

RCA UPDATE

June 22, 2020

Funding Opportunity Edition

NDSU Smart Restart Research Recommendations

NDSU's goal during the return to campus time is to permit an increase in research activities while maximizing the safety of our faculty, staff, and students. Consistent with the state's plan, NDSU plans to help control virus spread, assure worker and consumer safety, and inspire confidence. Therefore, the overall approach is based on establishing physical or temporal distancing for our various research spaces and, when appropriate, requiring use of Personal Protective Equipment (PPE). You can read the NDSU Smart Restart Research Recommendations [here](#).

Additional COVID-19 Guidance for researchers is also available on the [RCA Website](#), including NDSU guidance for PIs, Federal Agency guidance, and Funding Opportunities.

FUNDING OPPORTUNITIES

- [Cisco Research Center: COVID-19 Science, Technology, and Social Impact](#)
- [DARPA DSO Office-Wide BAA](#)
- [Data.org Inclusive Growth and Recovery Challenge](#)

- [NDSU Foundation: Impact Grants](#)
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Cisco Research Center: Pandemic / COVID-19 Science, Technology, and Social Impact

The Cisco Research Center has an open call ([RFP-20-04](#)) focused on solving problems related to pandemics. Areas of interest include, but are not limited to:

- Mathematical models for spread and the impact of pandemics.
- Scalable simulation techniques for pandemics (e.g. with multi agents).
- Biomedical / Nano sensor devices for detecting symptoms and agents.
- Algorithms for rapid exploration of the drug screening and discovery workflows (e.g. use reinforcement learning)
- Advanced computational biology techniques for sequencing, detecting viral evolution (e.g. in COVID-19).
- Algorithms and systems for contact tracing (with privacy preserving).
- Algorithms and recommendation systems for curating media and news.
- Collaboration techniques for more effective health, and efficiency during pandemics.
- Improved identity and security techniques.
- Distributed Ledgers, their applications and their governance for and during pandemics.
- Pandemic data science – understanding the patterns and the impact of a pandemic like COVID-10. Creation of curated data sets.

Cisco is interested in both the science and technology aspects of these problem sets, and, particularly, in the intersections between them. By cultivating stronger partnerships between scientists, technologists, and the broader community, they hope to achieve an acceleration of scientific research and conservation outcomes.

This program is open until the call is withdrawn; researchers should plan to submit their proposals as soon as possible.

[Full list of open opportunities through Cisco Research >>](#)

DARPA Defense Sciences Office-Wide BAA

The mission of the Defense Advanced Research Projects Agency (DARPA) Defense Sciences Office (DSO) is to identify and create the next generation of scientific discovery by pursuing high-risk, high-payoff research initiatives across a broad spectrum of science and engineering disciplines and transforming these initiatives into disruptive technologies for U.S. national security. In support of this mission, the [DSO Office-wide Broad Agency Announcement \(BAA\)](#) invites proposers to submit innovative basic or applied research concepts or studies and analysis proposals that address one or more of the following technical thrust areas:

1. Frontiers in Math, Computation and Design;
2. Limits of Sensing and Sensors;
3. Complex Social Systems; and
4. Anticipating Surprise.

Proposals must investigate innovative approaches that enable revolutionary advances. DSO is explicitly not interested in approaches or technologies that primarily result in evolutionary improvements to the existing state of practice.

This opportunity is open through June 11, 2021.

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Data.org Inclusive Growth and Recovery Challenge

As part of a commitment to build the field of data science for social impact, [data.org](#) has launched a \$10 million [Inclusive Growth and Recovery Challenge](#), an open call for breakthrough ideas that harness the power of data science to help people and communities thrive, especially in the wake of COVID-19. Data.org seeks proposals aimed at using data science to advance shared prosperity and help ensure an inclusive recovery, with a particular focus on the following areas:

- Jobs of Tomorrow;
- Access to Capital; and
- Cities & Towns.

Phase-one proposals are currently being accepted. Upon review, technical assistance and mentoring will be available to finalists to refine their proposals for phase two.

Deadline: July 17, 2020



NDSU Foundation: Impact Grants

The NDSU Foundation Grants Committee is now accepting applications for the Impact Fund Grant Program for the 2020 academic year. The NDSU Impact Fund Grant Program provides funding for projects that make a significant impact on excellence and the educational experience for students at North Dakota State University. This program is supported by annual contributions from alumni and friends of the university.

Applications are accepted from faculty, staff, and recognized student groups. The Impact Grant Fund Program offers grants of \$20,000 to \$75,000.

The application form and additional information about the NDSU Impact Grant Program can be found at the NDSU Foundation website:

<https://www.ndsufoundation.com/impact-fund>.

For any further questions, please email Jennifer Reinhold, Grants Committee Liaison, at jennifer.reinhold@ndsufoundation.com.

Application deadline: July 27, 2020



NEH: Public Projects, Media Projects, and Documentaries

The National Endowment for the Humanities (NEH) Division of Public Programs has multiple funding opportunities with upcoming deadlines:

- [Public Humanities Projects](#): This program supports projects that bring the ideas and insights of the humanities to life for general audiences through in-person programming. The program supports projects in three categories: Exhibitions (permanent, temporary, or traveling); Interpretive Programs at Historic Places; and Humanities Discussions related to “A More Perfect Union,” the NEH special initiative advancing civic education and commemorating the Nation’s 250th anniversary.

- [Media Projects: Production Grants](#): This program supports the production and distribution of radio, podcast, television, and long-form documentary film projects that engage general audiences with humanities ideas in creative and appealing ways. All projects must be grounded in humanities scholarship and demonstrate an approach that is thoughtful, balanced, and analytical. The approach to the subject matter must go beyond the mere presentation of factual information to explore its larger significance and stimulate reflection.
- [Media Projects: Development Grants](#): These grants support the collaboration of media producers and scholars to develop humanities content and to prepare documentary film, television, radio, and podcast projects that engage public audiences with humanities ideas in creative and appealing ways. Awards should result in a script (for documentary film or television programs) or a detailed treatment (for radio programs or podcasts) and may also yield a plan for outreach and public engagement.
- [Short Documentaries](#): These grants support the production and distribution of documentary films up to 30 minutes in length that engage audiences with humanities ideas in appealing ways. The program aims to extend the humanities to new audiences through the medium of short documentary films.

Deadline for all programs: August 12, 2020

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NEH: Summer Stipends

[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.

NEH Summer Stipends: Pre-application due by 7/17/2020.

[Pre-application instructions >>](#)

[NEH Summer Stipends](#) support individuals pursuing advanced research that is of value to humanities scholars, general audiences, or both. Recipients produce articles, monographs, books, digital materials, archaeological site reports, translations, editions, or other scholarly resources. Summer stipends:

- Are awarded to individual scholars;
- Support continuous full-time work on a humanities project for two months; and

- Support projects at any stage of development.



NIH: Bridges to the Baccalaureate Research Training Program (T34) - 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 Bridges to the Baccalaureate : Notify RCA by 7/15/2020, 4:00 p.m. if you are interested in submitting to this program.

The goal of the Bridges to the Baccalaureate Research Training Program [PAR-19-299] is to provide structured activities to prepare a diverse cohort of community college students to transfer to and complete a bachelor's degree in biomedical research fields. This funding opportunity announcement (FOA) provides support to eligible, domestic institutions to develop and implement effective, evidence-based approaches to biomedical training and mentoring that will keep pace with the rapid evolution of the research enterprise. NIGMS expects that the proposed research training programs will incorporate didactic, research, mentoring, and career development elements to prepare trainees to bridge from the community college and complete the bachelor's degree in biomedical fields.

The Bridges to Baccalaureate Research Training Program requires strong partnerships between community colleges (or two-year colleges) and four-year baccalaureate degree granting institutions. One partner must be an institution that offers the associate degree as the highest science degree. The other institution must be a college or university granting baccalaureate degrees in disciplines relevant to the biomedical sciences. Two different scenarios are anticipated for these partnerships: (1) one baccalaureate degree granting institution as the lead applicant institution partnering with one or more associate degree granting institutions, or (2) one associate degree granting institution as the lead applicant institution partnering with one or more baccalaureate degree granting institutions. An eligible applicant or partner institution may participate in more than one Bridges to the Baccalaureate Research Training Program partnership if the multiple partnerships are strongly justified by the potential to magnify the

programs' and institutions' outcomes. However, an institution may be the lead in only one Bridges to Baccalaureate Research Training Program at one time. To reinforce the strong partnerships, the Bridges to Baccalaureate Research Training Program requires the participation of least one Program Director/Principal Investigator (PD/PI) from each partner institution. The program does not support single institutions offering both associate and baccalaureate degrees where graduates or transfers from the associate degree programs enter the baccalaureate programs, even if the students are moving to another department, school, or college.



NIH: Community Interventions to Address the Consequences of the COVID-19 Pandemic among Health Disparity and Vulnerable Populations (R01 – Clinical Trial Optional)

This funding opportunity announcement [[PAR-20-237](#)] encourages applications to implement and evaluate community interventions testing 1) the impacts of mitigation strategies to prevent COVID-19 transmission in NIH-designated health disparity populations and other vulnerable groups; and 2) already implemented, new, or adapted interventions to address the adverse psychosocial, behavioral, and socioeconomic consequences of the pandemic on the health of these groups.

Deadline: August 28, 2020; December 1, 2020



NIH: Enhancing Science, Technology, Engineering, and Math Education Diversity (ESTEEMED) (R25)

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 encourage individuals from diverse backgrounds, including those from groups underrepresented in the biomedical and behavioral sciences, to pursue further studies or careers in research

To accomplish the stated over-arching goal, this Funding Opportunity Announcement (FOA) ([PAR-20-223](#)) will support creative educational activities with a primary focus on ***Courses for Skills Development*** and ***Research Experiences*** for undergraduate freshmen and sophomores from diverse backgrounds, including those from groups underrepresented in bioengineering or STEM fields relevant to bioengineering, such as engineering or the physical / computational sciences, which play key roles in biomedical technologies and innovation. The ESTEEMED program is intended to expose students to bioengineering research early in their college careers and interest them in potentially pursuing advanced studies in bioengineering or a related field. It will prepare students to join, in their junior and senior years, an honors program, supported by federal or institutional funds, that promotes STEM and entrance into a Ph.D. program. The ultimate goal is for the participants to pursue a Ph.D. or M.D./Ph.D. degree and a subsequent research career integrating engineering and the physical sciences with medicine and biology in academia or industry.

Application Deadline: July 24, 2020; June 24, 2021; June 24, 2022

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NIST: Metals-based Additive Manufacturing

The National Institute of Standards and Technology (NIST) [Metals-based Additive Manufacturing Grants Program](#) is seeking applications from eligible applicants to support significant measurement science research in addressing barriers to widespread adoption of metals-based additive manufacturing, such as feedstock, machine, and process characterization; real-time process monitoring and control; increasing process optimization and throughput; rapid qualification methodologies for processes and parts via characterization of surface quality, part accuracy, material properties as well as model-based approaches; and computational requirements for systems integration.

Deadline: August 6, 2020

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North Central Sustainable Agriculture Research & Education Grant Program

The North Central Region SARE (NCR-SARE) [Research and Education \(R&E\) Grant Program](#) is a competitive grant program for researchers and educators involved in projects that explore and promote environmentally sound, profitable, and socially responsible food and/or fiber systems.

Research and Education projects include a strong outreach component and significant farmer / rancher or other end user involvement from inception of the idea through implementation of the project. Many projects are interdisciplinary and/or multi-institutional, involving a broad range of agricultural interests. Project coordinators in the past have explored sustainable agriculture under the following topics: biocontrol, crop production, education / extension, networking, livestock production, marketing, quality of life, soil quality, value-added marketing, waste management, water quality, and weed control.

It is anticipated that the 2020 call for proposals will be released in August for a pre-proposal deadline in October.

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NSF / NIST: Disaster Resilience Research Grants

With this joint solicitation [[NSF 20-581](#)], the National Science Foundation (NSF) and the U.S Department of Commerce (DOC) National Institute for Standards and Technology (NIST) call for proposals for research to advance fundamental understanding of disaster resilience in support of improved, science-based planning, policy, decisions, design, codes, and standards.

Letter of Intent deadline: August 14, 2020

Full proposal deadline: September 15, 2020

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NSF: Dynamics of Integrated Socio-Environmental Systems

The Dynamics of Integrated Socio-Environmental Systems (DISES) Program [[NSF 20-579](#)] supports research projects that advance basic scientific understanding of integrated socio-environmental systems and the complex interactions (dynamics, processes, and feedbacks) within and among the

environmental (biological, physical and chemical) and human ("socio") (economic, social, political, or behavioral) components of such a system. The program seeks proposals that emphasize the truly integrated nature of a socio-environmental system versus two discrete systems (a natural one and a human one) that are coupled. DISES projects must explore a connected and integrated socio-environmental system that includes explicit analysis of the processes and dynamics between the environmental and human components of the system.

PIs are encouraged to develop proposals that push conceptual boundaries and build new theoretical framing of the understanding of socio-environmental systems. Additionally, we encourage the exploration of multi-scalar dynamics, processes and feedbacks between and within the socio-environmental system.

Deadline: November 16, 2020

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NSF: Research Experiences for Teachers (RET) in Engineering and Computer Science – Limited Submission 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 RET: Notify RCA by 7/1/2020, 4:00 p.m. if you are interested in submitting to this program.

The National Science Foundation (NSF) Research Experiences for Teachers (RET) in Engineering and Computer Science program [[NSF 17-575](#)] supports active long-term collaborative partnerships between K-12 Science, Technology, Engineering, Computer and Information Science, and Mathematics (STEM) in-service and pre-service teachers, full-time community college faculty, and university faculty and students to enhance the scientific disciplinary knowledge and capacity of the STEM teachers and/or community college faculty through participation in authentic summer research experiences with engineering and computer science faculty researchers. The research projects and experiences all revolve around a focused research area related to engineering and/or computer

science that will provide a common cohort experience to the participating educators. The K-12 STEM teachers and/or full-time community college faculty also translate their research experiences and new scientific knowledge into their classroom activities and curricula.

This announcement features two mechanisms for support of in-service and pre-service K-12 STEM teachers and full-time community college faculty:

1. **RET supplements:** RET supplements may be included outside this solicitation in proposals for new or renewed ENG and CISE grants or as supplements to ongoing ENG- and CISE-funded projects.
2. **RET Site awards:** New RET in Engineering and Computer Science Sites, through this solicitation, are based on independent proposals from engineering and/or computer and/or information science departments, schools or colleges to initiate and conduct research participation projects for K-12 STEM teachers and/or full-time community college faculty.

Deadline: September 16, 2020



NSF: Research Experiences for Undergraduates

The National Science Foundation (NSF) Research Experiences for Undergraduates (REU) program [[NSF 19-582](#)] supports active research participation by undergraduate students in any of the areas of research funded by NSF. REU projects involve students in meaningful ways in ongoing research programs or in research projects specifically designed for the REU program.

This solicitation features two mechanisms for support of student research:

1. **REU Sites** are based on independent proposals to initiate and conduct projects that engage a number of students in research. REU Sites may be based in a single discipline or academic department or may offer interdisciplinary or multi-department research opportunities with a coherent intellectual theme. Proposals with an international dimension are welcome.
2. **REU Supplements** may be included as a component of proposals for new or renewal NSF grants or cooperative agreements or may be requested for ongoing NSF-funded research projects.

Deadline: August 26, 2020

NSF: Sociology

The National Science Foundation (NSF) [Sociology Program](#) supports basic research on all forms of human social organization -- societies, institutions, groups and demography -- and processes of individual and institutional change. The Program encourages theoretically focused empirical investigations aimed at improving the explanation of fundamental social processes. Included is research on organizations and organizational behavior, population dynamics, social movements, social groups, labor force participation, stratification and mobility, family, social networks, socialization, gender, race and the sociology of science and technology. The Program supports both original data collections and secondary data analysis that use the full range of quantitative and qualitative methodological tools. Theoretically grounded projects that offer methodological innovations and improvements for data collection and analysis are also welcomed.

Deadline: August 26, 2020

Sloan Research Fellowships - 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.

Sloan Research Fellowship: [Notify RCA](#) by 7/1/2020, 4:00 p.m. if you intend to apply. Interested faculty must include the name of the proposed nominator at time of notification.

The [Sloan Research Fellowships](#) seek to stimulate fundamental research by early-career scientists and scholars of outstanding promise. These fellowships are awarded yearly to researchers in recognition of distinguished performance and a unique potential to make substantial contributions to their field.

Candidates must hold a Ph.D. or equivalent degree in chemistry, computer science, economics, mathematics, molecular biology, neuroscience, ocean sciences, physics, or a related field.

In order to be considered for a Sloan Research Fellowship, a candidate must have a letter of nomination from a department head or other senior researcher. Submissions unaccompanied by a nomination letter from a senior researcher are not accepted. More than one candidate from a department may be nominated, but no more than three.

For more information, see the program [FAQs](#).



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.

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