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Education

**Innovations in Graduate Education (IGE) – NSF** DUE November 4 the program is designed to encourage the development and implementation of bold, new, and potentially transformative approaches to STEM graduate education training. The program seeks proposals that explore ways for graduate students in research-based master’s and doctoral degree programs to develop the skills, knowledge, and competencies needed to pursue a range of STEM careers. Limited to two proposals per IHE.

**International Research Experiences for Students (IRES) – NSF** DUE November 9 (Track 1) or November 12 (Track 2), the program supports international research and research-related activities for U.S. science and engineering students. The IRES program contributes to development of a diverse, globally engaged workforce with world-class skills. IRES focuses on active research participation by undergraduate and/or graduate students in high quality international research, education and professional development experiences in NSF-funded research areas. Track I focuses on the development of world-class research skills in international cohort experiences. Track II is dedicated to targeted, intensive learning and training opportunities that leverage international knowledge at the frontiers of research.

**Improving Undergraduate STEM Education: Pathways into the Earth, Ocean, Polar and Atmospheric & Geospace Sciences (IUSE: GEOPAths) – NSF** LOI required DUE November 17, Full Proposal January 26 There are three new funding tracks: *Informal Networks* (IN); *Undergraduate Preparation* (UP); *Graduate Opportunities* (GO):

1. **GEOPAths: Informal Networks (IN)**. Collaborative projects in this track will support geoscience learning and experiences in informal settings for teachers, pre-college (e.g., upper level high school) students, and early undergraduates in the geosciences.
2. **GEOPAths: Undergraduate Preparation (UP)**. Projects in this track will engage pre-college and undergraduate students in extra-curricular experiences and training in the geosciences with a focus on service learning [Reference 3 in the Program Description section] and workplace skill building.
3. **GEOPAths: Graduate Opportunities (GO)**. Projects in this track will improve research and career-related pathways into the geosciences for undergraduate and graduate students through institutional collaborations with a focus on service learning and workplace skill building.

Environmental and Life Sciences

**Coastlines and People – Hubs – NSF Large Scale Projects** DUE October 28 The Coastlines and People program supports diverse, innovative, multi-institution awards that are focused on critically important coastlines and people research that is integrated with broadening participation goals. The objective of this solicitation is to support Coastal Research Hubs, structured using a convergent science approach, at the nexus between coastal sustainability, human dimensions, and coastal processes to transform understanding of interactions among natural, human-built, and social systems in coastal, populated environments.

**Macrosystems Biology and NEON-Enabled Science (MSB-NES) – NSF** DUE November 9
Funding Opportunities

**Macrosystems Research Awards (MRA).** Awards to advance Macrosystems Biology research broadly, including substantively NEON-enabled research, and innovative training to conduct this research. These awards may be up to 5 years in duration; 4 to 7 awards, averaging approximately $1,000,000, are anticipated.

**Macrosystems Small Awards (MSA).** Awards employing targeted approaches to advance understanding of regional to continental-scale processes, or addressing a theoretical challenge such as scaling or teleconnections, and prioritizing the use or development of NEON data and/or infrastructure. Proposals from early career investigators remain a priority. These awards will be limited to $300,000 and up to 3 years in duration; 12 to 18 awards are anticipated.

**Dynamics of Integrated Socio-Environmental Systems (DISES) – NSF DUE November 16.** Formerly the CNH which Dr. Ariane Peralta and team at ECU secured this year, the DISES program acknowledges a continuum of environments from those with very limited human populations (e.g. polar regions) to those in which human systems and processes fully dominate (e.g. densely populated megacities). There are integrated systems operating in all these spaces, and many can be considered as domains for DISES study. For the purposes of this solicitation, we define the "socio" or human component of the system as one predominantly governed by human decisions, actions, and behaviors, and we define the "environmental" component of the system as one predominantly governed by biological, physical, and chemical processes. DISES projects can include research that investigates integrated socio-environmental systems in agricultural as well as in urban settings.

**Climate Program Office – NOAA Opportunities – DUE November 30**
Climate variability and change present society with significant economic, health, safety, and security challenges. As part of the National Oceanic and Atmospheric Administration (NOAA) climate portfolio within the Office of Oceanic and Atmospheric Research (OAR), the Climate Program Office (CPO) addresses these climate challenges by managing competitive research programs through which high-priority climate science, assessments, decision support research, outreach, education, and capacity-building activities are funded to advance our understanding of the Earth’s climate system, and to foster the application and use of this knowledge to improve the resilience of our Nation and its partners. Through this announcement, CPO is seeking applications for 6 individual competitions in FY21. Several of these competitions are relevant to high-priority climate risk areas CPO is organizing some of its activities around to improve science understanding and/or capabilities that result in user-driven outcomes in four initial risk areas: Coastal Inundation, Marine Ecosystems, Water Resources and Extreme Heat. Here is an article https://cpo.noaa.gov/News/ArtMID/7875/ArticleID/1945/NOAA%E2%80%99s-Climate-Program-Office-launches-Climate-Risk-Areas-Initiative

**Biology Integration Institutes – NSF DUE January 13.** The program supports collaborative teams investigating questions that span multiple disciplines within and beyond biology. Integration across biological disciplines is essential if we hope to understand the diverse and ever-increasing data
streams of modern biology and tackle emergent questions about living organisms and the environment. Of equal importance is the need for groundbreaking and sustainable training programs that prepare the next generations of scientists to navigate the breadth of biological sciences, training in multiple disciplines without sacrificing depth of learning or innovation. In addition, the biology community must continue to develop practices and adopt strategies that leverage rapid advances in cyberinfrastructure and other technologies to bridge and integrate across subdisciplines and make resources accessible, re-usable, and adaptable for unanticipated purposes.

Ecology and Evolution of Infectious Diseases – NSF DUE November 18, the central theme of submitted projects must be the quantitative or computational understanding of pathogen transmission dynamics. The intent is discovery of principles of infectious disease transmission and testing mathematical or computational models that elucidate infectious disease systems. Projects should be broad, interdisciplinary efforts that go beyond the scope of typical studies. They should focus on the determinants and interactions of transmission among any host species, including but not limited to humans, non-human animals, and/or plants. This includes, for example, the spread of pathogens; the influence of environmental factors such as climate; the population dynamics and genetics of reservoir species or hosts; the feedback between ecological transmission and evolutionary dynamics; and the cultural, social, behavioral, and economic dimensions of pathogen transmission.

Humanities and Fine Arts & Communications

Dialogues on the Experience of War – NEH DUE October 14. OUTPUT: Curriculum, Community Partnerships, Discussion Groups, Facilitator Training. The program supports the study and discussion of important humanities sources about war, in the belief that these sources can help U.S. military veterans and others think more deeply about the issues raised by war and military service. Dialogues is primarily designed to reach military veterans; however, men and women in active service, military families, and interested members of the public may also participate.

Collaborative Research – Division of Research Programs – NEH DUE December 2 The program aims to advance humanistic knowledge through sustained collaboration between two or more scholars. The program allows projects that propose research in a single field of study, as well as interdisciplinary work. Projects that include partnerships with researchers from the natural and social sciences are encouraged but must employ a humanistic research agenda.

Scholarly Editions and Translation Grants – Division of Research Programs – NEH DUE December 2 The program provides grants to organizations to support collaborative teams who are editing, annotating, and translating foundational humanities texts that are vital to learning and research but are currently inaccessible or are available only in inadequate editions or translations.

Physical Sciences Opportunities

Division of Physics: Investigator-Initiated Research Projects – NSF DUE October 19. Physics of Living Systems This solicitation covers three possible award types:

W-Hub gb 09/25/2020
Funding Opportunities

- individual investigator and group awards with standard time cycles;
- midscale instrumentation; and
- awards that anticipate long-term support.

Research at Undergraduate Institutions (RUI) proposals should be submitted through a separate solicitation (NSF-14-579), following the documentation requirements therein. Such proposals must be submitted by the deadline listed in this division-wide solicitation that corresponds to the closest disciplinary match. RUI proposals should also follow the additional requirements specified in the sub-section labeled Additional Information in section (V.A).

Cyberinfrastructure for Sustained Scientific Innovation – Elements and Framework – NSF
DUE October 28

The program seeks to enable funding opportunities that are flexible and responsive to the evolving and emerging needs in cyberinfrastructure (CI). This program continues the CSSI program by removing the distinction between software and data elements/framework implementations, and instead emphasizing integrated CI services, quantitative metrics with targets for delivery and usage of these services, and community creation. The CSSI umbrella program anticipates two classes of awards:

- **Elements**: These awards target small groups that will create and deploy robust services for which there is a demonstrated need, and that will advance one or more significant areas of science and engineering.
- **Framework Implementations**: These awards target larger, interdisciplinary teams organized around the development and application of services aimed at solving common research problems faced by NSF researchers in one or more areas of science and engineering, and resulting in a sustainable community framework providing CI services to a diverse community or communities.

**Applied Mathematics – NSF** DUE Nov 1 – 16, the program supports mathematics research motivated by or having an effect on problems arising in science and engineering. Mathematical merit and novelty, as well as breadth and quality of impact on applications, are important factors. Proposals to develop critical mathematical techniques from individual investigators as well as from interdisciplinary teams are encouraged.

**Mathematical Sciences Infrastructure Program – NSF** DUE December 15

The primary aim of the Mathematical Sciences Infrastructure Program is to foster the continuing health of the mathematical sciences research community as a whole. In addition, the program complements the Workforce Program in the Mathematical Sciences in its goal to increase the number of well-prepared U.S. based individuals who successfully pursue careers in the mathematical sciences and in other professions in which expertise in the mathematical sciences plays an increasingly important role. The DMS Infrastructure program invites projects that support core research in the mathematical sciences, including: 1) novel projects supporting research infrastructure across the mathematical sciences community; 2) training projects complementing the Workforce Program, and 3) conference, workshop, and travel support requests that include cross-disciplinary activities or have an impact at the national scale.
Sustainable Regional Systems Research Networks – NSF DUE January 11

The purpose of the SRS RNs competition is to develop and support interdisciplinary, multi-organizational teams of investigators and stakeholders working collaboratively to produce cutting-edge convergent research, education, and outreach that addresses grand challenges in sustainable regional systems. SRS RNs will study multiscale regional systems to further SRS science, engineering, and education. Key elements will include new data, methods, and models to understand interactions between natural, human-built, and social systems; improved understanding of interdependencies, mutual benefits, and trade-offs of different wellbeing outcomes for humans and the environment; new and generalizable theories of change relevant to SRS; the co-production of knowledge; and exploration of concepts of social equity in sustainable regional systems across spatial and temporal scales. SRS RN outcomes will have the potential to inform societal actions for sustainability across urban systems and the connected rural communities that make up regional systems.

- **SRS RNs Full Scale Awards (Track 1).** These awards will support fundamental convergent research, education, and outreach that addresses engineering, environmental (biology, chemistry - including sensing, chemical analytics, and recyclable plastics, atmospheric sciences, hydrology, geology), computer and data sciences, and social and behavioral sciences of sustainable regional systems in partnerships that may embrace universities, colleges, practitioners, non-profit organizations, local governments, industry, and community groups. The award size is up to $15 million total with a duration of 5 years.

- **SRS RNs Planning Grants (Track 2).** These awards are for capacity building to prepare project teams to propose future well-developed SRS RN Full Scale (Track 1) proposals. Each of these Track 2 awards will provide support for a period of one year and may be requested at a level not to exceed $150,000 for the total budget.

Partnerships for Innovation – NSF DUE January 13, 2021

The Technology Translation (PFI-TT) track offers an NSF-funded researcher the opportunity to translate her or his prior NSF-funded research results in any field of science or engineering into technological innovations with promising commercial potential and societal impact. PFI-TT supports commercial potential demonstration projects for academic research outputs in any NSF-funded science and engineering discipline.

Interfacial Engineering – NSF DUE Anytime

The goal of the Interfacial Engineering program is to support fundamental research on atomic- and molecular-scale interfacial phenomena and engineering of interfacial properties, processes, and materials. Fundamental understanding of the thermodynamic, kinetic, and transport properties of interfacial systems underpins improvements in chemical process efficiency and resource utilization. As such, proposed research should have a clear vision for how the results will translate to practice in or otherwise advance industrial chemical or biochemical processes. The program encourages proposals that present new approaches to long-standing challenges or address emerging research areas and technologies. Collaborative and interdisciplinary proposals are also encouraged, particularly those that involve a combination of experiment with theory or modeling.
Funding Opportunities

Nanoscale Interactions DUE Anytime This solicitation is a part of the Environmental Engineering and Sustainability cluster. The goal of the Nanoscale Interactions program is to support research to advance fundamental and quantitative understanding of the interactions of nanomaterials and nanosystems with biological and environmental media.

Support for New Faculty

NIH Exploratory/Developmental Research Grant Program – R21 DUE Oct. 16
PA-20-195, Parent R21 Exploratory/Developmental Grant, Clinical Trial Not Allowed
PA-20-196, Parent R21 Exploratory/Developmental Grant, Basic Experimental Studies with Humans Required
The NIH Exploratory/Developmental Grant supports exploratory and developmental research projects by providing support for the early and conceptual stages of these projects. These studies may involve considerable risk but may lead to a breakthrough in a particular area, or to the development of novel techniques, agents, methodologies, models, or applications that could have a major impact on a field of biomedical, behavioral, or clinical research. This Parent Funding Opportunity Announcement requires that at least 1 clinical trial be proposed. The proposed project must be related to the programmatic interests of one or more of the participating NIH Institutes and Centers (ICs) based on their scientific missions.

Pipeline Grants Competition – Russell Sage Foundation DUE November 4. For early- and mid-career researchers in collaboration with the Economic Mobility and Opportunity program at the Bill & Melinda Gates Foundation, the competition seeks to promote diversity in the social sciences broadly, including racial, ethnic, gender, disciplinary, institutional, and geographic diversity. Early and mid-career faculty who have not previously received support from RSF in the form of a Trustee or Presidential research grant or a visiting fellowship from RSF are eligible to apply.

Research Publication Grants in Engineering, Medicine, and (Physical or Biological) Science – AAUW DUE December 1. Open to University Women who are not yet tenured professors, conducting basic research in engineering, medicine or the physical or biological sciences.

High-Risk Research in Biological Anthropology and Archaeology (HRRBAA) DUE Anytime
OPEN to Junior Faculty who must contact the cognizant NSF Program Director before submitting an HRRBAA proposal. Anthropological research may be conducted under unusual circumstances, often in distant locations. As a result, the ability to conduct potentially important research may hinge on factors that are impossible to assess from a distance and some projects with potentially great payoffs may face difficulties in securing funding. This program gives small awards that provide investigators with the opportunity to assess the feasibility of an anthropological research project. It is required that the proposed activity be clearly high risk in nature. The information gathered may then be used as the basis for preparing a more fully developed research program.
Funding Opportunities

Social and Behavioral Sciences

**Dynamics of Integrated Socio-Environmental Systems - NSF DUE November 17** The DISES Program supports research projects that advance basic scientific understanding of integrated socio-environmental systems and the complex interactions (dynamics, processes, and feedbacks) within and among the environmental (biological, physical and chemical) and human ("socio") (economic, social, political, or behavioral) components of such a system. The program seeks proposals that emphasize the truly integrated nature of a socio-environmental system versus two discrete systems (a natural one and a human one) that are coupled. DISES projects must explore a connected and integrated socio-environmental system that includes explicit analysis of the processes and dynamics between the environmental and human components of the system.

**Human-Environment and Geographical Sciences Program – NSF DUE January 21.** The Directorate for Social, Behavioral and Economic Sciences Division of Behavioral and Cognitive Sciences introduces the HEGS as formally the GSS opportunity. The objective of HEGS program is to support basic scientific research about the nature, causes, and/or consequences of the spatial distribution of human activity and/or environmental processes across a range of scales. Projects about a broad range of topics may be appropriate for support if they enhance fundamental geographical knowledge, concepts, theories, methods, and their application to societal problems and concerns. Recognizing the breadth of the field’s contributions to science, the HEGS Program welcomes proposals for empirically grounded, theoretically engaged, and methodologically sophisticated geographical research.

Other Proposals Accepted at Any Time

**Atmospheric Chemistry – NSF**

**Climate and Large-Scale Dynamics – NSF**

**Democracy Small Grants Program General Competition – U.S. Embassy Ukraine**

**Division of Environmental Biology (core programs) (DEB) – NSF**

**Division of Integrative Organismal Systems of Core Programs - NSF**

**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.

**Long Term Research in Environmental Biology – NSF**
Funding Opportunities

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 Sample Grant Applications, Summary Statements, and More

NSF-Approved Formats for the Biographical Sketch

NSF-Approved Formats for Current and Pending Support

Data Tables for use with Institutional Research Training grant applications

Search Federal Agency Program Deadlines
Administration for Community Living: https://www.acl.gov/grants
NCBC Deadlines: http://www.ncbiotech.org/research-grants/research-funding
NEH Grant Deadlines: http://www.neh.gov/grants
HHS Grants Forecast: https://forecast.grantsolutions.gov/index.cfm
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
USDA AFRI Deadlines USDA AFRI Deadlines.