Funding Opportunity Edition

RCA Funding Opportunities
RCA has opened applications for two funding programs:

**Research Development Travel and Conference Support Awards** help defray expenses for faculty presenting at national conferences (virtual or on-site) or for supporting travel to visit archives or special collections. International opportunities may be accommodated if required for discipline-specific research. As this pool of funding is limited, please consider allowing individuals who do not have other sources of travel funding to apply for this opportunity.

**Research Support Services Awards** help defray the costs of support services required for research, creative, or scholarly activity. For example, funds may be used in one of the NDSU Core Facilities, another recharge / service center, or for transcription services.

More information and application instructions are posted on the [RCA website](#).
Tuesday, July 28, 2020 - 8:30am-1:00pm
This free webinar covers the key components of an effective commercialization strategy, how to find and use cost-effective market research to direct your efforts, which supporting documents you will need, and other tips for writing a winning plan. Learn more and register >>

Upcoming Limited Submission Program Deadlines

Limited submission grant programs are those that indicate a limit on the number of proposals that may be submitted by an institution for a particular deadline. A selection process becomes necessary if more applicants express interest in applying than NDSU is allowed to submit to the grant program.

- **NSF: Improving Undergraduate STEM Education: GEOPAths**
  Notification Deadline: September 2, 2020
- **NSF Major Research Instrumentation (MRI)**
  Notification Deadline: September 15, 2020
- **NSF Research Traineeship (NRT)**
  Notification Deadline: September 15, 2020
- **USDA-NIFA: Women and Minorities in STEM Fields Program**
  Notification Deadline: September 15, 2020
- **NIH Collaborative Program for Multidisciplinary Teams (RM1)**
  Notification Deadline: September 22, 2020

FUNDING OPPORTUNITIES

- American Philosophical Society: Franklin Research Grants
- Bush Foundation: Community Innovation Grants
- Defense Established Program to Stimulate Competitive Research
- DoD: Fundamental Research in Socio-Mathematics of Information and Influence
- Elsa U. Pardee Foundation: Cancer Research Grants
- ND NASA EPSCoR: Research Seed Grants
- NEH: Archaeological and Ethnographic Field Research
- NIH: Collaborative Program for Multidisciplinary Teams (RM1)
- NIH: Secondary Analysis and Integration of Existing Data to Elucidate the Genetic Architecture of Cancer Risk and Related Outcomes
American Philosophical Society: Franklin Research Grants

Franklin Research Grants of up to $6,000 will be awarded to help meet the costs of travel to libraries and archives for research purposes; the purchase of microfilm,
photocopies, or equivalent research materials; costs associated with fieldwork; or laboratory research expenses. PhD candidates are not eligible to apply, but the society is interested in supporting the work of young scholars who have recently received their doctorate.

These awards are not intended to meet the expenses of attending conferences or the costs of publication. Applications require two letters of support.

For complete program guidelines, FAQs, and application instructions, see the American Philosophical Society website.

Upcoming deadlines: October 1, 2020; December 1, 2020

Bush Foundation: Community Innovation Grants

Community Innovation Grants invest in great ideas and the people who power them. The grants support organizations coming together to solve community challenges. The Bush Foundation provides Community Innovation grants of $10,000 to $200,000. Grants under $20,000 are available from intermediary partner organizations. The grants are flexible, and can be used to develop new ideas, test ideas already imagined, or spread proven ideas for more impact.

The Foundation is open to considering ideas on a range of issues, with an eye toward whether they could have truly transformative impact. They are looking for the ideas with the greatest potential to make the region better for everyone. The idea can be big in scale from the start or one that is starting small and could grow and spread. They are interested in ideas that inspire, equip, and connect people to lead change.

The Foundation prioritizes ideas that will make the region more equitable in opportunities and outcomes, especially for Black people, Indigenous people, people of color and/or people from rural communities. They are interested in proposals that address the conversations around racism and equality and/or the needs related to COVID-19.

Applications accepted year-round.
Defense Established Program to Stimulate Competitive Research

The Department of Defense (DoD) announces the fiscal year 2020 (FY20) Defense Established Program to Stimulate Competitive Research (DEPSCoR). The aim of DEPSCoR is to improve the research capabilities at institutions of higher education (IHE) in eligible States/Territories to perform competitive basic research in science and engineering that is relevant to the DoD mission and reflect national security priorities. The Basic Research Office anticipates approximately $7.2 million in total funding will be made available for this program to fund approximately twelve (12) awards up to $600,000 (total cost) each. Each award will be funded up to $200,000 (total cost) per year for three (3) years in the form of a grant.

The FY20 DEPSCoR competition seeks proposals addressing multiple topic areas, including:
1. Cognitive and Computational Neurosciences;
2. Materials with Extreme Properties;
3. Computational Architectures and Visualization;
4. Probability and Statistics;
5. Molecular Structure and Dynamics;
6. Social and Behavioral Science;
7. Bionics;
8. Machine Learning, Reasoning, and Intelligence; and

This funding opportunity aims to create basic research collaborations between a pair of researchers, namely 1) Applicant/Principal Investigator (PI), a full-time faculty member who has never served as a PI on a prior DoD-funded award and 2) Collaborator/co-Principal Investigator (co-PI) who will provide mentorship to the Applicant and has served as a PI on a DoD-funded research award actively between 1 October 2013 and 30 September 2020. Both investigators must be in a tenure-track or tenured position at an IHE in an eligible State / Territory.

Registration Deadline: September 14, 2020
Whitepaper Deadline: September 21, 2020

Slides from a recent DEPSCoR webinar and answers to questions about the
program are posted in the [Grants.gov funding opportunity announcement](https://grants.gov), under “Related Documents.”

---

**DoD: Fundamental Research in Socio-Mathematics of Information and Influence**

The overarching goal of this [research program](https://grants.gov) is to enhance and extend the understanding of the theoretical underpinnings of future information warfare, towards rapid detection, tracking and prediction of attempts at social manipulation. The problem requires the deep integration of two, currently distinct scientific fields, mathematics and social sciences. While modern mathematical methods are often-and well-used in social science studies, this research program is going well beyond the state of the art and is calling for the development of a new mathematical foundation for describing, analyzing and predicting human social behavior at multiple scales and in complex and dynamic environments, thus laying the groundwork for a new field.

The fundamental science behind the objective of this topic covers multiple, coupled areas, thus requiring a combination of expertise, for example: computer science and machine learning, mathematics, cognitive psychology and sociology, network theory and/or game theory. Some specific research topics to be addressed in this undertaking may include, but are not limited to, the following:

1. Carefully designed mathematical abstractions based on behavioral science for modeling the agent’s psychological and social variables, e.g.: emotional and cognitive states, human intent and belief, and group dynamics. These models should include approaches to multi-scale clustering for accurate comprehension and modeling of aggregate behavior, e.g. individual – group – nation.
2. Game-theoretical and Machine Learning concepts, e.g. multi-agent reinforcement learning (RL) or distributional RL, as well as other innovative ideas that can consider a hybrid distribution of irrational and rational agents, including artificial ones (e.g. bots).
3. Efficient mathematical methods and algorithms to detect malicious intent and learn agent behavior and objectives from limited and noisy observations.
4. Concepts and methods for strategy optimization (inverse design), which may include counter-messaging, network-based intervention, or other means.

*Proposals should aim to produce novel conceptual frameworks that present*
disruptive ways of thinking about the fundamental scientific problems described above.

Deadline: August 28, 2020

Elsa U. Pardee Foundation: Cancer Research Grants
The Elsa U. Pardee Foundation funds research directed toward identifying new treatments or cures for cancer. The Foundation particularly encourages grant applications for a one-year period which will allow establishment of capabilities of new cancer researchers, or new cancer approaches by established cancer researchers. It is anticipated that this early stage funding by the Foundation may lead to subsequent and expanded support using government agency funding. Project relevance to cancer detection, treatment, or cure should be clearly identified.

Upcoming deadlines: August 31, 2020; December 31, 2020

ND NASA EPSCoR: Research Seed Grants
North Dakota NASA EPSCoR (Established Program to Stimulate Competitive Research) is soliciting research proposals from faculty at affiliate institutions for Research Seed Grant funding to conduct NASA-relevant research designed to promote and expand particular NASA research subdisciplines in North Dakota. The purpose of the ND NASA EPSCoR Research Seed Grant program is to promote, develop, and expand NASA research in North Dakota aligned with NASA priorities and Mission Directorates.

The full Request for Proposals (RFP), online submission form, and appropriate cover sheet can be found in the RFP announcement on the ND NASA EPSCoR website.

Seed research proposals are due at noon on August 17, 2020.
NEH: Archaeological and Ethnographic Field Research
The National Endowment for the Humanities (NEH) Division of Research Programs is accepting applications for the Archaeological and Ethnographic Field Research program. The purpose of this program is to provide funding to conduct empirical research in the United States or abroad in order to answer questions of importance to the humanities. While the ultimate expectation of such awards is the dissemination of results through publications and other media, the program supports field costs such as travel, accommodation, field staff, field equipment, and salary replacement for the project director and collaborating scholars.

*Deadline: September 30, 2020*

NIH Collaborative Program for Multidisciplinary Teams – Limited Submission Program
Limited submission grant programs are those that indicate a limit on the number of proposals that may be submitted by an institution for a particular deadline. A selection process becomes necessary if more applicants express interest in applying than NDSU is allowed to submit to the grant program.

NIH RM1: Notify RCA by 9/22/2020, 5:00 p.m. if you are interested in submitting to this program.

This National Institutes of Health (NIH) funding opportunity announcement (FOA / PAR-20-103) is designed to support highly integrated research teams of three to six PD / PIs to address ambitious and challenging research questions that are important for the mission of the National Institute of General Medical Sciences (NIGMS) and are beyond the scope of one or two investigators. Collaborative program teams are expected to accomplish goals that require considerable synergy and managed team interactions. Project goals should not be achievable with a collection of individual efforts or projects. Teams are encouraged to consider far-reaching objectives that will produce major advances in their fields. Applications that are mainly focused on the creation, expansion, and / or maintenance of community resources, creation of new technologies or infrastructure development are not appropriate for this FOA.
NIH: Secondary Analysis and Integration of Existing Data to Elucidate the Genetic Architecture of Cancer Risk and Related Outcomes

The National Cancer Institute (NCI) along with the National Human Genome Research Institute (NHGRI) and National Institute of Dental and Craniofacial Research (NIDCR) encourages submission of applications proposing to conduct secondary data analysis and integration of existing datasets and database resources, with the ultimate aim to elucidate the genetic architecture of cancer risk and related outcomes (e.g., risk prediction or reduction, survival, or response to treatment, etc.). The goal of this initiative is to address key scientific questions relevant to cancer genome and epidemiology by supporting the analysis of existing genetic or genomic datasets, in combination with other omics and environmental, clinical, behavioral, lifestyle, and molecular profiles data. Applicants are encouraged to leverage existing genetic data and perform innovative analyses of the existing data. Applications may include new research aims that are being addressed with existing data, new or advanced methods of analyses, or novel combinations and integration of datasets that allow the exploration of important scientific questions in genomic and epidemiology cancer research.

- R01, Clinical Trial Not Allowed: PAR-20-276
- R21, Clinical Trial Not Allowed: PAR-20-277

Standard deadlines apply

---

NOAA: Climate Program Office

Climate variability and change present society with significant economic, health, safety, and security challenges. As part of the National Oceanic and Atmospheric Administration (NOAA) climate portfolio within the Office of Oceanic and Atmospheric Research (OAR), the Climate Program Office (CPO) addresses these climate challenges by managing competitive research programs through which high-priority climate science, assessments, decision support research, outreach, education, and capacity-building activities are funded to advance our understanding of the Earth’s climate system, and to foster the application and use of this knowledge to improve the resilience of our Nation and its partners. Through this announcement, CPO is seeking applications for 6 individual competitions in
FY21. Several of these competitions are relevant to high-priority climate risk areas CPO is organizing some of its activities around to improve science understanding and / or capabilities that result in user-driven outcomes in four initial risk areas:

1. Coastal Inundation,
2. Marine Ecosystems,
3. Water Resources, and
4. Extreme Heat.

Letter of Intent deadline: August 17, 2020
Full proposal deadline: November 30, 2020

NSF DCL: Sentinel Cells for Surveillance and Response to Emergent Infectious Diseases
There is an opportunity to use the power of synthetic biology, cellular engineering, biosensing, immunoengineering, and other approaches at the intersection of biology and engineering to address pandemics. In particular, there is an urgent need for novel approaches to predict or detect the emergence of new infectious diseases, including agents that have recently appeared within a population or have existed and are showing signs of rapid expansion.

With this Dear Colleague Letter (DCL), NSF highlights the interest of existing programs in the Directorate for Biological Sciences (BIO) and the Directorate for Engineering (ENG) in interdisciplinary research for the development of novel biological platforms that are capable of sensing and responding to emerging infectious agents. The mechanism of sensing should be adaptable and or evolvable such that the sentinel cells, or other appropriate biotechnology solutions, are robust to a range of emergent threats, and / or can easily be reprogrammed and deployed once a new threat is identified. The platform's response should be one or more of the following: alert the user, destroy the threat, protect the host, initiate an immune response or other strategies that would ensure mitigation of the threat.

Read the full DCL for more information and funding mechanisms.
Limited submission grant programs are those that indicate a limit on the number of proposals that may be submitted by an institution for a particular deadline. A selection process becomes necessary if more applicants express interest in applying than NDSU is allowed to submit to the grant program.

NSF IUSE:GEOPaths: Notify RCA by 9/2/2020, 5:00 p.m. if you are interested in submitting to this program.

IUSE:GEOPaths invites proposals that specifically address the current needs and opportunities related to education within the geosciences community through the formation of STEM Learning Ecosystems that engage students in the study of the Earth, its oceans, polar regions and atmosphere. The primary goal of the IUSE:GEOPaths funding opportunity is to increase the number of students pursuing undergraduate and/or postgraduate degrees through the design and testing of novel approaches that engage students in authentic, career-relevant experiences in geoscience. In order to broaden participation in the geosciences, engaging students from historically excluded groups or from non-geoscience degree programs is a priority. This solicitation features three funding tracks that focus on Geoscience Learning Ecosystems (GLEs):

1. GEOPaths: Informal Networks (IN). Collaborative projects in this track will support geoscience learning and experiences in informal settings for teachers, pre-college (e.g., upper level high school) students, and early undergraduates in the geosciences.

2. GEOPaths: Undergraduate Preparation (UP). Projects in this track will engage pre-college and undergraduate students in extra-curricular experiences and training in the geosciences with a focus on service learning and workplace skill building.

3. GEOPaths: Graduate Opportunities (GO). Projects in this track will improve research and career-related pathways into the geosciences for undergraduate and graduate students through institutional collaborations with a focus on service learning and workplace skill building.

LIMITED SUBMISSION: An organization may serve as sole submitting organization or as lead organization of a collaborative project on only one submission per competition, regardless of track, but may serve as the non-lead
organization of a collaborative project more than once per competition. A Principal Investigator may serve in the role of PI or Co-PI on only one proposal per competition if they are at the sole-submitting organization or the lead organization of a collaborative project, but may serve as the Co-PI for a non-lead organization of a collaborative project more than once per competition.

NSF: Major Research Instrumentation – Limited Submission Program

Limited submission grant programs are those that indicate a limit on the number of proposals that may be submitted by an institution for a particular deadline. A selection process becomes necessary if more applicants express interest in applying than NDSU is allowed to submit to the grant program.

NSF MRI: Notify RCA by 9/15/2020, 5:00 p.m. if you are interested in submitting to this program.

The National Science Foundation Major Research Instrumentation (MRI) Program [NSF 18-513] 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. Cost sharing of precisely 30% of the total project cost is required.

Based on the NSF 18-513 solicitation, an MRI proposal may request support for either the acquisition or development of a research instrument.

- Track 1: Track 1 MRI proposals are those that request funds from NSF greater than or equal to $100,000 and less than $1,000,000. Two proposal submissions are allowed per organization.
- Track 2: Track 2 MRI proposals are those that request funds from NSF greater than or equal to $1,000,000 up to and including $4,000,000. One proposal submission is allowed per organization.

LIMITED SUBMISSION: The MRI program requires that an MRI-eligible organization may, as a performing organization, submit or be included as a
significantly funded subawardee in no more than three MRI proposals. Each performing organization is limited to a maximum of three proposals in the “Tracks” as defined above, with no more than two submissions in Track 1 and no more than one submission in Track 2.

NSF: Research Traineeship - Limited Submission Program

Limited submission grant programs are those that indicate a limit on the number of proposals that may be submitted by an institution for a particular deadline. A selection process becomes necessary if more applicants express interest in applying than NDSU is allowed to submit to the grant program.

NSF NRT: Notify RCA by 9/15/2020, 5:00 p.m. if you are interested in submitting to this program.

The National Science Foundation (NSF) Research Traineeship (NRT) program [NSF 19-522] is designed to encourage the development and implementation of bold, new, and potentially transformative models for STEM graduate education training. The NRT program seeks proposals that explore ways for graduate students in research-based masters and doctoral degree programs to develop the skills, knowledge, and competencies needed to pursue a range of STEM careers. The program is dedicated to effective training of STEM graduate students in high priority interdisciplinary research areas, through the use of a comprehensive traineeship model that is innovative, evidence-based, and aligned with changing workforce and research needs. The NRT program addresses workforce development, emphasizing broad participation, and institutional capacity building needs in graduate education. Strategic collaborations with the private sector, non-governmental organizations (NGOs), government agencies, national laboratories, field stations, teaching and learning centers, informal science centers, and academic partners are encouraged.

LIMITED SUBMISSION: Based on the NSF 19-522 solicitation, an eligible organization may participate in two proposals per competition. Participation includes serving as a lead organization, non-lead organization, or subawardee on any proposal. Organizations participating solely as evaluators on projects are excluded from this limitation.
Otto Bremer Trust: Social Return
The Otto Bremer Trust makes awards to organizations whose beneficiaries are residents of Minnesota, North Dakota, or western Wisconsin, with priority given to local and regional organizations that support Bremer Bank communities. The Trust welcomes applications that will strengthen the community and are consistent with the following focus areas:

- **Basic Needs**: These grants include those that focus on short-term assistance through food shelves and outreach programs, cash or vouchers, and auto repair, along with refugee resettlement efforts, transitional housing programs, and homeless shelters.
- **Community Asset Building**: This category covers a range of investments, including small business development, diversity initiatives, community planning and infrastructure, long-term housing programs, transportation, literacy, and adult education, all which are focused on building strong community assets.
- **Health & Wellbeing**: Examples include early education and parenting programs, community recreation, physical and mental health services, youth support and enrichment, post-secondary education and job skills.
- **Restorative & Emergency Services**: Grants include those that address domestic violence and sexual assault prevention and recovery, disaster response, emergency services such as volunteer fire departments and paramedics, economic stabilization, and helping people navigate the judicial and legal system.

*Deadline: September 22, 2020*

USDA-NIFA: Agriculture and Food Research Initiative Foundational and Applied Science
The Agriculture and Food Research Initiative (AFRI) Foundational and Applied Science Program supports grants in six AFRI priority areas to advance knowledge in both fundamental and applied sciences important to agriculture. The six priority areas are:
1. Plant Health and Production and Plant Products;
3. Food Safety, Nutrition, and Health;
4. Bioenergy, Natural Resources, and Environment;  
5. Agriculture Systems and Technology; and  
6. Agriculture Economics and Rural Communities.

Research-only, extension-only, and integrated research, education and / or  
extension projects are solicited in this Request for Applications (RFA). See  
Foundational and Applied Science RFA for specific details.

*Deadlines vary by program area.*

---

**USDA-NIFA: Women and Minorities in STEM Fields Program (WAMS)**

*Limited submission grant programs* are those that indicate a limit on the number of  
proposals that may be submitted by an institution for a particular deadline. A  
selection process becomes necessary if more applicants express interest in  
applying than NDSU is allowed to submit to the grant program.

**USDA WAMS : Notify RCA by 9/15/2020, 5:00 p.m. if you are interested in submitting to this program.**

The National Institute of Food and Agriculture (NIFA) requests applications  
for WAMS to support research and extension activities that increase the number  
of women and underrepresented minorities from rural areas who will pursue and  
complete a postsecondary degree in science, technology, engineering or  
mathematics (STEM) disciplines. WAMS-funded project activities must support the  
creation, adaptation, and adoption of learning materials and teaching strategies to  
operationalize what is known about how students learn. WAMS-funded projects  
shall also focus on imparting both technical knowledge as well as 'soft' skills such  
as communication, team work, and problem solving, as these are abilities expected  
by employers.

For this program, NIFA will support projects with a target audience of K-14  
students (kindergarten through twelfth grade plus two years of post-secondary  
school (e.g., vocational technical institutions or community or junior colleges).  
Four-year undergraduate, graduate, and post-doctoral focused projects will not be  
awarded under this grant announcement.
LIMITED SUBMISSION: Each eligible, individual institution, independent branch campus, and branch institution of a State system may submit one application as an individual institution.

Have questions, ideas, or suggestions for the RCA Update?

Contact Us

The Office of Research and Creative Activity (RCA) sends weekly emails to NDSU faculty and staff to provide current information on various topics including funding opportunities, grant program changes, research resources, deadlines, notices, and training. You are receiving this notification through the NDSU official employee listserv or sub-list. The official listserv refreshes after each pay period.

North Dakota State University does not discriminate on the basis of age, color, disability, gender expression/identity, genetic information, marital status, national origin, public assistance status, race, religion, sex, sexual orientation, or status as a U.S. veteran. Direct inquiries to: Equal Opportunity Specialist, Old Main 201, 701-231-7708 or Title IX/ADA Coordinator, Old Main 102, 701-231-6409.