West Virginia Science & Research
HIGHER EDUCATION POLICY COMMISSION

The Division of Science and Research distributes a weekly e-mail update regarding current grant opportunities from a variety of funders, including the National Science Foundation, NASA, National Institute of Health and others. To sign up for alerts, contact Dr. Jan Taylor.

GRANT OPPORTUNITIES

Division of Science and Research

NSF
NIH
DOE
NASA
EPA

National Science Foundation

The NSF Research Traineeship (NRT) program is designed to encourage the development and implementation of bold, new, and potentially transformative models for STEM graduate education training. The NRT program seeks proposals that ensure that graduate students in research-based master's and doctoral degree programs develop the skills, knowledge, and competencies needed to pursue a range of STEM careers. The NRT program includes two tracks: the Traineeship Track and the Innovations in Graduate Education (IGE) Track. Full Proposal Deadline Date: February 7, 2017.

The goals of the Critical Resilient Interdependent Infrastructure Systems and Processes (CRISP) solicitation are to: (1) foster an interdisciplinary research community of engineers, computer and computational scientists and social and behavioral scientists, that creates new approaches and engineering solutions for the design and operation of infrastructures as processes and services; (2) enhance the understanding and design of interdependent critical infrastructure systems (ICIs) and processes that provide essential goods and services despite disruptions and failures from any cause, natural, technological, or malicious; (3) create the knowledge for innovation in ICIs so that they safely, securely, and effectively expand the range of goods and services they enable; and (4) improve the effectiveness and efficiency with which they deliver existing goods and services. Full Proposal Deadline Date: February 8, 2017.

The Instrumentation and Facilities Program in the Division of Earth Sciences (EAR/IF) supports meritorious requests for infrastructure that promotes research and education in areas supported by the Division (see http://www.nsf.gov/div/index.jsp?div=EAR). Under this solicitation EAR/IF will consider proposals for Laboratory Technician Support to provide for optimal and efficient operation of advanced instrumentation, analytical protocol development, and user training for Earth science research instrumentation. Support is available through grants in response to investigator-initiated proposals. Technician support duties that promote human resource development and education are expected to be an integral part of proposals. Efforts to support participation of underrepresented groups in laboratory and/or field instrument use and training are encouraged as part of any described technician's duties. Proposals from early career (tenure track but untenured) lead investigators are also encouraged. Such proposals will be given due consideration as part of the Broader Impacts merit review criterion. Full Proposal Deadline Date: February 9, 2017.

Geography and Spatial Sciences Program - Doctoral Dissertation Research Improvement Awards (GSS-DDRI) - The Geography and Spatial Sciences Program sponsors research on the geographic distributions and interactions of human, physical, and biotic systems on Earth. Investigators are encouraged to propose plans for research about the nature, causes, and consequences of human activity and natural environmental processes across a range of scales. Projects on a variety of topics qualify for support if they offer promise of contributing to scholarship by enhancing geographical knowledge, concepts, theories, methods, and their application to societal problems and concerns. As part of its effort to encourage and support projects that explicitly integrate education and basic research, GSS provides support to improve the conduct of doctoral dissertation projects undertaken by doctoral students enrolled in U.S. universities when the dissertation research is conducted in a scientifically sound manner and it offers strong potential for enhancing more general scientific knowledge. Full Proposal Deadline Date: February 9, 2017.

Through this solicitation, NSF is seeking to expand and sustain the network of Innovation Corps (I-CorpsTM) (hereinafter I-Corps) Nodes that work cooperatively to support the development of innovations that will benefit society. NSF plans to build upon the established National Innovation Network (consisting of I-Corps Nodes and Sites) to further support the needs for innovation research, education and training. The interconnected nodes of the network are expected to be diverse in research areas, resources, tools, programs, capabilities, and geographic locations - providing the network with the flexibility to grow or reconfigure as needs arise. I-Corps Nodes will foster understanding on how to: 1) identify, develop and support promising ideas that can generate value, 2) create and implement tools, resources and training activities that enhance our nation's innovation capacity, 3) gather, analyze, evaluate and utilize the data and insight resulting from the experiences of those participating in regional programs and 4) share and leverage effective innovation practices on a national scale - to improve the quality of life for the U.S. citizenry. In addition, Nodes must identify and are expected to implement plans for sustainable scaling of their efforts beyond the duration of NSF support. Letter of Intent Deadline Date: February 9, 2017. Full Proposal Deadline Date: March 14, 2017.

In order to contribute to a national innovation ecosystem, NSF established the NSF Innovation Corps Sites Program (NSF I-Corps Sites). Sites are funded at academic institutions, having already existing innovation or entrepreneurial units, to enable them to: Nurture students and/or faculty who are engaged in projects having the potential to be transitioned into the marketplace. I-Corps Sites will provide infrastructure, advice, resources, networking opportunities, training and modest funding to enable groups to transition their work into the marketplace or into becoming I-Corps Team applicants; and Develop formal, active, local innovation ecosystems that contribute to a larger, national network of mentors, researchers, entrepreneurs and investors. Networking is an essential component of all of NSF's I-Corps activities – local and national networking activities help advance the goals of I-Corps and contribute to local and national ecosystems for innovation. The purpose of an I-Corps Site is to nurture and support multiple, local teams to transition their ideas, devices, processes or other intellectual activities into the marketplace. Full Proposal Deadline Date: February 9, 2017.

The Science of Science & Innovation Policy (SciSIP) program supports research designed to advance the scientific basis of science and innovation policy. The program funds research to develop models, analytical tools, data and metrics that can be applied in the science policy decision making process and concern the use and allocation of scarce scientific resources. For example, research proposals may develop behavioral and analytical conceptualizations, frameworks or models that have applications across the broad array of science and innovation policy challenges. Proposals also may develop methodologies to analyze science, technology and innovation data, and to usefully convey that information to a variety of audiences. Proposals that create and improve science, engineering and innovation data, including the design of new metrics and indicators, particularly proposals that demonstrate the viability of collecting and analyzing data on knowledge generation and innovation in organizations, are encouraged. Full Proposal Deadline Date: February 9, 2017.

The purpose of the Cyberlearning and Future Learning Technologies program is to integrate opportunities offered by emerging technologies with advances in what is known about how people learn to advance three interconnected thrusts: Cyber innovation: Developing next-generation cyber-learning approaches through high-risk, high-reward advances in computer and information science and engineering; Learning innovation: Inventing and improving next-generation genres (types) of learning technologies, identifying new means of using technology for fostering and assessing learning, and proposing new ways of integrating learning technologies with each other and into learning environments to foster and assess learning; and Advancing understanding of how people learn in technology-rich learning environments: Enhancing understanding of how people learn and how to better foster and assess learning, especially in technology-rich learning environments that offer new opportunities for learning and through data collection and computational modeling of learners and groups of learners that can be done only in such environments. The intention of this program is to advance technologies that specifically focus on the experiences of learners; innovations that simply focus on making teaching easier will not be funded. Proposals that focus on teachers or facilitators as learners are invited; the aim in these proposals should be to help teachers and facilitators capitalize on the affordances of technology and fundamental knowledge about how people learn to make the learning experiences of learners more effective. Full Proposal Deadline Date: February 10, 2017.

EarthScope is an Earth science program to explore the 4-dimensional structure of the North American continent. The EarthScope Program provides a framework for broad, integrated studies across the Earth sciences, including research on fault properties and the earthquake process, strain transfer, magmatic and hydrous fluids in the crust and mantle, plate boundary processes, large-scale continental deformation, continental structure and evolution, and composition and structure of the deep Earth. In addition, EarthScope offers a centralized forum for Earth science education at all levels and an excellent opportunity to develop cyberinfrastructure to integrate, distribute, and

analyze diverse data sets. This Solicitation primarily encourages submission of proposals that integrate and synthesize major outcomes of EarthScope research and education and outreach efforts with the goal of elucidating and documenting the advances the EarthScope program has made since its inception. Full Proposal Target Date: February 10, 2017.

EPSCoR Research Infrastructure Improvement Program: Track-2 Focused EPSCoR Collaborations (RII Track-2 FEC) - RII Track-2 FEC builds interjurisdictional collaborative teams of EPSCoR investigators in scientific focus areas consistent with NSF priorities. Projects are investigator-driven and must include researchers from at least two RII-eligible jurisdictions. The Science, Technology, Engineering, and Mathematics (STEM) research and education activities should seek to broaden participation through the strategic inclusion and integration of different types of individuals, institutions, and sectors throughout the project. Proposals must describe a comprehensive and integrated vision to drive discovery and build sustainable STEM capacity that exemplifies diversity of all types (individual, institutional, geographic, and disciplinary). The development of diverse early-career faculty is a critical component of this sustainable STEM capacity. For FY 2017, RII Track-2 FEC proposals are invited on a single topic: Genomes to Phenomes. Letter of Intent Deadline Date: January 10, 2017. Full Proposal Deadline Date: February 10, 2017.

The Algorithms for Modern Power Systems (AMPS) program will support research projects to develop the next generation of mathematical and statistical algorithms for improvement of the security, reliability, and efficiency of the modern power grid. The program is a partnership between the Division of Mathematical Sciences (DMS) at the National Science Foundation (NSF) and the Office of Electricity Delivery & Energy Reliability (OE) at the U.S. Department of Energy (DOE). Full Proposal Deadline Date: February 13, 2017.

The Cognitive Neuroscience Program seeks highly innovative proposals aimed at advancing a rigorous understanding of the neural mechanisms of human cognition. Central research topics for consideration by the program include attention, learning, memory, decision-making, language, social cognition, and emotions. Proposals with animal models are appropriate only if they include a comparative element with human subjects. Full Proposal Deadline Date: February 13, 2017.

Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES) is a comprehensive national initiative designed to enhance U.S. leadership in science, technology, engineering and mathematics (STEM) discoveries and innovations focused on NSF's commitment to diversity, inclusion, and broadening participation in these fields. NSF INCLUDES supports efforts to create networked relationships among organizations whose goals include developing talent from all sectors of society to build the STEM workforce. This initiative seeks to improve collaborative efforts aimed at enhancing the preparation, increasing the participation, and ensuring the contributions of individuals from groups that have traditionally been underrepresented and underserved in the STEM enterprise: women, persons with disabilities, African Americans/Blacks, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians, Native Pacific Islanders, and persons from economically disadvantaged backgrounds. Significant advancement in the inclusion of these groups will result in a new generation of STEM talent and leadership to secure our nation's future and long-term economic competitiveness. The grand challenge of roadening participation in STEM is to transform the STEM enterprise at all levels in order to fully engage the nation's talent for the ultimate improvement of the STEM enterprise. As a comprehensive national initiative, NSF INCLUDES aims to address the various complex equity and inclusion-related challenges and opportunities that characterize the nation's cultural and linguistic diversity, with a specific emphasis on the aforementioned groups. The goal is to achieve impact at the national level. Preliminary Proposal Deadline Date: February 14, 2017. Full Proposal Deadline Date: May 16, 2017.

The Biological Oceanography 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. Full Proposal Target Date: February 15, 2017.

The Chemical Oceanography 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. Full Proposal Target Date: February 15, 2017.

Cultivating Cultures for Ethical STEM (CCE STEM) funds research projects that identify factors that are efficacious in the formation of ethical STEM researchers in all the fields of science and engineering that NSF supports. CCE STEM solicits

proposals for research that explores the following: 'What constitutes ethical STEM research and practice, and which cultural and institutional contexts promote ethical STEM research and practice and why?' Factors one might consider include: honor codes, professional ethics codes and licensing requirements, an ethic of service and/or service learning, life-long learning requirements, curricula or memberships in organizations (e.g. Engineers without Borders) that stress social responsibility and humanitarian goals, institutions that serve under-represented groups, institutions where academic and research integrity are cultivated at multiple levels, institutions that cultivate ethics across the curriculum, or programs that promote group work, or do not grade. Do certain labs have a 'culture of academic integrity'? What practices contribute to the establishment and maintenance of ethical cultures and how can these practices be transferred, extended to, and integrated into other research and learning settings? Successful proposals typically have a comparative dimension, either between or within institutional settings that differ along these or other factors. Full Proposal Deadline Date: February 15, 2017.

The United States-Israel Collaboration in Computer Science (USICCS) program is a joint program of NSF and the United States - Israel Binational Science Foundation (BSF). The program supports research projects that develop new knowledge in the theory of computing; algorithm design and analysis; design, verification, and evaluation of software systems; and revolutionary computing models based on emerging scientific ideas. Through this program, NSF and BSF will jointly support collaborations among US-based researchers and Israel-based researchers. US-based researchers will receive funds from NSF to support travel to Israel to interact with their Israeli counterparts. Israel-based and US-based researchers will receive funds allowable under the BSF program described at http://www.bsf.org.il/. Full Proposal Window: February 1, 2017 - February 15, 2017.

The goal of this Smart & Connected Communities (S&CC) solicitation is to support strongly interdisciplinary, integrative research and research capacity-building activities that will improve understanding of smart and connected communities and lead to discoveries that enable sustainable change to enhance community functioning. Unless stated otherwise, for the purposes of this year's solicitation, communities are physical, geographically-defined entities, such as towns, cities, or incorporated rural areas, consisting of various populations, with a governance structure and the ability to engage in meaningful ways with the proposed research. Successful S&CC projects are expected to pursue research and research capacity-building activities that integrate multiple disciplinary perspectives and undertake meaningful community engagement, and to include appropriate and robust evaluation plans for assessing activities and outcomes. To meet the multidisciplinary criterion, proposals must meaningfully integrate across both social and technological research dimensions. Full Proposal Deadline Date: February 16, 2017.

The Algorithms for Threat Detection (ATD) program will support research projects to develop the next generation of mathematical and statistical algorithms for analysis of large spatiotemporal datasets with application to quantitative models of human dynamics. The program is a partnership between the Division of Mathematical Sciences (DMS) at the National Science Foundation (NSF) and the National Geospatial Intelligence Agency (NGA). Full Proposal Deadline Date: February 21, 2017.

The goal of the Dimensions of Biodiversity campaign is to transform, by 2020, how we describe and understand the scope and role of life on Earth. This campaign promotes novel integrative approaches to fill the most substantial gaps in our understanding of the diversity of life on Earth. It takes a broad view of biodiversity, and focuses on the intersection of genetic, phylogenetic, and functional dimensions of biodiversity. Successful proposals must integrate these three dimensions to understand interactions and feedbacks between and among them. While this focus complements several core programs in BIO, it differs by requiring that multiple dimensions of biodiversity be addressed simultaneously, in novel ways, to understand their synergistic roles in critical ecological and evolutionary processes, especially pertaining to the mechanisms driving the origin, maintenance, and functional roles of biodiversity. The Dimensions of Biodiversity program again includes partnerships with the National Natural Science Foundation of China (NSFC) and São Paulo Research Foundation (FAPESP) of Brazil in fiscal year 2017. Full Proposal Deadline Date: February 21, 2017.

The PFE: Research Initiation in Engineering Formation (PFE: RIEF) program has two goals: 1) Support research in the Professional Formation of Engineers (PFE), and 2) Increase the community of researchers conducting PFE research. PIs are expected to have little or no experience conducting social science research. PFE: RIEF is not intended for established researchers in engineering education or other social science fields to initiate new projects. Those researchers should consider the Research in the Formation of Engineers program (http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503584). The NSF Engineering (ENG) Directorate has launched a multi-year initiative, the Professional Formation of Engineers, to create and support an innovative and inclusive engineering profession for the 21st Century. Professional Formation of Engineers (PFE) refers to the formal and informal education and value systems by which people become engineers. It also includes the ethical responsibility of

practicing engineers to sustain and grow the profession. The engineering profession must be responsive to national priorities, grand challenges, and dynamic workforce needs; it must be equally open and accessible to all. Full Proposal Deadline Date: February 23, 2017.

Resource Implementations for Data Intensive Research in the Social Behavioral and Economic Sciences (RIDIR) - As part of NSF's Cyberinfrastructure Framework for 21st Century Science and Engineering (CIF21) activity, the Directorate for Social, Behavioral and Economic Sciences (SBE) seeks to develop user-friendly large-scale next-generation data resources and relevant analytic techniques to advance fundamental research in SBE areas of study. Successful proposals will, within the financial resources provided by the award, construct such databases and/or relevant analytic techniques and produce a finished product that will enable new types of data-intensive research. The databases or techniques should have significant impacts, either across multiple fields or within broad disciplinary areas, by enabling new types of data-intensive research in the SBE sciences. Full Proposal Deadline Date: February 27, 2017.

EPSCoR Research Infrastructure Improvement Track 4: EPSCoR Research Fellows (RII Track-4) - RII Track-4 provides opportunities for non-tenured investigators to further develop their individual research potential through extended collaborative visits to the nation's premier private, governmental, or academic research centers. Through these visits, the EPSCoR Research Fellows will be able to learn new techniques, benefit from access to unique equipment and facilities, and shift their research toward transformative new directions. The experience gained through the fellowship is intended to provide a foundation for research collaborations that span the recipient's entire career. These benefits to the Fellows are also expected to in turn enhance the research capacity of their institutions and jurisdictions. PIs must hold a non-tenured faculty appointment or its close equivalent, either in the form of a pre-tenure tenure-track position or a long-term non-tenure-track position. Full Proposal Deadline Date: February 28, 2017.

Computer Science for All (CSforAll:RPP) - This program aims to provide all U.S. students the opportunity to participate in computer science (CS) and computational thinking (CT) education in their schools at the K-12 levels. With this solicitation, the National Science Foundation (NSF) focuses on researcher-practitioner partnerships (RPPs) that foster the research and development needed to bring CS/CT to all schools. Specifically, this solicitation aims to provide high school teachers with the preparation, professional development (PD) and ongoing support that they need to teach rigorous computer science courses, and K-8 teachers with the instructional materials and preparation they need to integrate CS/CT into their teaching. Full Proposal Deadline Date: February 28, 2017.

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National Institutes of Health

Academic-Industrial Partnerships to Translate and Validate in vivo Cancer Imaging Systems (R01) - The purpose of this Funding Opportunity Announcement (FOA) is to stimulate translation of scientific discoveries and engineering developments in imaging or spectroscopic technologies into methods or tools that address problems in cancer biology, risk of cancer development, diagnosis, treatment, and/or disease status. A distinguishing feature of each application will be formation of an academic-industrial partnership, which is a strategic alliance of investigators in academic, industrial, and any other entities who work together as partners to identify and translate a technological solution or mitigation of a cancer-related problem. Application Due Date(s): March 1, 2017; June 7, 2017; October 3, 2017; March 1, 2018; June 7, 2018; October 3, 2018; March 1, 2019; June 7, 2019; and October 3, 2019.

Maximizing Investigators' Research Award (R35) - The Maximizing Investigators' Research Award (MIRA) is a grant to provide support for the program of research in an investigator's laboratory that falls within the mission of NIGMS. For the purpose of this FOA, a program of research is the collection of projects in the investigator's lab that are relevant to the mission of NIGMS. The goal of MIRA is to increase the efficiency and efficacy of NIGMS funding. Application Due Date(s): May 17, 2017; January 17, 2018; May 17, 2018; January 17, 2019; May 17, 2019.

Jointly Sponsored Ruth L. Kirschstein National Research Service Award for Institutional Predoctoral Training Programs in the Neurosciences (T32) - The Jointly Sponsored NIH Pre-doctoral Training Program in the Neurosciences (JSPTPN) is an institutional program that supports broad and fundamental research training in the neurosciences. In addition to a broad education in the neurosciences, a key component will be a curriculum that provides a strong foundation in experimental design, statistical methodology and quantitative reasoning. . JSPTPN programs are

intended to be two years in duration, and students may only be appointed to this training grant during the first 2 years of their graduate research training. The primary objective is to prepare individuals for careers in neuroscience that will have a significant impact on our understanding of nervous system function and the health-related research needs of the nation. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): May 25, 2017; May 25, 2018; May 25, 2019.

Women & Sex/Gender Differences in Drug and Alcohol Abuse/Dependence (R21) - The purpose of this Funding Opportunity Announcement (FOA) is to advance research on male-females differences in drug and alcohol abuse and addiction and on factors specific to women. Both human and animal model studies are sought. Companion Funding Opportunities are PA-14-038, R01 Research Project Grant and PA-14-037, R03 Small Grant Program. Application Due Date(s): Standard dates apply.

HIV-1 infection of the Central Nervous System (R01) - This Funding Opportunity Announcement (FOA) invites research grant applications focused on defining and understanding the pathogenic mechanisms involved in Human Immunodeficiency Virus (HIV)-1 induced CNS dysfunction, but within the context of viral suppression and Antiretroviral therapy (ART). The FOA further supports research to identify therapeutic targets against which treatments may be developed to prevent the neurobehavioral and neurological co-morbidities in HIV-1 infected individuals. Basic and translational research in domestic and international settings are of interest. Multidisciplinary research teams and collaborative alliances are encouraged but not required. Application Due Date(s): Standard AIDS dates apply.

NEI Translational Research Program (TRP) to Develop Novel Therapies and Devices for the Treatment of Visual System Disorders (R24) - In the context of this program, an expert assembles a multi-disciplinary research team that uses an integrative approach to develop rapid and efficient translation of innovative laboratory research findings into therapies, devices or other resources for use by clinicians to treat visual system diseases or disorders. It involves collaborative teams of scientists and clinicians with expertise in multiple disciplines, operating according to a clear leadership plan. Such a collaborative approach is particularly appropriate for research focused on pathways that will likely be targeted by biological intervention, such as gene therapy, cell-based therapy, pharmacological approaches, and the development and use of medical devices. The intention of this program is to make technological, biological and pharmacological resources available to clinicians and their patients. Application Due Date(s): March 27, 2017; March 27, 2018; March 27, 2019.

National Centers for Cryoelectron Microscopy (U24) - This NIH Common Fund initiative will establish national service centers to increase research capacity for molecular structure determination by high resolution cryoelectron microscopy (cryoEM). The centers will address Common Fund infrastructure and workforce goals for cryoEM by providing access to state-of-the-art equipment, technical support, and cross-training for the production and analysis of high-resolution data. The centers will offer equal-opportunity nationwide access to services through an open application process. Letter of Intent Due Date(s): May 30, 2017. Application Due Date(s): June 30, 2017.

FY17 Announcement of the Anticipated Availability of Funds for Phase II Research on Research Integrity - The purpose of this Funding Opportunity Announcement (FOA) is to foster innovative approaches to empirical research on societal, organizational, group, and individual factors that affect, both positively and negatively, integrity in research and to develop tools for detecting research misconduct. Integrity is defined as the use of honest and verifiable methods in proposing, performing, and evaluating research and reporting research results with particular attention to adherence to rules, regulations, guidelines, and commonly accepted professional codes or norms. The research will be reviewed and funded in a two-phase process. For the first phase, ORI is seeking small-scale, developmental research projects that must have the following characteristics: The research is either: a) discipline-specific or cross-disciplinary and arises out of the theoretical and empirical literature of social science and related disciplines seeking to understand behavior in a social context: anthropology, economics, sociology, criminology (specifically white collar crime), psychology (particularly social and cognitive) and law; or, b) arises out of disciplines such as mathematics, statistics, engineering, and computer science and focuses on the technical aspects (e.g., machine learning, language technologies, image recognition , statistical forensics) required to develop state-of-the art tools for detecting falsification and/or fabrication of images and data. ORI strongly encourages that the projects include collaboration with institutional research misconduct officials and/or others who have direct experience with 42 CFR Part 93, including institutional attorneys experienced with institutional research misconduct proceedings. ORI also strongly encourages that the projects take place in research settings and/or includes individuals actively engaged in or training for careers in research. For the second phase, those who were successful in obtaining Phase I research awards will be eligible to submit applications for research that builds on the preliminary findings from Phase I. ORI understands that findings in Phase I may require investigators to modify their plans for Phase II from what was proposed in Phase I; modifications in scope or direction will need to be justified in these Phase II applications. Due Date: 03/31/2017.

FY17 Announcement of the Anticipated Availability of Funds for Conferences on Research Integrity - The Office of Research Integrity (ORI) seeks to support conferences to (a) develop multi-disciplinary networks to build upon existing evidence-based research and stimulate innovative approaches to preventing research misconduct and promoting research integrity and (b) collectively address the concerns of research integrity officers (RIOs) and institutional counsel in conducting research misconduct proceedings and the pertinent subsequent administrative actions. ORI is especially interested in supporting conferences that lead to extramural grant applications that address the research goals of preventing and detecting research misconduct, as stated in ORI-IR-17-002. Closing Date for Applications: Mar 31, 2017.

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Department of Energy

Fiscal Year 2017 Vehicle Technologies Deployment Funding Opportunity Announcement - This FOA supports a broad portfolio of advanced highway transportation technologies that reduce petroleum consumption and improve energy efficiency while meeting or exceeding performance and cost expectations. VTO seeks projects that catalyze the deployment of alternative fuels and energy efficient "smart" mobility systems through two (2) Areas of Interest (AOIs) – one seeking highly-leveraged, community-based alternative fuel vehicle (AFV) deployment projects, and another for "living lab" deployments of energy efficient "smart" mobility systems. Applicant webinar: Jan 12, 2017 2:00 - 3:00 PM EST. Must Register PRIOR to Webinar. Registration URL: https://attendee.gotowebinar.com/register/4091045651792332292. Concept Paper Submission Deadline: 2/3/2017 5:00 PM ET. Full Application Submission Deadline: 3/24/2017 5:00 PM ET.

Advanced Manufacturing Projects for Emerging Research Exploration - This funding opportunity addresses three topic areas from the Advanced Manufacturing Office. Each topic area consists of multiple subtopics. DOE intends to fund the applications with the greatest chance of helping achieve the goals and mission of EERE. EERE may award an entire application or any part of an application at a funding level that will be negotiated with the applicant. The topic areas are: Topic Area 1: Advanced Materials. The Advanced Materials Topic Area focuses on advances in innovative materials and the devices and systems that incorporate them for energy-saving opportunities and improved functionality. Topic Area 2: Advanced Processes. The Advanced Processes Topic Area focuses on advancing transformational next-generation processes and technologies not bound by limitations of current processes. Topic Area 3: Modeling and Analysis Tools for Materials and Manufacturing. The Modeling and Analysis Tools for Materials and Manufacturing Topic Area focuses on optimization of energy and materials usage across the lifecycle of manufactured products through the use of information technology. The Applicants' technologies may be at different levels of maturity; proposed funding levels and project durations should be commensurate with the work scope necessary to advance the technology to the proposed readiness level. Applications to this FOA will be accepted in the following categories: Tier 1 (Concept Definition, expected TRL 2-3): DOE Federal Funding Share Range of $250,000 - $1,000,000. The project would conduct early stage research needed to explore and define technical concepts. Activities would focus on thoroughly understanding and describing the capabilities of the technology. Research may include laboratory scale experiments, exploration of fundamental scientific concepts associated with the technology, data generation and analysis, and other exploratory methods. Tier 2 (Proof of Concept, expected TRL 3-5): DOE Federal Funding Share Range of $750,000 - $2,500,000. The project would conduct research, development and testing of prototype technology or processes. Work may include analytical studies and laboratory studies to physically validate analytical predictions of separate elements of the technology, predictive modeling or simulation of performance, engineering studies to assess scale-up, and testing of concept feasibility at the prototype or bench scale. Concept Paper Submission Deadline: 1/31/2017 5:00 PM ET. Full Application Submission Deadline: 3/30/2017 5:00 PM ET.

The Office of Biological and Environmental Research (BER) of the Office of Science (SC), U.S.Department of Energy (DOE) hereby announces its interest in receiving applications for research in Subsurface Biogeochemical Research (SBR). The mission of the Climate and Environmental Sciences Division (CESD) within BER is to advance a robust predictive understanding of Earth's climate and environmental systems and to inform the development of sustainable solutions to the Nation's energy and environmental challenges. The goal of the SBR program is to advance a robust predictive understanding of how watersheds function as complex hydrobiogeochemical systems and how these systems respond to perturbations caused by changes to climate, land use/cover, contaminant loading and compounding disturbances. Using an iterative approach to model-driven experimentation and observation, interdisciplinary teams of scientists work to unravel the coupled physical, chemical and biological processes that control the structure and functioning of terrestrial environments across vast spatial and temporal scales. State-of-science understanding, captured in conceptual theories and models, is translated into a hierarchy of

computational components and used to predict the system dynamics and evolution in response to natural and anthropogenic forcing. Basic understanding of the system structure and function is advanced through this iterative cycle of experimentation and observation by targeting key system components and processes that are suspected to most limit the predictive skill of the models. Applicants to this FOA must propose either a Standard Project or an Exploratory Project that will focus on measurements, experiments, and modeling to provide improved quantitative and predictive understanding of the hydrobiogeochemical functioning of watershed systems. All projects are required to clearly delineate an integrative, hypothesis-driven approach and clearly describe the existing needs and gaps in state-of-the-art models. Pre-Application Due Date: 02/07/2017 at 5 PM Eastern Time (Pre-applications are required). Encourage/Discourage Date: 02/22/2017 at 5 PM Eastern Time. Application Due Date: 04/05/2017 at 5 PM Eastern Time.

Regional Energy Technology Innovation Ecosystems Characterization Assessments - The objective of this FOA is to fund analytical studies that characterize and examine the potential of an integrated strategy for a multi-state region to enhance and accelerate energy innovation via a regional energy innovation ecosystem. For purposes of these studies, a region must comprise a minimum of three contiguous states. The studies and supporting analysis should provide new insights as to how an integrated regional strategy could promote affordable, reliable innovative energy technology; create jobs; increase entrepreneurial activity and new venture financing; and promote economic growth and prosperity. The studies should provide data-driven insights and analysis, relying, in part, on inputs from current and potential energy innovation ecosystem participants within the proposed region. Studies should analytically support components of an integrated regional strategy that could provide benefits that a "business as usual" approach would not. In addition to identifying how an integrated regional strategy might enhance and accelerate energy technology and deployment, the results should help DOE identify the possible benefits such regional innovation strategies might have to help meet key national objectives of energy security, economic competitiveness and environmental responsibility. Application Due Date: 02/28/2017 at 8:00:00 PM Eastern Time.

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NASA

ROSES 2016: Remote Sensing of Water Quality - NASA seeks proposals that will improve and exploit the capability of Earth Observing Satellites to remotely sense water quality from space. NASA encourages proposals that also assess the impacts of water quality on ecosystem and habitat health. Notices of Intent to propose are requested by January 18, 2017, and proposals are due March 8, 2017.

ROSES 2016: Group on Earth Observations (GEO) Work Programme - NASA solicits proposals to support and advance specific elements of the GEO Work Programme 2017-2019. ESD, especially the Applied Sciences Program, has supported ad hoc projects and internal NASA activities related to past GEO Work Programmes. These past projects and activities have demonstrated a strong ability to support and advance GEO, to further U.S. and NASA interests, and to demonstrate U.S. and NASA commitments to GEO. The ESD Applied Sciences Program created this call for proposals to foster broader domestic involvement in a U.S. national approach to GEO and the Work Programme. Notices of Intent to propose are requested by January 13, 2017, and proposals are due February 28, 2017.

The objective of the New Frontiers Data Analysis Program (NFDAP) is to enhance the scientific return from New Frontiers missions by broadening scientific participation in the analysis and interpretation of data returned by these missions. Other mission and non-mission data sets may be used to supplement these data in a supporting role, but all proposals require the use of data from at least one New Frontiers mission. This program solicits research proposals to conduct scientific investigations utilizing or enhancing the utilization of data obtained by the New Frontiers missions. For the purposes of this solicitation, "data" is understood to include both uncalibrated and calibrated data, as well as higher-order data products produced from the mission data. Science investigations may include the use of data from any spacecraft not supported by a separate Planetary Science Division Data Analysis Program. Investigations using the New Horizons data may also use mission data supported by a separate Data Analysis program for outer-solar-system single-body or comparative planetology studies that require the use of New Horizons data for at least one of the bodies of focus. Only proposers who submit a Step-1 proposal are eligible to submit a Step-2 (full) proposal. Mandatory Step-1 proposals are due February 8, 2017, and Step-2 proposals are due May 3, 2017.

Strategic Astrophysics Technology (SAT) - The focus of the SAT program is described in terms of the Technology Readiness Level (TRL) of the technologies involved. NASA uses a nine-level classification system to rate the readiness of a particular technology for use in a space flight mission. The TRL definitions are articulated in detail in NPR 7123.1B Appendix E (http://nodis3.gsfc.nasa.gov/displayDir.cfm?Internal_ID=N_PR_7123_001B_&page_name=AppendixE). Briefly, TRL levels one to three are generally considered to be basic research on new technologies, while TRL levels seven to nine correspond to the development of flight hardware. The SAT program is designed to support the maturation of technologies whose feasibility has already been demonstrated (i.e., TRL 3), to the point where they can be incorporated into NASA flight missions (TRL 6-7). Table D.8.1 provides the definitions for the midrange TRLs supported by the SAT program. Notices of intent (NOIs) are requested by January 20, 2017, and proposals are due March 17, 2017.

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U.S. Environmental Protection Agency

National Indoor Environments Program: Reducing Public Exposure to Indoor Pollutants - This notice announces the availability of funds and solicits applications from eligible entities for demonstration, training, outreach and/or education projects that seek to reduce exposure to indoor air contaminants. Projects must have a national-scale impact and must yield measurable environmental outcomes. The closing date and time for receipt of application submissions is February 17, 2017, by 4:00 p.m. Eastern Time (ET) in order to be considered for funding.

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