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Physical Sciences Opportunities

**Machine Learning for Geothermal Energy – DOE Concept Paper DUE November 13**

GTO is interested in two topic areas:

**Topic 1: Machine Learning for Geothermal Exploration**

GTO seeks projects that advance geothermal exploration through the application of machine learning techniques to geological, geophysical, geochemical, borehole, and other relevant datasets. Of particular interest to GTO are projects that will identify data acquisition targets and build community datasets for future work.

**Topic 2: Advanced Analytics for Efficiency and Automation in Geothermal Operations**

GTO seeks projects that apply advanced analytics to power plant and other operator datasets, with the goal of improving operations and resource management.

**Collaborative Research in Computational Neuroscience (CRCNS) NSF DUE November 27**

Through the CRCNS program, the National Science Foundation (NSF), the National Institutes of Health (NIH), the German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, BMBF), the French National Research Agency (Agence Nationale de la Recherche, ANR), the United States-Israel Binational Science Foundation (BSF), Japan’s National Institute of Information and Communications Technology (NICT), and the State Research Agency (Agencia Estatal de Investigación, AEI) and National Institute of Health Carlos III (Instituto de Salud Carlos III, ISCIII), both of Spain, support collaborative activities that will advance the understanding of nervous system structure and function, mechanisms underlying nervous system disorders, and computational strategies used by the nervous system.

**Dear Colleague Letter – NSF EAGER: Enabling Early-Stage Secure and Trustworthy Cyberspace (SaTC) Socio-Technical Interdisciplinary Collaborations DUE December 12**

With this DCL, NSF is announcing its intention to encourage the submission of EArly-Concept Grants for Exploratory Research (EAGER) proposals that foster excellent interdisciplinary research in the SaTC domain to be carried out in early-stage collaborations between one or more Computer and Information Science and Engineering (CISE) researchers and one or more Social, Behavioral, and Economic Sciences (SBE) researchers. Note that this DCL is focused on collaborations of principal investigators (PIs) who have not previously jointly received a SaTC award.

**Summer Faculty Research Program ONR DUE December 12**

There are three levels of appointments: Summer Faculty Fellow, Senior Summer Faculty Fellow, and Distinguished Faculty Fellow. This is a residential fellowship where all work must be completed on site at the sponsoring U.S. Navy Laboratory. For information about the ONR Sabbatical Leave Program see here.

**Desalination and Water Purification Research Program (DWPR) – Department of the Interior DUE December 13**

Two funding groups present different scale projects (lab and pilot scale projects) that can take DWPR supported research and apply results to real-world productions. Such as projects that serve the water treatment for a community and attract commercialization interest.
Funding Opportunities for AA West Hub

**Statistics – NSF DUE December 17** The Statistics Program supports research in statistical theory and methods, including research in statistical methods for applications to any domain of science and engineering. The theory forms the base for statistical science. The methods are used for stochastic modeling, and the collection, analysis and interpretation of data. The methods characterize uncertainty in the data and facilitate advancement in science and engineering. The Program encourages proposals ranging from single-investigator projects to interdisciplinary team projects.

**Understanding the Rules of Life: Building a Synthetic Cell An Ideas Lab Activity – NSF. Preliminary DUE December 28;** Full proposal in May 2019 Ideas Labs are intensive workshops focused on finding innovative solutions to grand challenge problems. The aspiration is that mixing researchers who have diverse scientific backgrounds will engender original thinking and innovative approaches that will transform our understanding of cellular processes, the molecular mechanisms that underscore the building and function of systems that reproduce life traits, the self-assembly of life-like systems, soft condensed matter, and the physics and chemistry of life that are needed to design and build cellular components, cells and multi-cell systems. Each participant applies as an individual and commits to participate in the 5-day process. Projects results from this process can then be the basis for full proposals to NSF. See the solicitation for details.

**Air Force Research Laboratory – University Small Grants BAA – DoD. Closing December 31.** This BAA is a university grant vehicle that can provide small grants of $100k or less to students/professors in a timely manner for the purpose of engaging U.S./U.S. territories’ colleges and universities in directed energy-related basic, applied, and advanced research projects that are of interest to the Department of Defense. The scope of the research will include the entire spectrum of directed energy technology that is applicable to the Air Force, including all tangentially-related directed energy research. The research shall include, but not be limited to: lasers; optics and beam control; high power microwaves, and directed energy effects, modeling and simulation.

**Major Research Instrumentation (MRI) NSF DUE January 22.** An MRI proposal may request up to $4 million for either acquisition or development of a research instrument. Each performing organization may submit in revised “Tracks” as defined below, with no more than two submissions in Track 1 and no more than one submission in Track 2.

- **Track 1:** Track 1 MRI proposals are those that request funds from NSF greater than or equal to $100,000 and less than $1,000,000.
- **Track 2:** Track 2 MRI proposals are those that request funds from NSF greater than or equal to $1,000,000 up to and including $4,000,000.

1Track 1 proposals that request funds from NSF less than $100,000 will be accepted only from a) all eligible organizations for the disciplines of mathematics or social, behavioral and economic sciences and b) from non-Ph.D.-granting institutions of higher education (ECU is one of these) for all NSF-supported disciplines. If you are considering a submission in either Track 1 or Track 2, please contact Dr. Mary Farwell, Assistant Vice-Chancellor for Academic Affairs Research, FARWELLM@ECU.EDU TEL: 252-328-9476.
Education Research Opportunities

**NSF Research Traineeship (NRT) Program** Required LOI DUE Nov 26 – December 6; Full Proposal DUE February 6 2019. The Research Traineeship program is dedicated to effective training of STEM graduate students in high priority interdisciplinary research areas, through the use of a comprehensive traineeship model that is innovative, evidence-based, and aligned with changing workforce and research needs. For FY2019, proposals are requested in any interdisciplinary research theme of national priority, with special emphasis on the NSF Research Big Ideas: (1) Harnessing the Data Revolution (HDR), The Future of Work at the Human-Technology Frontier (HTF), Navigating the New Arctic (NNA), Windows on the Universe: The Era of Multi-Messenger Astrophysics (WOU), The Quantum Leap: Leading the Next Quantum Revolution (QL), and Understanding the Rules of Life: Predicting Phenotype (ROL).

**Alliances for Graduate Education and the Professoriate (AGEP) – NSF** DUE December 14. The AGEP program seeks to advance knowledge about models to improve pathways to the professoriate and success for historically underrepresented minority doctoral students, postdoctoral fellows and faculty, particularly African Americans, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians, and Native Pacific Islanders, in specific STEM disciplines and/or STEM education research fields. New and innovative models are encouraged, as are models that reproduce and/or replicate existing evidence-based alliances in significantly different disciplines, institutions, and participant cohorts. The AGEP program goal is to increase the number of historically underrepresented minority faculty, in specific STEM disciplines and STEM education research fields, by advancing knowledge about pathways to career success. The program objectives include:

- To support the development, implementation and study of innovative models of doctoral education, postdoctoral training, and faculty advancement for historically underrepresented minorities in specific STEM disciplines and/or STEM education research fields; and to advance knowledge about the underlying issues, policies and practices that have an impact on the participation, transitions and advancement of historically underrepresented minorities in the STEM academy.

**NIH Blueprint Program for Enhancing Neuroscience Diversity through Undergraduate Research Education Experiences R25** DUE LOI January 15 Full February 15 this FOA will support creative educational activities with a primary focus on Courses for Skills Development, Research Experiences, and Mentoring Activities. The fully integrated educational activities should prepare undergraduate students from diverse backgrounds, including those from groups underrepresented in biomedical and behavioral sciences to enter Ph.D. degree programs in the neurosciences. To accomplish this goal, this initiative will provide institutional awards to develop neuroscience research education programs comprised of collaborative partnerships integrated across different educational institution types. Each partnership must include: a) one or more institutions that either: 1) have a historical and current mission to educate students from any of the populations that have been identified as underrepresented in biomedical research as defined by the National Science Foundation, see [http://www.nsf.gov/statistics/wmpd/](http://www.nsf.gov/statistics/wmpd/) (or 2) have a documented track record of recruiting, training and/or educating, and graduating underrepresented students as defined by NSF.
Funding Opportunities for AA West Hub

**Innovative Programs to Enhance Research Training NIH R25** DUE January 28 supports research education activities in the mission areas of the NIH. The over-arching goal of this NIGMS R25 program is to support educational activities that complement and/or enhance the research training of a workforce to meet the nation’s biomedical, behavioral and clinical research needs.

**Initiative to Maximize Research Education in Genomics: Courses for Skills Development NIH R25** DUE January 25 Supports research educational activities that complement other formal training programs in the mission areas of the NIH Institutes and Centers. The over-arching goals of the NIH R25 program are to: (1) complement and/or enhance the training of a workforce to meet the nation’s biomedical, behavioral and clinical research needs; (2) enhance the diversity of the biomedical, behavioral and clinical research workforce; (3) help recruit individuals with specific specialty or disciplinary backgrounds to research careers in biomedical, behavioral and clinical sciences; and (4) foster a better understanding of biomedical, behavioral and clinical research and its implications.

**Environmental and Life Sciences**

**Water Resources Research Institute of the UNC System** DUE November 12 for the Community Collaborative Research Grant (CCRG) and also for the Graduate Student RFP. The CCRG requires a collaborative approach between community stakeholders and academic expertise. The Graduate student opportunity is open to graduate students in North Carolina and they encourage submissions by and/or collaborative partnerships with minor sponsoring faculty, HBCUs, and/or MSIs.

**Opportunities for Promoting Understanding through Synthesis (OPUS) – NSF** DUE November 19 OPUS offers two tracks: 1. Mid-career associate professor to enhance or develop new research capabilities through collaboration with a mentor who will enable new understanding of their research system and questions of interest; 2. Core Research Synthesis for an experienced investigator to revisit and synthesize a significant body of their prior research in a way that will enable new understanding of their research system and questions of interest.

**Marine Turtle Conservation Fund – USFWS** DUE November 26 The Marine Turtle Conservation Fund is soliciting proposals for the conservation of marine turtles (Chelonia mydas, Caretta caretta, Dermochelys coriacea, Eretmochelys imbricata, Lepidochelys olivacea, Lepidochelys kempii) throughout their range outside of the United States and its territories. The goal of this program is to reduce threats to marine turtles in their natural habitat. Proposals should identify specific conservation actions that have a high likelihood of creating lasting benefits. Project activities that emphasize data collection and status assessment should describe a direct link to management action, and explain how lack of information has been a key limiting factor for management action in the past. Proposals that do not identify how actions will reduce threats or that do not demonstrate a strong link between data collection and management action will be disqualified.

**Collaborative Science, Technology, and Applied Research (CSTAR) – NOAA** DUE December 14 The objective of the Collaborative Science, Technology and Applied Research (CSTAR) Program...
is to improve the overall forecast and warning capabilities of the operational hydrometeorological community by addressing science and technology research priorities through collaborative research efforts between the National Weather Service (NWS) and academic institutions that have expertise in the environmental sciences. These activities engage university researchers and students in applied research of interest to the operational meteorological community. A goal of this announcement is to foster long-term collaborative interactions between a university and NWS operational offices.

Grants for Emerging Investigators

**NIH Director's New Innovator Awards** [DUE November 13](https://grants.nih.gov/grants/guide/notice-files/NOT-OD-15-137.html) The *Avenir* Award Program for Research on Substance Abuse and HIV/AIDS (DP2) looks toward the future by supporting early stage investigators (ESI) proposing highly innovative studies that address NIH HIV/AIDS Research Priorities. The *Avenir* Award Program for Research on Substance Abuse and HIV/AIDS will support creative individuals who wish to pursue innovative research at the nexus of substance abuse and HIV/AIDS. The nexus with drug abuse should be clearly described.

**Human Health and Disease & Rural Populations**

**Basic Research in Cancer Health Disparities – NIH R01, R21** [DUE November 19](https://grants.nih.gov/grants/guide/notice-files/NOT-OD-15-137.html) This Funding Opportunity Announcement (FOA) encourages grant applications from investigators interested in conducting basic, mechanistic research into the biological/genetic causes of cancer health disparities. These research project grants (R01) will support innovative studies designed to investigate biological/genetic bases of cancer disparities, such as (1) mechanistic studies of biological factors associated with cancer disparities, including those related to basic research in cancer biology or cancer prevention strategies, (2) the development and testing of new methodologies and models, and (3) secondary data analyses.

**Humanities & Fine Arts**

**Scholarly Editions and Translations Grants – NEH** [DUE December 5](https://www.neh.gov/grants/scholarly-editions-translations-grants), the NEH supports the preparation of editions and translations of pre-existing texts of value to the humanities that are currently inaccessible or available only in inadequate editions or transcriptions.

**Preservation Grant Save America’s Treasures – National Park Service** [DUE December 3](https://www.nps.gov/history/historicpreservation/guide/grants/saveamerica.htm) Save America's Treasures grants from the Historic Preservation Fund provide preservation and/or conservation assistance to nationally significant historic properties and collections. Grants are awarded through a competitive process and require a dollar-for-dollar, non-Federal match, which can be cash or documented in-kind. These grants are administered by the National Park Service in partnership with the National Endowment for the Arts, the National Endowment for the Humanities, and the Institute of Museum and Library Services.

**Digital Humanities Advancement Grants – NEH** [DUE January 15](https://www.neh.gov/grants/digital-humanities-advancement-grants) Supports digital projects at different stages throughout their lifecycles, from early start-up phases through implementation and sustainability. Experimentation, reuse, and extensibility are hallmarks of this program, leading to innovative work that can scale to enhance scholarly research, teaching, and public programming in the humanities.
Multidisciplinary / Collaborative Opportunities

**Collaborative Research in Computational Neuroscience (CRCNS) – NSF** DUE November 27. Funding stems from the NSF, NIH, and agencies from Germany, France, Israel, and Spain. Computational neuroscience provides a theoretical foundation and a rich set of technical approaches for understanding complex neurobiological systems, building on the theory, methods, and findings of computer science, neuroscience, and numerous other disciplines. Two classes of proposals: 1. Collaborative Research project proposals; 2. Data Sharing Proposals. This opportunity is represented by the NSF directorates of Computer & Info Science & Engineering, Biological Sciences, Mathematical and Physical Sciences, Social, Behavioral & Economic Sciences. 15 to 25 awards; $15M - $20M

Social and Behavioral Sciences

**Senior Archaeological Research - NSF** DUE December 20 The goal of the Archaeology Program is to fund research which furthers anthropologically relevant archaeological knowledge. In accordance with the National Science Foundation’s mission such research has the potential to provide fundamental scientific insight. While within the broad range of “archaeology” the focus is on projects judged to be significant from an anthropological perspective, the Program sets no priorities based on time period, geographic region or specific research topic.

**National Issues Forum – Taylor L. Willingham Legacy Fund Grants** DUE January 15 Plan for kickstart a public engagement project in the community! Grants are provided to individuals to enable them to develop an understanding of deliberative democracy and launch one or more deliberative dialogues in their communities and organizations in order to advance NIFI's overall mission, which is to promote public deliberation about national issues.

**Political Science – NSF** January 15 Supports scientific research that advances knowledge and understanding of citizenship, government, and politics. Research proposals are expected to be theoretically motivated, conceptually precise, methodologically rigorous, and empirically oriented. Substantive areas include, but are not limited to, American government and politics, comparative government and politics, international relations, political behavior, political economy, and political institution.

Forthcoming Deadlines

**Digital Humanities Advancement Grants – NEH**

**Academic Research Enhancement R15 NIH**

**ACS PRF Doctoral New Investigator Grant**

**Inclusion Across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science – NSF INCLUDES**
Funding Opportunities for AA West Hub

New Investigators Research Grant – American Speech-Language-Hearing Foundation

Young Scholars Program - Foundation for Child Development

Supplemental Support
Research Supplements to Promote Diversity in Health-Related Research on active NIH opportunities (Read the FOA).

Proposals Accepted at Any Time

Atmospheric Chemistry – NSF
Division of Environmental Biology (core programs) (DEB) – NSF. Posted 8-22-18. No deadline.
There are two tracks: the Core Track supportive of training on evolutionary and ecological processes; and the Rules of Life Track for research to advance our understanding for the Rules of Life by proposals that would not fit well within one division in the biological sciences directorate.

Climate and Large-Scale Dynamics – NSF

Democracy Small Grants Program General Competition – U.S. Embassy Ukraine
Earth Sciences (EAR/IF) Instrumentation and Facilities Program - NSF
Facilitating Research at Primarily Undergraduate Institutions: Research in Undergraduate Institutions (RUI) and Research Opportunity Awards (ROA) – NSF
High-Risk Research in Biological Anthropology and Archaeology – NSF
Hydrologic Sciences Program – NSF
Increase Higher Education Attainment – Lumina Foundation – LOI Year Round. Check out the Grant Database
National Energy Technology – DOE.
NSF/FDA Scholar-in-Residence at FDA
Veterans’ Employment and Training – Stand Down Grant Award – Department of Labor.

Other News

NIH Success Rates – Review the data on success rates or as Bob Porter says, “projects that passed the sniff test,” at the NIH: https://report.nih.gov/success_rates/
Research & Discovery – AA West HUB Website: http://www.ecu.edu/cs-cas/oor/index.cfm
Search Federal Agency Program Deadlines

Administration for Community Living: https://www.acl.gov/grants
NCBC Deadlines: http://www.nebiotech.org/research-grants/research-funding
NEH Grant Deadlines: http://www.neh.gov/grants
HHS Grants Forecast: https://forecast.grantsolutions.gov/index.cfm
NIH Parent Announcements (For Unsolicited or Investigator-Initiated Applications): http://grants.nih.gov/grants/guide/parent_announcements.htm
NSF Due Dates: http://www.nsf.gov/funding/pgm_list.jsp?org=NSF&ord=date
US Department of Education: http://www2.ed.gov/about/offices/list/ope/opeprogramguide.html
US Department of Justice: https://ojp.gov/funding/Explore/CurrentFundingOpportunities.htm
NASA NSPIRES: ROSES_2016
NOAA Climate Program Office: http://cpo.noaa.gov/Grants