National Protection Center
United States Department of Defense (DOD)
Due date: Feb 28, 2013 (concept papers); March 31, 2013 (full proposal)

The National Protection Center (NPC) is the Natick Soldier Research, Development and Engineering Center's (NSRDEC) focal point for Homeland Defense and Homeland Security related dual-use RDT&E coordination, inter-agency collaboration, and project management/oversight. Through the NPC, the NSRDEC is responsive to DOD requirements to support the RDT&E needs of homeland defense and emergency responders, consistent with PL 107-314, section 1401 and a number of other inter-governmental RDT&E agreements.

Capitalizing on NSRDEC's and its allied partners core competencies, program activities include a number of RDT&E and technology transfer activities, such as gaps analysis; technology prioritization and planning; development of crosscutting requirements; development of concepts of operation and use; sharing of intellectual and physical resources; evaluation of multi-user requirements and interagency operating procedures; equipment standardization/standards analysis; doctrine analysis; technology vetting; Commercial and Government Off-the-Shelf (CoT/GoTs) assessment; implementation of best business practices; and RDT&E program execution where gaps have been identified.

Specific areas of interest include the following:
1. Proposals that address the process of improving public-private partnerships
2. Proposals that provide approaches to identifying and addressing gaps and needs of the HLD/S operator
3. Proposals that address potential areas of study, technology vetting procedures, interagency
business practices, end item analysis, and development based on integrated concepts with high
dual-use applicability
4. Proposals that address product or process improvement
5. Proposals that address market analysis, manufacturability, lifecycle management, etc., relevant
to the transfer, adoption, implementation and use of the given technology or system of interest

These projects must be unique in nature (not proposed under other project areas), of high dual
use value with the ability to span a multi-user base and that encourage/maximize public-private
partnerships and academia participation. A path to transition the proposed work to
commercialization must be part of the proposal. Affordability of end items or cost effectiveness
of basic studies should be inherent in the proposals.


EDUCATION
See also opportunities listed under MULTIPLE DISCIPLINES

Organizational Learning in Schools, School Systems, and Higher Education Institutions
Spencer Foundation Research programs
Due Date: Continuous

The Spencer Foundation provides funding for research projects that study education in the
United States and abroad. The foundation funds research grants that range in size from smaller
grants that can be completed within a year, to larger, multi-year endeavors. Sustained
improvement in educational performance requires continuous learning within and among
schools, education systems, and higher education institutions. The foundation is interested in
advancing understanding of ways to strengthen the capacity of schools and education systems as
learning organizations.

http://www.spencer.org/content.cfm/organizational-learning

U.S.-France International Education Administrators Program
Institute of International Education
Fulbright Scholar Programs
February 1, 2013

Type of activity is seminar. Locations are Paris and other regions in France (Aquitaine:
Bordeaux, Alsace: Strasbourg). The grantees will participate in a group seminar designed to
familiarize U.S. higher education administrators with France's higher education and research
system. Program consists of briefings, campus visits, appointments with selected government
officials, networking and cultural activities and meetings with French international education
professionals. Applications are sought in all appropriate disciplines. Specializations are
International Education Administration or Higher Education Administration. Participants will be
asked to submit a report and an evaluation at the conclusion of the seminar.

http://catalog.cies.org/viewAward.aspx?n=3219

**Dissertation Fellowship Award**  
Cooke Foundation  
**February 3, 2013**

The Jack Kent Cooke Dissertation Fellowship Award supports advanced doctoral students who are completing dissertations that further the understanding of the educational pathways and experiences of high-achieving, low-income students.

Selected Fellows agree to comply with Foundation requirements and requests for the duration of the fellowship. Some key requirements and terms are:
- Fellows must be enrolled in a graduate degree program, and provide documentation of academic progress each term.
- Fellows must participate in Fellowship activities, including the Jack Kent Cooke Foundation Scholars Weekend, August 4 - 7, 2011. The Foundation will provide travel expenses, lodging, and meals.
- Fellows must be willing to present their research to Foundation staff and/or Scholars.

http://www.jkcf.org/scholarships/graduate-scholarships/jack-kent-cooke-dissertation-fellowship-award/

**Purposes and Values of Education**  
Spencer Foundation  
**Due date: February 10, 2013**

The foundation values education for its contributions to civic, political, and community life, for its role in advancing social justice, for its capacity to open to people worlds of cultural and artistic excellence, and in the largest sense for its contributions to "human flourishing." Questions at this less immediate but ultimately deeply practical level are often posed by philosophers and social critics, the best of whom show a lively interest in and skilled use of findings from the social sciences.

One important aspect of such inquiry is the question of the relationship between public and political understandings of educational purposes and values, on the one hand, and educational policies and practices on the other. This is, of course, a problem of "theory and practice" in education at the broad social level which mirrors the issue of the relationship between educational research and practice. Analytical, historical, and empirical work that probes effectively and creatively into these issues can contribute toward social decision-making that moves education along constructive paths.

http://www.spencer.org/content.cfm/purposes-and-values-of-education
Transversal Programme - Policy Co-Operation and Innovation
European Parliament
Due date: February 28, 2013

In order to ensure that the four sub-programmes of the Lifelong Learning Programme reap the best results, a transversal programme with four key activities complements them.
- Policy co-operation - Innovating and sharing good policy practices
- Languages - Breaking the language barriers
- Information and communication technologies - Innovative learning
- Dissemination and exploitation of project results - Spreading and implementing the results

Policy co-operation and innovation actions (part of the 'transversal' programme) should enhance the quality and transparency of education and training systems, monitor progress towards targets, identify areas of concern, and strengthen the collection of data and research across the EU.

Actions are relevant to policy-makers, experts and officials from national, regional or local authorities; directors of education, training, guidance and accreditation organisations; representatives of social partners; universities, academic and research institutes; as well as other education practitioners.

There are three main types of actions.

1. Mobility
There is an annual programme of study visits to encourage discussion, exchange of ideas and mutual learning on policies at the national and EU levels. These enable people working in the sector at the local, regional or national level to better understand specific aspects of education and vocational training policies in other countries.

2. Research
Grants are awarded for studies and research that strengthen the evidence base for policy and practice in education and training.

This part of the programme also covers actions that increase the transparency and recognition of qualifications, peer-learning activities and co-operation networks. However, these types of actions are subject to separate calls for proposals.

3. Networks

http://ec.europa.eu/education/lifelong-learning-programme/transversal_en.htm
NASA Cooperative Agreement Notice: Space Grant Innovative Pilot in STEM Education
NASA Kansas Space Grant Consortium
Due date: November 19, 2012 (pre-proposal)

The Kansas Space Grant Consortium (KSGC) is seeking pre-proposals for eventual submission to a NASA Cooperative Agreement Notice (CAN) opportunity. The NASA “Space Grant Innovative Pilot in STEM Education” includes up to $500,000 in funding for two years. While cost sharing is not a requirement of this CAN, partnerships are required.

The CAN efforts must target: Increased Undergraduate Retention in STEM; or Increased Number of Qualified STEM Educators.
Proposals that seek to serve both target areas will be deemed non-compliant and excluded from award consideration.

Interested Space Grant institution proposers will submit pre-proposals directly to KSGC (not NASA). The KSGC due date is noon November 19, 2012. Following reviews and down-selection, KSGC will recommend two (2) proposals for full final preparation and submission to NASA (in December). Selections are competitive and based on criteria clearly identified in the NASA CAN announcement - section V Proposal Review and Evaluation Criteria is particularly relevant. Be sure to review the complete NASA announcement and to respond to all elements (e.g., NASA priorities, diversity, sustainable partnerships, STEM education, etc.).

www.NASAINKANSAS.org

Materials Processing and Manufacturing (MPM)
National Science Foundation
Due date: February 15, 2013

The MPM program supports fundamental, hypothesis-driven research on the interrelationship of materials processing, structure, properties, performance and process control. Analytical, experimental, and numerical studies are supported covering novel processing methods for any materials system (metals, polymers, ceramics, hybrids, composites, etc.). Studies should include the consideration of cost, performance and feasibility of scale-up, as appropriate. Studies that address multi-scale and/or multi-functional materials systems are encouraged as are studies that support environmentally-benign manufacturing. Collaborative proposals with industry (the GOALI program) are encouraged. Micro-scale (and larger) processes are covered by the MPM program; processing at the submicron or nano scale is likely covered by the Nanomanufacturing (NM) program. Solid freeform fabrication process proposals are considered in the Manufacturing Machines and Equipment (MME) program, as are material removal process proposals such as cutting or grinding. Proposals that primarily focus on fundamental material composition-
structure-property studies (i.e., neither processing nor manufacturing plays a significant role in the proposed work) should be submitted to the Materials and Surface Engineering (MSE) program or to the appropriate program in the DMR division.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13344

**Systems Science (SYS)**
National Science Foundation  
**Due date: February 15, 2013**

The SYS program funds fundamental research on engineered systems that will support the creation of a mathematically sound framework for systems engineering. The SYS program invites proposals that address fundamental systems issues including system performance prediction, uncertainty quantification in the systems context, theoretical foundations for aggregation in systems, decision-making in the systems context, and operation and maintenance in the systems context. The SYS program does not fund development projects. Proposals that have system science or system engineering relevance, but for which the predominant research contribution is within an existing program in CMMI, should be submitted to the appropriate disciplinary program, with the SYS program identified as a secondary program.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504788

**Strategic Technologies for CyberInfrastructure (STCI)**
National Science Foundation  
**Due date: February 15, 2013**

The goal of the NSF Cyberinfrastructure Framework for the 21st Century (CF21) initiative is to foster the development of a scalable, comprehensive, secure and sustainable cyberinfrastructure that supports potentially transformative research in science and engineering. The development of a mature cyberinfrastructure relies on the evaluation of the potential for new technologies to catalyze transformative research and on an understanding of the strategic role of new technologies in cyberinfrastructure. The primary goal of the Strategic Technologies for Cyberinfrastructure (STCI) Program is to support activities based on experimental/innovative hardware or software systems or other unique cyberinfrastructure activities that enable leading edge scientific and engineering research and education with broader impact realized across our entire society. These systems or activities should not be appropriate for funding by any other current programs or solicitations, and should be able to demonstrate the potential to evolve into innovative, scalable, highly useful and usable cyberinfrastructure as part of CF21.

Experimental systems may include hardware and software in the areas of high performance computing, large scale data intensive computing/visualization/analytics and innovative networking.
Eligible projects and unique activities include acquisition, development, deployment, sustaining, research, and educational activities necessary to create or enhance current cyberinfrastructure and positively impact science and education. Projects that include academic-industrial partnerships that address the goals must be discussed with the program officers before submission.

Eligible projects and unique activities should address a clearly identified and described cyberinfrastructure need, explain and support the potential for transformative impacts on science or engineering research, research training, education or broader impacts, and provide a convincing explanation of why the project is not suitable for other NSF programs or solicitations.

Where appropriate, proposals should explicitly address end user involvement, issues of sustainability, self-management, energy efficiency, and data management. Proposals related to software or facilities (broadly construed) should address production development, deployment, and continuing support by including a project management plan and testing approaches.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503475

National Science Foundation (NSF)
Directorate for Engineering (ENG)
Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET)
Due date: February 19, 2013

The CBET division of NSF has multiple programs due on 2/19/13. Please follow each individual program link below for additional details.

**Fluid Dynamics**
The Fluid Dynamics program supports fundamental research and education on mechanisms and phenomena governing fluid flow. Proposed research should contribute to basic understanding; thus enabling the better design; predictability; efficiency; and control of systems that involve fluids. Encouraged are proposals that address innovative uses of fluids in materials development; manufacturing; biotechnology; nanotechnology; clinical diagnostics and drug delivery; sensor development and integration; energy and the environment. While the research should focus on fundamentals, a clear connection to potential application should be outlined

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13365

**Environmental Health and Safety of Nanotechnology (Nano EHS)**
This program provides support to develop and test the environmental effects of nanotechnologies. Fundamental research is sought to understand, evaluate, and mitigate the impact of nanotechnology on the environment and biological systems. The program emphasizes engineering principles underlying the environmental health and safety impacts of nanotechnology. Innovative methods related to production processes, waste reduction, recycling, and industrial ecology of nanotechnology are of interest.
Particulate and Multiphase Processes
The Particulate and Multiphase Processes program supports fundamental and applied research on phenomena governing particulate and multiphase processes, including flows of suspensions of particles, drops or bubbles, granular and granular-fluid flows, flow behavior of micro or nano-structured fluids, aerosol science and technology, and self- and directed-assembly processes involving particulates. Innovative research is sought that contributes to improving the basic understanding, design, predictability, efficiency, and control of particulate and multiphase processes with particular emphasis on: novel manufacturing techniques, multiphase systems of relevance to energy harvesting, multiphase transport in biological systems or biotechnology, and environmental sustainability. Collaborative and interdisciplinary proposals are encouraged; proposals that include a combination of experimental and theoretical approaches are more likely to receive funding than solely experimentally oriented work. Highly reviewed projects generally demonstrate a strong scientific basis together with clear practical applications.

Thermal Transport Processes
This program supports engineering research aimed at gaining a basic understanding of the thermal transport phenomena at nano/micro and macro scales in (1) cooling and heating of equipment and devices, (2) energy conversion, power generation and thermal energy storage and conservation, (3) the synthesis and processing of materials including advanced manufacturing, (4) the propulsion of air and land-based vehicles, and (5) thermal phenomena in biological systems. The program supports fundamental research and engineering education in transport processes that are driven by thermal gradients, and manipulation of these processes to achieve engineering goals.

Combustion, Fire, and Plasma Systems
This program supports fundamental research and education relevant to these subjects. Among the broader societal impacts of the program are cleaner global and local environments, enhanced public safety, improved energy and homeland security, useful new materials, and more efficient manufacturing. This program is not an applied program, but rather it endeavors to provide basic knowledge that is needed to develop useful combustion and plasma applications and for mitigating the effects of fire. Broad-based tools - experimental, diagnostic, and computational - that can be applied to a variety of problems in combustion, fires, and plasma systems are the major products of this program. Note that the plasma science is generally in support of plasma applications to combustion and materials processing; atmospheric-science or fusion-energy plasmas are funded elsewhere.
Energy for Sustainability
This program supports fundamental research and education that will enable innovative processes for the sustainable production of electricity and transportation fuels. Processes for sustainable energy production must be environmentally benign, reduce greenhouse gas production, and utilize renewable resources. Current interest areas in sustainable energy technologies are highlighted below.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501026

Environmental Engineering
The Environmental Engineering program supports fundamental research and educational activities across the broad field of environmental engineering. The goal of this program is to encourage transformative research which applies scientific and engineering principles to minimize or avoid solid, liquid, and gaseous discharges resulting from human activity into land, air, and inland and coastal waters, while promoting resource and energy conservation and recovery. The program fosters cutting-edge scientific research for identifying, evaluating, and monitoring the waste assimilative capacity of the natural environment and for removing or reducing contaminants from polluted air, water, and soils

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501029

Environmental Sustainability
The program supports engineering research with the goal of promoting sustainable engineered systems that support human well-being and that are also compatible with sustaining natural (environmental) systems. These systems provide ecological services vital for human survival. The long-term viability of natural capital is critical for many areas of human endeavor. Research in environmental sustainability typically considers long time horizons and may incorporate contributions from the social sciences and ethics. This program supports engineering research that seeks to balance society's need to provide ecological protection and maintain stable economic conditions.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501027

Warfighter Systems Technologies - Materials Nanotechnology
United States Department of Defense (DOD)
Due date: Feb 28, 2013 (concept paper); March 31, 2013 (final proposal)

Nanotechnology, the understanding and manipulation of matter at the nanometer scale, offers opportunities to create materials with new or significantly improved properties, relative to known materials. Examples include the numerous reports of small amounts of nanoparticle additives (such as montmorillonite clays or carbon nanotubes) giving rise to mechanical or electrical properties in polymer composites that typically require much higher loadings of conventional additives to achieve. In some cases, properties are observed in materials with controlled nanometer-scale structures that have not been realized in more conventional material structures. One example is the extraordinary diffusion barrier properties of some nanoclay-filled polymers.
Periodic structures with nano-scale features are known to interact strongly with electromagnetic radiation having wavelengths on the order of the feature size. These effects can be used to create new types of resonant structures for enhanced optical performance, for instance the photonic crystal behavior exhibited by materials with controlled structural features on the nanometer scale. Plasmonic field enhancement can also be achieved with resonant nanostructures. Nanoscale periodic structures are also used to create non-conventional optical components such as filters, polarizers and waveplates that can be tuned to operate in specific wavelength regions.

There is a need for research and development of materials incorporating nanometer-size architectures, and demonstrating enhanced or novel properties relative to existing materials in the area of physical properties, including mechanical properties, thermal properties, diffusion barrier properties, plasmonics, nanoelectronics, electromagnetic and optical properties, novel or enhanced chemical functionality and unanticipated combinations of properties. Composites of polymers with nanometer-scale reinforcements of various forms may offer enhanced mechanical properties allowing equipment to be fabricated with less weight and bulk than current designs and possibly at lower cost.

The creation of interpenetrating networks of various compositions, with domain sizes on the nanometer scale, may offer access to unprecedented material properties. Fiber or textiles with controlled nanometer-scale architectures may have application to the development of high strength, high durability or multifunctional textiles. Particular areas of application for the materials of interest include personnel armor, clothing, airdrop systems, shelters and load carriage systems, packaging materials, textile-integrated electronic systems, chemical and biological reactive materials, permselective materials, tactical optics, and vision systems.

In addition to the discovery and development of new materials, research efforts may be needed to understand the nano-scale origins of bulk properties observed in nanocomposite or nanostructured materials that could aid in the design optimization of material structures for particular applications. New techniques that will enable the creation of periodic and a-periodic structures with decreased feature size are of interest and the ability to control the geometry of nano-scale elements and their periodic configuration is also of interest. Research to develop economically viable processes for the creation of nano-structured materials on a commercial scale may be of interest.


Grants
Engineering Information Foundation (EiF)
Due date: Feb 28, 2013

EiF’s grant activity supports developmental projects, instructional projects, and training programs in engineering education and research that fit its fields of interest. These currently include the availability and use of published information, women in engineering, and information
The NSRDEC has traditionally maintained an extensive anthropometric database on U.S. Army and other military personnel. Anthropometric data are needed on Active Duty, National Guard, and Army Reserve personnel in order to facilitate the design and sizing of personal protective clothing and equipment systems. These data are also required for the design and layout of general-purpose workstations and combat vehicle crew stations. Virtually all military system development requires access to accurate body size data at some point in the design process. U.S. Army anthropometric data are also used by military contractors, other government agencies, and industry.

The scientific and technical areas of interest include the following:

1. Develop software tools for extracting traditional anthropometric data and other human engineering related measurements of the human body such as volume, surface area, and curvatures from 3D whole body, head/face and foot images. These tools may include applications for measurement of the human body as well as for summarization of body size and shape using 3D anthropometric data. These tools shall be implemented on 3D human body surface images and integrated with hardware and software systems currently in use by US Army anthropologists and human engineers.

2. Develop and/or integrate human body modeling software into an analytical computer based system that allows clothing and equipment designers to visualize, compare and evaluate the effects of single and multi-layer clothing/equipment systems on the physical performance of human users. The resulting tools will be used by anthropologists and human engineers to assess the impact of clothing/equipment systems (body armor, helmets, NBC, and thermal protective clothing) on key performance parameters such as mobility, movement, and overall area of coverage of the human body.

3. Obtain clothed and encumbered anthropometric measurement data on a representative set of US Army personnel in order to identify the dimensional changes in body size that occur as single and multi-layer clothing and equipment systems worn by Warfighters. At a minimum, identify and quantify the body size changes that occur under current and next generation clothing and equipment systems that impact Warfighter body size for typical Infantry, Aviation and Ground Vehicle Warfighters. Data collection procedures may include a combination of traditional anthropometric tolls and/or 3D whole body and body segment scanning of study participants depending upon the specific nature of the clothing and equipment systems being investigated.

Close coordination between the government and offeror on such matters as the final dimension list, body landmarking requirements, quality control implementation, and data cleaning shall be required throughout the duration of this large scale data collection effort. It is anticipated that a...
cost sharing contract will be used to execute this anthropometric data collection effort.


**Soldier-Borne Power Sources**
United States Department of Defense (DOD)
Due date: Feb 28, 2013 (concept paper); March 31, 2013 (final proposal)

In the future, dismounted Warfighter capabilities will continually be modernized with advanced sensors, networking and processing technologies, all of which require power. While many of these new capabilities will possess advanced low power electronics and power management features, the need for innovative power source solutions for the Warfighter and small combat unit will remain an essential aspect of the Army's Soldier modernization program. Emerging operational concepts dictate the need for technology to support extended missions without the benefit of re-supply for 72 hours or longer.

Power source solutions that can demonstrate through objective analysis substantial reductions in life cycle cost and logistics burden are of primary interest to the Army. Technologies and concepts that provide improvements in energy density, ergonomics, "ease of use" and safety to facilitate human factors and Soldier-centric integration are of interest.


**FINE ARTS**

**Undergraduate/Graduate Unpaid Internships**
Smithsonian Institution (SI) - Archives of American Art
Due date: Feb 24, 2013

The Archives of American Art offers paid and unpaid internships year-round to students enrolled in undergraduate or graduate programs who wish to gain professional experience in various fields including archival science, information management, museum studies, art administration, art history, and cultural studies.

For the unpaid internships, applicants will be asked to indicate their top three choices from the following program areas:
1. Archival Arrangement, Preservation, and Description
   Introductory-level archival processing and preservation work on the historical papers of artists or records of art galleries and arts organizations.

2. Archives of American Art Journal
   Interns working with Archives of American Art Journal staff have transcribed documents; selected images and prepared interview excerpts relevant to articles; developed and implemented marketing programs; and maintained the Journal's mailing list. This internship is part-time only.
3. Curatorial
Supports the work of the curatorial department. Past intern projects have included exhibitions research and writing; exhibition installation; and research for upcoming publications.

4. Development/External Affairs
Supports the work of the development and external affairs office. Projects include, but are not limited to, prospect research related to individuals and foundations, donor correspondence, assignments associated with the annual Benefit Gala, and database entry. Opportunities are available at the offices in Washington, DC and New York, NY. Applicants should indicate the location to which they are applying.

5. Digital Projects
Supports digitization initiatives to increase access to collections via the web and new media. Possible assignments include scanning and digital curation; preparing descriptive, technical and other metadata; researching standards and best practices; preparing documentation; testing digitization workflows; assisting with design and user experience research, web development; and new media special projects such as collaborating with Wikipedia.

6. Oral History
The Archives has ongoing grant-funded projects to interview America's leading artists and art dealers. Intern tasks may include editing interviews; assisting with the preliminary description of interviews; fact checking; and assisting with the production of progress reports and related exhibitions or accessions.

7. Reference
Assists reference staff in responding to public inquiries, including conducting research and composing replies; preparing box lists for collections; and assisting with special projects

http://www.aaa.si.edu/aboutus/opportunities

**Documentary Fund**
Sundance Institute
**Due date: Feb 09, 2013**

Since its inception, the fund has supported more than 500 films in 61 countries. A committee of human rights experts and film professionals make recommendations from projects submitted by filmmakers from around the world. In funding such work, the fund encourages the diverse exchange of ideas that is crucial to fostering an open society and public dialogue about contemporary issues.

The fund provides grants to filmmakers worldwide for projects that display:
- Artful and innovative storytelling techniques
- Global relevance
- Contemporary human rights and pressing social justice issues
Applications are accepted in two funding categories:
1. Development funding is provided to projects that are between development and preproduction. There is no reel required with an application, but clips, teasers, trailers, or images are highly encouraged. A previous work sample is required.
2. Production/Post-production grants provide funds to filmmakers in various stages of the production and post-production process. Applications are required to include continuously edited material that is approximately 20 to 75 minutes for the project being proposed. The reel should convey the narrative and aesthetic visual for the final film. If available for consideration, longer cuts and fine cuts may be submitted. A previous sample work must also be included with the application.

For filmmakers who have already received a grant from the Documentary Fund, there is an additional category for which they can apply for the same project. Audience Engagement grants support innovative outreach and engagement campaigns and cutting-edge multiplatform engagement strategies.

The subject of the film should convey the general issue area that the film addresses. Although a film may fit into a number of subjects, applicants are asked to choose one that best represents their film. Below are the sponsor's six subject areas with a brief description:
1. Environmental Sustainability Films dealing with the environment, ecology, biodiversity, conservation, climate change, green jobs among others.
2. Institutional and Government Responsibility Projects seeking to highlight the institutional responsibility or promote greater transparency and accountability of corporations, governments, foundations, religious and educational institutions and other powerful interests.
3. Democracy, Peace and Security, Human Rights Projects working to highlight and understand human dignity and the fundamental right to which a person is inherently entitled simply because she or he is a human being. Work that addresses peace and security and/or focuses on the right of people to assemble, advocate or participate in democratic practices, among others.
4. Vulnerable Populations, Tolerance and Social Inclusion Projects that address discrimination, persecution and the lives of people from diverse communities and points of view. Projects highlighting the lives of groups that are not well integrated into society because of ethnic, cultural, economic, geographic or health characteristics.
5. Economic Justice and Equity Subjects that encompass the moral principles that guide the design of our economic institutions and fairness through all segments of society.
6. Cultural activity and freedom of expression Films that highlight the existence of the arts and sport for community, access to knowledge and the pursuit of creative endeavors.

http://www.sundance.org/programs/documentary-fund/
**Artist-in-Residence Program**  
Roswell Museum and Art Center  
**Due date: Feb 15, 2013**

The Roswell Artist-in-Residence Program was established in 1967 to provide professional studio artists with the unique opportunity to concentrate on their work in a supportive, collegial environment for a period of one year. This "gift of time" allows artists to work without distraction in an effort to break new ground and focus on individual goals. The program serves as a contemporary counterpoint to the traditional arts of the Southwest, reinforces the program's interest in strengthening the vitality of art in New Mexico and has been a catalyst in broadening community understanding of modern art.

In-residence grants are offered to artists involved with painting, drawing, sculpture, installation, printmaking and other studio-based art making. Grants are not made in the disciplines of performance art or production crafts.

http://www.rair.org/

**OYASAF Fellowships**  
Omooba Yemisi Adedoyin Shyllon Art Foundation (OYASAF)  
**Due date: Feb 28, 2013**

The Omooba Yemisi Adedoyin Shyllon Art Foundation (OYASAF), a nonprofit organization in Nigeria established in the year 2007, welcomes applications for 2012 Graduate Fellowship in Nigerian visual art and culture for non-Nigerian scholars.

Grantees will be expected to make one presentation at an interactive session with scholars/artists during their stay with OYASAF.


**Artist Residency Program**  
Bemis Center for Contemporary Arts  
**Due date: Feb 28, 2013**

The Residency Program at the Bemis Center was started by artists for artists and is a program that truly trusts artists and seeks to support the creative process. The Residency Program provides support in the form of time, space and monthly stipends. Three month residencies allow artists time to reflect, research and take risks. The residency program is designed to be flexible to reflect the unique processes and preferences of individual artists. Opportunities for artists interested in additional public engagement, open studios and lectures are available, but these interactions are not expected.
The Bemis Center is housed in two urban warehouses totaling 110,000 square feet. Each artist is provided with a generously sized live/work studio with a private bathroom and 24 hour access to facilities including a wood shop, installation spaces, dark room and a large sculpture fabrication facility.

http://www.bemiscenter.org/residency/residency_app.html

**HUMANITIES**
See also opportunities listed under MULTIPLE DISCIPLINES

**National Endowment for the Humanities (NEH) Fellowship**
American Schools of Oriental Research
**Due date: Feb 1, 2013**

These awards support research by scholars who have a Ph.D. or have completed their professional training. Fields of research include modern and classical languages, linguistics, literature, history, jurisprudence, philosophy, archaeology, comparative religion, ethics, and the history, criticism, and theory of the arts. NEH Fellows will reside at the ACOR facility in Amman while conducting their research.

http://www.bu.edu/acor/1page12-13.htm

**Mind and Life Contemplative Studies Fellowship (MLCSF)**
Mind & Life Institute
**Due date: Feb 15, 2013**

The Mind & Life Institute, with funding from The John Templeton Foundation, invites grant applications that propose to bring fresh perspectives from the humanities into contemplative neuroscience and contemplative clinical science, including but not limited to research on Buddhist contemplative practice.

Applicants are required to show how their research strategy and subject matter engage with neuroscientific or clinical studies of contemplative experience. The MLCSF grant program will have two complementary strands:

Strand one will focus on encouraging new kinds of scholarly reviews and critical analyses of recent scientific work, with the goals of raising new questions, improving methods, and drawing out broader implications of the scientific work, including Philosophical projects, Sociological/Anthropological projects and Normative projects.

Strand two will focus on facilitating new kinds of active partnerships between humanistic scholars and laboratory scientists, with the goals of developing new interdisciplinary methods and a richer approach to the questions at hand, including Field-based projects, Laboratory-based projects and Interdisciplinary team-based projects. MLCSF recipients will be required to attend
the Mind and Life Summer Research Institute (MLSRI), and recipients at more advanced stages of their research may be invited to deliver MLSRI plenary lectures or lead break-out workshops and discussion groups based on their research.

http://www.mindandlife.org/research-grants/contemplative-studies-fellowship/

**Title VIII National Research Competition: Research Grants**
National Council for Eurasian and East European Research (NCEEER)
**Due date: Feb 15, 2013**

National Council for Eurasian and East European Research (NCEEER) invites proposals for its National Research Competition. This competition provides funds for both collaborative and individual research projects in the humanities and social sciences in or on any country of Eurasia or East-Central Europe. Research Grants support research projects conducted by individual U.S. citizens. The following countries are eligible for research: Albania, Armenia, Azerbaijan, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kosovo, Kyrgyzstan, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan.

http://www.nceeer.org/programs/national-research-competition.html

**Swann Foundation Fellowship**
Library of Congress
Swann Foundation for Caricature and Cartoon
**Due date: Feb 15, 2013**

The Swann Foundation seeks to award at least one fellowship annually to assist ongoing scholarly research and writing projects in the field of caricature and cartoon. Although research must be in the field of caricature and cartoon, there is no limitation regarding the place or time period covered. Since the fund encourages research in a variety of academic disciplines, there is no restriction upon the university department in which this work is being done, provided the subject pertains to caricature or cartoon art.

In the interest of increasing awareness and extending documentation of Library of Congress collections, fellows are required to make use of the Library's collections, be in residence for at least two weeks during the award period and deliver a public lecture on his/her work-in-progress at that time. Each recipient must also provide a copy of their dissertation, thesis, or postgraduate publication, upon its completion, for the Swann Foundation Fund files. The Swann Foundation fellowship will support a two-week research residency at the Library of Congress where the fellow will utilize and document the Library's extensive collections.

http://www.loc.gov/rr/print/swann/swann-fellow.html
INTERNATIONAL AREA STUDIES
See also opportunities listed under HUMANITES and MULTIPLE DISCIPLINES

WARA Postdoctoral Fellowships
West African Research Association (WARA)
Due date: Feb 01, 2013

Applications are being accepted for the WARA Post-Doctoral Fellowship for research in West Africa during the summer of 2012. Awardees will conduct research for a 2 to 3-month period in order to (1) complete or elaborate upon an earlier project; (2) initiate a new research project; or (3) enhance their understanding of a particular topic in order to improve teaching effectiveness or broaden course offerings.

http://www.bu.edu/wara/fellowship/

Fellowships at the Center for the United States and the Cold War
New Your University Center for the United States and the Cold War
Due date: Feb 01, 2013

New York University's Tamiment Library announces the Center for the United States and the Cold War Fellowships and travel grants for 2012-2013. The Center for the United States and the Cold War supports research on the Cold War at home and the ways in which this ideological and geopolitical conflict with the Soviet Union affected American politics, culture, and society, and will be offering a dissertation fellowship and a post-doctoral fellowship.

http://www.nyu.edu/library/bobst/research/tam/fellowships.html

Title VIII Research Program (Program of Research and Training for Eastern Europe and the Former Soviet Union)
University of Delaware (UD) - Center for International Studies
Due date: Feb 07, 2013

The University of Delaware (UD) invites applications from public and private U.S. colleges, universities, and nonprofit organizations for research proposals under the Program of Research and Training for Eastern Europe and the Former Soviet Union (Title VIII), funded by the U.S. Department of State's Bureau of Intelligence and Research, Office of Outreach under 22USC4501-4508, as amended.

The UD Title VIII Research Program will fund original work by U.S. scholars on the theme of "Institutional Transition and Regional Linkages in Emerging Market Economies and Polities." Research proposals should focus on the economic, political and business implications of the continuing transition to a free-market economy in one or more of these countries: Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Kosovo, Macedonia, Moldova, Montenegro, Romania, and Serbia.
The Title VIII Program is managed by the U.S. Department of State's Bureau of Intelligence and Research (INR) and provides financial support for advanced research, graduate and language training and other related functions on the countries of the region. The program operates on a "pass-through" basis in that grantee organizations serve as intermediaries and conduct nationwide competitive programs to distribute grant funds to individual scholars, language students or universities. The program's goal is to support and sustain a cadre of U.S. experts by providing a full spectrum of financial assistance spanning the careers of scholars and students who wish to pursue policy-relevant research and critical languages in the region. Title VIII recipients are also encouraged to make a career commitment to the study of Southeast Europe and Eurasia. The Department of State's Title VIII Program Office, housed in the Bureau of Intelligence and Research, brings this open-source research and expertise to the service of the U.S. Government. The Title VIII grantees and scholars regularly provide policy briefs and products for dissemination throughout and U.S. Government including the Intelligence Community. Title VIII contributes to the overall foreign policy objectives of the U.S. Department of State and addresses key issues relevant to the Intelligence Community.

The Title VIII legislation states that the program should develop a stable, long-term, national program of unclassified, open source advanced research and training on the countries of Eastern Europe and/or Eurasia. Applicants' proposals should outline programs that: 1) support and sustain American expertise on the countries of Eurasia and Eastern Europe, 2) bring American expertise to the service of the U.S. Government, and 3) further U.S. foreign assistance and policy goals.

Programs proposed for this competition should be national in scope and may:
1. award contracts or grants to U.S. institutions of higher education or nonprofit organizations in support of post-doctoral or equivalent-level research projects, to be cost-shared with partner institutions;
2. offer graduate, post-doctoral and teaching fellowships for advanced training on Eurasia and certain countries of Southeast Europe, and in related studies, including training in the languages of the region, to be cost-shared with partner institutions;
3. provide fellowships and other support for American specialists enabling them to conduct advanced policy-relevant research on the countries of Eurasia and Eastern Europe, and in related studies;
4. facilitate research collaboration among U.S. scholars, the U.S. Government, and private specialists on Eastern Europe and Eurasia studies;
5. provide field-strengthening activities that stimulate interaction and sustained relationships among junior and senior scholars;
6. provide advanced training and research in certain countries of Eastern Europe and Eurasia by facilitating access for American specialists to research facilities and resources in the U.S. and those countries;
7. facilitate the accessibility and dissemination of research findings, methods and data, and policy papers among U.S. Government agencies and the public;
8. strengthen the national capability for advanced research or training on the countries of Eastern Europe and Eurasia;
9. bring Title VIII scholarship to the service of the U.S. Government in ways not specified
Program activities are strongly encouraged that build expertise among U.S. specialists on the region, and also: 1) promote fundamental goals of U.S. foreign assistance programs such as establishing functioning market economies and promoting democratic governance and civil societies, and 2) provide knowledge to both U.S. and foreign audiences related to current U.S. policy interests in the region, broadly defined. This includes: Peace and Security: Counter Terrorism (cross-border research), Combating WMD, Transnational Crime (emphasis on Cyber Crime), Conflict Mitigation, Stabilization Operations and Defense Reform; Governing Justly and Democratically: Rule of Law and Human Rights, Good Governance, Political Competition, Civil Society; Investing in People: Health, Education, Social Services and Protection for Vulnerable Populations; Economic Growth: Trade and Investment, Environment, Infrastructure and Financial Sector.

The Title VIII Program supports research topics that strengthen the fields of Eurasian and East European Studies (and related fields), and address U.S. policy interests in the region, broadly defined. Historical or cultural research that promotes understanding of current events in the region is acceptable only if an explicit connection is made to current policy relevant issues, broadly defined. Technical research in fields such as mathematics is not eligible for funding under Title VIII.

Priorities include issues on democracy in Central Asia, the Caucasus, Ukraine and Belarus; and the Balkans, especially issues related to the Final Status of Kosovo. The greater Central Asia region is critical in the global war on terrorism; therefore, also eligible are proposals that incorporate a focus on "Cross-Regional Issues" and include specifically the countries of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and/or Uzbekistan, relative to their shared historical, ethnic, linguistic, political, economic, and cultural ties with such countries as Iraq, Iran, Afghanistan, Pakistan, Korea, China and Turkey. Proposals regarding Central Asian Islamic practices are also a priority.

http://www.udel.edu/global/research/titleVIII.html
Thomas R. Pickering Undergraduate Foreign Affairs Fellowship
Woodrow Wilson National Fellowship Foundation
Due date: Feb 07, 2013

This program provides funding to participants as they are prepared academically and professionally to enter the United States Department of State Foreign Service. The fellowship seeks to recruit talented undergraduate students in academic programs relevant to international affairs, political and economic analysis, administration, management, and science policy. The goal is to attract outstanding students from all ethnic, racial, and social backgrounds who have an interest in pursuing a Foreign Service career in the U.S. Department of State. The program develops a source of trained men and women from academic disciplines representing the skill needs of the department, who are dedicated to representing America's interests abroad.

http://www.woodrow.org/higher-education-fellowships/foreign_affairs/pickering_undergrad/index.php

IIASA-Funded Postdoctoral Program
International Institute for Applied Systems Analyses (IIASA)
Due date: Feb 28, 2013

IIASA provides full funding for two postdoctoral researchers each year. Scholars are expected to conduct their own research within one of IIASA's research programs or special projects on topics closely related to IIASA's agenda.

Postdoctoral scholars at IIASA have the opportunity to work closely with scientists from their own and other disciplines to broaden and strengthen their research interests and gain work experience within a lively and close-knit community.

The goals of the IIASA Postdoctoral Program are:
- to encourage and promote the development of young researchers and offer them the opportunity to further their careers by gaining hands-on professional research experience in a highly international scientific environment; and
- to enrich IIASA's intellectual environment and help achieve research program goals.

For several decades the International Institute for Applied Systems Analysis (IIASA) has conducted independent and interdisciplinary systems analysis to find solutions to a host of scientific, social, and policy problems. To effectively continue that work, IIASA has developed a strategic plan and accompanying research plan that focuses on three global problem areas where systems analysis is of critical importance: Energy and Climate Change; Food and Water; and Poverty and Equity.

http://www.iiasa.ac.at/pdocs/apply_iiasa_applicationclosed.html?sb=2
**Neuroscience Research on Drug Abuse (R21)**
United States Department of Health and Human Services (HHS)

**Due date: Feb 16, 2013**

This FOA encourages research grant applications from institutions and organizations that are relevant to the understanding of the process(es) and mechanisms underlying drug abuse and addiction, including use, dependence, addiction, withdrawal, and treatment, and may be conducted using model systems, animals, and/or humans.


**Exploratory Cancer Prevention Studies Involving Molecular Targets for Bioactive Food Components (R21)**
National Institutes of Health (NIH)

**Due date: Feb 16, 2013**

This FOA encourages exploratory research on the role of nutrition in cancer prevention. Specifically, this FOA seeks to promote cancer prevention research to identify and characterize molecular targets for bioactive food components. For the purpose of this FOA, a bioactive food component is defined as a dietary constituent that has a health benefit by altering one or more cellular processes when provided in quantities over and beyond that needed for basic nutrition.


**Stress Pathways in Alcohol Induced Organ Injury and Protection (R21)**
National Institutes of Health (NIH)

**Due date: Feb 16, 2013**

This FOA encourages Research Project Grant (R01) applications that propose studying the role of cellular stress responses, the cytoplasmic classical stress response or heat shock response (HSR) and the endoplasmic reticulum (ER) stress, in alcohol-induced tissue injury and tissue protection. While excessive alcohol use causes organ damage, moderate alcohol consumption may be beneficial. The underlying molecular mechanisms for this apparent dichotomy of alcohol's harmful and salutary effects are currently not fully understood. Alcohol induces cellular stress pathways in the cytoplasm and in the endoplasmic reticulum that may significantly be involved in alcohol-induced tissue injury or mediate tissue protection depending on the quantity, frequency, duration, and temporal pattern of drinking. Hence, studies of the effects of alcohol on cellular stress pathways are critical to understand the mechanisms of alcohol-induced injuries or protection to develop new strategies for prevention, diagnosis and treatment. The purpose of this FOA is to (1) acquire insight into how acute or chronic alcohol consumption affects cellular stress pathways and in turn, how these changes contribute to alcohol-induced injury/protection;
(2) investigate how alcohol induced stress responses mediate cell survival and death signaling pathways at macromolecular, organelle, cellular and organism level contributing to alcohol-induced tissue injury/protection; and (3) develop potential stress related biomarkers for prognosis, diagnosis of tissue injury/protection, furthermore identify new targets for their therapeutic interventions. Utilizing innovative experimental design and emerging technologies, such as deep sequencing, genomics, proteomics, metabolomics, bioinformatics, and novel imaging techniques these investigations are expected to provide a more comprehensive understanding of how alcohol affects the evolutionally conserved stress pathways and elucidate their roles in tissue injuries and repair.


Identification and Characterization of Molecular Targets Within the mTOR Pathway With Potential to Impact Healthspan and Lifespan (R21)
National Institutes of Health (NIH)
Due date: Feb 16, 2013

This FOA issued by the National Institute on Aging and the National Cancer Institute encourages grant applications focused on (1) identifying novel targets within the mTOR (mammalian target of rapamycin) signaling network, the manipulation of which has the potential to promote healthy aging, i.e. extend health span in the aged (NIA interest); and (2) identifying and characterizing dietary constituents that modulate the mTOR pathway and promote cancer prevention (NCI interest). Identification and characterization of targets can utilize a wide range of approaches, including medicinal chemistry, in vitro assays, and studies in lower organisms or mammalian models.


Exploratory Innovations in Biomedical Computational Science and Technology (R21)
National Institutes of Health (NIH)
Due date: Feb 16, 2013

The NIH is interested in promoting research and developments in biomedical informatics and computational biology that will support rapid progress in areas of scientific opportunity in biomedical research. As defined here, biomedical informatics and computational biology includes database design, graphical interfaces, querying approaches, data retrieval, data visualization and manipulation, data integration through the development of integrated analytical tools, and tools for electronic collaboration, as well as computational and mathematical research including the development of structural, functional, integrative, and analytical computational models and simulations

Development and Application of PET and SPECT Imaging Ligands as Biomarkers for Drug Discovery
National Institutes of Health (NIH)
Due date: Feb 16, 2013

This FOA invites research grant applications from organizations and institutions that propose the development of novel radioligands for positron emission tomography (PET) or single photon emission computed tomography (SPECT) imaging in human brain, and that incorporate pilot or clinical feasibility evaluation in preclinical studies, model development, or clinical studies.


Epigenetic Approaches in Cancer Epidemiology (R21)
National Institutes of Health (NIH)
Due date: Feb 16, 2013

This FOA encourages research applications that propose to evaluate profiles of methylation, histone modifications, and micro RNA (miRNA) and their association with risk of developing cancer in different populations. The overarching goal of this FOA is to provide support for population based studies to define the role of epigenetic markers (methylation, histone, and micro RNA profiles) changes to understand cancer etiology.


NINDS Exploratory/Developmental Projects in Translational Research (R21)
National Institutes of Health (NIH)
Due date: Feb 16, 2013

The goal of this FOA is to support preliminary steps in the preclinical development of therapeutics for neurological disorders. Such projects, if successful, should lead directly to a subsequent project that will include all remaining activities for submission of an Investigational New Drug (IND) or Investigational Device Exemption (IDE) application to the Food and Drug Administration (FDA). The scope includes only therapy development activities, so development of diagnostics, biomarkers, or rehabilitation strategies cannot be supported. Clinical research, basic research, and studies of disease mechanism are outside program scope.

Drug Discovery for Nervous System Disorders (R21)
National Institutes of Health (NIH)
Due date: Feb 16, 2013

This Funding Opportunity Announcement (FOA) solicits Exploratory/Developmental (R21) grant applications from applicant organizations directed toward the discovery, development, and preclinical testing of novel compounds for the prevention and treatment of nervous system disorders.


Research Grants
World Anti-Doping Agency (WADA)
Due date: Feb 17, 2013

The World Anti-Doping Agency (WADA) promotes, coordinates and monitors, at the international level, the fight against doping in all its forms. Through this independent agency, the Olympic Movement and the public authorities have intensified their efforts to keep drugs out of sport.

WADA promotes and funds, on a yearly basis, scientific projects in the anti-doping field covering the development or optimization of analytical tools for the detection and/or quantification of doping substances or methods as well as the pharmacology of such substances and the ergogenic effects of specific substances/methods or group of substances on athletic performance.

Special attention will be given to projects addressing:
- autologous blood transfusion
- detection of peptide hormones
- improvement of windows/limits of detection of prohibited drugs

For 2012, submission of research projects covering the following topics is encouraged:

A. Detection of prohibited substances/methods: methodologies in analytical chemistry, and in particular research addressing the detection of doping substances and methods using liquid or gas chromatography, mass spectrometry, or new methods in analytical chemistry

B. Detection of prohibited substances/methods: immunological and biochemical methodologies, and in particular research addressing
- the detection of doping substances and methods using immuno-based assays (enzymatic assays, flow cytometry, etc.), and biochemical methods (e.g., IEF, SDS-PAGE, etc.)
- Multiplexing of affinity-based assays

C. Detection/identification of novel doping trends, and in particular research addressing the following:
- Identification and/or detection of novel substances (not on the current Prohibited List) with suspected doping potential (e.g. drugs newly approved or in advanced clinical development; substances with clinical or field evidence of abuse)
- The detection of gene doping and gene manipulation
- Validation of molecular signatures to detect use of prohibited substances and methods
- The detection of cell grafting with either autologous or non-autologous cell

D. Pharmacological studies on doping substances/methods, and in particular research addressing:
- Establishment/improvement of threshold values for prohibited substances showing doping effect above a certain dose or depending on route of administration
- Pharmacokinetics/pharmacodynamics as well as gender, ethnic, and environmental factors affecting metabolism and excretion of prohibited substances and methods


Congressional Science Fellowship
American Society for Microbiology (ASM)
Due date: Feb 24, 2013

The program will select a postdoctoral to mid-career microbiologist to spend one year on the staff of an individual congressman, congressional committee, or with some other appropriate organizational unit of Congress. The purpose of the program is to make practical contributions to more effective use of scientific knowledge in government, to educate the scientific communities regarding public policy, and to broaden the perspective of both the scientific and governmental communities regarding the value of such science-government interaction. The ASM Fellow will function as special legislative assistant within the congressional staff.

The American Association for the Advancement of Science will arrange a carefully structured orientation program, guide the placement process, and coordinate weekly seminars throughout the year for the ASM Fellow, as well as other Congressional Fellows.


Individual Investigator Research Grant
Foundation Fighting Blindness (FFB)
Due date: Feb 28, 2013

Individual Investigator Research Grant Awards are designed to concentrate research in areas that will have the greatest potential to move towards treatments and cures for the inherited orphan retinal degenerative diseases and dry age-related macular degeneration (dAMD). FFB does not support research for neovascular AMD or diabetic retinopathy. The Foundation has identified research priority areas that align with its mission and the goals of each of these research priority areas are defined below. The FFB will also consider proposals for highly novel research that
Therapeutic Approaches 1. Gene Therapy (GT) Develop and optimize viral and/or non-viral gene delivery systems for the treatment of dominant, recessive and X-linked retinal degenerative diseases. Demonstrate efficacy and safety using pre-clinical models in preparation for human clinical trials. Applications of interest are those that propose to: - Identify novel viral serotypes with advantageous properties for retinal gene therapy, such as those that target different retinal cell types; - Develop gene therapy approaches that provide delivery of genes to photoreceptor cells following intravitreal injection; - Develop gene therapy approaches that provide delivery of large genes to photoreceptors; - Develop gene therapy vectors for which the expression of therapeutic gene expression can be regulated; - Develop disease-specific or alternative approaches to gene therapy. 2. Regenerative Medicine (RM) Develop strategies to rescue and, ultimately, replace dead retinal cells with cells capable of functional replacement (e.g., stem cells or retinal precursor cells), sufficient to restore lost vision. Applications of interest are those that propose to: - Identify the best source of cells for ensuring survival of host cells (rescue) and, in the case of replacement, identify cells that can integrate, differentiate, and function appropriately in the host retina; - Characterize the role of the extracellular matrix in transplant survival; - Optimize cell-based rescue and replacement; - Identify predictive biomarkers (serological, genetic, or anatomic) that enable one to identify appropriate recipients of therapy as well as appropriate sources of donor tissue. 3. Novel Medical Therapies (NMT) Develop drugs to retain retinal function and structure in retinal degenerative diseases, including the creation of improved animal models of human disease, better functional testing of drug effectiveness, and novel drug delivery systems. Applications of interest are those that propose to: - Develop drugs to preserve retinal function and structure; - Incorporate drugs/compounds/molecules already "available"; - Evaluate novel drug delivery systems; - Screen for novel targets/mechanisms/drugs. Basic Research 4. Genetics (GE) Identify disease-causing mutations in inherited retinal disorders, in part by integrating comprehensive genetic testing into routine clinical care. Identify inherited risk factors for age-related macular degeneration (AMD) and the relative contributions of associated genetic and non-genetic factors (e.g. lifestyle), sufficient to incorporate into treatment and preventions. Applications of interest are those that propose to: - Improve on identification of genes and mutations causing inherited retinal diseases; - Identify genetic, epigenetic and environmental factors modifying clinical expression of inherited retinal diseases; - Identify additional inherited risk factors for age-related macular degeneration and determine the exact favorable and unfavorable alleles; 5. Cell and Molecular Mechanisms of Retinal Disease (CMM) Improve our understanding of the nature and cause of disease in inherited retinal degenerations so that improved therapies for the prevention of vision loss can be developed. Applications of interest are those that propose to: - Investigate the mechanisms by which mutations in retinal degeneration disease genes lead to photoreceptor or RPE cell death; - Investigate the cell biology of photoreceptor cells and RPE; - Investigate the mechanisms that modulate the variability in the rate of progression of retinal degeneration in different individuals, i.e., why do two individuals with the same genetic mutation show very different phenotypes, and can such understanding be translated into therapeutic approaches that modulate the rate of disease progression? - Develop and characterize mammalian animal models of retinal degenerative disorders and dry AMD. Other models systems that make clear the experimental/scientific advantage will also be considered. Clinical Research 6. Clinical-Structure and Function (CL) Develop improved technology and standardized processes to establish relationships between clinical retina function
and retina structure in retinal degenerative diseases and to enable early disease detection. N.B.: Applicants should select the appropriate therapeutic research category, e.g., RM, GT, NMT, for LOIs that focus on therapeutic intervention strategies. Applications of interest are those that propose to: - Improve imaging techniques/advanced technologies that capture the earliest stages of disease; - Identify new and improved methodology for characterizing early disease and for expediting clinical trials; - Identify biomarkers and develop testing in animal models.

http://www.blindness.org/index.php?option=com_content&view=article&id=945&Itemid=273#irg

Warfighter Systems Technologies - Integrated Protective Headborne Equipment and Injury Diagnostic/Assessment Tools
United States Department of Defense (DOD)
Due date: Feb 28, 2013 (concept paper); March 31, 2013 (final proposal)

Head borne protection for the individual combatant involves protection of the head (to include the eyes, neck and throat) against fragmentation munitions, handgun projectiles, blunt trauma impact, and behind armor effects including injuries caused by kinetic energy and blast waves. New materials, designs including modeling and simulation design tools, survivability models, treatments and diagnosis technologies are required to meet this broad range of threats while also providing in-depth consideration to the appropriate ergonomics, comfort, hearing, mission requirements, thermal/vapor management and other cognitive functions necessary for the combatant to fully execute their operational duties without extensive physical or mental impairments.

New diagnostic and assessment tools/methods that medically evaluate the combatant are needed in order to more fully characterize specific warrior populations at risk and requiring further clinical intervention. In order to support this requirement new diagnostic and assessment methods and tools for Post-Traumatic Stress Disorder (PTSD) and Traumatic Brain Injury (TBI) are required. In addition, research data needs to be collected in a systematic manner for the various services, compiled and analyzed in order to develop a baseline for a requirements document. The injury data is a key element in developing treatment and diagnosis tools and new protection/survivability models so that troops maybe better protected in future engagements and injuries treated at the front lines.

A comparison of current capabilities versus future battlefield requirements dictates interest in the following major areas of scientific knowledge and technological capabilities. Technology is needed for
- new and improved polymers for fiber reinforced plastics and resins which can provide increased ballistic protection and lighter weight;
- new fibers and materials for energy absorption and moisture vapor permeability/cooling management;
- transparent materials for enhanced eye protection without reductions in visibility;
- improved lightweight integrated communications devices;
- engineering designs which incorporate enhancements to combat helmets including area of
coverage, field of view, modular attachment points, speech recognition, and compatibility with existing equipment and improved hearing capabilities;
- modeling and simulation tools for material/armor system designs; and
- modeling and simulation survivability design tools including bio-mechanics and injury prevention/diagnosis models.

A need also exists for the following:
1. Novel modular designs and integration concepts to identify the best technical approach to provide head protection to the individual combatant against multiple ballistic and nonballistic threats - such concepts should identify ballistic protection capabilities for each component and area of the head to be protected; upon identification of critical design elements further efforts should establish the feasibility of systematically combining those modular components into a lightweight head borne system of approximately three and a half pounds providing a high level of protection against the identified threats and high level of user comfort
2. Unique and novel design approaches, which utilize the currently fielded equipment and developmental items as a base platform for incorporating modular components for improved ballistic/blast protection and would offer the user the ability to tailor the level of protection to the current threat by adding or removing modular integrated components (i.e., face shield, eye protection, neck protection)
3. Unique and novel design approaches for protective assemblies, which provide maximum area coverage and ballistic resistance capabilities - these systems could weigh as much as six to eight pounds and encompass the entire head; this type of approach will require attachment designs and bio-mechanics studies to determine the best means for carrying the system weight on the shoulders or other parts of the body and be capable of allowing the user to tailor the level of protection to the anticipated threat by adding or removing modular integrated components
4. Ergonomic and human factor studies to identify key parameters for user acceptability - the identified design(s) include studies, laboratory data and human evaluations for heat stress retention, stability, ability to fire weapon systems, maneuverability and general form, fit and function of proposed design
5. Modeling and simulation design and material evaluation tools which provide engineers and medical personnel the appropriate human interface information necessary to mitigate injuries from a variety of threats encountered on the modern battlefield
6. Characterization and surveillance of, and mitigation of, Post-Traumatic Stress Disorder (PTSD) and Traumatic Brain Injury (TBI), primarily within military personnel
7. There is a need to match evidence-based services to the needs of deployed personnel, and to allow the Navy Surgeon General and the Medical Officer of the Marine Corps to provide accurate psychological health information; specifically, there is a critical need for surveillance to determine the prevalence of psychological health problems and TBI in expeditionary Sailors and Marines, particularly in high-risk populations such as infantry
8. Other topics pertaining to psychological health relevant to TBI are develop a core body of knowledge in compassion fatigue; evaluate the need for telemedicine; educate professional on those affected by disease or addiction; develop course on how to use pharmacotherapy treatment and non-pharmacological intervention; standardize a Neurocognitive and Combat Stress Toolbox; develop a portable head-neck CT scan for use in patient transport; study ocular signs of TBI; develop the Navy Reserve's Psychological Health strategic plan; develop critical skills related to individual and family emotional regulation, problem solving, communication, and
accessing support; develop assessment and treatment program for the families of Wounded Warriors; develop an outreach program for Marines; provide mental health case managers and oversight for each Wounded Warrior Battalion; train support staff at USMC HQ; enhance knowledge and skills on non-mental health caregivers to recognize combat related symptoms; train mental health providers on the techniques and interventions necessary to decrease combat operational stress; provide on-site training for OSCAR team members prior to deployment; investigate negative expectations about disclosing combat experiences; develop website for self-management intervention employing empirically derived cognitive-behavioral therapy; develop pre-deployment training for psychological first aid; etc.


Ground-Based Studies in Space Radiobiology
National Aeronautics and Space Administration (NASA)
Due date: Feb 28, 2013 (step 1); May 09, 2013 (step 2)

Research to be supported will reduce the uncertainties in risk predictions for cancer/ radiation risks; provide the necessary data/knowledge to develop risk projection models for central nervous system and other degenerative tissue risks; and advance the understanding of the mechanisms of biological damage that underlies radiation health risks. Proposals are solicited in the area of Space Radiation Biology utilizing beams of high energy heavy ions simulating space radiation at the NASA Space Radiation Laboratory, at Brookhaven National Laboratory in Upton, New York.

http://www.grants.gov/search/search.do?mode=VIEW&oppId=137154

Neuroepidemiology
United States Department of Defense (DOD)
Due date: Feb 28, 2013 (concept paper); March 31, 2013 (final proposal)

Epidemiological field research methodology and improvements in the assessment and early detection of adverse neurological health and performance risks are critical for protection of soldiers’ health. The primary goal of the research program is to apply epidemiological field study methodologies to identify and better understand the adverse neurological health and performance risks associated with deployment operations and military service in general.

Areas of study to be addressed include feasible biomarker(s) of acute, chronic, and cumulative exposures to neurotoxicants present in the military occupational environment, field-tested techniques for the assessment of exposure to neurotoxicants (particularly chronic exposures), neurocognitive outcomes assessment, neurophysiologic markers of early effect, and long-term neurological health consequences of deployment and military service.

PHYSICAL SCIENCES & MATHEMATICS
See also opportunities listed under MULTIPLE DISCIPLINES

National Science Foundation (NSF)
Directorate for Geosciences (GEO)
Division of Ocean Sciences (OCE) - Ocean Section
Due date: The OCE division of NSF has multiple programs due on 2/15/13. Please follow each individual program link below for additional details.

Physical Oceanography Program
This program supports research on a wide range of topics associated with the structure and movement of the ocean, with the way in which it transports various quantities, with the way the ocean's physical structure interacts with the biological and chemical processes within it, and with interactions between the ocean and the atmosphere, solid earth and ice that surround it.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12729

Chemical Oceanography Program
The program supports research into the chemical components, reaction mechanisms, and geochemical pathways within the ocean and at its interfaces with the solid earth and the atmosphere. Major emphases include studies of material inputs to and outputs from marine waters; orthochemical and biological production and transformation of chemical compounds and phases within the marine system; and the determination of reaction rates and study of equilibria. The program encourages research into the chemistry, distribution, and fate of inorganic and organic substances introduced into or produced within marine environments including those from estuarine waters to the deep sea.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=11698

Biological Oceanography
This program supports research in marine ecology broadly defined: relationships among aquatic organisms and their interactions with the environments of the oceans or Great Lakes. Projects submitted to the program for consideration are often interdisciplinary efforts that may include participation by other OCE Programs.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=11696

Marine Geology and Geophysics
The program supports research on all aspects of geology and geophysics of the ocean basins and margins, as well as the Great Lakes. The program includes
- structure, tectonic evolution and volcanic activity of the ocean basins, the continental margins, the mid-ocean ridges, and island arc systems;
- processes controlling exchange of heat and chemical species between seawater and ocean rocks;
- genesis, chemistry, and mineralogic evolution of marine sediments;
- processes controlling deposition, erosion, and transport of marine sediments;
- past ocean circulation patterns and climates; and
- interactions of continental and marine geologic processes.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=11726

**Summer Scholars Program – Undergraduate Summer Intern Program in Geoscience**
Carnegie Institution of Washington Geophysical Laboratory

**Due date: Feb 28, 2013**

The Geophysical Laboratory (GL) and the Department of Terrestrial Magnetism (DTM) of the Carnegie Institution of Washington have been leaders in earth science research since their founding. The goal of the summer internship program is to provide eligible undergraduate students with a participatory introduction to scientific research. Fundamental investigations in the geosciences (experimental petrology, mineralogy, mineral physics, seismology), planetary sciences and astronomy, and related chemical sciences (inorganic and organic geochemistry, cosmochemistry) are pursued.

During the summer program, undergraduate students will conduct an individual research project with guidance from a GL or DTM staff member. Throughout the summer, students will also tour other District of Columbia area research facilities and participate in a weekly seminar program.

The following are examples of the types of research projects students might pursue
- experimental petrology (diamond formation, solubility of silicates in aqueous fluids, phase equilibria of hydrous minerals);
- mineralogy (petrologic studies of significant rock-forming minerals, X-ray diffraction studies of phase transitions in minerals);
- seismology (global and regional studies, mantle anisotropy, earthquake rupture processes);
- planetary geology (the interior of Mars, volcanism and tectonics on Mars);
- astronomy (formation of star- and planet-forming disks, star formation in the Milky Way);
- mineral physics (high-pressure materials science, planetary gases, pressure-induced amorphization, crystallization, chemical bonding, and electronic transitions);
- biogeochemistry (isotope studies of climate change, paleo-oceanographic conditions, and prehistoric human behavior, the behavior of organic compounds at high temperature and pressure, astrobiology);
- geochemistry (magma chamber processes, isotopic studies of mantle evolution or crustal genesis, formation of ancient volcanic rocks); and
- cosmochemistry (meteoritics, presolar stellar grains); analytical chemistry (secondary ion and plasma mass spectrometry).

Undergraduate students pursuing a degree in geoscience, physics, chemistry, materials science, biology, astronomy, or a related field, who are considering scientific research as a potential career, are encouraged to apply.

https://www.gl.ciw.edu/static/groups/summerscholars/apply.html
SOCIAL SCIENCES
See also opportunities listed under HUMANITIES; INTERNATIONAL AREA STUDIES; and MULTIPLE DISCIPLINES

Dissertation Fellowships
Guggenheim Foundation, Harry Frank
Due date: Feb 01, 2013

Dissertation fellowships are awarded each year to individuals who will complete the writing of the dissertation within the award year. These fellowships are designed to contribute to the support of the doctoral candidate to enable him or her to complete the thesis in a timely manner. Applications are evaluated in comparison with each other and not in competition with the postdoctoral research proposals.

Highest priority is given to research that can increase understanding and amelioration of urgent problems of violence, aggression, and dominance in the modern world. Particular questions that interest the foundation concern violence, aggression, and dominance in relation to social change, the socialization of children, intergroup conflict, drug trafficking and use, family relationships, and investigations of the control of aggression and violence. Research with no useful relevance to understanding and attempting to cope with problems of human violence and aggression will not be supported, nor will proposals to investigate urgent social problems where the foundation cannot be assured that useful, sound research can be done. Priority will also be given to areas and methodologies not receiving adequate attention and support from other funding sources.

http://www.hfg.org/df/guidelines.htm

Research on Alcohol-Related Public Policies Such as Those Detailed in the Alcohol Policy Information System (R01)
National Institutes of Health (NIH)
Due date: Feb 05, 2013

This FOA invites applications to conduct research on the effects of alcohol-related public policies on health, economic, and social behaviors and outcomes. The purpose of the FOA is to advance understanding of public policy pertaining to alcohol as a tool for improving public health and welfare. The NIAAA has developed the Alcohol Policy Information System (APIS) as a resource for researchers conducting studies in this area; studies that make use of the information available through APIS are particularly encouraged. Research supported by this FOA includes, but is not necessarily limited to, studies examining the effects of alcohol-related public policies on health-related behaviors and outcomes, evaluations of public policies as tools for improving public health, and research to advance methods and measurement used in studying relationships between alcohol-related public policies and health-related behaviors and outcomes.

Social Neuroscience and Neuroeconomics of Aging (R21)
National Institutes of Health (NIH)
**Due date: Feb 16, 2013**

The NIA issues this FOA with special review to stimulate interdisciplinary aging-relevant research in the social, affective and economic neurosciences. The NIA invites applications examining social, emotional and economic behaviors of relevance to aging, using approaches that examine mechanisms and processes at both (a) the social, behavioral or psychological (emotional, cognitive, motivational) level, and (b) the neurobiological or genetic level. Applications are encouraged that have an overriding emphasis on economic, social or emotional processes and associated genetic or neurobiological processes. Applications should demonstrate either relevance for aging or for age differences or age-related changes in these processes. Aging-relevant applications can address issues of importance to the well-being and health of either mid-life or older adults, and can include data spanning the entire life course.

The NIA also encourages research projects that propose advances in measurement of economic and social phenotypes. Research is needed to identify core psychological and behavioral constructs and intermediary neurobiological phenotypes responsible for individual differences in economic and socioemotional behaviors, to enhance the potential for their application to life course genetic studies. There is an increasing need for measures that are harmonizable (to enable data pooling and cross-study comparisons) and flexible (capable of application across laboratory and field contexts).


Ecological Approach to Warfighter Survivability; Perception-Action-Cognition
United States Department of Defense (DOD)
**Due date: Feb 28, 2013 (concept paper); March 31, 2013 (final proposal)**

The degree to which physically coupled load, coupled environmental information, and cognitive requirements interact in regulating of emergent properties of Warfighter performance is unknown. Consequences on perception-action (P-A) coupling are suggested to have significant impact on Warfighter survival and performance, given the extreme loads, cognitive tasks, and environmental constraints of combat and training. This new thrust area within NSRDEC offers the potential for significant progress in understanding the impact of load, equipment, cognition, and environment on Warfighter survival and performance using Ecological Task Analysis. Research is required at the Applied and Basic levels in order to ascertain and link operational performance metrics, coordinative and intentional dynamics, and underlying system dynamics to survivability and performance in combat. The Enterprise for the Ecological Study of Warfighter Load seeks to integrate various aspects of Ecological theory and Dynamic Systems approaches to understand the nested dynamics involved in specific operational tasks (dynamic marksmanship, threat identification during locomotion, situational awareness, et cetera). Impacts of physically
coupled load on information pick up and intentional task dynamics under fatigue/stress conditions are an unexamined but necessary area of research into Survivability. The Enterprise seeks to build a collaborative group within government and academia who support best practices data collection and analysis approaches in order to best serve the Warfighters needs while expanding the applicability of the ecological approach to understanding the Human Dimension.

Basic research areas include the following:
1. Fundamental haptic response to Load parameterization; effects on motor abundance, stability, and adaptability. Biotensegrity models and dynamic touch as a means to understand the dynamics of segmental load.

2. Dynamic visual acuity (DVA) and precision performance under load

3. Aural-visual localization under increased perceptual encapsulation and load

4. Consequences of load on behavioral action modes; Biospectroscopic analysis of load parameterization in field conditions. Long time-scale impacts on affordances under load and reflections of route choice and task accomplishment in combat.


**MULTIPLE DISCIPLINES**

**Research on Ethical Issues in Biomedical, Social and Behavioral Research (R03)**
National Institutes of Health (NIH)
**Due date: Feb 16, 2013**

The purpose of this FOA is to support investigator-initiated Small Research Grant Award (R03) applications that propose to study high priority bioethical challenges and issues associated with the types of biomedical, social and behavioral research supported by the participating NIH Institutes/Centers. The Office of Behavioral and Social Sciences Research (OBSSR) joins this FOA as part of its efforts to promote research on the behavioral and social aspects of health and illness. However, only participating ICs will provide direct grant support under this FOA.

Applications should address bioethical challenges and ethical issues relevant to the research mission area(s) of the participating NIH Institutes and Centers (ICs). The participating ICs have identified specific bioethics topics below as the highest priority for consideration. These are organized into seven categories:
1. Ethical considerations of new and emerging technologies;
2. Research study design issues
3. Issues associated with therapeutic misconception and the interface between treatment and research
4. Research involving vulnerable populations and urgent situations
5. Research with existing specimens, data, and health information
6. Dissemination and translation of research findings
7. Oversight of research

Applications that address other bioethical issues directly related to these mission areas will also be considered


**Philip M. Hamer-Elizabeth Hamer Kegan Award**
Society of American Archivists (SAA)
**Due date: Feb 28, 2013**

The Philip M. Hamer-Elizabeth Hamer Kegan Award recognizes an archivist, editor, group of individuals, or institution that has increased public awareness of a specific body of documents through compilation, transcription, exhibition, or public presentation of archives or manuscript materials for educational, instructional, or other public purpose. Archives may include photographs, films, and visual archives. Publication may be in hard copy, microfilm, laser disk, or other circulating medium.

http://www2.archivists.org/governance/handbook/section12-hamer

**Warfighter Systems Technologies - Chemical/Biological Protection for Individuals**
United States Department of Defense (DOD)
**Due date: Feb 28, 2013 (concept paper); March 31, 2013 (final proposal)**

The protection of the soldier from exposure to hazardous chemicals, such as chemical warfare agents, is essential to mission accomplishment on today's battlefield and that of the future. This protection is currently accomplished through the use of an activated carbon system, the use of semi-permeable material systems, and the use of impermeable barrier materials. The activated carbon system is used in protective overgarments and affords protection by adsorbing hazardous chemicals. The impermeable barrier materials consist of rubber, coated, and multilayer laminate fabrics found in gloves, boots and special purpose (e.g., depot storage/demolition/explosive ordnance disposal ensembles), which afford protection by acting as a physical barrier to chemicals.

Future needs for chemical-protective uniforms require that they protect against multiple threats, including toxic aerosols and biological agents, be decontaminable and reusable. These uniforms must also be comfortable in all climates and not impair the mobility or performance of the
soldier. The materials for these uniforms should be lightweight, have improved protection for resistance to liquid, vapor, and aerosol CB agent penetration, lessen the propensity for heat stress, have increased durability and shelf life, and be reusable through the use of reactive and biocidal materials that will detoxify the chemical warfare (CW) agents without adverse reaction with the skin.

A comparison of current capabilities versus future battlefield requirements dictates interest in the following major areas of scientific knowledge and technological capabilities:
1. Novel materials and concepts that could provide protection against highly toxic compounds, including toxic industrial chemicals (TIC) and military offensive chemical agents (blister, nerve, etc.) in gross contamination amounts for extended periods (greater than four hours), and biological agents
2. Swatch and system test methodologies for evaluating the effectiveness of emerging CB material technologies to provide protection against hazardous chemicals.
3. Low cost service life indicator that can be worn or stored inside a chemical protective garment package to visibly display or provide some reading as to the degree of protection remaining in the garment are of interest as are applications of novel polymers and smart materials.
4. Reduce/minimize the need for live agent testing to verify the chemical protection of current carbon based sorptive systems.
5. Advanced material technologies such as elastomeric, polymeric, semi-permeable or selectively permeable membrane technology that allows selective permeation of moisture while preventing penetration of chemical and biological warfare agents in the forms of liquid, vapor, and aerosol.
6. Garment design and novel closure systems for CB protective clothing systems. We are interested in ensemble designs that enhance protection and reduce thermal burden.
7. Mechanisms and garment treatments that capture and possibly react with aerosolized threat particles. Key to this work would be to demonstrate that such treatments could remain effective during the normal use and service life of the protective garment.
8. Improved and multi-functional outer shell materials for CB protective garments.


Warfighter Systems Technologies - Chemical/Biological Protection for Individuals
United States Department of Defense (DOD)
Due date: Feb 28, 2013 (concept paper); March 31, 2013 (final proposal)

Survivability is fundamental to the conduct of warfare. The countersurveillance mission is to enhance the survivability of the Warfighter on the battlefield by providing textiles for uniforms, individual equipment and paints and textiles for exposed skin that reduce detectability by various sensors. These sensor threats include the eye, near-infrared image intensifiers, short-wave infrared devices, thermal imagers, radar and multi-spectral sensors.

Signature suppression with textile and skin camouflage materials usually take the form of dyes/pigments, additives and coatings, although novel and innovative solutions are encouraged. Thermal countermeasures must not degrade existing countermeasures for visual and near-
infrared (NIR) protection. They should be passive, hypo-allergenic and not increase the bulk or heat stress over levels currently imposed by existing clothing systems.

Analysis of user requirements and current capabilities indicate the need for near and far term research proposals related to novel concepts and materials that
- defeat the threat of short-wave infrared devices;
- defeat the threat of thermal sensor detection;
- defeat the threat of radar detection;
- defeat multispectral threat sensors;
- provide novel camouflage solutions to current and future sensor threats by exploring the applicability of a wide variety of technical approaches without compromising visual and NIR;
- provide NIR protection and maintain shade after laundering and exposure to various environmental conditions; and
- provide protection to exposed hands and facial areas to defeat multispectral sensor detection.


Combat Ration Research and Development
United States Department of Defense (DOD)
Due date: Feb 28, 2013 (concept paper); March 31, 2013 (final proposal)

Shelf-stable prepared combat rations are essential for enabling the individual Warfighter to perform assigned missions and to survive battlefield threats. The requirements for compactness, storage stability, protection, modularity, enhanced nutrition, Warfighter acceptance, convenience, and producibility have become even more stringent in anticipation of supporting highly mobile, widely dispersed Warfighters in climatic extremes. Combat ration functionality goals can be divided into the following specific interest areas:
1. Storage stability with maximum quality and nutrient retention
2. Production and distribution efficiency
3. Consumption/acceptance enhancement
4. Human performance optimization/enhancement
5. Improved, enhanced and more effective protective packaging systems
6. Collection and consolidation of quality assurance and environmental data
7. Food safety and food security/defense
8. Novel, non-thermal/thermal food processing methods and technologies
9. Environmentally preferable green food processing methods and food packaging materials.