LEWIS–BURKE ASSOCIATES LLC

Federal Funding Opportunities for Equipment and Infrastructure
Updated May 18, 2023

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Major Research Instrumentation	NSF	Yes		$100 K - $4 million	Available here
Mid-Scale Research Infrastructure-1	NSF	Yes		$400 K - $20 million	Available here
Mid-Scale Research Infrastructure-2	NSF	Yes		$20-$100 million	Available here
Materials Research Science and Engineering Centers	NSF	Yes		$3-$4.5 million	Available here
Earth Sciences Instrumentation and Facilities	NSF	Rolling		$25 K - $600 K	Available here
Oceanographic Facilities and Equipment Support	NSF	Yes		~ $1.0 million	Available here
Defense University Research Instrumentation Program	DOD	Annual		$50 K - $3 million	Available here
Infrastructure and Capacity Building Challenge Grants	NEH	Annual		$150 K - $1 million	Available here
Disaster Supplemental Funding	EDA	Rolling		$30 million	Available here

National Institutes of Health

CO6 Research Facilities Construction Grant

The National Institutes of Health (NIH) CO6 Research Facilities construction grant mechanism supports the construction or renovation of biomedical research facilities. These grants are typically awarded to academic institutions and research organizations, and they can be used to fund a wide variety of projects, such as the construction of new laboratories, the renovation of existing facilities, or the purchase of new equipment. Through this program, NIH aims "to provide matching federal funds, up to 75%, for construction or major remodeling, to create new research facilities," including those part of any overall research effort and basic research laboratories.

C06 Construction Grants can provide a significant boost to the biomedical research enterprise. By providing funding for the construction or renovation of research facilities, these grants can help to create a more favorable environment for research and to attract top researchers to institutions that have the resources to support their work. NIH typically awards C06 Construction Grants on a competitive basis. Applications are reviewed by a panel of experts, and awards are made to the projects that are judged to be the most meritorious.

Eligibility: Applicants must be a public or private nonprofit institution of higher education or a non-profit research organization, have a strong, demonstrated commitment to biomedical research, and must also have a plan for how the grant funds will be used to improve the quality of biomedical research at the institution.

Due Dates: The 2023 competition for these grants was due on February 24, 2023. The next cycle is anticipated to begin in December 2023 as this is an annual award.

Total Funding and Award Size: Awards are given in the range of $3 million to $8 million. Any applications with a funding request below $3 million will not be considered.

Sources and Additional Information:

- The 2023 NIH CO6 Solicitation can be found at https://grants.nih.gov/grants/guide/pa-files/PAR-23-045.html.

National Science Foundation

Major Research Instrumentation

The National Science Foundation (NSF) Major Research Instrumentation (MRI) program is a grant program that supports the acquisition of major scientific instruments for research and research training in the United States. The MRI program is designed to help ensure that U.S. researchers have access to the latest and most advanced instrumentation, regardless of their institution's size or location. The MRI program provides funding for the purchase of instruments, as well as for the costs of installation, operation, and maintenance. The program also provides funding for education and training programs that will help researchers learn how to use the instrument. The MRI program has made a significant contribution to the advancement of science and engineering in the United States. By providing funding for the acquisition of major scientific instruments, the program has helped to ensure that U.S. researchers have the tools they need to conduct cutting-edge research.

Eligibility: The MRI program is open to all types of non-profit institutions, including colleges and universities, research institutes, and museums. To be eligible for an MRI award, an institution must propose to acquire a new or significantly upgraded scientific instrument that is not otherwise available through other NSF programs. The instrument must be of high quality and must be used for research that is of national importance.

Total Funding and Award Size: The total funding available for the MRI program is anticipated to be $75 million, with roughly 25 percent going to support track 2 awards. Award size will vary based on the track proposers submit under, there are three different tracks:

- Track 1: proposals greater than $100,000 and less than $1.4 million
- Track 2: proposals greater than $1.4 million up to $4 million,
- Track 3: proposals within the entire award range that "include the purchase, installation, operation, and maintenance of equipment and instrumentation to conserve or reduce the consumption of helium," respectively.

Due Dates: Proposals will be accepted during the following dates:

- October 16, 2023-November 15, 2023;
- October 15, 2024-November 15, 2024;
- October 15, 2025-November 15, 2025; and
- October 15, 2026-November 15, 2026.

Sources and Additional Information:

- The full solicitation can be found at https://www.nsf.gov/pubs/2023/nsf23519/nsf23519.pdf.
- The NSF announcement of this opportunity can be found at https://new.nsf.gov/funding/opportunities/major-research-instrumentation-program-mri.

Mid-Scale Research Infrastructure-1

The Mid-Scale Research Infrastructure-1 (MSRI-1) program of the National Science Foundation (NSF) supports the design and implementation of unique and compelling research infrastructure projects that are too large for the Major Research Instrumentation (MRI) program but too small for the Major Facilities program. Mid-scale RI-1 projects can be used to acquire, assemble, construct, or commission mid-scale infrastructure in equipment, instrumentation, cyberinfrastructure, broad scale datasets, and personnel for project commission. There are two tracks supported, design projects that help prepare for future projects at mid-scale and implementation which support activities like acquisition, assembly, construction, and commissioning.

Eligibility: Applying institutions must be an Institution of Higher Education (IHE), a research institute, or a museum with a strong commitment to research. Applicants must have a plan for how the grant funds will be used to improve the quality of research at the institution.

Total Funding and Award Size: The current solicitation plans to make $100 million to $150 million available for awards. Funding awards vary for the two tracks:

- Track 1: Implementation projects may have a range from $4 million up to $20 million.

- Track 2: Design projects may request less than $4 million but not less than $400,000 and a maximum request up to $20 million.

Due Dates: Preliminary proposals are required for this competition, select applicants will be invited to submit full proposals. Full proposals for the 2023 solicitation are due by May 5, 2023. However, this is an annual competition.

Sources and Additional Information:

- The NSF announcement of this opportunity can be found at https://new.nsf.gov/funding/opportunities/mid-scale-research-infrastructure-1-mid-scale-ri-1.
- The full solicitation can be found at https://www.nsf.gov/pubs/2022/nsf22637/nsf22637.pdf.

Mid-Scale Research Infrastructure-2

The Mid-Scale Research Infrastructure-2 (MSRI-2) program of the National Science Foundation (NSF), like the MRSI-1 supports research infrastructure projects that are too large for the Major Research Instrumentation (MRI) program but too small for the Major Facilities program, but the MRSI-2 only supports the implementation phase. The implementation phase in MSRI-2 most often supports the acquisition and construction of mid-scale infrastructure in equipment, instrumentation, cyberinfrastructure, large scale data sets, and personnel needed for project commission.

Eligibility: Applicants must be a non-profit organization, such as a college or university, a research institute, or a museum with a strong commitment to research. The institution must also have a plan for how the grant funds will be used to improve the quality of research at the institution.

Total Funding and Award Size: The current competition anticipates the total funding amount to be between $150 million and $200 million. Project awards may range from $20 million to $100 million for implementation awards of up to five years.

Due Dates: Letters of intent are due by May 15, 2023, and preliminary proposals are required by June 20, 2023, certain proposals will then be invited to submit full proposals in December, 2023.

Sources and Additional Information:

- The NSF announcement of this opportunity can be found at https://new.nsf.gov/funding/opportunities/mid-scale-research-infrastructure-2-mid-scale-ri-2 .
- The full solicitation can be found at https://www.nsf.gov/pubs/2023/nsf23570/nsf23570.pdf .

Materials Research Science and Engineering Centers

The Materials Research Science and Engineering Centers (MRSEC) program of the National Science Foundation (NSF) supports the development of materials research infrastructure and the training of the next generation of materials scientists and engineers. MRSECs contribute to the national network of university and university-adjacent research, education, and facilities, and as such may be comprised of either one institution or a consortium of institutions. The program solicitation encourages multidisciplinary support and efforts, and

Due Dates: The most recent competition, FY 2022, had preliminary proposals due by June 21, 2022, and full proposals due by November 22, 2022. Due dates have not yet been listed for the FY 2023 competition.

Total Funding and Award Size: NSF anticipates an estimated $25 million in available funding for up to 8 MRSEC awards. Individual awards will range from $3 million to $4.5 million.

Eligibility: Proposals may only be submitted by two- and four-year Institutions of Higher Education (IHEs) with accredited campuses in the U.S. Organizations may only submit one proposal per organization, and PIs may only submit one proposal as well.

Sources and Additional Information:

- The MRSEC home page is available at https://new.nsf.gov/funding/opportunities/materials-research-science-engineering-centers.
- The FY 2022 solicitation is available at https://www.nsf.gov/pubs/2021/nsf21625/nsf21625.pdf .

Earth Sciences Instrumentation and Facilities

The Earth Sciences Instrumentation and Facilities (EAR/IF) program of the National Science Foundation (NSF) supports the acquisition, development, and operation of instrument-based and human research infrastructure that will advance understanding of the Earth system. EAR/IF is a competitive program that supports proposals from a wide range of institutions, including universities, colleges, federal laboratories, and nonprofit organizations.

EAR/IF awards can be used to support a wide range of activities, including:

- The acquisition of new or replacement research equipment;
- The development of new instrumentation and techniques;
- The operation and maintenance of research facilities;
- The training of researchers and technicians; and
- The public outreach of Earth science research.

Due Dates: Proposals are accepted anytime for this program.

Total Funding and Award Size: NSF anticipates awarding a total of $10 million in annual funding for this program, spread out across 30 to 40 awards per year. Award size varies by the specific activity requested in the submission.

- Broadening Participation awards may be up to $25,000;
- Equipment Acquisition and Upgrading awards have a maximum amount $600,000;
- Instrumentation and/or Technique Development awards can be up to $600,000 over a period of up to five years;
- Technician Support awards have several tracks, each with different funding amounts: the maximum award for Track 1 is $200,000, $1 million for Track 2 proposals, and $1.5 million for Track 3 proposals. All awards are given for a period of up to five years.
- Continental Drilling awards have a maximum award amount of $100,000 per year.

Eligibility: Proposals may be submitted by two- and four-year Institutions of Higher Education (IHEs) with an accredited campus located in the US. Non-profit museums, research labs, observatories, professional societies and similar such organizations based in the US and associated with educational and research activities may also apply. Consortia of two or more submission-eligible organizations as described above are also eligible to apply for funding.

Sources and Additional Information:

- The NSF announcement of this opportunity is available at https://new.nsf.gov/funding/opportunities/earth-sciences-instrumentation-facilities-earif.
- The full solicitation for this opportunity is available at https://www.nsf.gov/pubs/2022/nsf22577/nsf22577.pdf.

Oceanographic Facilities and Equipment Support

The Oceanographic Facilities and Equipment Support (OFES) grant is a program of the National Science Foundation (NSF) that provides funding for the acquisition, operation, and maintenance of oceanographic facilities and equipment. OFES provides funding for the acquisition and maintenance of oceanographic facilities and equipment, which are essential for conducting oceanographic research. OFES also supports the training of oceanographic researchers and educators, which is essential for ensuring that the United States has a strong workforce of ocean scientists and engineers. OFES awards are made to institutions that are engaged in oceanographic research, education, and outreach. Awards can be used to support a wide range of oceanographic activities, including:

- The acquisition of new or replacement oceanographic equipment;
- The operation and maintenance of oceanographic facilities;
- The development of new oceanographic technologies;
- The training of oceanographic researchers and educators; and
- The public outreach of oceanographic research.

Due Dates: Proposals for the FY 23 solicitation were due February 28, 2023 but proposals for the FY 24 solicitation will be due January 10, 2024. All future annual solicitations will have January 10 of the respective year as their due date.

Total Funding and Award Size: NSF anticipates making 25 to 50 awards through the OFES program, totaling $47.5 million in annual funding. Awards will be made in three separate sectors:

> Oceanographic Technical Services awards will be five-year continuing grant periods.
> Oceanographic Instrumentation awards will be made for grant periods of up to two years.
> Shipboard Scientific Support Equipment (SSSE) awards will be either one- or two-year grant awards, varying depending on the specific proposal.

Eligibility: Two- and four-year Institutions of Higher Education (IHEs) that are accredited and located in the US are eligible to apply. Nonprofit, non-academic organizations, such as museums, research labs, and professional societies are eligible to apply as well.

Sources and additional information:

- The link to the NSF announcement of this opportunity is available at https://new.nsf.gov/funding/opportunities/oceanographic-facilities-equipment-support.
- The full solicitation is available at https://www.nsf.gov/pubs/2023/nsf23525/nsf23525.pdf.

Department of Defense

Defense University Research Instrumentation Program

DURIP is an annual program under DOD's University Research Initiative (URI) that provides acquisition funding for equipment and instrumentation used to support defense-related research activities. Although not appropriate for construction, building support systems, fixed equipment (i.e. clean rooms or fume hoods), or salary-related expenses, DURIP funding intends to support the purchase of major, state-of-the-art equipment (from $50,000 to $3 million) that augments current research institutions' capabilities or develops new capabilities to perform cutting edge defense research in disciplines of importance to DOD.

DURIP remains an extremely competitive funding program due to a decline in similar instrumentation programs across federal agencies. For the FY 2023 solicitations, DOD awarded $59 million in awards to 147 university researchers at 77 institutions across 30 states.

As in previous years, the Army Research Office (ARO), Office of Naval Research (ONR), and the Air Force Office of Scientific Research (AFOSR) jointly support the solicitation, which is issued in cooperation with the Office of the Director of Basic Research in the Office of the Secretary of Defense. The solicitation is unclear which Office will facilitate the Space Force DURIP, which received funding for the first time in the FY 2023 Omnibus appropriations legislation. However, it is expected to be facilitated by AFOSR, which supports Space Force's basic research priorities. DOD recommends that proposers review each Service's research interests contained in recent Broad Agency Announcements (BAA) to align proposals with DOD research needs. Proposals must address research of interest to one or more of the Services and may be submitted to more than one Service for consideration. While an application may be submitted to multiple Services, funding can only be received from one.

In addition to research efforts, DURIP emphasizes related educational enhancement and requires proposals to address how proposed equipment or instrumentation offers to enhance an institution's ability to educate future scientists and engineers through research conducted with the proposed equipment in DOD-relevant disciplines. Lewis-Burke also recommends that proposers identify how research efforts supported by the instrumentation align with current DOD Research and Engineering (R&E) priorities and critical technology areas, which include:

- Biotechnology;
- Quantum Science;
- Future Generation Wireless Technology (FutureG);
- Advanced Materials;
- Trusted AI and Autonomy;
- Integrated Network Systems-of-Systems;
- Microelectronics;
- Space Technology;
- Renewable Energy Generation and Storage;
- Advanced Computing and Software;
- Human-Machine Interfaces;
- Directed Energy;
- Hypersonics; and
- Integrated Sensing and Cyber.

Additional information on DOD's research and engineering priorities and critical technology areas can be found in the USD(R&E) Technology Vision for an Era of Competition.

Eligibility: The competition is open to accredited U.S. institutions of higher education with degree-granting programs in science, mathematics, or engineering. University affiliated research centers are eligible to participate in this competition.

Total Funding and Award Size: DOD anticipates awarding approximately $53 million under the FY 2024 DURIP competition, with individual awards ranging from $50,000 to $3 million. Awards are typically for one year. The program will also be supplemented by additional funding from the Defense Established Program to Stimulate Competitive Research (DEPSCoR). DEPSCoR-eligible applicants should indicate their DEPSCoR status in their DURIP application.

Due Date: Full proposals for the FY 2023 solicitation should be submitted no later than **May 12, 2023**. The competition is annual.

Sources and Additional Information:

- The full FY 2024 DURIP solicitation issued by each military Service is available at www.grants.gov under funding opportunity number "FOA-AFRL-AFOSR-2023-0005" (Air Force), "W911NF-23-S-0006" (Army), and "N00014-23-S-F002" (Navy).
- The Long Range Broad Agency Announcement for Navy and Marine Corps Science and Technology can be found here or at www.grants.gov under funding opportunity number "N00014-23-S-B001."
- The research interests of ARO can be found in their most recent Broad Agency Announcement for Basic and Applied Scientific Research here.
- The research interests of AFOSR can be found in their Broad Agency Announcement here or at www.grants.gov under funding opportunity number "FA9550-23-S-0001."
- The USD(R&E) Strategic Vision and Critical Technology areas can be found here.

National Endowment for the Humanities

Infrastructure and Capacity Building Challenge Grants

The Infrastructure and Capacity Building Challenge Grant program supports infrastructure development for institutions to secure support for core activities in the humanities. The program aims to strengthen humanities activities at institutions through infrastructure development and capacity building. The maximum award available through this program is $1 million for a period of up to five years. Digital infrastructure projects are not supported, and awards given as a result of the FY 2023 program will start between March 1 and June 1 of 2024.

Eligibility: Any organization can apply for this program. NEH has not specified any limit on the application.

Total Funding and Award Size: The maximum award available for this program is $1 million for a maximum period of five years. There are three levels of awards with different match ratios. Requests up to $150,000 have a match of 1:1, requests between $150,001 and $500,000 have a match of 3:1, and requests between $500,001 and $1 million have a match ratio of 4:1.

Due Dates: The 2023 cycle for applications ends May 17, 2023. This is an annual competition.

Sources and Additional Information:

- The NEH solicitation link is available at https://www.neh.gov/grants/preservation/infrastructure-and-capacity-building-challenge-grants.

Economic Development Administration

Disaster Supplemental Funding

The Economic Development Administration's (EDA) Disaster Supplemental program is for areas experiencing severe distress and economic harm as a result of wildfires, flooding, Hurricanes Ian and Fiona, and other federally designated natural disasters in 2021 and 2022, as determined by the Federal Emergency Management Agency (FEMA). EDA provides disaster support initiatives among its six regional offices across the country.

Funding will be provided by the regional offices through the EDA Economic Adjustment Assistance (EAA) disaster recovery program, which supports a broad array of development initiatives with potential to expand economic activity and recovery through funding for construction, non-construction (i.e. workforce development, infrastructure development strategies etc.), technical assistance, and planning activities. The program also supports strategy grants to create or update a Comprehensive Economic Development Strategy (CEDS). Applicants must clearly state how their proposed project would improve resilience and mitigate future disaster-related losses, as well as demonstrate the proposal is a part of a long-term, regionally oriented economic development strategy. For instance, if a community is largely dependent on a particular industry that was harmed by a tornado, funding could be provided for the development of methods to reduce future disruptions. For this solicitation, EDA broadly defines resilience as "the ability of a community or region to anticipate, withstand, and bounce back from various disruptions to its economic base." Along with the promotion of economic resilience in affected regions, EDA expects every proposal to include a component promoting climate resilience, including by accounting for future natural hazards and other climate-related risks.

Eligibility: Eligible entities include institutions of higher education, non-profit organizations, and public-private partnerships located in or serving one or more communities that received a federal disaster declaration in 2021 and 2022 are eligible to apply. For construction projects, the applicant does not need to be located in the affected region, but applicant does need to demonstrate how the proposed project will benefit the disaster affected community.

Total Funding and Award Size: EDA anticipates making 150 awards through this competition. The total program funding is $483 million but divided by EDA region. Individual awards have a ceiling of $30 million and cost sharing is required.

Due Dates: There is no deadline thus far for the announcement. However, EDA anticipates that they will be making awards through this notice starting August 2023. Applications will continue to be accepted on an ongoing basis until the announcement of a new Disaster Supplemental solicitation, cancellation of this competition, or all available funds have been expended.

Sources and Additional Information:

- The home page for Disaster Supplemental Funding is available at https://www.eda.gov/strategic-initiatives/disaster-recovery/supplemental.
- The 2023 NOFO is available at https://www.eda.gov/strategic-initiatives/disaster-recovery.