NDSU | OFFICE OF RESEARCH AND CREATIVE ACTIVITY

RCA UPDATE

Funding Opportunity Edition

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. Email notifications of interest to ndsu.researchdev@ndsu.edu.

If you identify a limited submission opportunity that is not on the list below, please notify ndsu.researchdev@ndsu.edu.

- NEA: Challenge America
  Notification Deadline: 03/04/2021
- Arts Midwest: Grow, Invest, Gather
  Notification Deadline: 03/04/2021
- NEH: Challenge Grants
  Notification Deadline: 03/04/2021
- NIH: Collaborative Program for Multidisciplinary Teams
  Notification Deadline: 03/04/2021
- NIH Research Education: Genomic Research for Data Scientists
  Notification Deadline: 03/09/2021

- [NIH Research Education: Enhancing STEM Educational Diversity](#)
  Notification Deadline: 03/09/2021
- [NSF Advanced Cyberinfrastructure Coordination Ecosystem: Services & Support](#)
  Notification Deadline: 03/11/2021
- [NSF Advanced Cyberinfrastructure Coordination Ecosystem: Services & Support - Coordination Office](#)
  Notification Deadline: 03/11/2021
- [NSF LSAMP Regional Foundational and Forward-Thinking Educational Research Conferences](#)
  Notification Deadline: 03/18/2021

There are a number of limited submission grant programs with upcoming agency deadlines for which we did not receive any notifications of interest. For those interested in applying to the programs listed below, approval to move forward with a full proposal submission to the funder will be given on a first come, first served basis. Email notifications of interest to ndsu.researchdev@ndsu.edu.

- [NIJ: Office of Violence Against Women](#)
  Multiple programs; Agency deadlines vary
- [DOE: Chemical Upcycling of Polymers](#)
  Agency deadline for pre-applications: 03/10/2021
- [EPA: Water Infrastructure Workforce Development](#)
  Agency Deadline: 03/26/2021
- [NSF: Scholarships in STEM](#)
  Agency deadline: 04/07/2021
- [NSF: Enabling Quantum Leap](#)
  Agency deadline: 04/12/2021
- [NIH Research Education: Biomedical Engineering](#)
  Agency Deadline: 04/26/2021

FUNDING OPPORTUNITIES

- [Cisco Research Center](#)
- [DOE: ARPA-E Open 2021](#)
- [High Plains Intermountain Center for Agricultural Health and Safety](#)
- [NASA: Research Opportunities in Space and Earth Sciences](#)

- [NEA: Challenge America](#)
- [NEH: Research and Development](#)
- [NIH: Collaborative Program for Multidisciplinary Teams](#)
- [NIH: Early-Stage Informatics Tech for Cancer](#)
- [NIH: Improving Native American Health](#)
- [NIH: Instrumentation Grants](#)
- [NSF: Future Manufacturing](#)
- [NSF: Perception, Action, & Cognition](#)
- [NSF: Foundations of Deep Learning](#)
- [RWJF: Systems and Services Research to Build a Culture of Health](#)
- [USDA-NIFA-AFRI: Education and Workforce Development](#)

EVENTS

- [Webinars: Funding Opportunities for New Investigators - USDA Agriculture and Food Research Initiative](#)
- [NSF Workshops on Pandemic Prediction and Prevention](#)
- [SBIR / STTR Informational Webinars](#)
- [Proposal Development Program](#)

Looking for more funding opportunities?

On January 1, NDSU transitioned to a new funding opportunity database subscription: SPIN by InfoEd Global. SPIN is free for current NDSU faculty, staff, and students.

For more information, visit the [SPIN page](#) on the RCA website. If you have questions, please contact ndsu.researchdev@ndsu.edu.

Cisco Research Center Funding Opportunities

[Cisco Research Center](#) funds research projects related to improving the Internet, adjacent technologies, and networking. Current requests for proposals include:

- Contactless Supply Chain

- Quantum Computing and Networking
- Tech for Healthcare
- Future of Work; and
- Ethics in AI.

View the full list of open opportunities >>

DOE: ARPA-E Open 2021

This Funding Opportunity Announcement (FOA) [DE-FOA-0002459] marks the fifth OPEN solicitation in the history of ARPA-E. The previous OPEN solicitations were conducted at the inception of the agency in 2009 and again in 2012, 2015, and 2018. OPEN 2021 therefore continues the three-year periodic cycle for ARPA-E OPEN solicitations. An OPEN solicitation provides a vitally important mechanism for the support of innovative energy R&D that complements ARPA-E's primary mechanism, which is through the solicitation of research projects in focused technology programs.

ARPA-E's OPEN FOAs ensure that the agency does not miss opportunities to support innovative energy R&D that falls outside of the topics of the focused technology programs or that develop after focused solicitations have closed. OPEN FOAs provide the agency with a broad sampling of new and emerging opportunities across the complete spectrum of energy applications and allow the agency to "take the pulse" of the energy R&D community. OPEN FOAs have been and will continue to be the complement to the agency's focused technology programs – a unique combination of approaches for supporting the most innovative and current energy technology R&D. For instance, one-third of the sixty examples of most successful ARPA-E projects featured in ARPA-E Impact volumes resulted from OPEN solicitations. Potential applicants to this FOA are strongly encouraged to examine the OPEN projects in these volumes and all of the projects supported in the previous four OPEN solicitations for examples of the creative and innovative R&D ARPA-E seeks in its OPEN solicitations.

Concept Paper deadline: April 6, 2021; 8:30am

High Plains Intermountain Center for Agricultural Health and Safety

The High Plains Intermountain Center for Agricultural Health and Safety (HICAHS) is seeking proposals for the Emerging Issues Grant Program. Projects will be funded on a rolling basis, up to $25,000 funded per project, on the following priorities identified by regional stakeholders:

- COVID-19;
- Labor shortages and high worker turnover;
- Mental health;
- Youth on the farm;
- Zoonotic diseases;
- and more.

Proposals will be considered for research, intervention, and educational programs. Projects must be completed by August 14, 2021.

Click here for eligibility requirements and application instructions.

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NASA: Research Opportunities in Space and Earth Sciences (ROSES) 2021

The National Aeronautics and Space Administration (NASA) Science Mission Directorate (SMD) has released its annual NASA Research Announcement (NRA), Research Opportunities in Space and Earth Sciences (ROSES) – 2021. ROSES is an omnibus NRA, with many individual program elements, each with its own due dates and topics. Topics include:

- Materials Science
- Physical Sciences Informatics
- Biophysics
- Earth Science Applications: Ecological Forecasting
- Terrestrial Ecology
- Earth Science Applications: Water Resources

View a complete list of topics >>
Application deadlines vary by program.

NEA: Challenge America

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.

NEA Challenge America : Notify RCA by 03/04/2021, 5:00 p.m. if you are interested in submitting to this program.

The National Endowment for the Arts (NEA) Challenge America program offers support primarily to small organizations for projects in all artistic disciplines that extend the reach of the arts to populations that are underserved. The program is rooted in principles that include, but are not limited to, our recognition that:

- Some populations and some geographic areas have limited grant funding opportunities, and/or have been historically underserved by national arts funding;
- Some small organizations may face barriers to accessing grant funding; and
- Some applicants to the Arts Endowment may benefit from enhanced technical assistance resources.

Challenge America seeks to address these potential barriers for organizations seeking funding. The program features an abbreviated application, a standardized $10,000 grant amount, and a robust structure of technical assistance to facilitate entry to Arts Endowment funding opportunities.

LIMITED SUBMISSION: An organization may submit only one application per deadline.

NEH: Research and Development

The National Endowment for the Humanities (NEH) Research and Development program supports projects that address major challenges in preserving or providing access to humanities collections and resources. These challenges include the need to find better ways to preserve materials of critical importance to the nation's cultural heritage—from fragile artifacts and manuscripts to analog recordings and digital assets subject to technological obsolescence—and to develop advanced modes of organizing, searching, discovering, and using such materials.

This program supports projects at all stages of development, from early planning and stand-alone studies, to advanced implementation. Research and Development projects contribute to the evolving and expanding body of knowledge for heritage practitioners, and for that reason, outcomes may take many forms. Projects may produce any combination of laboratory datasets, guidelines for standards, open access software tools, workflow and equipment specifications, widely used metadata schema, or other products.

Research and Development projects are encouraged to address one or more of the following areas of special interest:
- Preserving our audiovisual and digital heritage;
- Conserving our material past;
- Protecting our cultural heritage; and
- Serving under-represented communities.

Deadline: May 18, 2021
2021 webinar posted: March 4, 2021

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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 03/04/2021, 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.

LIMITED SUBMISSION: Only one application per institution is allowed per review round.

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NIH: Early-Stage Development of Informatics Tech for Cancer Research and Management

The purpose of this Funding Opportunity Announcement (FOA) [RFA-CA-21-014] is to invite Cooperative Agreement (U01) applications for the development of enabling informatics technologies to improve the acquisition, management, analysis, and dissemination of data and knowledge across the cancer research continuum including cancer biology, cancer treatment and diagnosis, early cancer detection, risk assessment and prevention, cancer control and epidemiology, and/or cancer health disparities. As a component of the NCI's Informatics Technology for Cancer Research (ITCR) Program, this FOA focuses on early-stage development from prototyping to hardening and adaptation. Early-stage development is defined for the purpose of this FOA as initial tool development or the significant modification of existing tools for new applications. The central mission of ITCR is to promote research-driven informatics technology across the development

lifecycle to address priority needs in cancer research. In order to be successful, proposed development plans must have a clear rationale on why the proposed technology is needed and how it will benefit the cancer research field. In addition, mechanisms to solicit feedback from users and collaborators throughout the development process must be included.

Deadline: June 8, 2021

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NIH: Improving Native American Health

The purpose of these funding opportunity announcements (FOAs) is to support research on interventions to improve health in Native American (NA) populations. Existing data suggest that significant acute and chronic disease inequities exist for NA populations. Concurrently, NA populations experience unique sociopolitical, historical, and environmental stressors and risks that may exacerbate health conditions and/or impact the effectiveness of existing solutions to address the conditions. They also possess unique strengths and resiliencies that can mitigate stressors or inform intervention strategies. Through this initiative, intervention and related research is sought to build upon community knowledge, resources, and resilience to test science-based, culturally appropriate solutions to reduce morbidity and mortality through identification and remediation of precursors to diseases and disorders and through culturally informed treatment.   For the purposes of this FOA, Native Americans include the following populations: Alaska Natives, American Indians (whose ancestral lands fall at least partially within the U.S. mainland border), and Native Hawaiians. The term 'Native Hawaiian' means any individual any of whose ancestors were natives, prior to 1778, of the area which now comprises the State of Hawaii.

- R01 [PAR-20-238]
- R21 [PAR-20-214]

Deadline: May 17, 2021

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NIH: Instrumentation Grants

Limited Competition: Basic Instrumentation Grant (BIG) Program [PAR-21-125]
BIG encourages applications from groups of NIH-supported investigators to purchase a

single high-priced, specialized, commercially available instrument or an integrated instrumentation system. The BIG Program is limited to institutions that have not received S10 instrumentation funding of $250,001 or greater in any of the Federal fiscal years 2018-2020. The minimum award is $25,000. There is no maximum price limit for the instrument; however, the maximum award is $250,000. Instruments supported include, but are not limited to, basic cell sorters, confocal microscopes, ultramicrotomes, gel imagers, or computer systems.

Shared Instrumentation Grant (SIG) Program [PAR-21-127]
SIG encourages applications from groups of NIH-supported investigators to purchase or upgrade a single item of high-priced, specialized, commercially available instruments or integrated instrumentation system. The minimum award is $50,000. There is no maximum price limit for the instrument; however, the maximum award is $600,000. Instruments supported include, but are not limited to: X-ray diffractometers, mass spectrometers, nuclear magnetic resonance (NMR) spectrometers, DNA and protein sequencers, biosensors, electron and light microscopes, cell sorters, and biomedical imagers.

High-End Instrumentation (HEI) Grant Program [PAR-21-126]
HEI encourages applications from groups of NIH-supported investigators to purchase or upgrade a single item of high-end, specialized, commercially available instruments or integrated systems. The minimum award is $600,001. There is no maximum price limit for the instrument; however, the maximum award is $2,000,000. Instruments supported include, but are not limited to, biomedical imagers, high throughput robotic screening systems, X-ray diffractometers, mass spectrometers, nuclear magnetic resonance (NMR) spectrometers, DNA and protein sequencers, biosensors, electron and light microscopes, and cell sorters.

Deadline: June 1, 2021

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NSF: Future Manufacturing

The goal of Future Manufacturing [NSF 21-564] is to support fundamental research and education of a future workforce to overcome scientific, technological, educational, economic and social barriers in order to enable new manufacturing capabilities that do not exist today.

Three thrust areas have been identified for support in FY 2021 under this solicitation:

- **Future Cyber Manufacturing Research**,
- **Future Eco Manufacturing Research**, and
- **Future Biomanufacturing Research**.

This solicitation seeks proposals to perform fundamental research to enable new manufacturing capabilities in one or more of these thrust areas.

This solicitation will support the following two award tracks:

- **Future Manufacturing Research Grants (FMRG)** - up to $3,000,000 for up to four years; and
- **Future Manufacturing Seed Grants (FMSG)** -up to $500,000 for up to two years.

Interdisciplinary teams commensurate with the scope of the proposed research, education plan, and budget are required. Proposals must include demonstrated expertise among the team members to carry out the proposed research, education, and workforce development activities. The use of a convergence approach is expected.

Deadline: May 14, 2021

An informational webinar will be held on February 26, 2021 at 12:00pm to discuss this program and answer questions. *Learn more >>*

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NSF: Perception, Action, & Cognition (PAC)

The PAC program [NSF PD 09-7252] funds theoretically motivated research on a wide-range of topic areas related to typical human behavior with particular focus on perceptual, motor, and cognitive processes and their interactions. Central research topics for consideration by the program include (but are not limited to) vision, audition, haptics, attention, memory, written and spoken language, spatial cognition, motor control, categorization, reasoning, and concept formation. Of particular interest are emerging areas, such as the interaction of sleep or emotion with cognitive or perceptual processes, epigenetics of cognition, computational models of cognition, and cross-modal and multimodal processing. The program welcomes a wide range of perspectives, such as individual differences, symbolic and neural-inspired computation, ecological approaches,

genetics and epigenetics, nonlinear dynamics and complex systems, and a variety of methodologies spanning the range of experimentation and modeling. The PAC program is open to co-review of proposals submitted to other programs both within the Social, Behavioral, and Economic Sciences Directorate and across other directorates.

Full Proposal Window: May 15-June 15, 2021

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NSF: Stimulating Collaborative Advances Leveraging Expertise in the Mathematical and Scientific Foundations of Deep Learning (SCALE MoDL)

The National Science Foundation Directorates for Mathematical and Physical Sciences (MPS), Computer and Information Science and Engineering (CISE), Engineering (ENG), and Social, Behavioral and Economic Sciences (SBE) will jointly sponsor [NSF 21-561] new research collaborations consisting of mathematicians, statisticians, electrical engineers, and computer scientists. Research activities should be focused on explicit topics involving some of the most challenging theoretical questions in the general area of Mathematical and Scientific Foundations of Deep Learning. Each collaboration should conduct training through research involvement of recent doctoral degree recipients, graduate students, and/or undergraduate students from across this multi-disciplinary spectrum. This program complements NSF's National Artificial Intelligence Research Institutes and Harnessing the Data Revolution programs by supporting collaborative research focused on the mathematical and scientific foundations of Deep Learning through a different modality and at a different scale.

Deadline: May 12, 2021

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RWJF: Systems for Action: Systems and Services Research to Build a Culture of Health

Achieving racial equity and health equity in American communities requires effective solutions to the "wrong-pocket problem": we invest in systems that are designed to improve social and economic conditions—such as housing, transportation, education, income, and employment assistance; child and family supports; and legal and criminal

justice services—but the financial benefits of these often flow elsewhere, in reduced costs for medical care from diseases and injuries prevented. This creates imbalances in power, information, and financial resources that exist across medical, social, and public health systems—a fundamental problem that confronts many attempts at meaningful cross-sector collaboration. Such solutions must allow collaborating organizations to equitably share in the costs and the benefits of multisector collaborative initiatives, and to share in the power and influence that govern these initiatives.

This call for proposals (CFP) will provide funding for new research to rigorously test and evaluate innovative solutions to the wrong-pocket problem that persists across health and social service systems.

Each study funded under the S4A program will undertake the following activities:
- Design and implement the proposed study that evaluates the impact of an innovative solution to a wrong-pocket problem involving social service systems, medical systems, and / or public health systems.
- Engage local, state, and / or national stakeholders in the design, implementation, and translation of the research project.
- Work collaboratively with the S4A national coordinating center and other S4A research investigators to identify and leverage potential synergies across research projects and to disseminate results broadly.
- Participate actively both in research dissemination and translation mechanisms organized by the national coordinating center and RWJF, including research-in-progress webinars, blogs, podcasts, research meetings, and policy briefings.
- Identify and pursue opportunities for research expansion, replication, and follow-on studies from RWJF and other research funding agencies.
- Attend RWJF's Annual Sharing Knowledge Conference and 4Action Conference each year the grant is active.

An informational webinar for applicants will take place March 17, 2021 at 1:00pm.
Register to attend >>

Letter of Intent deadline: April 30, 2021

See other open funding opportunities from RWJF >>

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USDA-NIFA-AFRI: Education and Workforce Development

The Agriculture and Food Research Initiative (AFRI) - Education and Workforce Development (EWD) program focuses on developing the next generation of research, education, and extension professionals in the food and agricultural sciences. In FY 2021, EWD invites applications in seven areas:

1. agricultural workforce training;
2. professional development for agricultural literacy;
3. training of undergraduate students in research and extension;
4. fellowships for predoctoral candidates;
5. fellowships for postdoctoral scholars;
6. a new program for food and agricultural non-formal education; and
7. a FY 2021-only program for evaluation of NIFA's agricultural literacy and workforce development portfolio.

Deadline: July 1, 2021

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Webinars: Funding Opportunities for New Investigators - USDA Agriculture and Food Research Initiative (AFRI)

This webinar series (March 1-4, 2021) will provide an overview of opportunities for AFRI New Investigators and discuss program areas covered under Agriculture and Food Research Initiative. Attendees will have an opportunity to ask questions. Registration is required for each webinar.

Prior to the webinar series, we suggest that you look at the AFRI Food and Agricultural Science Enhancement (FASE) Grants for New Investigators FAQs for some basic information about these opportunities.

- **AFRI New Investigator Overview**
  Monday, March 1, 1-2:30 CST
  Registration link for AFRI New Investigator Overview

- **Overview of AFRI Food Safety, Nutrition and Health Program Area**
  Monday, March 1, 3-4:30 CST

[Registration link for Overview of AFRI FSNH](#)

- **Overview of AFRI Agriculture Economics and Rural Communities Program Area**
  Tuesday, March 2, 1-2:30 CST
  [Registration link for Overview of AFRI AERC](#)

- **Overview of AFRI Animal Health and Production and Animal Products Program Area**
  Tuesday, March 2, 3-4:30 CST
  [Registration link for Overview of AFRI AHPAP](#)

- **Overview of AFRI Education and Workforce Development Program Area**
  Wednesday, March 3, 1-2:30 CST
  [Registration link for Overview of AFRI EWD](#)

- **Overview of AFRI Agriculture Systems and Technology Program Area**
  Wednesday, March 3, 3-4:30 CST
  [Registration link for Overview of AFRI AST](#)

- **Overview of AFRI Plant Health and Production and Plant Products Program Area**
  Thursday, March 4, 1-2:30 CST
  [Registration link for Overview of AFRI PHPPP](#)

- **Overview of AFRI Bioenergy, Natural Resources, and Environment Program Area**
  Thursday, March 4, 3-4:30 CST
  [Registration link for Overview of AFRI BNRE](#)

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NSF Workshops on Pandemic Prediction and Prevention

The Directorates for Biological Sciences (BIO); Computer Information Science and Engineering (CISE); Engineering (ENG); Social, Behavioral and Economic Sciences (SBE); and the Office of International Science and Engineering (OISE) at the National Science Foundation (NSF) are jointly supporting a series of interdisciplinary workshops to engage research communities around the topic of **Predictive Intelligence for Pandemic Prevention.** These workshops bring together interdisciplinary experts in the **biological, engineering, computer,** and **social and behavioral sciences** to start conversations and

catalyze ideas on how to advance scientific understanding beyond state-of-the-art in pre-emergence and emergence forecasting, real-time monitoring, and detection of inflection point events in order to prevent and mitigate the occurrence of future pandemics.

Each of these workshops is expected to have up to 50 invited active participants. The community can participate in a listen-only mode and interact through chat and Q&A functions.

February 25-26, 2021: Identification of pre-emergence and the predictions of rare events in multiscale, complex, dynamical systems.

March 22-23, 2021: Examining how human attitudes, social behavior, and the drivers underlying both contribute to disease transmission through their determination of policy and behavioral obstacles and supports.

Learn more and register to attend >>

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SBIR / STTR Webinars from SHARPhub

SHARPhub, an NIH-funded program to assist in translating bioscience discoveries into startup companies, is offering multiple free webinars on SBIR / STTR programs.

Cuss and Discuss - March 12 from 9 to 10:30 am CST
Meet others planning to submit SBIR / STTR proposals to NIH, sharing challenges and learning from others.
REGISTER: https://bit.ly/371phUf

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Proposal Development Virtual Program

The Proposal Development Program provides professional development opportunities for faculty, staff, and graduate students who are new to proposal writing or are seeking a refresher about proposal writing skills and funding agency opportunities. This semester, these sessions will be held virtually on Zoom.

Meeting Expectations of Funding Agencies: USDA

Wednesday, March 24, 2020 | 12-1pm

Presenter: Christine Strohm, Ph.D., Grant Writing Consultant

Register for this session >>

Zoom access information will be shared with registrants.

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

Contact Us