

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.

> NSF NIH NASA USDA DOD

# **GRANT OPPORTUNITES** Division of Science and Research

## **National Science Foundation**

The Petrology and Geochemistry Program supports basic research on the formation of planet Earth, including its accretion, early differentiation, and subsequent petrologic and geochemical modification via igneous and metamorphic processes. Proposals in this program generally address the petrology and high-temperature geochemistry of igneous and metamorphic rocks (including mantle samples), mineral physics, economic geology, and volcanology. Proposals that are focused on the development of analytical tools, theoretical and computational models, and experimental techniques for applications by the igneous and metamorphic petrology, and high temperature geochemistry and geochronology communities are also invited. Full Proposal Target Date: July 14, 2017.

Developmental Sciences (DS) - DS supports basic research that increases our understanding of cognitive, linguistic, social, cultural, and biological processes related to human development across the lifespan. Research supported by this program will add to our knowledge of the underlying developmental processes that support social, cognitive, and behavioral functioning, thereby illuminating ways for individuals to live productive lives as members of society. DS supports research that addresses developmental processes within the domains of cognitive, social, emotional, and motor development across the lifespan by working with any appropriate populations for the topics of interest including infants, children, adolescents, adults, and non-human animals. The program also supports research investigating factors that affect developmental change including family, peers, school, community, culture, media, physical, genetic, and epigenetic influences. Additional priorities include research that: incorporates multidisciplinary, multi-method, microgenetic, and longitudinal approaches; develops new methods, models, and theories for studying development; includes participants from a range of ethnicities, socioeconomic backgrounds, and cultures; and integrates different processes (e.g., memory, emotion, perception, cognition), levels of analysis (e.g., behavioral, social, neural), and time scales. Full Proposal Target Date: July 17, 2017.

The Linguistics Program supports basic science in the domain of human language, encompassing investigations of the grammatical properties of individual human languages, and of natural language in general. Research areas include syntax, semantics, morphology, phonetics, and phonology. The program encourages projects that are interdisciplinary in methodological or theoretical perspective, and that address questions that cross disciplinary boundaries, such as (but not limited to): What are the psychological processes involved in the production, perception, and comprehension of language? What are the computational properties of language and/or the language processor that make fluent production, incremental comprehension or rapid learning possible? How do the acoustic and physiological properties of speech inform our theories of language and/or language processing? What role does human neurobiology play in shaping the various components of our linguistic capacities? How does language develop in children? What social and cultural factors underlie language variation and change? The Linguistics Program does not make awards to support clinical research projects, nor does it support work to develop or assess pedagogical methods or tools for language instruction. The Linguistics Program accepts proposals for a variety of project types: research proposals from scholars with PhDs or equivalent degrees, proposals for Doctoral Dissertation Research Improvement (DDRI) awards, and CAREER proposals. Full Proposal Target Date: July 17, 2017.

The Social Psychology Program at NSF supports basic research on human social behavior, including cultural differences and development over the life span. Among the many research topics supported are: attitude formation and change, social cognition, personality processes, interpersonal relations and group processes, the self, emotion, social comparison and social influence, and the psychophysiological and neurophysiological bases of social behavior. Full Proposal Target Date: July 17, 2017.

The Biological Anthropology Program supports basic research in areas related to human evolution and contemporary human biological variation. Research areas supported by the program include, but are not limited to, human genetic variation, human and nonhuman primate ecology and adaptability, human osteology and bone biology, human and nonhuman primate paleontology, functional anatomy, and primate socioecology. Grants supported in these areas are united by an underlying evolutionary framework, and often by a consideration of adaptation as a central theoretical theme. Proposals may also have a biocultural or bioarchaeological orientation. The program frequently serves as a bridge within NSF between the social and behavioral sciences and the natural and physical sciences, and proposals commonly are jointly reviewed and funded with other programs. For additional, specific information on the Biological Anthropology Doctoral Dissertation Research Improvement Grants (DDRIGs) solicitation, please visit the Biological Anthropology DDRIG program web site. Full Proposal Target Date: July 19, 2017 for Senior Research.

CAREER: The Faculty Early Career Development (CAREER) Program is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards in support of early-career faculty who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department or organization. Activities pursued by early-career faculty should build a firm foundation for a lifetime of leadership in integrating education and research. NSF encourages submission of CAREER proposals from early-career faculty at all CAREER-eligible organizations and especially encourages women, members of underrepresented minority groups, and persons with disabilities to apply. Full Proposal Deadline Date(s): July 19, 2017 for BIO, CISE, HER; July 20, 2017 for ENG; July 21, 2017 for GEO, MPS, SBE.

#### Return to top

## **National Institutes of Health**

Translational Research in Pediatric and Obstetric Pharmacology and Therapeutics (R03) - The purpose of this funding opportunity announcement (FOA) is to encourage applications for translational and clinical research as well as clinical trials that will advance our knowledge about the underlying mechanisms of drug action, response, and safety in children at various developmental stages, and in women during pregnancy and lactation. The overall goals of the FOA are to improve the safety and effectiveness of current drugs for pediatric or obstetric patients, and to enhance the development of new drugs or a safer usage of the existing drugs for tailored therapies to meet emerging clinical needs for these special populations. Companion Funding Opportunities are PAR-17-189, R01 Research Project Grant and PAR-17-187, R21 Exploratory/Developmental Grant. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): August 7, 2017; November 7, 2017; April 4, 2018; August 7, 2018; November 7, 2018; April 4, 2019; August 7, 2019; November 7, 2019; April 3, 2020.

Maximizing Investigators' Research Award for Early Stage Investigators (R35) - The Maximizing Investigators' Research Award (MIRA) under this FOA is a grant to provide support for the program of research in an early stage 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. It is anticipated that this mechanism will: Increase the stability of funding for NIGMS-supported investigators, which could enhance their ability to take on ambitious scientific projects and approach problems more creatively. Increase flexibility for investigators to follow important new research directions as opportunities arise, rather than being bound to specific aims proposed in advance of the studies. More widely distribute funding among the nation's highly talented and promising investigators to increase overall scientific productivity and the chances for important breakthroughs. Reduce the time spent by researchers writing and reviewing grant applications, allowing them to spend more time conducting research. Enable investigators to devote more time and energy to mentoring trainees in a more stable research environment. Companion Funding Opportunity is PAR-17-094, R35 Outstanding Investigator Award. Application Due Date(s): October 3, 2017; October 3, 2018; October 3, 2019.

Targeted Implementation Science to Achieve 90/90/90 Goals for HIV/AIDS Prevention and Treatment (R01) - This Funding Opportunity Announcement (FOA) encourages implementation research projects designed in partnership with global and domestic service providers, to target the particular needs in the selected community, to achieve the 90/90/90 HIV prevention and treatment targets identified by HIV/AIDS global leadership. The targets for HIV testing are that 90% of all persons living with HIV know their status, for treatment initiation that 90% of those diagnosed receive timely and effective antiretroviral treatment (ART), and for optimal treatment and preventive benefit that 90% of those on treatment achieve sustained viral suppression. Companion Funding Opportunity is PA-17-195, R21 Exploratory/Developmental Grant. Application Due Date(s): Standard dates apply.

Research Answers to NCI's Provocative Questions (R21) - The purpose of this Funding Opportunity Announcement (FOA) is to support research projects designed to solve specific problems and paradoxes in cancer research identified by the National Cancer Institute (NCI) Provocative Questions initiative. These problems and paradoxes phrased as questions are not intended to represent the full range of NCI's priorities in cancer research. Rather, they are meant to challenge cancer researchers to think about and elucidate specific problems in key areas of cancer research that are deemed mportant but have not received sufficient attention. Companion Funding Opportunity is RFA-CA-17-017, R01 Research Project Grant. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): June 28, 2017; October 30, 2017; June 28, 2018; October 30, 2018.

Advancing Exceptional Research on HIV/AIDS and Substance Abuse (R01) - This FOA supports highly innovative R01 applications on HIV/AIDS and drug abuse and complements the Avant-Garde Award Program for HIV/AIDS and Drug Use Research and the Avenir Award Program for Research on Substance Abuse and HIV/AIDS. The Avant-Garde award supports individuals who conduct high-risk, high-reward research and does not require a detailed research plan. The Avenir award is similar to the Avant-Garde award but focuses on support for early stage investigators. Applications submitted under this FOA are required to have a detailed research plan and preliminary data. This FOA focuses on innovative research projects that have the potential to open new areas of HIV/AIDS research and/or lead to new avenues for prevention and treatment of HIV/AIDS among substance abusers. The nexus with drug abuse should be clearly described. This FOA is open to both individual researchers and research teams and is not limited to any one area of research on HIV and substance use, but all studies must focus on NIH HIV/AIDS Research Priorities https://grants.nih.gov/grants/guide/notice-files/NOT-OD-15-137.html. Letter of Intent Due Date(s): July 22, 2017. Application Due Date(s): August 22, 2017; August 22, 2018; August 22, 2019.

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): Standard dates apply.

Marijuana, Prescription Opioid, or Prescription Benzodiazepine Drug Use Among Older Adults (R01) - Despite significant scientific advancements made in substance use disorder research over the last century, the causes and consequences of drug use in later life remain poorly understood. The intent of this funding opportunity announcement is to support innovative research that examines aspects of marijuana and prescription opioid and benzodiazepine use in adults aged 50 and older. This FOA encourages research that examines the determinants of these types of drug use and/or characterizes the resulting neurobiological alterations, associated behaviors, and public health consequences. This initiative will focus on two distinct populations of older adults: individuals with earlier onset of drug use who are now entering this stage of adult development or individuals who initiate drug use after the age of 50. Applications are encouraged to utilize broad methodologies ranging from basic science, clinical, and epidemiological approaches. The insights gleaned from this initiative are critical to our understanding of the determinants of drug use in later life, as well as its consequences in the aging brain and on behavior. This knowledge may have the potential to identify risk factors and to guide clinical practices in older populations. Companion Funding Opportunities are PA-17-197, R21 Exploratory/Developmental Research Grant and PA-17-198, R03 Small Grant Program. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): Standard dates apply.

Hearing Health Care for Adults: Improving Access and Affordability (R01) - This FOA encourages applications for research on hearing health care in adults in support of improving access and affordability. Further research is needed to strengthen the evidence base with a goal of delivering better hearing health care outcomes in adults. Application Due Date(s): Standard dates apply.

Inter-organelle Communication in Cancer (R21) - The purpose of this Funding Opportunity Announcement (FOA) is to support research projects that examine how inter-organelle communication in cancer cells and/or tumor-associated cells affects cellular function, adaptation, and phenotypic plasticity. Companion Funding Opportunity is PAR-17-203, R01 Research Project Grant. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): August 16, 2017, January 17, 2018; August 15, 2018; January 16, 2019; August 14, 2019; January 15, 2020.

NIDA Avant-Garde Award Program for HIV/AIDS and Drug Use Research (DP1) - The NIDA Avant-Garde Award Program for HIV/AIDS Research supports individual scientists of exceptional creativity who propose high-impact research that will open new areas of HIV/AIDS research relevant to drug abuse and/or lead to new avenues for prevention and treatment of HIV/AIDS among drug abusers. The term avant-garde is used to describe highly innovative approaches that have the potential to be transformative. The proposed research should reflect approaches and ideas that are substantially different from those already being pursued by the investigator or others and should support the NIH HIV/AIDS Research Priorities https://grants.nih.gov/grants/guide/notice-files/NOT-OD-15-137.html . The NIDA Avant-Garde award supports innovative, basic research that may lead to improved preventive interventions or therapies; creative, new strategies to prevent disease transmission; novel approaches to improve disease outcomes; and creative approaches to eradicating HIV or improving the lives of those living with HIV. Application Due Date(s): July 31, 2017, July 31, 2018, July 31, 2019.

Detecting Cognitive Impairment, Including Dementia, in Primary Care and Other Everyday Clinical Settings for the General Public and in Health Disparities Populations (UG3/UH3) - The purpose of this funding opportunity announcement (FOA) is to invite applications that address the unmet need to detect cognitive impairment, ncluding dementia, in large and diverse populations seen in primary care across the United States, including in health disparities populations, when a patient, relative, or care provider indicates concern. Proposed clinical paradigms should utilize tools that are simple to use, standardized, and ideally take five minutes or less to administer in a primary care clinical setting. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): May 9, 2017.

Alcohol-PTSD Comorbidity: Preclinical Studies of Models and Mechanisms (R01) - This Funding Opportunity Announcement (FOA), issued by the National Institute on Alcohol Abuse and Alcoholism (NIAAA), and with possible collaboration with Cohen Veterans Bioscience, encourages Research Project Grant (R01) applications that will further the development, validation and/or application of animal models for mechanistic studies on the comorbidity of PTSD and alcohol use disorders. Letter of Intent Due Date(s): April 17, 2017. Application Due Date(s): May 17, 2017.

Research Education: Bridges to the Doctorate (R25) - This FOA will support creative educational activities with a primary focus on Courses for Skills Development and Research Experiences. The Bridges to Doctorate Program is intended to provide these educational activities to Master's level students to increase transition to and completion of Ph.D.'s in biomedical sciences. A program application must include each educational activity, and describe how they will be synergized to make a comprehensive program. This program requires partnerships between master's degree-granting institutions with doctorate degree-granting institutions. Application Due Date(s): September 25, 2017; September 25, 2018.

Bridges to the Baccalaureate Program (R25) - This FOA will support creative educational activities with a primary focus on Courses for Skills Development, Research Experiences, and Curriculum or Methods Development. A program application must include each activity, and describe how they will be synergized to make a comprehensive program. The Bridges to Baccalaureate Program is intended to provide these activities to community college students to increase transition to and completion of Bachelor's degree in biomedical sciences. This program requires partnerships between community colleges or other two-year post-secondary educational institutions granting the associate degree with colleges or universities that offer the baccalaureate degree. Application Due Date(s): September 25, 2017; September 25, 2018.

Alliance of Glycobiologists for Cancer Research: Translational Tumor Glycomics Laboratories (U01) - The purpose of this Funding Opportunity Announcement (FOA) is to continue support for the program referred to as the Alliance of Glycobiologists for Cancer Research (http://glycomics.cancer.gov). Through this FOA, the NCI encourages research projects to elucidate how changes in cellular carbohydrates may promote cancer initiation and progression and use this information to identify glycan-based abnormalities to serve as biomarkers for early cancer detection or risk assessment. These changes may be studied at the level of glycoproteins, glycolipids, glycosaminoglycans, and/or their binding proteins. In their applications, applicants are encouraged to address the ability of these biomarker candidates to accurately distinguish individuals with cancer from those without. It is expected that the most promising biomarker candidates will ultimately be tested in clinical validation studies, although such validation studies are not required for the proposed projects. All investigators with appropriate expertise and capabilities, irrespective of any prior association with this Alliance, are encouraged to consider applying to this FOA. Companion Funding Opportunity is PAR-17-207, U01 Research Project – Cooperative Agreements. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): June 8 2017; February 7, 2018; June 8, 2018; February 7, 2019.

Return to top

## NASA

ROSES 2017: Astrophysics Data Analysis Program - Over the years, NASA has invested heavily in the development and execution of an extensive array of space astrophysics missions. The magnitude and scope of the archival data from those missions enables science that transcends traditional wavelength regimes and allows researchers to answer questions that would be difficult, if not impossible, to address through an individual observing program. To capitalize on this invaluable asset and enhance the scientific return on NASA mission investments, the Astrophysics Data Analysis Program (ADAP) provides support for investigations whose focus is on the analysis of archival data from NASA space astrophysics missions. ADAP17 NOIs Due on Mar 28, 2017. ADAP17 Proposals Due on May 16, 2017.

ROSES 2017: Earth Surface and Interior - NASA's Earth Surface and Interior focus area (ESI, http://science.nasa.gov/earth-science/focus-areas/surface-and-interior) supports research and analysis of solid-Earth processes and properties from crust to core. The overarching goal of ESI is to use NASA's unique capabilities and observational resources to better understand core, mantle, and lithospheric structure and dynamics and interactions between these processes and Earth's fluid envelopes. ESI studies provide the basic understanding and data products needed to inform the assessment, mitigation, and forecasting of natural hazards, including earthquakes, tsunamis, landslides, and volcanic eruptions. These investigations also exploit the time-variable signals associated with other natural and anthropogenic perturbations to the Earth system, including those connected to the production and management of natural resources. ESI-17 NOIs Due on Mar 31, 2017. ESI-17 Proposals Due on May 15, 2017.

ROSES 2017: Rapid Response and Novel Research in Earth Science - This program element solicits proposals that advance the goals and objectives of NASA's Earth Science Division by conducting unique research to investigate 1) unforeseen or unpredictable Earth system events and opportunities that require rapid response, and 2) novel new ideas of potential high merit and relevance for ESD science that have not otherwise been solicited by NASA in the past three years. RRNES16 Proposals Rolling responses through Mar 31, 2017.

#### Return to top

## **U.S. Department of Agriculture**

The Farm Business Management and Benchmarking (FBMB) Competitive Grants Program provides funds to (1) improve the farm management knowledge and skills of agricultural producers; and (2) establish and maintain a national, publicly available farm financial management database to support improved farm management. Closing Date: Monday, April 17, 2017.

The purpose of the Crop Protection and Pest Management program is to address high priority issues related to pests and their management using IPM approaches at the state, regional and national levels. The CPPM program supports projects that will ensure food security and respond effectively to other major societal pest management challenges with comprehensive IPM approaches that are economically viable, ecologically prudent, and safe for human health. The CPPM program addresses IPM challenges for emerging issues and existing priority pest concerns that can be addressed more effectively with new and emerging technologies. The outcomes of the CPPM program are effective, affordable, and environmentally sound IPM practices and strategies needed to maintain agricultural productivity and healthy communities. Closing Date: Tuesday, May 9, 2017.

#### Return to top

### **Department of Defense**

Pandemic Prevention Platform (P3) - DARPA is soliciting innovative research proposals to develop an end-to-end platform capability for preventing a pandemic threat in <60 days. Recent advances in medical countermeasures have formed a strong foundation, enabling the creation of a true end-to-end pandemic prevention platform. However, experience gained from conventional responses to emerging infectious diseases (MERS, SARS, dengue, chikungunya, Ebola) has demonstrated that significant bottlenecks hinder the rapid response to an emerging infectious threat. Current challenges include the ability to rapidly produce virus needed to test and evaluate therapies, to obtain high potency antibodies within the first weeks of an outbreak, or to scale delivery methods into humans to produce protective levels inside the patient. **Teaming Website** is https://team.sainc.com/P3. Proposal Abstract Due Date and Time: March 20, 2017 by 12:00 PM ET. Proposal Due Date and Time: May 8, 2017 by 5:00 PM ET.

#### Return to top