Potential Funders for Instruments, Equipment & Infrastructure

Steps in Pursuing a Potential Funding Opportunity:

1. **Find Funding Opportunities**
   1) **Look through the table of Potential Funders below.** Click the links to the website of the funder in order to get current information and to better see if that funding source matches your research needs. Be sure to check the other [33 Curated Funding Lists](#).
   2) **Other Grant Searching Tools:** Baylor subscribes to two grant search engines ([Pivot](#) and [GrantForward](#)) that will send you regular alerts of funding if you supply your research interests. Log in with your Baylor credentials. See instructions for using these effectively: [Search Funding Databases](#). Government Funding opportunities can also be searched on [Grants.gov](#) and [Federal Grants Wire](#).
   3) **Pick Funders that match your research most closely.** Go on their website and sign up for their email alerts of funding opportunities (if available).

2. **Starting Application Process**
   1) **Contact URA:** When you are ready to start applying for a grant, start by contacting your department’s [URA](#) (University Research Administrator). They will help you with working with [Pre-Award](#) to set up a Box folder, registrations, understanding Baylor’s procedures, and gathering supplementary documents.
   2) **Check Limited Submissions:** Some funding opportunities limit the number of proposals from an institution. For these opportunities, the OVPR holds an internal competition **eight weeks before the external submission date**. For details and deadlines see: [Limited Submissions](#).

3. **Use Baylor Tools for Writing Competitive Grants:**
   1) Research Development’s: [Grant Writing Workshop](#) & [Writing and Editorial Assistance](#)
   2) [PowerPoint Courses for Baylor Faculty on Applying for Grants](#)
   3) [Grant Toolkits for Faculty](#) (Includes Excel Grant Planner, Templates for Letters and Facilities pages, links to applications and forms, and Guides for how to write each grant competitively)

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Grant Toolkits Available for Instruments
NSF
MRI
Index:

Note on Using Funding Tables:
1) Content for each table was taken from the Funder's website and is intended to give you a brief overview of that funder. Be sure to go to the Funder's website for up-to-date information and specific current funding opportunities (RFP's).
2) The index is hyperlinked to lead you to a table with more information. Ctrl+Click blue links on index items to go to the table.
3) Within the table, Ctrl+Click blue links to follow links to funder's website

Government Funders
1. [Computational and Information Systems Laboratory (CISL) Website Link: https://www2.cisl.ucar.edu/user-support/allocations](https://www2.cisl.ucar.edu/user-support/allocations) Deadline(s): ongoing
2. [Department of Energy LEDP for STEM education](https://www2.cisl.ucar.edu/user-support/allocations)
3. [DOD: ONR: Office of Naval Research Defense University Research Instrumentation Program (DURIP)](https://www2.cisl.ucar.edu/user-support/allocations)
4. [DOD Army: ARO Special Programs](https://www2.cisl.ucar.edu/user-support/allocations)
5. [DOD: Department of Air Force (USAF) Assistance Instruments](https://www2.cisl.ucar.edu/user-support/allocations)
6. [NIH S10 Instrumentation Programs (biomedical research) Shared Instrumentation Grant](https://www2.cisl.ucar.edu/user-support/allocations)
7. [NIH: High-End Instrumentation HEI Grant Program PAR-19-177 (not clinical trial)](https://www2.cisl.ucar.edu/user-support/allocations)
8. [NIH Instrumentation for Animal Research (SIFAR) S10 NSF—Major Research Instrumentation Program Limited Submission](https://www2.cisl.ucar.edu/user-support/allocations)
9. [NSF Infrastructure Capacity for Biology (ICB) NSF 18-594](https://www2.cisl.ucar.edu/user-support/allocations)
10. [NSF: Infrastructure Innovation for Biological Research (IIBR) 18-595](https://www2.cisl.ucar.edu/user-support/allocations)
11. [NSF Sustained Availability of Biological Infrastructure (SABI) 19-569](https://www2.cisl.ucar.edu/user-support/allocations)
12. [NSF Earth Sciences: Instrumentation and Facilities (EAR/IF) NSF 16-609](https://www2.cisl.ucar.edu/user-support/allocations)
13. [NSF Advanced Technologies and Instrumentation (ATI)](https://www2.cisl.ucar.edu/user-support/allocations)
14. [NSF Chemistry Research Instrumentation and Facilities (CRIF)](https://www2.cisl.ucar.edu/user-support/allocations)
15. [NSF: NISE Community Research Infrastructure (CCRI) NSF 19-512](https://www2.cisl.ucar.edu/user-support/allocations)

Non-Government Funders
16. [AMGEN Grants](https://www2.cisl.ucar.edu/user-support/allocations)
17. [Fund for Astrophysical Research](https://www2.cisl.ucar.edu/user-support/allocations)
18. [Micrometrics Instrument Grant Program](https://www2.cisl.ucar.edu/user-support/allocations)
19. [UNIDATA: Data Services and Tools for Geoscience, Equipment Awards](https://www2.cisl.ucar.edu/user-support/allocations)
20. [World Community Grid](https://www2.cisl.ucar.edu/user-support/allocations)

Government Funders

<table>
<thead>
<tr>
<th>1. Computational and Information Systems Laboratory (CISL)</th>
<th>Funding:</th>
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<tr>
<td>Website Link: <a href="https://www2.cisl.ucar.edu/user-support/allocations">https://www2.cisl.ucar.edu/user-support/allocations</a></td>
<td>Deadline(s): ongoing</td>
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<tr>
<td><strong>Support Strategies:</strong> computing resources for atmospheric and related sciences</td>
<td></td>
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<tr>
<td><strong>Description:</strong> The Computational and Information Systems Laboratory (CISL) provides large computing resources for university researchers and NCAR scientists in atmospheric and related sciences. To access these supercomputers, storage systems, and other resources, users must apply for allocations, which NCAR makes available through several facilities. Applications are reviewed and time is allocated according to the needs of the projects and the availability of resources. Send questions about the following allocation opportunities to <a href="mailto:alloc@ucar.edu">alloc@ucar.edu</a>.</td>
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<tr>
<td><strong>Allocations for Cheyenne</strong></td>
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The deployment of the Cheyenne environment at the NCAR-Wyoming Supercomputing Center (NWSC) January 2017 greatly expanded the resources and opportunities available to researchers in the atmospheric and related sciences. The Cheyenne HPC system provides more than 1.2 billion core-hours for allocation each year. Allocations generally are required for access to the HPC, data analysis, visualization, and storage systems that CISL manages. Access to data collections via the Research Data Archive, Community Data Portal, and Earth System Grid may require separate registration for access to some data sets, but allocations are not required. University researchers and NCAR scientists request allocations through the various opportunities described below.

Climate Simulation Laboratory
The Climate Simulation Laboratory (CSL) is CISL’s premier opportunity for researchers seeking high-performance computing and data storage systems to support extremely demanding, high-profile climate simulations. These long-running simulations typically require millions of core-hours to complete and usually produce many terabytes of model output that must be stored for analysis and comparison with other simulations and with observations.

Eligibility. Researchers must have funding from NSF awards to address the climate-related questions for which they are requesting CSL allocations. CSL requests must satisfy additional eligibility criteria for use of this facility.

University Community
NCAR provides computing resources to the university community for investigations that are beyond the scope of university computing centers. University researchers have access to CISL’s computational, analysis and visualization resources and storage systems. See the University allocations page for details.

The CISL HPC Advisory Panel (CHAP) accepts requests for large allocations of NCAR resources every six months, in March and September. Check the CHAP site for the next submission deadline.

Eligibility. In general, any U.S.-based researcher with an NSF award in the atmospheric sciences or computational science in support of the atmospheric sciences is eligible to apply for a University Community allocation. There are some limited opportunities for those without NSF awards.

NCAR Community
NCAR investigators have access to CISL resources through allocations to the NCAR labs and have opportunities to submit requests for larger-scale, project-oriented allocations. Proposals for larger-scale projects are reviewed twice per year to become NCAR Strategic Capability projects.

Research Development Notes:

<table>
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<tr>
<th>2. Department of Energy LEDP for STEM education</th>
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<tr>
<td>Website Link: <a href="https://apps.orau.gov/ledp">https://apps.orau.gov/ledp</a></td>
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<tr>
<td>Support Strategies: used equipment donation granted on first-received qualified application basis</td>
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<tr>
<td>Description: About LEDP</td>
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<tr>
<td>The Laboratory Equipment Donation Program (LEDP) was established by the United States Department of Energy (DOE) to grant surplus and available used laboratory equipment to full-time faculty at universities and colleges in the United States for use in energy oriented Science, Technology, Engineering, and Mathematics (STEM) educational programs. This program is managed by the Office of Workforce Development for Teachers and Scientists (WDTS). The listing of equipment available through LEDP is updated as new equipment is identified. It is available at no cost for a limited time and is granted on a first-received qualified application basis. Participation in the LEDP is limited to full-time faculty at accredited, postsecondary, non-profit degree granting institutions including universities, colleges, community colleges, or junior colleges located in the U.S. and interested in establishing or upgrading energy-oriented science, technology, engineering, or mathematics (STEM) educational programs. An energy-oriented program is defined as an academic education or research activity dealing primarily or entirely in energy-related topics. To be eligible, applicants must be a full-time faculty member in STEM areas such as physics, chemistry, biology, engineering, environmental sciences, geology or geosciences, mathematics, materials sciences, or computer or computational sciences. A full-time faculty employee is defined as one who is considered to be a faculty member by his or her employing institution, is not characterized as having “adjunct” or “visiting” status, and</td>
</tr>
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</table>
who meets the Internal Revenue Service’s (IRS) definition of a full-time employee during the academic year in which application to the Laboratory Equipment Donation Program is made. The IRS defines a full-time employee as one who during a calendar month is employed on average for at least 30 hours of paid service per week or 130 hours of paid service per month.

Application reviews and grant awards are performed on a first-received, first-qualified basis.

**How to Apply**

**Research Development Notes:** one item a “Vacuum Oven System” was originally $87,000

### 3. DOD: ONR: Office of Naval Research Defense University Research Instrumentation Program (DURIP)


**Deadline(s):** check grants.gov to see if program is offered

**Support Strategies:** Navy research instrumentation

**Funding:** $50,000 to $1,500,000

**Description:** DURIP supports university research infrastructure essential to high-quality Navy relevant research. The research instrumentation that is necessary to carry out cutting-edge research. DURIP funds will be used for the acquisition of major equipment to augment current or develop new research capabilities in support of DoD-relevant research. Proposals may request $50,000 to $1,500,000. Proposals for purely instructional equipment are not eligible. General-purpose computing facilities are not appropriate for DURIP funding, but requests for computers for DoD-relevant research programs are appropriate.

**Program Description**

The Defense University Research Instrumentation Program (DURIP) supports university research infrastructure essential to high-quality Navy relevant research. The research instrumentation that is necessary to carry out cutting-edge research.

**Research Areas of Interest**

Each year that DURIP is in effect, a complete announcement will provide detailed program information, including the deadline date for submitting proposals. DURIP proposals submitted to ONR should facilitate research in an area of interest to ONR, as described in the Science and Technology section. Potential proposers may contact the appropriate program managers, listed with each area of interest, to explore possible mutual interests before submitting proposal.

This competition is open to U.S. institutions of higher education with degree granting programs in science, math or engineering.

**ONR Program Manager**

Ellen Livingston, Ph.D.

Contact: Paula Barden

Email: paula.barden.ctr@navy.mil

**Research Development Notes:**

### 4. DOD Army: ARO Special Programs


**Deadline(s):** Dec. 2023

**Support Strategies:** instrumentation for research and education in areas important to defense

**Funding:**
**Description:** Research Instrumentation (RI) Program RI is designed to improve the capabilities of U.S. institutions of higher education to conduct research and educate scientists and engineers in areas important to national defense. Of the funds available to support ARO mission research described in this BAA, funds may be provided to purchase instrumentation in support of this research or in the development of new research capabilities.

i. **Eligibility and Areas of Interest.** It is highly recommended that potential applicants contact the appropriate TPOC/Program Manager identified earlier in the research areas of this BAA for advice and assistance before preparation of an instrumentation proposal.

ii. **Content of Request for Instrumentation.** The request for instrumentation shall include:

1. A concise abstract (approximately 300 words but not to exceed 4,000 characters) that describes the instrumentation requested and the research to be supported by that instrumentation.
2. A budget that addresses the instrumentation to be purchased, cost per item, and total cost. Indicate the proposed source of the instrumentation and the name and telephone number of a contact at that source. The budget should indicate the amount of funds to be contributed by other sources toward the purchase of the instrumentation.
3. A description of how the proposed instrumentation will:
   i. establish new research capabilities,
   ii. contribute to research currently proposed to DoD, or
   iii. enhance the quality of research currently being funded by ARO.
4. A description of how the proposed instrumentation will interface with or upgrade other research facilities and instrumentation now available.
5. A description of the amounts and sources of ongoing or proposed support for the research to be supported by the instrumentation. Note: Costs associated with equipment/facility modifications are generally considered unallowable and require the review and approval of the Grants Officer.

iii. **The evaluation criteria to be used in determining which proposals are selected for funding are described in Section II.E.1.a and II.E.1.c of this BAA.**

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**Research Development Notes:**

### 5. DOD: Department of Air Force (USAF) Assistance Instruments

**Website Link:** [https://www.grants.gov/web/grants/view-opportunity.html?oppId=311454](https://www.grants.gov/web/grants/view-opportunity.html?oppId=311454)

**(look at “related documents” for the full announcement**

**Deadline(s):** Dec. 2023

**CFDA Numbers:**

12.800 - Air Force Defense Research Sciences Program

**Support Strategies:** space sciences, defense technology, energy sciences

**Funding:** upper $90,000,000

**Description:** This is a 5-year open Funding Opportunity Announcement (FOA) accepting proposals from the date of publication for the award of Grant and Cooperative Agreement Assistance Instruments. The AFRL Space Vehicles Directorate (RV) and Directed Energy Directorate (RD) are interested in receiving proposals under this announcement in order to establish University Cooperative Agreements and Grants to provide funds to students/professors in a timely manner for the purpose of engaging U.S./U.S. territories' colleges and universities in directed energy and space vehicles-related basic, applied, and advanced research projects that are of interest to the Department of Defense (DoD). The scope of the research will include the entire spectrum of RV and RD technology that is applicable to the Air Force, including all peripherally-related RV and RD research.

**BRIEF PROGRAM SUMMARY:** AFRL RV and RD lead the nation in space supremacy and directed energy research and development. This 5-year, open FOA is to solicit research proposals for basic, applied, and advanced research for AFRL RV and RD. Proposals are invited for research in many broad areas. These areas are described in detail in Section I, Funding Opportunity Description. Multiple awards of assistance instruments are anticipated with periods of performance ranging from one to two five years. Subject to the availability of 2 of 24 FOA-RVK-2019-0001
funding, the Government plans to award a minimum of one assistance instrument per fiscal year. However, the Government reserves the right to make multiple awards or no awards pursuant to this announcement. AFRL RV and RD is seeking unclassified proposals that do not contain proprietary information. Proprietary information is defined as information that is not public knowledge and that is viewed as the property of the holder. Proposed research should be fundamental research. As defined in Attachment B of the National Security Decision Directive 89, “Fundamental Research means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons.”

Funding Contact Person
Deborah Moyer, Grant Officer
Phone: (505) 853-3306
deborah.moyer@us.af.mil

Research Development Notes:

6. NIH S10 Instrumentation Programs (biomedical research) Shared Instrumentation Grant


Support Strategies:
Currently, there are no active FOAs. We expect to publish program announcements in the winter of FY 2020. Below are the most recent FOAs:


Description: ORIP’s S10 Instrumentation Grant Programs support purchases of state-of-the-art commercially available instruments to enhance research of NIH-funded investigators. (Note: in FAQ it says the PI of an S10 application does not need to have NIH-funded grant(s) or any other research support. However, the PI should demonstrate in the application that he/she has the relevant instrument expertise and can perform the necessary scientific and administrative oversight responsibilities for the requested instrument.) Instruments that are awarded are typically too expensive to be obtained by an individual investigator with a research project grant. Every instrument awarded by an S10 grant is used on a shared basis, which makes the programs cost-efficient and beneficial to thousands of investigators in hundreds of institutions nationwide. S10 awards are made to domestic public and private institutions of higher education, and non-profit domestic institutions such as hospitals, health professional schools, and research organizations. To be eligible for an S10 award, an institution must identify three or more Principal Investigators with active NIH research awards who demonstrate the substantial need for the requested instrument. Awards are issued for one year, and matching funds are not required. However, ORIP expects institutions that compete for S10 awards to provide an appropriate level of support for associated infrastructure, such as space to house the instrument, technical personnel, and post-award service contracts for instrument maintenance and operation.
Types of instruments supported by S10 funding include, but are not limited to X-ray diffraction systems, nuclear magnetic resonance (NMR) and mass spectrometers, DNA and protein sequencers, biosensors, electron and confocal microscopes, cell-sorters, and biomedical imagers.

ORIP manages the S10 programs by issuing Funding Opportunity Announcements (FOAs) with one annual receipt date. Active FOAs are:

- **Shared Instrumentation Grant Program (SIG)** - the SIG Program funds grant awards in the $50,000 to $600,000 range. Deadline: May 31, 2019
- **Shared Instrumentation for Animal Research Grant Program (SIFAR)** - the SIFAR Program funds grant awards in the $50,000 to $750,000 range to support research using animals or related materials. Deadline: May 31, 2019
- **High-End Instrumentation Grant Program (HEI)** - the HEI Program funds grant awards in the $600,001 to $2,000,000 range. Deadline: May 31, 2019

ORIP encourages applicants to familiarize themselves with the program requirements in these most recent announcements before finalizing their applications so that submitted documents follow the up-to-date guidance on the application content and format.

**Frequently Asked Questions**

ORIP has a series of Frequently Asked Questions and Answers (Q&As) to describe some of the NIH policies and practices relevant to S10 applications and S10 grants.

- **The S10 Instrumentation Programs**
  - Shared and High-End Instrumentation Awards
  - Frequently Asked Questions: Shared and High-End Instrumentation Grant Programs
- **Guidance for Submitting Applications**
- **DCI Staff Contacts**

**Research Development Notes:**

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### 7. NIH: High-End Instrumentation HEI Grant Program PAR-19-177 (not clinical trial)

**Deadline(s):** May 2019

**Support Strategies:**  
**Funding:** $600,000 to 2,000,000

**Description:** The High-End Instrumentation (HEI) Grant Program encourages applications from groups of NIH-supported investigators to purchase or upgrade a single item of expensive, specialized, commercially available instruments or integrated systems. The minimum award is $600,001 of direct costs. The maximum award is $2,000,000 of direct costs. Types of instruments supported include, but are not limited to: X-ray diffractometers, mass and nuclear magnetic resonance (NMR) spectrometers, DNA and protein sequencers, biosensors, electron and confocal microscopes, cell-sorters, and biomedical imagers.

The purpose of this funding opportunity is to continue the High-End Instrumentation (HEI) Grant Program administered by ORIP. The objective of the Program is to make available to institutions expensive research instruments that can only be justified on a shared-use basis and that are needed for NIH-supported projects in basic, translational or clinical areas of biomedical/behavioral research. The HEI Program provides funds to purchase or upgrade a single item of expensive, specialized, commercially available instrument or an integrated instrumentation system. An integrated instrumentation system is one in which the components, when used in conjunction with one another, perform a function that no single component could provide. The components must be dedicated to the system and not used independently.

Types of supported instruments include, but are not limited to: X-ray diffractometers, mass and nuclear magnetic resonance (NMR) spectrometers, DNA and protein sequencers, biosensors, electron and light microscopes, cell sorters, and biomedical imagers. Applications for "stand alone" computer systems (supercomputers, computer clusters and data storage systems) will only be considered if the instrument is solely dedicated to the research needs of NIH-supported investigators.
To facilitate the introduction of advanced cutting-edge instrumentation technologies providing new research capabilities to the biomedical field, a risk-return trade-off is allowed when certain classes of instruments or integrated systems are requested. Accordingly, the HEI program supports the acquisition of unique instruments or integrated systems developed by reliable commercial vendors, provided the instruments or all components of integrated systems are guaranteed by the manufacturer’s one-year warranty. Due to the novelty of the technologies and the uniqueness of their implementation, specialized and technologically savvy groups of investigators will be qualified to lead the adoption of such instruments for biomedical research and the development of innovative biomedical applications. Therefore, if such novel instrument is requested, the applicant should demonstrate special technical expertise, merging physical and biological sciences. For integrated systems, the applicant must provide a detailed description about how the system will be put together and about technical expertise of the individual(s) who will be responsible for assembling of the system. The applicant must also provide a detailed description of training for the investigators listed in the application about the use of the novel technology to advance their research.

All instruments, integrated systems, and computer systems must be dedicated to research only. Applications will be accepted that request a single, commercially available instrument or integrated system. The minimum award is $600,001 of direct costs. There is no upper limit on the cost of the instrument, but the maximum award is $2,000,000 of direct costs. Since the cost of the various instruments will vary, it is anticipated that the size of the award will also vary. S10 awards do not allow indirect costs.

It is expected that applicants will employ the most economical approaches, including securing academic discounts, to formulate a cost-effective budget while meeting users’ scientific needs.

In rare special circumstances when an institution cannot justify sole use of the high-end instrument for NIH-supported and other biomedical research, the institution may request a Special Use Instrument (SUI). Eligibility requirements for SUI requests are described in Section III 3.

Foreign-made instruments are allowed.

The HEI Program will not support requests for:
- An instrument with a base cost of less than $600,001;
- Multiple instruments bundled together;
- Purely instructional equipment;
- Institutional administrative management systems, clinical management systems, or instruments to be used purely for clinical (billable) care;
- Software, unless it is integrated in the operation of the instrument and/or necessary for the generation of high-quality output experimental data from the instrument;
- General purpose equipment or an assortment of instruments to furnish a research facility and equipment for routine sustaining infrastructure (such as standard machine shop equipment, standard computer networks, autoclaves, hoods, and equipment to upgrade animal facilities).

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### 8. NIH Instrumentation for Animal Research (SIFAR) S10


**Deadline(s):** May

**Funding:** $50,000 to $750,000

**Support Strategies:**

**Description:** The Shared Instrumentation for Animal Research (SIFAR) Grant Program invites groups of NIH-funded investigators engaged in biomedical research using animals to seek support for high-cost, state-of-the-art, commercially available scientific instruments. All requested instruments must be used on shared basis and enhance research that uses animals or related materials such as animal tissues, cells, or germplasm.

NIH-funded investigators use many different vertebrate and invertebrate animals in biomedical research, including worms, flies, fish, and rodents. This Funding Opportunity Announcement (FOA) supports instrumentation requests related to all animal species needed for NIH-supported biomedical research. NIH-funded investigators rely on a broad spectrum of technologies including nuclear magnetic resonance (NMR)
spectrometers, mass spectrometers, DNA and protein sequencers, biosensors, electron and confocal microscopes, cell-sorters, and biomedical imagers. This FOA supports requests for all available technologies to enhance research using animals or related biological materials such as tissue, cells, or germplasm, for the ultimate benefit of human health.

Applicants may request clusters of instruments configured as specialized integrated systems or as a series of instruments to support a specific thematic area of biomedical research using animals. An integrated instrumentation system is one in which components, when used in conjunction with one other, perform a function that no single component could provide. A series of instruments may support a specialized workflow or provide synergetic functionalities to advance a thematic area of research. Any instrument, requested as a part of a cluster or a series, must be commercially available.

For example, applicants may request integrated systems to support animal research in any field of biomedical research, such as neurophysiology, cardiologist physiology, immunology, developmental biology, or neurobehavioral sciences. Similarly relevant are series of instruments for high-throughput experiments in research areas such as genomics, phenotyping, or metabolomics. Clusters of instruments may improve surgical approaches by incorporating robotics and real-time decision-making procedures based on imaging or molecular characterizations of tissue. A combination of microfluidics-related technologies with high-throughput and high-content screening may advance phenotyping procedures. Likewise, a combination of optical imaging, flow-cytometry, and mass spectrometry may improve and speed up molecular profiling. Also appropriate are integrated systems for cognitive-behavioral studies or advanced monitoring set-ups for comprehensive physiological and metabolic assessment.

Of special interest are unique instrumentation systems that augment experimental capabilities through complementary functions of the individual items. Such systems can enable multi-step protocols and broader approaches by incorporating best practices drawn from different experimental specialties, for example, by combining different modalities to achieve multi-scale capabilities such as linking gene expressions to cell-, organ-, and organism-level pathologies.

It is expected that instruments within a series will be used in conjunction with each other. For example, the placement of instruments in a thematic core facility would focus on investigations in a common scientific field such as cardiovascular or neurological studies. Similarly, instruments placed in a barrier facility would enable longitudinal studies and other investigations requiring special settings such as gnotobiotic environment.

To ensure the effective and collaborative use of all requested instruments, they should be placed in a common or adjacent physical location for ease of access and to promote synergetic operation of the items within the cluster/series.

Requests for single instruments are not appropriate for this FOA and, if submitted to this FOA, they will not be considered for funding. Single instrument requests are supported by the Shared Instrumentation Grant (SIG) Program or High-End Instrumentation (HEI) Grant Program.

**Research Development Notes:**

**9. NSF—Major Research Instrumentation Program Limited Submission**

**Website Link:** [https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5260](https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5260)

**Program Solicitation 18-513**

**Deadline(s):** January

**MRI Grant Toolkit:**  
[https://baylor.box.com/s/dovxk5s5vsgwe9rk57arx3q1h6rm5o](https://baylor.box.com/s/dovxk5s5vsgwe9rk57arx3q1h6rm5o)

**Support Strategies:**  
Track 1: $100,000-1 million  
(limited submission: two proposals allowed each year)

Track 2: 1-4 million  
( limited submission: 1 proposal allowed each year)  
See [Baylor’s Limited Submissions website](https://baylor.box.com/s/dovxk5s5vsgwe9rk57arx3q1h6rm5o)

**Funding:** $100,000 to 4 million/l

**Note:** Because of 30% cost-share requirement, all proposals requiring more than a $500,000 cost share must receive prior approval by Pre-Award Administration before internal submission
**Description:** The Major Research Instrumentation (MRI) Program serves to increase access to multi-user scientific and engineering instrumentation for research and research training in our Nation's institutions of higher education and not-for-profit scientific/engineering research organizations. An MRI award supports the acquisition or development of a multi-user research instrument that is, in general, too costly and/or not appropriate for support through other NSF programs. MRI provides support to acquire critical research instrumentation without which advances in fundamental science and engineering research may not otherwise occur. MRI also provides support to develop next-generation research instruments that open new opportunities to advance the frontiers in science and engineering research. Additionally, an MRI award is expected to enhance research training of students who will become the next generation of instrument users, designers and builders.

**Research Development Notes:**

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<tr>
<th>10. NSF Infrastructure Capacity for Biology (ICB) NSF 18-594</th>
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<tr>
<td><strong>Website Link:</strong> <a href="https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf18594">https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf18594</a></td>
</tr>
<tr>
<td><strong>Deadline(s):</strong> proposals accepted anytime,</td>
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<tr>
<td><strong>Support Strategies:</strong> no limits on the number of proposals an investigator can submit as PI</td>
</tr>
<tr>
<td><strong>Funding:</strong> no cost sharing required. No funding request limit.</td>
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**Description:** The Infrastructure Capacity for Biology (ICB) supports the development, expansion, or improvement of infrastructure that will enable fundamental research within the biological sciences. Infrastructure supported under this solicitation may include cyberinfrastructure, instrumentation, biological collections, living stocks, field stations, marine labs, or other resources that are shared and openly accessible. Proposals submitted to the ICB solicitation must make a compelling case that the proposed infrastructure will advance or transform research in areas of science that are supported by the Directorate for Biological Sciences (BIO) at the National Science Foundation.

While other programs in the Division of Biological Infrastructure (DBI) focus on innovative research leading to new infrastructure or sustained operation of mature infrastructure, this solicitation focuses on supporting projects that seek to deliver, enable access to, or substantially improve infrastructure that will advance the capacity of today’s scientific community to conduct leading edge research. The impacts of the activities funded by awards made through this solicitation will be reflected not just in the quality of their products, but by the novel and transformative science outcomes that will be achieved by the users of these resources. Infrastructure projects that will advance any field of research supported by the Directorate for Biological Sciences are eligible for support under this program.

The scope of this solicitation encompasses the core programmatic areas of the Infrastructure Capacity for Biology program in the Division of Biological Infrastructure (DBI). Please refer to the individual program descriptions for detailed guidance on what is supported by that area:

- [Cyberinfrastructure for Biological Research](https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf18594) (CIBR);
- [Collections in Support of Biological Research](https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf18594) (CSBR);
- [Improvements in Facilities, Communications, and Equipment at Biological Field Stations and Marine Laboratories](https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf18594) (FSML); and

Proposals need not necessarily be limited to one of these programs. Projects that integrate across these resource types to develop comprehensive infrastructure solutions are encouraged.
What Has Been Funded (Recent Awards Made Through This Program, with Abstracts)

Research Development Notes:

11. NSF: Infrastructure Innovation for Biological Research (IIBR) 18-595

https://www.grants.gov/web/grants/view-opportunity.html?oppId=308676

Deadline(s): proposals accepted any time

Support Strategies: biological informatics, instrumentation and associated methods

Funding: $300,000 to 800,000 for 3 years

Description: The Infrastructure Innovation for Biological Research (IIBR) solicitation supports new and innovative research in biological informatics, instrumentation and associated methods, as well as multidisciplinary approaches to these broad themes that address needs in basic biological research. These awards support pioneering approaches that develop de novo infrastructure, significantly redesign existing infrastructure, or apply existing infrastructure in novel ways. Activities must demonstrate the potential to advance or transform research in biology as supported by the Directorate for Biological Sciences at the National Science Foundation (https://nsf.gov/bio).

The “Rules of Life” is one of the NSF’s ten big ideas for future investment. Understanding these basic “Rules” and how they operate across scales of time, space, and complexity to determine how genes function and interact with the environment will enable us to predict the phenotype, structure, function, and behavior of organisms. Providing scientists with the instrumentation and resources necessary to make these discoveries requires investments in new instrumentation capabilities and extending access to existing instrumentation and experimental facilities.

The program will accept proposals focused on the following themes:

Innovation in Biological Informatics: The provision of biological informatics for scientific research often follows a trajectory from exploratory research on new informatics methods and approaches; through development of robust, production quality databases and software tools; to the long term maintenance and operation of those resources. The IIBR program supports the first of these stages through innovation awards that are distinguished by a high degree of novelty and potential impact. The scope of the proposal should be focused on one discrete or several very tightly coupled problem(s) in biological informatics. Areas of interest include (but are not limited to):

- Algorithms, software or ontologies aimed at integration, retrieval and mining heterogeneous data sets
- Methods and tools for designing and implementing biological databases, including new architectures and infrastructures, new data types, standards and structures
- Tools that create scientific workflows, for any stage from data collection to modeling
- Tools that facilitate data acquisition, sharing and visualization
- Algorithms and methods for analyzing biocomplexity, in spatial or temporal dimensions
- Informatics tools that bridge conceptual differences that inhibit information sharing between biology and other sciences.

Innovation in Instrumentation: Advances in the biological sciences are increasingly dependent upon new or innovative instrumentation and coupled methods for the collection of new data and data types. For such approaches to come to fruition, the identification of a clearly defined research gap that the new instrument will address, innovative design, execution of the development plan, testing of a prototype, and dissemination and feedback from the broader user community are required. The Innovation in Instrumentation theme does not support the development of laboratory methodologies, unless the methodologies are tightly coupled to instrument innovation and validation. The IIBR program supports the innovative stages of new or novel instrumentation and coupled methods that provide new research capabilities or significantly improves upon current technologies, such as, but not limited to:

- New and innovative approach not currently available,
- Accuracy of measurement,
- Resolution of data points,
- Throughput and speed of data capture,
- Development of methodologies coupled to the use or validation of the instrument,
- Breadth of application,
- Reduction in cost of construction or operation, or
- Ease of use.

**Multidisciplinary Innovation:** Proposals accepted to the IIBR program need not be limited solely to instrumentation or biological informatics as separate themes. The program encourages multidisciplinary proposals that draw upon expertise across these two areas of interest. Such proposals would result in an innovation with the potential to significantly advance the research supported by the Directorate for Biological Sciences (BIO).

**Rules of Life (RoL) track:** The Rules of Life track seeks to support integrative research and training that aims to identify the underlying general principles that operate across hierarchical levels of living systems, from molecules to organisms to ecosystems, and that explain emergent properties, e.g., robustness, adaptability. Discovery of fundamental principles through integrative research and enabling infrastructure will advance understanding and further predictive capability of how key properties of living systems emerge from the interaction of genomes, phenotypes, and environment. Research activities under Rules of Life should lead to new understanding of how higher-order structures and functions result from the interactions of heterogeneous biological components, as shaped by genomic, developmental, environmental or evolutionary processes.

**Research Development Notes:**

12. **NSF Sustained Availability of Biological Infrastructure (SABI) 19-569**

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<thead>
<tr>
<th>Website Link</th>
<th>Deadline(s)</th>
<th>Funding</th>
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<tr>
<td><a href="https://nsf.gov/funding/pgm_summ.jsp?pims_id=505560">https://nsf.gov/funding/pgm_summ.jsp?pims_id=505560</a></td>
<td>rolling</td>
<td>1-3 awards with 5 million anticipated funding amount</td>
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**Description:** The Sustained Availability of Biological Infrastructure program (SABI) supports the continued operation of extant infrastructure that will advance basic biological research. Infrastructure supported under this program may include cyberinfrastructure, instrumentation, experimental or observational facilities, biological living stocks which have ongoing costs of operation and maintenance that exceed the reasonable capacity of the host institution. Proposals must make a compelling case that sustained availability of the proposed infrastructure will advance or transform research in biological sciences as supported by the National Science Foundation.

While other programs in the Division of Biological Infrastructure focus on research leading to future infrastructure or on the development or implementation of shared infrastructure, this program focuses on awards that ensure the continued availability of mature infrastructure resources critical to sustain the ability of today’s scientific community to conduct leading edge research. Awards made through this program are expected to lead to novel, impactful, and transformative science outcomes through research activities enabled by their use. Infrastructure that demonstrates substantial impact on research supported by the Directorate for Biological Sciences and its collaborating organizations is eligible for support under this program.

Requests may include costs related to two general areas:

1. Human resource costs of daily operations, updating technical components as required by external technology changes for instrumentation or cyberinfrastructure; scaling of codes, schemas and physical capacities as required to accommodate new users of existing functionality or expanded content; and costs of providing support and training to user communities.
2. Costs associated with development and implementation of policies and procedures that shift some fraction of the cost burden onto revenue that is recovered directly from the members of user and stakeholder communities.

**What Has Been Funded (Recent Awards Made Through This Program, with Abstracts)**


**Deadline(s):** no due date

**Support Strategies:** Earth Sciences equipment, instrumentation, techniques or software

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<th>Description</th>
<th>Funding: up to $500,000</th>
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<td>The Division of Earth Sciences supports meritorious proposals for research focused on improving the understanding of the structure, composition, and evolution of the Earth, the life it has supported through geological time, and the processes that govern the formation and behavior of the Earth's materials. The results of this research advance understanding of the Earth's changing environments, and the natural distribution of its mineral, water, biota, and energy resources and provide methods for predicting and mitigating the effects of geologic hazards such as earthquakes, volcanic eruptions, floods and landslides. EAR/IF supports meritorious requests for infrastructure that promote research and education in areas supported by the Division. EAR/IF will consider proposals for: 1) Acquisition or Upgrade of Research Equipment that will advance laboratory and field investigations and student research training opportunities in the Earth sciences. 2) Development of New Instrumentation, Techniques or Software that will extend current research and research training capabilities in the Earth sciences. 3) Community Facility Support to make complex and expensive instruments, systems of instruments or services broadly available to the Earth science research and student communities. Planned research uses of requested instruments, software, and facilities must include basic research on Earth processes SUPPORTED BY CORE PROGRAMS OR SPECIAL PROGRAMS OF THE DIVISION OF EARTH SCIENCES. Support is available through grants or cooperative agreements awarded in response to investigator-initiated proposals. Human resource development and education are expected to be an integral part of all proposals submitted to EAR/IF. Efforts to support participation of underrepresented groups in laboratory and/or field instrument use and training are encouraged. All proposers to EAR/IF are encouraged to consider Support of Outreach and/or Broadening Participation Activities. EAR/IF will consider co-funding of projects with other NSF programs and other agencies. Potential applications who consider joint review a possibility for their proposal are encouraged to contact the relevant program officer to discuss this possibility. EAR/IF anticipates approximately $6,000,000 will be available annually for 30-50 new awards, subject to the availability of funds. Awards may be standard or continuing grants or cooperative agreements. The maximum request for Acquisition or Upgrade of Research Equipment and Development of New Instrumentation, Techniques or Software proposals is $500,000. The maximum request for upgrade of research group computing facilities remains $75,000. Proposals from early career (tenure track but untenured) lead investigators are also encouraged. Such proposals will be given due consideration as part of the Broader Impacts merit review criterion. All proposals submitted to the EAR/IF Program may request up to $20,000 for Support of Outreach and/or Broadening Participation Activities.</td>
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**Research Development Notes:**
### 14. NSF Advanced Technologies and Instrumentation (ATI)

**Website Link:** [https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505586](https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505586)

**Deadline(s):** Fall

**Support Strategies:** Support for new technologies and instrumentation for astronomy & astrophysics

**Funding:** 10 awards for a total of 8 million

**Description:** The Advanced Technologies and Instrumentation (ATI) program provides individual investigator and collaborative research grants for development of new technologies and instrumentation for astronomy and astrophysics. The program supports overarching science objectives of the Division of Astronomical Sciences. Development of innovative, potentially transformative technologies are encouraged, even at high technical risk. Supported categories include but are not limited to: advanced technology development or concept feasibility studies and specialized instrumentation to enable new observations that are difficult or impossible to obtain with existing means. Proposals may include hardware and/or software development and/or analysis to enable new types of astronomical observations. The program encourages making products of research available to the public. It also encourages community coordination of technology and instrumentation development efforts via an annual Principal Investigators meeting.

**Research Development Notes:**

### 15. NSF Chemistry Research Instrumentation and Facilities (CRIF)

**Website Link:** [https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5641](https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5641)

**Deadline(s):** Temporarily suspended

**Support Strategies:**

**Funding:**

**Description:** The Chemistry Research Instrumentation and Facilities (CRIF) Program of the National Science Foundation (NSF) provides funds to research institutions and consortia thereof for the purchase of multi-user instruments and for the establishment and support of multi-user research facilities in the chemical sciences. This Program is structured to enable the National Science Foundation, through its Division of Chemistry, to respond to a variety of needs for infrastructure to undergird advanced research and education in chemistry. The NSF Division of Chemistry supports education and research activities in analytical, inorganic, organic, physical, materials, and surface chemistry. Instrumentation for related fields of research is provided through other NSF programs. NOTE: The CRIF program is temporarily suspended.

**Research Development Notes:**

### 16. NSF: NISE Community Research Infrastructure (CCRI) NSF 19-512

**Website Link:** [https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12810](https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12810)

**Deadline(s):** LOI Nov, proposal Jan.

**Support Strategies:**

**Funding:** Planning $50,000 to $100,000, new $750- $1,500,000, Enhance $750,000 to $ 2 million

**Description:** The Computer and Information Science and Engineering (CISE) Community Research Infrastructure (CCRI) program drives discovery and learning in the core CISE disciplines of the three participating divisions [(Computing and Communication Foundations (CCF), Computer and Network Systems (CNS), and Information and Intelligent Systems (IIS))] by funding the creation and enhancement of world-class research infrastructure. This research infrastructure will specifically support diverse communities of CISE researchers pursuing focused research agendas in computer and information science and engineering. This support involves developing the accompanying user services and engagement needed to attract, nurture, and grow a robust research community that is actively involved in determining directions for the infrastructure as well as

**Research Development Notes:**
management of the infrastructure. This should lead to infrastructure that can be sustained through community involvement and community leadership, and that will enable advances not possible with existing research infrastructure. Further, through the CCRI program, CISE seeks to ensure that researchers from a diverse range of academic institutions, including minority-serving and predominantly undergraduate institutions, as well as researchers from non-profit, non-academic organizations, have access to such infrastructure.

The CCRI program supports two classes of awards:

- New awards support the creation of new CISE community research infrastructure with integrated tools, resources, user services, and community outreach to enable innovative CISE research opportunities to advance the frontiers of the CISE core research areas. The New award class includes Grand Ensemble (Grand), Medium Ensemble (Medium), and Planning awards.
- Enhance/sustain (ENS) awards support the enhancement and sustainment of an existing CISE community infrastructure to enable world-class CISE research opportunities for broad-based communities of CISE researchers that extend well beyond the awardee organization(s).

Each CCRI New or ENS award may support the operation of such infrastructure, ensuring that the awardee organization(s) is (are) well positioned to provide a high quality of service to CISE community researchers expected to use the infrastructure to realize their research goals.

- **CISE Community Research Infrastructure (CCRI) Program Webinar on Tuesday November 27th at 2pm - Register here!**

**What Has Been Funded (Recent Awards Made Through This Program, with Abstracts)**

### Non-Government Funders

#### 17. AMGEN Grants

**Website Link:** [https://www.amgen.com/responsibility/grants-and-giving/equipment-donations/](https://www.amgen.com/responsibility/grants-and-giving/equipment-donations/)

**Deadline(s):** continuous as equipment is available

**Support Strategies:** Used equipment donation for cost of shipping

**Funding:** used equipment

**Description:** Public schools and nonprofit organizations are continually trying to deliver on their missions with limited budgets. As a result, essential equipment for educational curriculum is often too costly and inaccessible to the schools and organizations that need it most.

Since 1995, Amgen has donated equipment and supplies to schools and nonprofits as part of the company’s ongoing effort to advance science education and support local communities. At the same time, recycling outdated equipment that is still in good working condition helps the company further advance our environmental initiatives by reducing unnecessary waste.

Below are examples of equipment and supplies that are periodically available from Amgen for donation. Availability, location and quantities are not guaranteed and can vary.

- Lab equipment including incubators, hoods, water baths, freezer/refrigerators, and high performance liquid chromatography (HPLC) components.
- Lab glassware, lab coats, stationery supplies, racking, plastic bottles and other various lab-specific consumables.

Eligible schools and charitable organizations in North America and Puerto Rico seeking donations can complete an [online request form](http://fdnweb.org/fundastro/request-for-proposals/). The form includes detailed eligibility criteria.

If the desired equipment is available, it is the responsibility of the school or nonprofit organization to arrange for shipping and/or pickup.

**Research Development Notes:**

#### 18. Fund for Astrophysical Research

**Website Link:** [http://fdnweb.org/fundastro/request-for-proposals/](http://fdnweb.org/fundastro/request-for-proposals/)

**Deadline(s):** September
### Support Strategies

**astronomical equipment, computer time, software**

| Funding: | $3,000 to $5,000 |

**Description:** The Fund for Astrophysical Research in [The New York Community Trust](https://www.nycommunitytrust.org/) invites applications for research grants in astronomy and astrophysics. Since 1986, the Fund has awarded annual Theodore Dunham, Jr. Grants for Research in Astronomy.

Grants are awarded for the acquisition of astronomical equipment, computer time, and computer hardware or software for use in research. Preference is generally given to proposals for facilities that are likely to be used by a number of researchers. Cost sharing is encouraged. The Fund does not make grants for equipment intended only for teaching, publication costs, or travel costs to attend meetings. No salaries, administrative costs, or overhead will be funded.

Grants have ranged up to about $3,000 per grant, but in particularly meritorious cases, grants may be as much as $4,000 or $5,000. Grants are only made to non-profit colleges, universities, and other non-profit organizations engaged in astronomical research in the United States. Principal investigators must be researchers working at one of these organizations and must reside in the United States. No grants are made to individuals.

Applications for 2019 grants must be received by Monday, September 30, 2019.

Notification of awards will be made by Tuesday, December 31, 2019.

**Submission Materials**

A completed proposal submission should include the following:

1. A brief abstract (50-100 words) summarizing:
   - how the grant would be used;
   - what program the grant would support; and
   - the program’s importance to the scientific community.

2. A description of the need for the requested equipment or service and the resources currently available for the project (no more than 2 pages).

3. An itemized project budget: expenses and other confirmed/pending revenue sources (if applicable). Any applicant seeking more than $3,000 should submit two budgets, one contemplating a grant of, for example, $2,000 or $3,000 and the other contemplating a larger grant, with a description of how the larger grant would enhance the project and a discussion of the funding sources for the remainder of the costs of the project.

4. Primary Investigator’s Curriculum Vitae.

The proposal should be signed by the principal investigator and by the department chair and/or other appropriate institutional official authorized to request and receive grant funds. (Please make sure all proposal materials are single spaced and in a 12-point font.)

### 19. Micromeritics Instrument Grant Program

**Website Link:** [https://www.micromeritics.com/pressroom/particle-characterization-instruments-grants.aspx](https://www.micromeritics.com/pressroom/particle-characterization-instruments-grants.aspx)  
**Deadline(s):** Oct.

| Support Strategies: | Donates Micrometrics equipment  
| Funding: |  

**Description:** Micromeritics has recently launched an Instrument Grant Program intended to provide materials characterization instruments to non-profit universities and research organizations for the purpose of fostering and supporting meritorious research projects.

Micromeritics is now accepting applications for its newly instituted Instrument Grant Program. Researchers at non-profit universities and institutions will now have the opportunity to acquire the use of expensive particle characterization instrumentation not generally available through other means.

Types of instrumentation that will qualify as Donated Equipment include particle size analyzers, gas adsorption analyzers, mercury porosimeters, gas pycnometers, and chemisorption instrumentation. Since the nature and scope of the instruments that may be requested will vary, it is anticipated that the value of awards will vary.
Major recipients of a Program Grant of the Donated Equipment may include individual researchers or a group of researchers within the same department or from several departments at one institution. In addition, the Donated Equipment may be donated for shared use by two or more institutions provided that the grant application demonstrates the feasibility of such shared use.

The president of the company has set up a special committee to review the merits of all applications. A maximum of one instrument/integrated system will be awarded per calendar quarter. Program Grants are also limited to a maximum of one instrument/integrated instrument system per application. Applications may be submitted at any time in accordance with the application instructions. Applications are good for a period of one year from the date of submission.

For a detailed grant description, application requirements, application, and submission information click on the links below.

- Grant Program Policy
- Grant Program Application
- Grant Program Winners

### Research Development Notes:

**20.UNIDATA: Data Services and Tools for Geoscience, Equipment Awards**

**Website Link:** [https://www.unidata.ucar.edu/community/equipaward/RFP2020.html](https://www.unidata.ucar.edu/community/equipaward/RFP2020.html)  
**Deadline(s):** March

**Support Strategies:** Community Equipment Awards  
**Funding:** $20,000

**Description:** The primary purpose of the Unidata Community Equipment Awards is to encourage new members from diverse disciplinary backgrounds in the geosciences to join the Unidata community, and for existing members to continue their active participation so as to enhance the community process. Between 2003 and 2019, Unidata has awarded $1,150,757 to 97 different projects at 60 colleges and universities through the Community Equipment Awards program.

Past equipment awards have funded projects including:

- Installing or upgrading servers to ingest IDD data streams
- Creating electronic map walls
- Installing THREDDS Data Servers to make data available locally and regionally
- Installing computing lab hardware to run visualization software such as AWIPS and IDV
- Purchasing cloud computing resources for specific educational or research projects

Click on the links below to find information projects that received awards in previous years.

The Unidata Program Center is now accepting proposals for the 2020 Community Equipment Awards. The deadline for submissions is March 20, 2020, and notifications of award status are expected to be made by May, 2020.

**View the 2020 solicitation**

Please see our FAQ to find answers to specific questions you might have about the Unidata Community Equipment Awards. If you still have questions or would like additional guidance on submitting a proposal, send us an email at: support-egrants@unidata.ucar.edu.

The following are examples of some recent successful proposals:

- Jackson State University: [Upgrade the JSU Meteorology Computing Lab by installation of AWIPS II EDEX Server and CAVE Clients](https://www.unidata.ucar.edu/community/equipaward/RFP2020.html)
- San Jose State University: [San Jose State University Unidata Equipment Proposal](https://www.unidata.ucar.edu/community/equipaward/RFP2020.html)
- Texas Tech University: [Cloud-ready Processing and Dissemination of GOES-16 Geostationary Lighting Mapper Gridded Imagery](https://www.unidata.ucar.edu/community/equipaward/RFP2020.html)
- University of Wisconsin-Madison: [A community THREDDS/ADDE data server and IDD infrastructure upgrade at UW-Madison](https://www.unidata.ucar.edu/community/equipaward/RFP2020.html)
### 21. World Community Grid

**Website Link:**
- [https://www.worldcommunitygrid.org/research/viewSubmitAProposal.do](https://www.worldcommunitygrid.org/research/viewSubmitAProposal.do)
- [https://www.worldcommunitygrid.org/bg/rfp.pdf](https://www.worldcommunitygrid.org/bg/rfp.pdf)

**Support Strategies:** Grid computing for humanitarian research. Allows research proposals focused on humanitarian efforts to use their grid computing technology to accelerate computing results.

**Deadline(s):**

**Funding:**

**Description:** World Community Grid provides scientists conducting cutting-edge research in health, poverty and sustainability with free access to dedicated virtual supercomputing resources and a platform to engage the public in their research. World Community Grid volunteers donate their computer or mobile device's unused computing time to power this research, forming the biggest volunteer computing initiative devoted to humanitarian science - as powerful as some of the world's fastest supercomputers. Through their contributions, our research partners have published more than 50 peer-reviewed papers in scientific journals and have completed the equivalent of hundreds of thousands of years of research in less than a decade.

Projects must meet three basic technological requirements, to ensure benefits from grid computing:
1. Projects should have a need for millions of CPU hours of computation to proceed. However, humanitarian projects with smaller CPU hour requirements are able to apply.
2. The computer software algorithms required to accomplish the computations should be such that they can be subdivided into many smaller independent computations.
3. If very large amounts of data are required, there should also be a way to partition the data into sufficiently small units corresponding to the computations.

**Research We Support**

World Community Grid supports research that is:

- **Humanitarian:** Focused on solving problems to benefit humanity
- **Not for profit:** Conducted by public or nonprofit organizations
- **Contributed to the public domain:** All data generated by World Community Grid volunteers must be made freely available to the scientific community
- **Accelerated by volunteer computing technology:** Computations that require significant computer processing power and can be divided into small independent computations

World Community Grid has supported more than 25 research projects to date, including searches for more effective treatments for cancer, HIV/AIDS and neglected tropical diseases. Other projects are looking for low-cost water filtration systems and new materials for capturing solar energy efficiently.

The [Mapping Cancer Markers](https://www.worldcommunitygrid.org) project is using World Community Grid to scan data from thousands of patients to identify chemical signatures associated with various types of cancer. This will help researchers detect cancer earlier and design more personalized treatment based on the patient's genetic profile.

The [Computing for Sustainable Water](https://www.worldcommunitygrid.org) project studied the effects of human activity on the Chesapeake Bay watershed to understand what actions can lead to restoration, health and sustainability of this important resource.

Harvard University's [Clean Energy Project](https://www.worldcommunitygrid.org) discovered 35,000 materials with the potential to double carbon-based solar cell efficiency, after screening more than two million organic materials on World Community Grid – believed to be the world's most extensive quantum chemical investigation to date. These discoveries could result in solar cells that are cheaper, easier to produce and more efficient than ever before.

To date, over 500,000 volunteers have screened millions of drug candidates in the search for more effective HIV treatments as part of the [FightAIDS@Home](https://www.worldcommunitygrid.org) research project.

**Submitting A Proposal**

We invite scientists studying issues aligned with World Community Grid's mission to submit proposals to run their research on World Community Grid.
Please review our Request For Proposals Process (pdf) for more information on the proposal process, including technical requirements and selection criteria.

World Community Grid RFP Process (250 kb)
To submit a project for consideration, please download and complete the RFP Proposal Application (doc) and return to rfp@worldcommunitygrid.org.

RFP Proposal Application (215 kb)
If you would like to discuss your research with a member of our team, please Contact Us.

Research Development Notes:

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