the program now shifts its focus from field data acquisition to	**April 11**

integration and synthesis to help the program achieve its science goals.	
High-End Computing University Research Activity (HECURA) http://www.nsf.gov/pubs/2009/nsf09530/nsf09530.html High-performance computing is increasingly essential to progress in science and engineering. Contemporary high-end computing (HEC) systems often comprising of tens- to hundreds-of-thousands of processors allow researchers to study complex problems that were previously intractable. However, emerging data-intensive scientific challenges and opportunities demand more of HEC systems. For example, observation- and simulation-driven applications require higher throughput input/output (I/O) capabilities, large data storage capacities, and tools for efficiently finding, processing, organizing and moving data. Data-management challenges also include the need to access large volumes of data produced by different applications, in numerous locations, and in various formats. Although storage capacity and processing power are growing rapidly, increases in data bandwidth and access times are not keeping pace. In fact, the advent of multicore processors has resulted in a decrease in memory and bandwidth per core. The performance gap between HEC processing power and storage device performance demands advances in massively parallel I/O systems to maintain the throughput of applications. The ability to efficiently map I/O operations between millions of distributed memories and hundreds-of-thousands of storage devices is also a formidable problem that calls for research.	**April 15**
New Methodologies for Natural Products Chemistry (R01) http://grants.nih.gov/grants/guide/rfa-files/RFA-RM-09-005.html This initiative, a component of the NIH Molecular Libraries (ML) Roadmap program (MLP), will support the development of new methodologies for natural products (NP) chemistry. The long-term goal is to reinvigorate the investigation of nature as a prolific source of bioactive small molecules with the potential to probe the roles of a wide range of proteins in cellular processes, and/or be developed into new drugs. The express goal of this FOA is to stimulate the development of a new generation of methods for NP chemistry, and in doing so, to reinvigorate the investigation of nature as a prolific source of small molecules that have the potential to interact with all of the proteins that participate in cellular processes. As novel, bioactive NPs are discovered, they will be incorporated into HTS decks worldwide (including the MLSMR collection), enabling their evaluation for a wide range of biological activities. NIH expects that in the course of methods development and validation studies, grantees will isolate and purify significant quantities of a certain number of useful NPs. Accordingly, a secondary purpose of this FOA is to expand the NIH small molecule collection by the addition of these compounds to the MLSMR. The MLSMR will distribute the compounds to the MLPCN centers for HTS in a wide variety of bioassay systems. A description of the current sample submission and quality control processes can be found at: **http://mlsmr.glpg.com/MLSMR_HomePage/submitcompounds.html** . Applicants should indicate in their proposals whether any aspects of this quality control process are likely to be incompatible with the proposed libraries and, where possible, should discuss appropriate, alternative analysis methods.	**LOI April 17**; full **May 14**
Domestic Nuclear Detection Office-National Science Foundation Academic Research Initiative (ARI) http://www.nsf.gov/pubs/2009/nsf09532/nsf09532.html?govDel=USNSF_25 In FY 2009, the Domestic Nuclear Detection Office (DNDO) within the Department of Homeland Security (DHS) will invest, in partnership with the National Science Foundation (NSF), in frontier research at academic institutions. This transformational research effort will be focused on detection systems, individual sensors or other research that is potentially relevant to the detection of nuclear weapons, special nuclear material, radiation dispersal devices and related threats. The joint DNDO-NSF effort, in coordination with the efforts of other agencies, seeks to advance	**April 27**

fundamental knowledge in new technologies for the detection of nuclear threats and to develop intellectual capacity in fields relevant to long-term advances in nuclear detection capability. This research and the research community that will be built under the ARI are seen as critical to our nation's ability to deploy effective nuclear detection measures to counter the serious threat of a nuclear terrorist attack. **Research proposals on detection of biological, chemical, and conventional weapons are specifically excluded from the scope of this solicitation.**
Workshop on the Role of the Nuclear Physics Research Community in Combating Terrorism:
http://www.sc.doe.gov/henp/np/homeland/CombatTerrorismFinal110602.pdf

Active Living Research http://www.activelivingresearch.org/grantsearch/grantopportunities This call for proposals focuses on supporting research to inform policy and environmental strategies for increasing physical activity among children and adolescents, decreasing their sedentary behaviors and preventing obesity. Approximately $3.3 million will be awarded for research grants exploring six topics. Funds also are available for Dissertation Awards. Information on the recommended research topics is outlined in the complete call for proposals. All proposals must be submitted through The Robert Wood Johnson Foundation (RWJF) Grantmaking Online system. The full proposal submission deadline is April 28, 2009, 1:00 p.m. PT. Please visit our Web site for more information and to link to the RWJF Grantmaking Online system. Active Living Research also will host two conference calls on March 4th and April 1st for potential applicants to ask questions about the program, as well as the proposal and selection processes. Those who wish to participate in these calls must register on our Web site. If you have any questions about the proposal submission process, please contact Chad Spoon, Research Coordinator, at cspoon@projects.sdsu.edu or 619-260-5539.	**April 28**
CISE Pathways to Revitalized Undergraduate Computing Education (CPATH) http://www.nsf.gov/pubs/2009/nsf09528/nsf09528.html?govDel=USNSF_25 This solicitation is the successor solicitation to NSF 08-516. It is different in the following major ways: This new solicitation emphasizes the development of student competencies in computing concepts, methods, technologies and tools - referred to as computational thinking - in approaches that promise to revitalize undergraduate education. The former CPATH tracks of Community Building and Institutional Transformation have been replaced by Class I and Class II tracks; Class I and II tracks are defined by project budget size. The types of project activities previously proposed in the Community Building and Institutional Transformation tracks may be proposed to the new Class I and II tracks. This solicitation is a multi-year solicitation. While aimed primarily at revitalizing undergraduate education, CISE encourages the exploration of new models that extend from institutions of higher education into the K-12 environment; activities that engage K-12 teachers and students to facilitate the seamless transition of secondary students into CT-focused undergraduate programs are particularly encouraged.	**April 28**
Emerging Frontiers In Research And Innovation 2009 (EFRI-2009) http://www.nsf.gov/pubs/2008/nsf08599/nsf08599.htm?govDel=USNSF_25 The Directorate for Engineering at the National Science Foundation has established the Office of Emerging Frontiers in Research and Innovation (EFRI) to serve a critical role in focusing on important emerging areas in a timely manner. The EFRI Office is launching a new funding opportunity for interdisciplinary teams of researchers to embark on rapidly advancing frontiers of fundamental engineering research. For this solicitation, we will consider proposals that aim to investigate emerging frontiers in the following two specific research areas: (1) BioSensing & BioActuation: Interface of Living and Engineered Systems (BSBA), and (2) Hydrocarbons from Biomass (HyBi). EFRI seeks proposals with transformative ideas that represent an opportunity for	**LOI April 30**

a significant shift in fundamental engineering knowledge with a strong potential for long term impact on national needs or a grand challenge.

May & Later (Top)

ASM Robert D. Watkins Graduate Research Fellowship **http://www.asm.org/Education/index.asp?bid=6278** The goal of the Robert D. Watkins Minority Graduate Fellowship is to increase the number of underrepresented groups completing doctoral degrees in the microbiological sciences. The Robert D. Watkins Graduate Research Fellowship is aimed at highly competitive graduate students who are enrolled in a Ph.D. program and who have completed their graduate course work in the microbiological sciences. The Watkins fellowship encourages students to continue and complete their research project in the microbiological sciences. The program provides a total stipend of $57,000 ($19,000 a year) for a three year period (September 2007-June 2010). Students will receive six stipend payments. Funds cannot be used for tuition and fees.	**May 1**
Gerald R. Ford Scholar Award --supports dissertation research **http://www.fordlibrarymuseum.gov/library/fsa.asp** The Gerald R. Ford Scholar Award in Honor of Robert M. Teeter is an annual award of $5000 given to a doctoral student to support dissertation research and writing on an aspect of the United States political process and public policy, broadly defined. The Selection Committee will consider research in any field related to the study of the United States political process and public policy, broadly defined, during the last half of the 20th century. Of special interest is the role and analysis of public opinion in that process. Doctoral students in Political Science, History, Journalism, Communications, Public Policy, Foreign Relations, or American Studies are encouraged to apply.	**May 1**
NEH Challenge Grants **http://www.neh.gov/grants/guidelines/challenge.html** NEH challenge grants are capacity-building grants, intended to help institutions and organizations secure long-term improvements in and support for their humanities programs and resources. Challenge grant funds (both federal and nonfederal together) must provide long-term benefits to the humanities. Challenge grant funds should not replace funds already being expended on the humanities, but instead should reflect careful strategic planning to strengthen the institution's activities in and commitment to the advancement of knowledge and understanding of the humanities. Institutions may use challenge grant funds to meet both ongoing and one-time humanities-related costs, provided that the long-term benefit of the expenditure can be demonstrated.	**May 5**
Understanding The Acquisition, Interpretation, And Use of Research Evidence In Policy And Practice **http://www.wtgrantfoundation.org/usr_doc/2009_Use_of_Research_Evidence_RFP_final.pdf** The William T. Grant Foundation has a longstanding interest in supporting research that can inform policy and practice. Our particular focus is on policies and practices that **affect youth ages 8 to 25 in the United States**. In this area, there are significant gaps between research and policy, and between research and practice. Researchers express frustration that policymakers and practitioners do not use or misuse research findings. Policymakers and practitioners suggest that research is often not relevant to their work or is not easily accessible or understood. Many researchers, research funders, and intermediary organizations have sought to address these gaps by encouraging the production of more rigorous research evidence, better research syntheses, and improved approaches to disseminating research evidence. Policymakers have also tried to	**Letters of inquiry by May 12**

improve the connection between research and practice by mandating the use of research findings through law or regulation.	
Japan Society for the Promotion of Science - Invitation Fellowship Program for Research in Japan (Short Term) http://www.jsps.go.jp/english/e-inv/short_term09.html The JSPS Invitation Fellowship for Research in Japan (Short Term) is offered to promote international scientific cooperation and exchange. It allows researchers employed at designated Japanese research institutions to invite fellow researchers from other countries to Japan to participate in cooperative activities at their research institutions. Applications for this program must be submitted to JSPS by a host researcher in Japan through the head of his/her university or institution.	**May 12**
Post Doctoral and Senior Research Fellowships http://www7.nationalacademies.org/rap/ The Research Associateship awards are open to doctoral level scientists and engineers (U.S and Foreign Nationals) who can apply their special knowledge and talents to research areas that are of interest to them and to the participating host laboratories and centers. Awards are available for Postdoctoral Associates (within 5 years of the doctorate) and Senior Associates (normally 5 years or more beyond the doctorate). Associates conduct research in residence at the participating host laboratory they have chosen.	**May 15**
International Research and Education: Planning Visits and Workshops - NSF 04-035 www.nsf.gov/pubs/2004/nsf04035/nsf04035.htm International Planning Visit/Workshop Awards can support the initial phases of developing and coordinating integrated research and education activities with foreign partners. Support is primarily for travel and subsistence expenses; salaries and stipends are not typically supported. Individual proposals can be submitted for: 1) Planning visits to assess foreign facilities, equipment, or subjects of research, and to have detailed discussions with prospective foreign partners to finalize plans for cooperative research. Visits typically range from 7-14 days; 2) Joint workshops designed to identify common research priorities, focused on a specific, well-defined area of research collaboration. U.S. and international co-organizers collaboratively design the agenda around a disciplinary or inter-disciplinary theme, and invite individuals who will uniquely contribute to the workshop's objectives. Workshops may be held at either a U.S. or foreign location. If held at a foreign location, organizers are encouraged to arrange visits to local research and education sites. Workshop results should include recommendations to the research community about possible areas for future collaboration and should be broadly disseminated. The pool of U.S. participants should include junior researchers, women and members of underrepresented groups, and, where appropriate, graduate and/or undergraduate students. Participant diversity will be considered in making award decisions for support of workshops.	**May 20**
Course, Curriculum, and Laboratory Improvement (CCLI) -- Transforming Undergraduate Education in Science, Technology, Engineering and Mathematics http://www.nsf.gov/pubs/2009/nsf09529/nsf09529.html?govDel=USNSF_25 The following items are major revisions to the previous program solicitation: The Introduction and the Description of Project Components have been revised to reflect the Program's increased emphasis on projects that build on the current understanding of how people learn and to encourage submission of proposals that have the potential to transform undergraduate STEM education. The description of the project types has been revised. Phase 1, 2, and 3 projects are now designated as Type 1, 2, and 3 and the budget limits and project durations have been changed. A fourth project type, the CCLI Central Resource Project, has been added. The Course,	**May 21,22**

Curriculum, and Laboratory Improvement (CCLI) program seeks to improve the quality of science, technology, engineering, and mathematics (STEM) education for all undergraduate students. It especially welcomes proposals that have the potential to transform undergraduate education in science, technology, engineering, and mathematics (STEM) for all students. The program supports efforts to create, adapt, and disseminate new learning materials and teaching strategies to reflect advances both in STEM disciplines and in what is known about teaching and learning. It funds projects that develop faculty expertise, implement educational innovations, assess learning and evaluate innovations, prepare K-12 teachers, or conduct research on STEM teaching and learning. It also supports projects that further the work of the program itself, for example, synthesis and dissemination of findings across the program. The program supports projects representing different stages of development, ranging from small, exploratory investigations to large, comprehensive projects. Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future Committee on Prospering in the Global Economy of the 21st Century: An Agenda for American Science and Technology, Committee on Science, Engineering, and Public Policy, a 2007 National Academies Press publication. http://www.nap.edu/catalog.php?record_id=11463

Virtual Organizations as Sociotechnical Systems http://www.nsf.gov/pubs/2009/nsf09540/nsf09540.htm?govDel=USNSF_25 A virtual organization is a group of individuals whose members and resources may be dispersed geographically, but who function as a coherent unit through the use of cyberinfrastructure. Virtual organizations are increasingly central to the science and engineering projects funded by the National Science Foundation. Focused investments in sociotechnical analyses of virtual organizations are necessary to harness their full potential and the promise they offer for discovery and learning. The Virtual Organizations as Sociotechnical Systems (VOSS) program supports scientific research directed at advancing the understanding of what constitutes effective virtual organizations and under what conditions virtual organizations can enable and enhance scientific, engineering, and education production and innovation. Levels of analysis may include (but are not limited to) individuals, groups, organizations, and institutional arrangements. Disciplinary perspectives may include (but are not limited to) anthropology, complexity sciences, computer and information sciences, decision and management sciences, economics, engineering, organization theory, organizational behavior, social and industrial psychology, public administration, and sociology. Research methods may span a broad variety of qualitative and quantitative methods, including (but not limited to): ethnographies, surveys, simulation studies, experiments, comparative case studies, and network analyses.	**May 26**
Hydrologic Sciences http://www.nsf.gov/pubs/2009/nsf09538/nsf09538.htm?govDel=USNSF_25 Hydrologic Sciences focuses on the flow of water and transport processes within streams, soils, and aquifers. Particular attention is given to spatial and temporal heterogeneity of fluxes and storages of water, particles, and chemicals coupling across interfaces with the landscape, microbial communities, and coastal environments, to upscaling and downscaling given these heterogeneities and interfaces and how these processes are altered by climate and land use changes. Studies may address aqueous geochemistry as well as physical, chemical, and biological processes within water bodies. These studies commonly involve expertise from many basic sciences and mathematics, and proposals often require joint review with related programs.	**June 9**
Basic Research Challenge (BRC) Program http://www07.grants.gov/search/search.do;jsessionid=63L4JdBck1gcWn5D2d2nOf08rBvDT2 mP8mBfZyzvlJc8YypCgHnN!-108218008?oppId=45397&flag2006=false&mode=VIEW The Basic Research Challenge (BRC) program supports basic science and/or engineering research	**June 9**

within academia and industry. The program is focused on stimulating new, high-risk basic research projects. The BRC for FY 2009 is for the three (3) topics listed below. The detailed descriptions are intended to provide the proposer a frame of reference and are not meant to be restrictive to the possible approaches to achieving the goals of the topic and the program. Innovative ideas addressing these research topics are highly encouraged. White papers and full proposals addressing the following BRC topics are solicited: (1) Irreducible Uncertainty and the Limits of Predictability; (2) Elastomeric Polymer-by-Design to Protect the Warfighter against Traumatic Brain Injury by Diverting the Blast Induced Shock Waves from the Head; (3) DNA-based Molecular-scale Nanoelectronics Fabrication.   Please see the full announcement.

Fracture Putty http://www.darpa.mil DARPA seeks to develop a dynamic putty which, when packed in/around a compound bone fracture, provides full load-bearing capabilities within hours, creates an osteoconductive bone-like internal structure, and degrades over time to harmless resorbable by-products as normal bone regenerates.	**Open to June 9**
Understanding the Role of Nonchemical Stressors and Developing Analytic Methods for Cumulative Risk Assessments http://es.epa.gov/ncer/rfa/2009/2009_star_cumulative_risk.html The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is seeking applications from interdisciplinary teams to address research needs that currently limit the ability to conduct cumulative risk assessments. Exposure to different combinations of environmental stressors can contribute to increased risk for negative health consequences. It has become clear that cumulative risk assessments should include both chemical and nonchemical stressors, exposures from multiple routes, and factors that differentially affect exposure or toxicity to communities. This RFA is focusing on two challenges that exist in conducting cumulative risk assessments: (a) STAR-E1: The development of statistical and other analytical techniques that will enable the analysis of disparate types of data, and (b) STAR-E2: The evaluation of the combined effects of nonchemical and chemical stressors.	**June 17**
NSF Earth Sciences Postdoctoral Fellowships http://www.nsf.gov/pubs/2009/nsf09526/nsf09526.html The Division of Earth Sciences (EAR) awards Postdoctoral Fellowships to highly qualified investigators within 3 years of obtaining their PhD to carry out an integrated program of independent research and education. The research and education plans of each fellowship must address scientific questions within the scope of EAR disciplines. The program supports researchers for a period of up to 2 years with fellowships that can be taken to the institution or national facility of their choice. The program is intended to recognize beginning investigators of significant potential, and provide them with experience in research and education that will establish them in leadership positions in the Earth Sciences community. Because the fellowships are offered only to postdoctoral scientists early in their career, doctoral advisors are encouraged to discuss the availability of EAR fellowships with their graduate students early in their doctoral programs. Fellowships are awards to individuals, not institutions, and are administered by the Fellows.	**July 1**
EarthScope http://www.nsf.gov/pubs/2009/nsf09535/nsf09535.html?govDel=USNSF_25 EarthScope is an Earth science program to explore the 4-dimensional structure of the North American continent. The EarthScope Program provides a framework for broad, integrated studies across the Earth sciences, including research on fault properties and the earthquake process,	**July 16**

strain transfer, magmatic and hydrous fluids in the crust and mantle, plate boundary processes, large-scale continental deformation, continental structure and evolution, and composition and structure of the deep-Earth. In addition, EarthScope offers a centralized forum for Earth science education at all levels and an excellent opportunity to develop cyberinfrastructure to integrate, distribute, and analyze diverse data sets.	
Harry Frank Guggenheim Foundation Research Grant **www.hfg.org/rg/guidelines.htm** The Harry Frank Guggenheim Foundation (HFG) welcomes proposals from any of the natural and social sciences and the humanities that promise to increase understanding of the causes, manifestations, and control of violence, aggression, and dominance. Highest priority is given to research that can increase understanding and amelioration of urgent problems of violence, aggression, and dominance in the modern world. Priority will be given to areas and methodologies not receiving adequate attention and support from other funding sources. HFG ordinarily makes awards in the range of $15,000 to $30,000 a year for periods of one or two years. Applications for larger amounts and longer durations must be very strongly justified. Dissertation awards are also available: Ten or more fellowships ($15,000 each) are awarded each year to individuals who will complete the writing of the dissertation within the award year.	**August 1**
Panoptic Analysis of Chemical Traces (PACT) **http://www.grants.gov/search/search.do;jsessionid=Ls1TnmvtBLGbLtGmy32GnNRk LP2nGKfvVTnThx1JznvyYLKKjhd6!-294918046?oppId=42664&flag2006=false&mode=VIEW** The Defense Advanced Research Projects Agency's (DARPA) Strategic Technology Office (STO) is soliciting proposals under this Broad Agency Announcement (BAA) for the Panoptic Analysis of Chemical Traces (PACT) program. The PACT program will develop technology capable of analyzing complex gas mixtures without reliance on preconceived libraries of anticipated analytes. PACT will provide automated, high-throughput analysis of atmospheric sampling efforts aimed at producing exhaustive chemical maps of urban and military environments.	**Open to August 20**
Coordinating Council for Women in History Fellowships **http://theccwh.org/awards.htm#Berks** The CCWH/Berkshire Conference of Women Historians Graduate Student Fellowship is a $1000 award to a woman graduate student completing a dissertation in a history department. The CCWH Ida B. Wells Graduate Student Fellowship is a $1000 award to an A.B.D. woman graduate student working on a historical dissertation, not necessarily in a history department. Applicants working on issues of race are particularly welcome.	**Sept. 1**
Science of Science and Innovation Policy (SciSIP) **http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501084&govDel=USNSF_25** The Science of Science & Innovation Policy (SciSIP) program supports research designed to advance the scientific basis of science and innovation policy. Research funded by the program thus develops, improves and expands models, analytical tools, data and metrics that can be applied in the science policy decision making process. For example, research proposals may develop behavioral and analytical conceptualizations, frameworks or models that have applications across a broad array of SciSIP challenges, including the relationship between broader participation and innovation or creativity. Proposals may also develop methodologies to analyze science and technology data, and to convey the information to a variety of audiences. Researchers are also encouraged to create or improve science and engineering data, metrics and indicators reflecting current discovery, particularly proposals that demonstrate the viability of collecting and analyzing data on knowledge generation and innovation in organizations.	**Sept. 9**

Cooperating Technical Partner Program http://www07.grants.gov/search/search.do;jsessionid=gGDWJntDvJNyJJDsgMXfZhGnGbLdg bTGpNkJG2G24vm1n8r0tktb!1216815379?oppId=44687&flag2006=false&mode=VIEW The purpose of the CTP Program is to provide, through a cooperative agreement, funds to ensure that CTP partners can perform program management and mapping-related activities, which are defined in the program guidance each fiscal year. Recipients must be a partner in the CTP program, either be or represent a National Flood Insurance Program (NFIP) community in good-standing, have the capability to perform funded activities, and have existing non-Federally funded processes and/or systems in place to support activities that contribute to flood hazard identification. Projects or initiatives that are eligible for funding under this announcement may or may not involve geospatial issues. FEMA is seeking qualified Partners to collaborate in maintaining up-to-date flood hazard maps and other flood hazard information. For more information about the CTP Program, including a tool for determining whether the CTP Program is right for your community or agency, as well as information on who to contact to discuss participation, please visit one of the referenced links on the right-hand side of this page.	**Sept. 15**
DARPA Mathematical Challenges http://www.grants.gov/search/search.do;jsessionid=LdNpFGz2xBps1X2dmQvIyv8cf2yXscj15 QGSHpKQLV7JYmQpmfch!-2083667940?oppId=42914&flag2006=false&mode=VIEW DARPA is soliciting innovative research proposals in the area of DARPA Mathematical Challenges, with the goal of dramatically revolutionizing mathematics and thereby strengthening DoD's scientific and technological capabilities. To do so, the agency has identified twenty-three mathematical challenges, listed below, which were announced at DARPA Tech 2007. This RPA seeks innovative proposals addressing these Mathematical Challenges. Proposals should offer high potential for major mathematical breakthroughs associated to one or more of these challenges. Responses to multiple challenges should be addressed in separate proposals. Submissions that merely promise incremental improvements over the existing state of practice will be deemed unresponsive.	**Open to Sept. 25**
USA Medical Research and Materiel Command Broad Agency Announcement http://www.grants.gov/search/search.do;jsessionid=LjGcG21P4yxK7jFY2KF5b7lGG20J06OLV Vtjp1bypLbVSWHSgT8V!-227388786?oppId=42947&flag2006=false&mode=VIEW	**Open to Sept. 29**
International Research in Homeland Security Science & Technology Mission Areas http://www.grants.gov/search/search.do;jsessionid=JHrdQWhTZZ2GRbH69WyIMzhcjNYhNc Mpbk10S1XwHNN7HdNMI21V!-1513911680?oppId=43220&flag2006=false&mode=VIEW The Department of Homeland Security (DHS) Science and Technology (S&T) Directorate is soliciting applications for international research projects aligned with the mission and requirements of DHS S&T. These projects should be designed to augment and complement, through international research and collaboration, the depth and breadth of homeland security science and technology research. This funding opportunity is restricted to accredited institutions of higher education.	**Open to Sept. 29**
USAID Philippines Conservation of Biodiversity and Management of Natural Resources, APS FY09 http://www07.grants.gov/search/search.do;jsessionid=0p4fJLhWcLrmb5pmL3C8Clz 1NdDz5DR7RHCPmvC19rgyL0mq1y6p!1691723039?oppId=45135&flag2006=false& mode=VIEW This USAID/Philippines Annual Program Statement solicits applications from prospective partners to implement activities to improve the conservation and management of priority biodiversity through the reduction of the most pressing threats to these critical ecosystems. USAID will support programs and activities that contribute to "Conservation of Biodiversity and Management	**Sept. 30**

of Natural Resources" in the Philippines. Programs eligible for funding are those that contribute to the objectives, as described under "Background" below, of the Assistance Agreement between the Republic of the Philippines and United States of America for Environment and Energy Programs.

Personnel Security Thesis, Dissertation and Institutional Research Awards Program http://www07.grants.gov/search/search.do;jsessionid=TnYrJn3Jy0TMTVlLkvvMvjnHcLks7Qkxfr82QvCIndxZ6HcG922W!1216815379?oppId=44676&flag2006=false&mode=VIEW The Department of Defense Polygraph Institute DoDPI began in 1999 an effort to broaden its presence in the scientific and academic communities in response to the need for more advanced technical expertise to fulfill DoDPIs research mission. The Personnel Security Thesis, Dissertation, and Institutional Research Awards Program seeks to give the DoDPI a research workforce that is competitive with the best minds from the complex cerebral worlds of academia, and the emerging technologies.	**BAA Open to Sept. 30, 2010**

Article 1, (Top)
Writing Goals and Objectives
By Lucy Deckard

When writing a proposal to funding agencies, particularly to NSF, one of the first pieces of information about the project that must be discussed are the goals and objectives of the project. Often, however, there is confusion about what, exactly, goals and objectives are, and what the difference is between the two. **Unsuccessful proposals often suffer from nebulous or inconsistent goals and objectives.**

Goals are the ultimate intention of the project, which may be somewhat general and are not necessarily measurable**. Objectives should be specific and measurable**, and they should connect clearly to project tasks and activities that will be discussed in the proposal. The project assessment plan should then describe how success in meeting each of the objectives will be measured.

For example, a goal of a project might be to
- increase the diversity of undergraduates majoring in mathematics, or to
- build a stronger scientific foundation for computer graphics and scientific visualization.

Sometimes, proposals put forth an overarching goal and then describe more specific goals. For example, in an education-focused project, the overarching goal might be to increase the diversity of undergraduates majoring in mathematics, and the specific goal might be to improve recruitment and retention of first and second year undergraduates in the mathematics program.

The objectives of the education project mentioned above might be to:
- Increase the number of freshmen from underrepresented groups majoring in mathematics by 10%.
- Improve retention of first-year underrepresented undergraduates majoring in mathematics by 15%.
- Improve retention of second-year underrepresented undergraduates in mathematics by 8%.

To give an example from a research-focused project, the NSF-funded Science and Technology Center lead by the University of Illinois ("The Watercampus"), has an overarching goal to "develop materials, methods, and systems to greatly improve the efficiency of desalination and reclamation of water for human use." Some of their specific goals are:

- Improve thermal and liquid discharge minimization methods
- Develop pressure-driven and electro membrane water filtration
- Develop membrane bioreactor technology

Some of their research objectives are:

- To understand and quantify the effect of restricted geometries on water and ion transport driven by pressure gradient or electrokinetic forces.
- To increase water permeability in membrane-based systems an order of magnitude, while increasing contaminant rejection and membrane strength and robustness.
- To improve the economics of water desalination and reclamation systems while reducing the liquid discharge for inland desalination to less than 5% of total flux.

Later, when describing the project plan, activities should link clearly to the program objectives. In this way, the **PI builds a logical framework for the proposed project**: needs inspire overarching goals, which inspire specific goals, which motivate objectives, which then dictate tasks to accomplish those objectives, and the assessment plan is structured to determine how well those objectives are being met. **By laying out clear goals and objectives and then connecting to them in the rest of the proposal narrative, reviewers can more easily understand the motivation and structure of your proposed project.**

Article 2,(Top)
Strategies for Applying to Long-Standing Grant Programs
By Mike Cronan

Many federal agencies that fund university research and educational programs have long-standing, annual grant cycles in programmatic areas that evolve significantly over the years of funding. Perhaps most notable among these agencies is the National Science Foundation funding for university research and educational initiatives. There are annual grant programs at NSF that have been funded annually for 15 or 20 years, or longer, under the same program title. These include both smaller research and educational initiatives, such as the Course Curriculum and Laboratory Improvement (CCLI) grants, to the large Engineering Research Centers (ERC) grants that began in 1985.

While these grants have been around for a long time, **they do not remain static**; **they continually evolve over time and benefit from a continuous feedback loop of best practices** (e.g., http://www.erc-assoc.org/manual/bp_index.htm) from funded initiatives that inform future program announcements and the research and educational objectives they include. The PI on an ERC funded in the late 1980s would not recognize the programmatic goals of the current ERCs in the areas of research integration, diversity, societal impacts, and the like.

There are also, however, long-standing annual grant programs of interest to universities that have remained essentially static over the years, e.g., the U.S. Department of Education's Graduate Assistance in Areas of National Need (GAANN) has changed relatively little over the past 20 years, except, most notably, the number of fellowships funded has dropped dramatically from the early 1990s, as well as the average dollar amount per award.

While the GAANN is largely a "formulaic proposal" and little changed over time in terms of the strategy needed to be successfully funded under that award program, **proposals submitted to long-standing programs at NSF, in order to be competitive, will need to reflect the significant, and continuous, programmatic evolution that occurs at NSF related to the required research and educational objectives.**

There are many ways to better define and understand the broader research and educational contexts within which many long-standing NSF programs are embedded, and the transformation of those long-standing programs as they are continuously informed by the best practices of the most recent awards, and to then use that knowledge base to write more competitive proposals. This can be accomplished in several ways, for example:

- A careful reading of the program announcement and all referenced reports and documents;
- Review the program abstracts (http://www.nsf.gov/awardsearch/index.jsp) of recently funded awards to determine program elements that may be the common denominators of competitiveness;
- Talk to recently funded PIs, if appropriate, about the review process, review comments, and requirements of annual reports, as well as to those who are responsible for day-to-day project management and those responsible for project evaluation and assessment (competitive proposals are a melding of good ideas and operational detail).

All of this information is important to the writing of any competitive proposal. **This is particularly the case at NSF where the development and writing of a proposal needs to be significantly influenced by a knowledge base that is current, substantive, and fluent** in understanding how issues related to the integration of research and education, diversity, broader impacts, scientific workforce, societal impacts, and the like motivate the evolution of long-standing programs at that agency over time, and **result in evolving models that are seen as best able to achieve those agency objectives.**

A competitive proposal is essentially a compelling and persuasive argument sustained over some number of pages, mercifully fewer at NSF than most agencies. How well these arguments are made depends on a knowledge base that the author of the proposal can draw upon while crafting the proposal narrative. The proposal narrative is essentially a collection of words sequenced to make sentences, sentences sequenced to make paragraphs, and paragraphs sequenced to comprise the project description. The competitiveness of the proposal narrative is a function of the order and logic of these elements of the argument. When drafting a proposal narrative, the author is awash in decisions—there is a decision point after every word, after every sentence, and after every paragraph as to how to best craft a compelling narrative. **The knowledge base of the author serves as the wellspring of the arguments put forth.**

Another way to gather important background information that helps in the writing of a competitive

proposal is through the use of well-crafted Google searches.   For example, in the case of CCLI (http://www.nsf.gov/pubs/2009/nsf09529/nsf09529.html) and other long-standing programs at NSF, a Google search will most often turn up a range of resources published on the web by universities, including NSF program officer presentations given during campus visits, or reports and publications from various academic conferences or journals, that help give greater insight into the current "best practices" related to the structure and operation of a particular program.

A recent request to our Office of Proposal Development for expanded background information on the CCLI by a faculty member preparing for a possible submission later this year was responded to based both on our in-house experience and complemented by information gathered during a Google search as well, including the below examples resulting from that search.

2008 CCLI Conference Presentations
http://www.ccliconference.com/reports.php

Strategies for Successful Proposal Writing
Kathy Alfano and Warren Hein, NSF Program Directors
CCLI PI Meeting, August 2008
http://www.ccliconference.com/2008_Presentations/Alfano_NSFproposalStrategy.ppt

Proposal Writing Strategies, Steve Cooper, NSF Division of Undergraduate Education
http://www.sju.edu/~scooper/NSF/Proposal_Strategy_Slides.ppt

NSF Guide for Proposal Writing (Division of Undergraduate Education)
http://www.research.umd.umich.edu/fileadmin/template/researchsponsored/files/CCLI--NSF-Proposal-Writing-Guide.pdf

Successful CCLI Awards, Carleton College
http://serc.carleton.edu/NAGTWorkshops/earlycareer/research/NSFgrants.html#ccli

CCLI Program Overview
http://www.rit.edu/research/srs/srs/pi_workshop/NSF_CCLI_2007.pdf

Tips on Writing an NSF CCLI Proposal, University of Michigan, Dearborn
http://www.research.umd.umich.edu/264001/

Example CCLI Proposal in Chemistry, UMD
http://www.research.umd.umich.edu/fileadmin/template/researchsponsored/files/CCLI--Funded-Proposal-Chemistry.pdf

Article 3, (Top)
Proposal Scheduling: What You Can and Can't Control
by Robyn Pearson

Anyone who's written a proposal knows that TIME is one critical element considered when making

the "go" or "no go" decision. Do you have enough time to establish your team? Meet internal and external deadlines? And of course, write the proposal?

One strategy to successful proposal planning is to create a schedule defining dates for specific task completion. When it comes to creating such a schedule and determining whether you have sufficient time, **there are some aspects of proposal development that are under your control and other aspects that you have no control over.**

Obviously you are bound by the due date established by a funding program. However, faculty with less experience in submitting a proposal may not realize that their institutional proposal administration office has an even earlier internal deadline. Internal deadlines are often established to allow proposal administrators the opportunity to complete a quality check or to make sure that all required forms and supplemental documents have been prepared. An internal deadline preceding the agency deadline may also be required to circumvent possible delays caused by a high volume of traffic on the uploading website.

Younger faculty may also be unaware that their institution's proposal administration office requires a rough draft or abstract of the proposal and a budget for routing purposes. Routing is the process by which a proposal is approved at various administrative levels – typically from the department head, to the dean, and then to appropriate institutional officials above the dean. Even prior to routing, however, proposal administrators often require advance notice when there is a proposal in the pipeline. This might include an online pre-proposal notification or setting up an appointment with the appropriate proposal personnel. These types of institutional deadlines are beyond your control; it's important to plan accordingly and allocate enough time in your proposal scheduling process to meet such internal deadlines.

Another situation that may take junior faculty by surprise involves collaborations with faculty at other institutions. In these cases, there are often subcontracts or other funding arrangements or agreements that must be completed prior to proposal submission. Here, too, it is critical to learn what the other institution requires and when it is required. Similarly, when you have a partner from your own institution, the internal routing process will have to be completed for that person as well.

Competitive proposals may require use of data from institutional sources. For example, funding programs to promote student recruitment or retention may call for baseline data on current student enrollment or graduation rates. It is standard practice for universities to track these kinds of data; what isn't standard, however, is the process of retrieving such information. There may be an online data request form that specifies a two-week turnaround before results are sent, and then there may be unavoidable delays in that process. These issues are beyond your control; not only should you schedule accordingly, but it may also be wise to allow some "cushion" time as well.

What parts of proposal scheduling can you control? Sometimes letters of support or commitment are required for a proposal. Send your requests for such letters as early as possible, and be sure to include a requested return date. If you have a team of investigators on your project, you can garner some control over their responsibilities to the project by having regularly scheduled meetings or phone conferences, perhaps establishing writing responsibilities and a timeline for completion of

particular proposal sections. You can control gathering of biosketches or current-and-pending forms by sending your partners a template or a link, if available, and asking for return of their data within a realistic timeframe. Also, if you send a draft of your proposal to a colleague or mentor, it's good advice to specify a reasonable time to get their comments back to you. Allow yourself enough time to incorporate their suggestions, particularly if they are more experienced researchers or have expertise in an area pertinent to your research. **By scheduling your own deadlines for some of these typical tasks in proposal development, you can maintain better control and ultimately submit a more competitive proposal.**

Article 4, (Top)
Evaluation Resources on the Internet
by Robyn Pearson

Most federal agencies and many private foundations expect that a competitive grant proposal will include some form of program assessment or evaluation. Depending upon the type of grant program, the quality of the proposed evaluation is given considerable attention during the review process, **particularly when a project includes a significant educational or outreach component in addition to research**. Not only can evaluation help investigators measure programmatic impacts, but it can also provide feedback on what's working and what's not, allowing programmatic activities to be redirected or changed as needed. Program assessment may also be used to demonstrate accountability or to show that goals and expected outcomes have been met.

Understanding how to develop a rigorous program evaluation may be a challenge for faculty new to grant writing, especially when there is an educational component embedded within the proposed research program. New faculty may be able to learn about various approaches to evaluation from their mentors, but there are also many materials available on the internet that offer useful overviews of the process, as well as online courses, templates, and examples. Some of these resources are listed below:

The 2002 User Friendly Handbook for Project Evaluation
National Science Foundation
http://www.nsf.gov/pubs/2002/nsf02057/start.htm
This Handbook provides principal investigators with basic guidelines for the evaluation of NSF educational programs. It targets people who need to learn more about what evaluation can do and how to do an evaluation, rather than investigators with evaluation experience who already have expertise in the field. The Handbook discusses quantitative and qualitative evaluation methods, suggesting ways in which both methods can be used as complements in an evaluation strategy.

User-Friendly Handbook for Mixed Method Evaluations
National Science Foundation
http://www.nsf.gov/pubs/1997/nsf97153/start.htm
Experienced evaluators find that the best results are often achieved through the use of mixed method evaluations, combining quantitative and qualitative techniques. Whereas the handbook described above provides an overview of the collection and analysis of qualitative data, this handbook provides more information on qualitative techniques and discusses how qualitative data

can be effectively combined with quantitative measures.

Online Evaluation Resource Library
http://oerl.sri.com/
The Online Evaluation Resource Library, funded by NSF, was developed to collect and make available evaluation plans, instruments, and reports for NSF projects that can be used as examples by Principal Investigators, project evaluators, and others outside the NSF community as they design proposals and projects.

The Program Manager's Guide to Evaluation
Department of Health & Human Services, Administration on Children, Youth, & Families
http://www.acf.hhs.gov/programs/opre/other_resrch/pm_guide_eval/reports/pmguide/pmguide_toc.html
This informative guide explains program evaluation – what it is, how to understand it, and how to do it. It answers questions about evaluation and explains how to use evaluation to improve programs and benefit staff and families.

CDC Evaluation Working Group
Centers for Disease Control and Prevention
http://www.cdc.gov/eval/resources.htm
This site is an excellent resource organized around the following topics for further information about evaluation or assistance in conducting an evaluation project. Resources are divided into the following groups (with hotlinks):
- Ethics, Principles, and Standards
- Organizations, Societies, Foundations, Associations
- Journals and On-Line Publications
- Step-by-Step Manuals
- Logic Model Resources
- Planning and Performance Improvement Tools
- Reports and Publications: General
- Reports and Publications: GPRA
- Suggestions

W.K. Kellogg Foundation Evaluation Handbook *
http://www.wkkf.org/Pubs/Tools/Evaluation/Pub770.pdf
For those with evaluation experience, or for those inexperienced in evaluation but with the time and resources to learn more, this handbook provides enough basic information to allow project staff to conduct an evaluation without the assistance of an external evaluator.

W.K. Kellogg Foundation Logic Model Development Guide *
http://www.wkkf.org/Pubs/Tools/Evaluation/Pub3669.pdf
This guide provides a discussion of the program logic model and its importance for program planning and evaluation planning. It includes templates and other tools to help develop a logic model and identify evaluation questions.
* Note: both of these resources are available on CD from the Kellogg Foundation:
http://www.wkkf.org/default.aspx?tabid=1172&NID=331&ItemID=2813742&LanguageID=0

Planning an Effective Program Evaluation
American Physiological Society
http://www.the-aps.org/education/promote/promote.html
This website offers an interactive online short course that includes six lessons about evaluation basics, questions raised by program directors, and resources available both on and off line. Each lesson includes an interactive component designed for the user to develop an evaluation planning document.

The Evaluation Center, Western Michigan University
http://ec.wmich.edu/resources/
The Center's role is to provide national and international leadership for advancing the theory and practice of evaluation, as applied to education and human services. **Note**: as of 2/23/09, this page is temporarily unavailable, possibly under reconstruction.

Evaluation Resources, University of Wisconsin – Extension
http://www.uwex.edu/ces/pdande/evaluation/index.html
This site provides key resources for evaluation, most notably:
- The "Planning a Program Evaluation" booklet and worksheet (PDF files)
  The worksheet is also available as a Word document that can be saved and used to enter text.
- The "Enhancing Program Performace with Logic Models" on-line course

Field-tested Learning Assessment Guide (FLAG) for Science, Math, Engineering, and Technology Instructors
http://www.flaguide.org/
FLAG offers broadly applicable, self-contained modular classroom assessment techniques and discipline-specific tools for STEM instructors interested in new approaches to evaluating student learning, attitudes, and performance.

Tips on Assessment, Evaluation and Dissemination
http://serc.carleton.edu/NAGTWorkshops/biocomplexity/assessment.html
This site provides a summary of program evaluation and lists hotlinks to other web resources, divided into the categories "From NSF," "Organizations," "Disciplinary Examples," and "Suggested Readings." It also includes information on project dissemination.

American Evaluation Association's Online Handbooks and Texts
http://www.eval.org/Resources/onlinehbtxt.asp
The above URL links to handbooks and texts that are availably in their entirety online. Most are multi-chapter documents focusing on the "how-to's" of evaluation-related subjects.

Article 5, (Top)
Crafting the NIH Specific Aims Proposal Section
By John Ivy

In research proposals submitted to the National Institutes of Health, the Research Plan consists of

four sections: Specific Aims, Background and Significance, Preliminary Studies (or Progress Report for renewal applications), and Research Design and Methods. These sections describe the current status of your scientific field, the research questions you plan to answer, your experimental approach and methods, the rationale for your approach, the expected outcomes, and the significance of the proposed research. In your effort to convince reviewers that your proposal has merit, **the Specific Aims section is critical because it presents your entire proposal in a nutshell and every reviewer will either read or skim it**.

The three reviewers to which your proposal is assigned will read the full proposal thoroughly, while the other members of a study section, all of whom will score the impact of the proposal, will at least skim the Abstract, Specific Aims, and Background and Significance. **In this context, the Specific Aims must be capable of standing alone and must present the critical need for the research, the research goals, the hypothesis to be tested, the aims to test the hypothesis, and the method and approach in concise, crisp language using well-constructed, persuasive arguments**.

Instructions given by NIH for writing the Specific Aims are minimal and read, "List the broad, long-term objectives and the goal of the specific research proposed, for example, to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop new technology. One page is recommended." In order to convince the reviewer of the merit and the overall impact (i.e., the reviewer's "assessment of the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved," Enhancing Peer Review, NIH Notice NOT-OD-09-025) of the proposed research, the writer typically must provide more than that specified in the instructions. Since all reviewers will read or skim the Specific Aims, **this section affords the proposer the opportunity to communicate to every reviewer a strong rationale and compelling argument for why the proposed research will have impact on the field.**

In putting together that compelling argument, we recommend that you begin with broad, general concepts and proceed to the more specific. Describe broadly what is known about the field and the state of the art. Using each sentence as a spring board to proceed to the next sentence, follow the brief summary of the current state of the field with an identification of the gap in knowledge or, alternatively, a critical need in the field. Identify your long-range research objectives as they relate to this field, and identify the relevance of your line of inquiry to the mission of the Institute or Center (IC) that will fund your research. Then, present your goal for the proposed research project in the context of your long-range research objectives. Finally, as a prelude to the specific aims themselves, identify your central hypothesis. **A good hypothesis is one that is focused, relevant to the IC's mission, and has testable predictions.**

Statement of your central hypothesis provides the context for the specific aims of your proposed research. **The aims are not the same as your research goal**; in contrast, successful completion of your aims should enable you to reach the project goal. Enumerate your aims in a numbered or bulleted list. Your specific aims should be designed to test the predictions presented by your central hypothesis or to test a concept or working hypothesis. **Avoid aims that are descriptive**—no exploring, no studying, no fishing expeditions. Instead, it is better that you describe a new method or new phenomenon prior to writing your proposal and include those results in your Preliminary

Studies. **Avoid dependent aims**; if a subsequent aim is dependent on a prior aim and the prior aim fails, you lose the basis for pursuing your subsequent aim (often a fatal flaw for a proposal). Instead, your aims should be independent of each other. State your aims using concise, unambiguous declarative statements. Amplify the statement of an aim by describing, for example, a working hypothesis and the research methods and analyses required for that aim. Craft your aims to have clear measurable outcomes or clearly defined endpoints. **Do not be overly ambitious, a common criticism of proposals from junior investigators.**

To conclude your Specific Aims section, briefly summarize the Significance of the research (a review criterion that you will elaborate more fully in the Background and Significance) and identify your project's Innovation (another review criterion). Take the initiative to identify for your reviewers what you understand to be the Significance and Innovation of your research. To not do so runs the risk of the reviewers overlooking or incorrectly inferring those critical aspects of your proposal. Also, identify your expected outcomes and describe how your successful results will advance the field and position you to pursue the next step toward your long-range research objectives. Once your Specific Aims are drafted, it is always advisable to have colleagues and mentors review the draft to provide critique and feedback.

In crafting your Specific Aims and other sections of your proposal, **use formatting that makes it easy to visually identify at a glance the elements that are important for the reviewers to read.** By using bold font, white space, and bulleted lists, the formatting should direct the reviewers' eyes to critical elements—such as relevance to the IC's mission, your central hypothesis, aims, significance, and innovation—of the Specific Aims.

Finally, the Specific Aims section is a great place to start writing your proposal. **After all, this section identifies the gap in knowledge, presents the central hypothesis, and states the aims of your research project.** Only after these elements have been identified, developed, and drafted is the writer in a position to write the Research Design and Methods and to identify the appropriate Background material to support the aims. And as writing the other sections progresses, take that opportunity to review and revise your specific aims as necessary.