

**NDSU** OFFICE OF  
RESEARCH AND CREATIVE ACTIVITY

# RCA UPDATE

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November 29, 2021

## Funding Opportunity Edition

### Lunch and Discussion with ND Soybean Council

**January 20, 2022 | 11:00am-12:30pm**

On Thursday, January 20, from 11am – 12:30pm come to the Hidatsa Room in the Memorial Union to meet with staff from the North Dakota Soybean Council. At this event you will learn more about the “New Uses” Request For Proposals (RFP) that will be released at the start of the new year, and the current trends in the industry. The event will start with a short presentation from the ND Soybean Council on the RFP, the application process, and the proposal review process. The presentation will be followed by time for lunch and discussion. Lunch will be provided, and registration is necessary to get a count for ordering lunch. [Register to attend >>](#)

### NSF: Scholarships in Science, Technology, Engineering, and Mathematics

The goal of this limited submission program is to enable low-income, talented domestic students to pursue successful careers in promising STEM fields. The program provides awards to Institutions of Higher Education to fund scholarships and to adapt, implement, and study effective evidence-based curricular and co-curricular activities that support

recruitment, retention, transfer, student success, academic / career pathways, and graduation in STEM. **Note that a new solicitation was released this year, which changed the institutional limit on submissions: for this competition, each institution is allowed only two submissions.**

If you are interested in submitting a proposal to this program, notify [ndsu.researchdev@ndsu.edu](mailto:ndsu.researchdev@ndsu.edu) by **5:00pm** on **12/15/2021**.

[Learn more >>](#)

### **FFAR: New Innovator in Food and Agriculture Research Award**

This limited submission program provides early-career scientists the investment needed to propel them into successful research careers. Eligible areas of research include Advanced Animal Systems, Health-Agriculture Nexus, Next Generation Crops, Soil Health, Sustainable Water Management, and Urban Food Systems.

In anticipation of the FY22 request for applications being released in January 2022 for an early March deadline, notifications of interest should be sent to [ndsu.researchdev@ndsu.edu](mailto:ndsu.researchdev@ndsu.edu) by **4:00pm** on **12/21/2021**.

[Learn more >>](#)

### **NSF EPSCoR Research Infrastructure Improvement Track 4: EPSCoR Research Fellows**

This limited submission program provides awards to build research capacity in institutions and transform the career trajectories of investigators. Through collaborative research visits at the host site, fellowship awardees will be able to learn new techniques, develop new collaborations or advance existing partnerships, benefit from access to unique equipment and facilities, and / or shift their research

toward potentially transformative new directions.

If you are interested in submitting a proposal to this program, notify [ndsu.researchdev@ndsu.edu](mailto:ndsu.researchdev@ndsu.edu) by **5:00pm** on **1/18/2022**.

[Learn more >>](#)

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## FUNDING OPPORTUNITIES

- [CDC: Centers for Agricultural Safety and Health](#) – LIMITED
- [DARPA: Biomanufacturing](#)
- [DoD: Extramural Research](#)
- [DOE: Partnerships in Earth System Model Development](#)
- [EPA: Water Quality Benefits](#)
- [FFAR: New Innovator in Food and Agriculture](#) – LIMITED
- [National Institute for Occupational Safety and Health](#)
- [NEA: Grants for Arts Projects](#) – LIMITED
- [NEH: Media Projects](#)
- [NIH: Cancer Research Education](#)
- [NIH: Data Harmonization, Curation and Secondary Analysis of Existing Clinical Datasets](#)
- [NIST: Precision Measurement Grant Program](#)
- [NSF: Alliances for Graduate Education and the Professoriate](#)
- [NSF: Designing Synthetic Cells](#)
- [NSF: EPSCoR Track 4 - Research Fellows](#) – LIMITED
- [NSF: Growing Convergence Research](#)
- [NSF: Scholarships in STEM](#) – LIMITED
- [Simons Foundation: Targeted Grants in MPS](#)
- [USDA: Specialty Crop Research Initiative](#)

**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](mailto:ndsu.researchdev@ndsu.edu).

If you identify a limited submission opportunity that is not on the list below, please notify [ndsu.researchdev@ndsu.edu](mailto:ndsu.researchdev@ndsu.edu).

- [CDC: Centers for Agricultural Safety and Health](#)  
*First to Notify*
- [HRSA: Leadership Education in Adolescent Health](#)  
*Notification Deadline: 11/30/2021*
- [HRSA: Sudden Unexpected Infant Death Prevention](#)  
*Notification Deadline: 11/30/2021*
- [NSF: MPS-Ascend External Mentoring](#)  
*Notification Deadline: 11/30/2021*
- [NEA: Grants for Arts Programs](#)  
*Notification Deadline: 12/8/2021*
- [NSF: Community Facility Support - Synchrotron-based analytical capabilities advancing Earth and Environmental Sciences Research and Training](#)  
*Notification Deadline: 12/8/2021*
- [NIH: Diabetes Research Centers](#)  
*Notification Deadline: 12/8/2021*
- [NSF: Materials Research Science and Engineering Centers](#)  
*Notification Deadline: 12/8/2021*
- [NSF: Scholarships in STEM](#)  
*Notification Deadline: 12/15/2021*
- [FFAR: New Innovator in Food and Agriculture Research Award](#)  
*Notification Deadline: 12/21/2021*
- [NSF EPSCoR RII Track 4: EPSCoR Research Fellows](#)  
*Notification Deadline: 01/18/2022*

There are a number of limited submission grant programs with upcoming agency deadlines for which we did not receive any notifications of interest. A full list of those programs is available on the [Limited Submissions page](#). For these programs,

marked "First to Notify," 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](mailto:ndsu.researchdev@ndsu.edu).

- [HRSA: Community-Based Workforce to Build COVID-19 Vaccine Confidence](#)  
*Deadline: 12/10/2021*
- [NIH: Centers of Biomedical Research Excellence](#)  
*Letter of Intent Deadline: 12/27/2021*
- [DOE: Computational Chemical Sciences](#)  
*Deadline: 01/07/2022*
- [DOE: Quantum-Enabled Bioimaging and Sensing Approaches for Bioenergy](#)  
*Deadline: 01/14/2022*
- [NSF: AI Research Institutes](#)  
*Deadline: 01/14/2022*
- [NSF: Science and Technology Centers - Integrative Partnerships](#)  
*Deadline: 02/01/2022*
- [NSF: Partnerships for Innovation](#)  
*Deadline: 2/10/2022*
- [NIH: Outstanding New Environmental Scientist](#)  
*Deadline: 02/24/2022*
- [NSF: Innovations in Graduate Education](#)  
*Deadline: 3/25/2022*

### Looking for more funding opportunities?



RCA subscribes to SPIN by InfoEd Global, a database of more than 40,000 funding opportunities. Through this subscription, SPIN is free for current NDSU faculty, staff, and students.

For more information and to access this database, visit the [SPIN page](#) on the RCA website. If you have questions, please contact [ndsu.researchdev@ndsu.edu](mailto:ndsu.researchdev@ndsu.edu).

## **CDC: Centers for Agricultural Safety and Health (U54)**

[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.

**CDC - Ag Centers :** [Notify RCA](#) if you are interested in submitting to this program. Because CDC proposals are due January 24, 2022, approval to submit will be given on a first-come, first-served basis.

The National Institute for Occupational Safety and Health (NIOSH) within the Centers for Disease Control and Prevention (CDC) invites applications for the Centers for Agricultural Safety and Health (Ag Centers) [[RFA-OH-22-002](#)]. These centers are expected to conduct high quality research and subsequently disseminate their findings and recommendations in audience appropriate products to contribute to improving the safety and health of agriculture, forestry, and fishing workers. Center structure should take advantage of diverse scientific resources and focus on local, regional, and/or national worker safety and health issues. Emphasis should be placed on the creation and implementation of evidence-based solutions that address important agricultural, forestry, and fishing safety and health problems. Centers should also use innovative approaches to identifying, understanding, and developing strategies for overcoming barriers to the adoption, adaptation, integration, scale-up and sustainability of evidence-based solutions. Collaborations with other academic institutions, nonprofit organizations, and other occupational safety and health focused groups are expected. Applicants must concisely describe the occupational safety and health burden within their service area and directly link research and outreach activities to help alleviate the burden. Applicants should also clearly articulate the anticipated impacts of the proposed work, both during the project period and beyond.

**LIMITED SUBMISSION:** Only one application per institution is allowed.

## **DARPA: Biomanufacturing: Survival, Utility, and Reliability Beyond Earth**

The Defense Advanced Research Projects Agency (DARPA) Biomanufacturing: Survival, Utility, and Reliability beyond Earth (BSURE) program [[HR001122S0020](#)] will investigate fundamental research questions critical to the development and future realization of biomanufacturing capabilities in space. To accomplish this goal, B-SURE will collect data on the microbial utilization of space-based alternative feedstocks, optimization of microbial growth in variable gravities, and mitigation strategies for identified effects of Galactic Cosmic Radiation on microbial growth and bioproduction.

*Deadline: January 25, 2022; 3pm*



## **DoD: Extramural Medical Research**

The mission of the United States Army Medical Research and Development Command (USAMRDC) is to provide solutions to medical problems of importance to the American Service Member at home and abroad, as well as to the general public at large. The scope of this effort and the priorities attached to specific projects are influenced by changes in military and civilian medical science and technology (S&T), operational requirements, military threat assessments, and national defense strategies. Extramural research and development programs play a vital role in the fulfillment of the objectives established by the USAMRDC. General information on the USAMRDC can be obtained at <https://mrhc.amedd.army.mil/index.cfm>.

Research Programs in this Broad Agency Announcement (BAA) [[W81XWH18SBAA1](#)] include:

- Military Infectious Diseases;
- Combat Casualty Care;
- Military Operational Medicine;
- Medical Biological Defense;
- Medical Chemical Defense; and
- Radiation Health Effects.

*This opportunity is open through September 30, 2022*



## **DOE: SciDAC: Partnerships in Earth System Model Development**

The Department of Energy (DOE) Office of Science (SC) programs in Biological and Environmental Research (BER) and Advanced Scientific Computing Research (ASCR) are soliciting applications from multi-disciplinary teams to establish collaborative projects under the SC-wide Scientific Discovery through Advanced Computing (SciDAC) program in specific targeted topic areas that relate to the BER and ASCR missions. This Funding Opportunity Announcement [[DE-FOA-0002585](#)] invites new research applications for the SciDAC-5 Partnerships in Earth System Model Development that enable or accelerate scientific discovery employing deep, necessary, and productive collaborations between earth-system scientists on the one hand and applied mathematicians and computer scientists on the other, that overcome the barriers between these disciplines and consequently fully exploit the capabilities of DOE high-performance computing (HPC) in order to accelerate and enhance the DOE's Energy Exascale Earth System Model (E3SM) development, supported by the Earth System Model Development Program Area (ESMD) of the Earth and Environmental Systems Modeling Program (EESM) within the Earth and Environmental Systems Sciences Division (EESDD) under BER. This SciDAC opportunity targets current challenges of the E3SM to improve its representations and performance of the Atlantic Meridional Ocean Circulation (AMOC), the Antarctic ice sheet, marine biogeochemistry, and quasi-biennial oscillation (QBO), as well as improved physics and numerics to enhance coupling of the various components with high and variable resolutions of the E3SM.

*Pre-application deadline: January 13, 2022*



## **EPA: Water Quality Benefits**

The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is seeking applications proposing research that will address how measurable attributes of water quality improvements can be valued, either directly or through indicators. Research under this Request for Applications [[EPA-G2022-STAR-D1](#)] is intended to focus on national level studies and / or valuation for underrepresented water body types and regions, improvements to water quality indices, and environmental justice valuation. Of particular interest is research that uses updated methods to address regional gaps in the current water quality valuation literature; currently, research coverage is thin



in the Plains, Mountain West, and Pacific Regions.

*Deadline: January 26, 2022*



## **FFAR: New Innovator in Food and Agriculture Research Award**

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.

**FFAR New Innovator : Notify RCA by 12/21/2021, 4:00 p.m. if you are interested in submitting to this program.**

In anticipation of the FY22 request for applications being released in January 2022 for an early March deadline, we are soliciting notifications of interest for the Foundation for Food & Agriculture Research (FFAR) New Innovator in Food & Agriculture Research Award. This Award provides early-career scientists the investment needed to propel them into successful research careers. These awards allow the grantees to focus exclusively on research without the pressure of securing additional funding.

Based on the FY21 RFA, eligible faculty members are in the first three years of their scientific career, and preference is given to those who are within eight years of receiving their Ph.D. *Faculty with significant research experience prior to obtaining a faculty position will not be considered.* Eligible candidates must also conduct research that aligns with one of the FFAR Challenge Areas:

- Advanced Animal Systems
- Health-Agriculture Nexus
- Next Generation Crops
- Soil Health
- Sustainable Water Management
- Urban Food Systems

**LIMITED SUBMISSION:** Institutions may submit one nominee to this program.

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## National Institute for Occupational Safety and Health

The purpose of this R21 grant program [\[PAR-18-798\]](#) is:

1. to develop an understanding of the risks and conditions associated with occupational diseases and injuries,
2. to explore methods for reducing risks and preventing or minimizing exposure to hazardous conditions in the workplace, and
3. to translate significant scientific findings into prevention practices and products that will effectively reduce work-related illnesses and injuries.

The National Institute of Occupational Safety and Health (NIOSH) supports exploratory and developmental research projects (R21) that identify and address novel scientific ideas or new model systems, tools, or technologies with the potential for significant impact on occupational safety and health.

Applicants must concisely describe the occupational health burden addressed in their proposals and must link the need for the proposed research activities to planned outputs that will help alleviate this burden. Applicants should clearly articulate the anticipated impacts of the proposed research, both during the project period and beyond.

*Deadline: February 16, 2022*

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## NEA: Grants for Arts Projects - 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.

**NEA Grants for Arts : [Notify RCA](#) by 12/08/2021, 5:00 p.m. if you are interested in submitting to this program.**

[Grants for Arts Projects](#) is the National Endowment for the Arts (NEA) principal grants program for organizations based in the United States. Through project-based funding, the program supports public engagement with, and access to, various forms of art across the nation, the creation of art, learning in the arts at all stages of life, and the integration of the arts into the fabric of community life.

This program funds arts projects in the following disciplines: Artist Communities, Arts Education, Dance, Design, Folk & Traditional Arts, Literary Arts, Local Arts Agencies, Media Arts, Museums, Music, Musical Theater, Opera, Presenting & Multidisciplinary Arts, Theater, and Visual Arts.

A project may consist of one or more specific events or activities; it may be a new initiative or part of an organization's regular season or activities. Organizations that undertake a single short-term program in a year could apply for that event, or they could identify certain components (such as the presentation of a particular artist and the associated activities) as their project. Organizations may apply for any or all phases of a project, from its planning through its implementation. A project should not encompass all of an organization's activities or costs in a given year.

**LIMITED SUBMISSION:** An organization may submit only one application to the FY 2023 Grants for Arts Projects program (i.e., one application per calendar year), with [limited exceptions](#).

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## NEH: Media Projects

The National Endowment for the Humanities (NEH) [Media Projects program](#) supports the development, production, and distribution of radio programs, podcasts, long-form documentary films, and documentary film series that engage general audiences with humanities ideas in creative and appealing ways. Projects must be grounded in humanities scholarship and demonstrate an approach that is thoughtful, balanced, and

analytical. Media Projects offers two levels of funding: Development and Production.

*Deadline: January 12, 2022*

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## **NIH: Cancer Research Education Grants Program**

The NIH Research Education Program (R25) supports research education activities in the mission areas of the NIH. The overarching goal of this R25 program is to support educational activities that complement and / or enhance the training of a workforce to meet the nation's biomedical, behavioral and clinical research needs.

The Cancer Research Education Grants Program is focused innovative, state-of-the-art programs that address the cause, diagnosis, prevention, or treatment of cancer, rehabilitation from cancer, or the continuing care of cancer patients and the families of cancer patients.

- Research Experiences [[PAR-21-279](#)]
- Courses for Skills Development [[PAR-21-278](#)]

Standard deadlines apply. The next upcoming deadline for this program is January 25, 2022.

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## **NIH: Data Harmonization, Curation and Secondary Analysis of Existing Clinical Datasets (R61/R33 Clinical Trial Not Allowed)**

This funding opportunity announcement [[PAR-22-055](#)] invites applications from multidisciplinary teams to perform secondary data analysis, using existing datasets from two or more multi-site clinical research projects, including clinical trials, natural history studies, and / or comparative effectiveness research. Secondary analyses should address scientific and / or clinical hypotheses that can advance the understanding or care of neurological disorders and conditions within the NINDS mission. In this phased award funding mechanism, applications are required to systematically and comprehensively perform cross-project data harmonization and curation, assessed using go / no-go data-quality metrics, prior to performing secondary analyses of existing clinical data. Consistent with the FAIR (findable, accessible, interoperable and reusable) data principles, this

funding opportunity expects open-source cataloging of the processes and tools used for harmonization, curation, and analysis, as well as controlled access to the curated datasets.

*Deadline: March 15, 2022*



## **NIST: Precision Measurement Grant Program**

The National Institute of Standards and Technology (NIST) is interested in proposed research that supports one of the following NIST goals:

1. Developing a new or improved fundamental measurement method or physical standard;
2. Testing the basic laws of physics; or
3. Providing an improved value for a fundamental constant.

The [Precision Measurement Grant Program](#) (PMGP) was started in 1970 to support research in the field of fundamental measurement or the determination of fundamental constants, enabling the faculties at universities and colleges and laboratory researchers to conduct significant research in this area. By funding the research projects of eligible applicants through this program, NIST supports advances in fundamental measurement, the determination of fundamental constants, and fosters extramural collaboration with NIST scientists. The PMGP also is intended to make it possible for researchers to pursue new ideas for which other sources of support may be difficult to find.

*Deadline: February 4, 2022*



## **NSF: Alliances for Graduate Education and the Professoriate**

The NSF's Alliances for Graduate Education and the Professoriate (AGEP) program contributes to the National Science Foundation's objective to foster the growth of a more capable and diverse research workforce. Through this solicitation, the NSF seeks to build on prior AGEP work, and other research and literature concerning racial and ethnic equity, in order to address the *AGEP program goal to increase the number of historically underrepresented minority faculty in STEM*. Improving equity and inclusion is critical to advancing STEM faculty, educating America's future STEM workforce, fostering individual opportunity and contributing to a thriving U.S. economy. The NSF AGEP program,

therefore, seeks to fund grants that advance and enhance the systemic factors that support equity and inclusion and, consequently, mitigate the systemic inequities in the academic profession and workplace. All AGEP Alliances are expected to engage similar institutions of higher education (IHE) to work collaboratively and use intersectional approaches in the design, implementation, and evaluation of systemic change strategies. The collaborating IHEs must be similar to each other based on such variables as Carnegie classification, geographic location and student and / or faculty demographic characteristics.

This solicitation includes three funding tracks that all support the AGEP program goal. All tracks require collaborative IHE teams to use an intersectional lens as they address systemic and institutional change strategies at IHEs to promote equity for AGEP populations.

- The **AGEP Institutional Transformation Alliance (ITA)** track is designed to support the development, implementation, and evaluation of *innovative* systemic and institutional change strategies that promote equity for AGEP populations, within similar IHEs.
- The **AGEP Faculty Career Pathways Alliance Model (FC-PAM)** track is intended to support the development, implementation, evaluation, and institutionalization of Alliance models that will advance AGEP populations, within similar IHEs.
- The **AGEP Catalyst Alliance (ACA)** track supports the design and implementation of one or more organizational self-assessment(s) to collect and analyze data that will identify inequities affecting the AGEP populations; pilot equity strategies as appropriate; and develop a five-year equity strategic plan for the AGEP populations.

*Deadlines vary by track.*

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## NSF: Designing Synthetic Cells Beyond the Bounds of Evolution

The goal of this solicitation [[NSF 21-531](#)] is to support research that

1. develops cell-like systems to identify the minimal requirements for the processes of life,
2. designs synthetically-modified cells to address fundamental questions in the evolution of life or to explore biological diversity beyond that which currently exists in nature, and

3. leverages basic research in cell design to build novel synthetic cell-like systems and cells for innovative biotechnology applications.

Highest funding priority is given to proposals that have outstanding intellectual merit and broader impacts, while proposals with weaknesses in either category (or those that are perceived as likely to have an incremental impact) will not be competitive. Proposals submitted to this solicitation should address social, ethical, and safety issues associated with designing and building synthetically modified cells as an integrated component of the project.

*Deadline: February 1, 2022*

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## **NSF EPSCoR Research Infrastructure Improvement Track 4: EPSCoR Research Fellows**

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.

**EPSCoR Track 4 : Notify RCA by 01/18/2022, 5:00 p.m. if you are interested in submitting to this program.**

The Established Program to Stimulate Competitive Research (EPSCoR) is designed to fulfill the mandate of the National Science Foundation (NSF) to promote scientific progress nationwide. EPSCoR jurisdictions that are eligible for RII competitions are listed in the RII Eligibility table, which can be found here. Through this program, NSF establishes partnerships with government, higher education, and industry that are designed to effect sustainable improvements in a jurisdiction's research infrastructure, Research and Development (R&D) capacity, and hence, its R&D competitiveness. One of the strategic goals of the EPSCoR program is to establish sustainable Science, Technology, Engineering, and Mathematics (STEM) professional development pathways that advance STEM workforce development.

The EPSCoR Research Infrastructure Improvement Track 4: EPSCoR Research Fellows (RII Track-4) Program [[NSF 21-557](#)] provides awards to build research capacity in institutions and transform the career trajectories of investigators and to further develop their individual research potential through extended collaborative visits to the nation's premier private, governmental, or academic research centers. Through collaborative research visits at the host site, fellowship awardees will be able to learn new techniques, develop new collaborations or advance existing partnerships, benefit from access to unique equipment and facilities, and / or shift their research toward potentially transformative new directions. The experiences gained through the fellowships are intended to have lasting impacts that will enhance the Fellows' research trajectories well beyond the award period. These benefits to the Fellows are also expected to in turn improve the research capacity of their institutions and jurisdictions more broadly. Those submitting proposals must either hold a non-tenured faculty appointment at an institution of higher education or an early-career career-track appointment at an eligible non-degree-granting institution.

**LIMITED SUBMISSION:** Only three RII Track-4 proposals may be submitted in response to this solicitation by any single organization in a RII-eligible jurisdiction.



## NSF: Growing Convergence Research

Growing Convergence Research (GCR) at the National Science Foundation (NSF) was identified as one of [10 Big Ideas](#). Convergence research is a means for solving vexing research problems, in particular, complex problems focusing on societal needs. It entails integrating knowledge, methods, and expertise from different disciplines and forming novel frameworks to catalyze scientific discovery and innovation.

GCR identifies [Convergence Research](#) as having two primary characteristics:

- *Research driven by a specific and compelling problem.* Convergence Research is generally inspired by the need to address a specific challenge or opportunity, whether it arises from deep scientific questions or pressing societal needs.
- *Deep integration across disciplines.* As experts from different disciplines pursue common research challenges, their knowledge, theories, methods, data, research



communities and languages become increasingly intermingled or integrated. New frameworks, paradigms or even disciplines can form sustained interactions across multiple communities.

A distinct characteristic of convergence research, in contrast to other forms of multidisciplinary research, is that from the inception, the convergence paradigm *intentionally* brings together intellectually diverse researchers and stakeholders to frame the research questions, develop effective ways of communicating across disciplines and sectors, adopt common frameworks for their solution, and, when appropriate, develop a new scientific vocabulary. Research teams practicing convergence aim at developing sustainable relationships that may not only create solutions to the problem that engendered the collaboration, but also develop novel ways of framing related research questions and open new research vistas.

This GCR solicitation [[NSF 19-551](#)] targets multi-disciplinary team research that crosses directorate or division boundaries and is currently not supported by NSF programs, initiatives and research-focused Big Ideas. Proposers must make a convincing case that the research to be conducted is within NSF's purview and cannot be supported by existing NSF programs and multidisciplinary initiatives. Proposals involving convergence in areas covered by existing programs and solicitations will be returned without review.

*Deadline: February 7, 2022*

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## **NSF: Scholarships in STEM program – 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 S-STEM : [Notify RCA](#) by 12/15/2021, 5:00 p.m. if you are interested in submitting to this program.**

The main goal of the National Science Foundation (NSF) Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) program [\[NSF 22-527\]](#) is to enable low-income, talented domestic students to pursue successful careers in promising STEM fields. Ultimately, the S-STEM program wants to increase the number of low-income students who graduate and contribute to the American innovation economy with their STEM knowledge. Recognizing that financial aid alone cannot increase retention and graduation in STEM, the program provides awards to Institutions of Higher Education (IHEs) to fund scholarships and to adapt, implement, and study effective evidence-based curricular and co-curricular activities that support recruitment, retention, transfer (if appropriate), student success, academic / career pathways, and graduation in STEM.

The program seeks to

1. increase the number of low-income academically talented students with demonstrated financial need obtaining degrees in S-STEM eligible disciplines and entering the US workforce or graduate programs in STEM;
2. improve support mechanisms for future scientists, engineers, and technicians, with a focus on low-income academically talented students with demonstrated financial need; and
3. advance our understanding of how interventions or evidence-based curricular and co-curricular activities affect the success, retention, transfer, academic/career pathways, and graduation of low-income students in STEM.

The S-STEM program encourages collaborations among different types of participating groups, including but not limited to partnerships among different types of institutions; collaborations of STEM faculty and institutional, educational, and social science researchers; and partnerships among institutions of higher education and business, industry, local community organizations, national labs, or other federal or state government organizations, if appropriate.

S-STEM Eligible Disciplines

- Biological sciences (except medicine and other clinical fields)
- Physical sciences (including physics, chemistry, astronomy, and materials science)

- Mathematical sciences
- Computer and information sciences
- Geosciences
- Engineering
- Technology fields associated with the disciplines above (e.g., biotechnology, chemical technology, engineering technology, information technology)

**LIMITED SUBMISSION:** An institution may submit up to two proposals (either as a single institution or as subawardee or a member of an inter-institutional consortia project) for a given S-STEM deadline. Multiple proposals from an institution must not overlap with regard to S-STEM eligible disciplines.

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## Simons Foundation: Targeted Grants in Math and Physical Sciences

The Simons Foundation's Mathematics and Physical Sciences (MPS) division [Targeted Grants in MPS program](#) is intended to support high-risk theoretical mathematics, physics and computer science projects of exceptional promise and scientific importance on a case-by-case basis. This program provides funding for up to five years. The funding level and duration is flexible and should be appropriate based on the type of support requested in the proposal. There is no recommended or assumed funding level for this program.

*Applications are accepted on a rolling basis.*

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## USDA-NIFA: Specialty Crop Research Initiative

The purpose of the [Specialty Crop Research Initiative \(SCRI\)](#) program is to address the critical needs of the specialty crop industry by awarding grants to support research and extension that address key challenges of national, regional, and multi-state importance in

sustaining all components of food and agriculture, including conventional and organic food production systems. Projects must address at least one of five focus areas:

1. Research in plant breeding, genetics, genomics, and other methods to improve crop characteristics.
2. Efforts to identify and address threats from pests and diseases, including threats to specialty crop pollinators.
3. Efforts to improve production efficiency, handling and processing, productivity, and profitability over the long term (including specialty crop policy and marketing).
4. New innovations and technology, including improved mechanization and technologies that delay or inhibit ripening.
5. Methods to prevent, detect, monitor, control, and respond to potential food safety hazards in the production efficiency, handling and processing of specialty crops.

*Deadline: January 21, 2022*



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.*

*We collectively acknowledge that we gather at NDSU, a land grant institution, on the traditional lands of the Oceti Sakowin (Dakota, Lakota, Nakoda) and Anishinaabe Peoples in addition to many diverse Indigenous Peoples still connected to these lands. We honor with gratitude Mother Earth and the Indigenous Peoples who have walked with her throughout generations. We will continue to learn how to live in unity with Mother Earth and build strong, mutually beneficial, trusting relationships with Indigenous Peoples of our region.*