

NDSU OFFICE OF
RESEARCH AND CREATIVE ACTIVITY

RCA UPDATE

December 5, 2022

NDSU research community: Thank you.

It's a simple but heartfelt message from me to all of you for the many unique and meaningful things you bring to NDSU. I take tremendous pride and joy in serving as a vocal advocate for your research and creative activity. Whether it is highlighting the research enterprise with Electron Microscopy Core donations to the [Bison Bidders Bowl](#), enjoying the Challey School of Music performing Messiah, or an [NDSU Giving Day Campaign focused on maintaining our R1 status](#) by raising funds for faculty researchers, I never quit in trying to tell your stories in new venues or to different audiences.



The last few weeks (much like every other week at NDSU it seems lately) have been a time of challenges and opportunities and it definitely feels as if we have arrived at one of those important pivot points for NDSU.

What does that mean for the state of NDSU Research? Continuing to be an R1 research university is a primary goal for us. It's recognition for your hard work and it's something that we need to continue to build upon and nurture. Through listening sessions, encounters at the airport, or chats in Memorial Union, you are sharing your thoughts on where we need to add or bolster the resources and services commensurate with peer R1 universities to enable us to maintain that classification.

I have stood up a Core Facility Working Group with goals of strategically maintaining our current core facilities as well as seeking out new opportunities for systematic growth in shared resources. Our new [Faculty Research Council](#) members are seeking feedback from their respective constituencies on barriers and opportunities to growing the research enterprise. I am so impressed with this group and their shared passion and advocacy for research on campus.

Partnerships and enhanced connectivity to our community and region is essential to NDSU's continued and future success. I want to share with you some exciting news. NDSU is a founding member of the Mountains and Plains Innovation Alliance. This five-state regional and technology alliance is comprised of 13 institutions across the states of North Dakota, South Dakota, Montana, Wyoming, and Idaho. The alliance will leverage existing research, education, and training programs to boost the collective ability to attract and support the expansion of high-tech innovation and industry in the region. When NDSU was looking to compete for multimillion dollar funding for entrepreneurship and innovation from the National Science Foundation, we needed seven partners. I reached out to my counterparts in those states and we got six of those universities to join us in our successful [Great Plains I-Corps Hub proposal](#). The world wants to know about the great research happening here and this alliance is going to help. More information about the new Alliance is below.

As we close out 2022, I want to take a moment and tell each of you how much I appreciate feeling welcomed and included as part of the NDSU, Fargo and North Dakota community. Thank you and Go Bison!

Colleen

ND University System, NDSU, and UND Partnering in Regional Technology and Innovation Alliance

The North Dakota University System, NDSU, and UND are partnering with the Montana University System and 11 colleges and universities from a five-state region

to create a regional technology and innovation alliance. The Mountains and Plains University Innovation Alliance will leverage existing research, education, and training programs to boost the collective ability to attract and support the expansion of high-tech innovation and industry in the region. Participating institutions represent the states of North Dakota, South Dakota, Montana, Wyoming, and Idaho.

“This is a paradigm shift for research and especially innovations related to digital technology,” said North Dakota University System (NDUS) Chancellor Mark Hagerott. “It will help diversify the region and economy by achieving scale in a way that the individual states might not achieve acting alone.”

The Alliance will also partner with tribal nations, state governments, and industry leadership to develop and enact a regional agenda to ensure the 5-state region will play a central role building the technologies of the next century.

“We are proud to be partners in creating the technological solutions that our country needs now and into the future,” said David Cook, president of North Dakota State University. “Our state has already benefited from the relationships of this alliance through the new NDSU-led National Science Foundation Great Plains I-Corps Hub, which will train entrepreneurs to take research ideas to market. I commend Colleen Fitzgerald, NDSU vice president for research and creative activity, for her work in developing both the alliance and the Hub.”

[Read more>>](#)

Upcoming RCA Funding Workshops

Save the Date: How to Pursue Funding From Mission Agencies

February 15, 2023; Noon-1:30pm

This virtual workshop, led by Academic Research Funding Strategies LLC, will provide

insights for researchers on how to approach mission agencies, analyze funding opportunities, and develop white papers, quad charts, and proposals to these agencies. The discussion will address mission agencies in general, and will use USDA, the Department of Defense, and the Department of Transportation as examples.

[Learn more>>](#)

Save the Date: Pursuing Funding for Education Research

April 19, 2023; Noon-1:30pm

This virtual workshop, led by Academic Research Funding Strategies LLC, will provide insights how to develop and write competitive proposals to education research funders including the Department of Education, the National Science Foundation, and other funders of education research. The discussion will include how to identify the best funding opportunities for different types of research projects, and understanding what reviewers are expecting to see in a proposal.

[Learn more>>](#)

Watch for more information about both workshops.

Changes to NSF Proposal Submissions – January 30, 2023

The National Science Foundation (NSF) has released the updated Proposal and Award Policy and Procedure Guide ([PAPPG 23-1](#)) which will be effective for proposals with deadlines on or after January 30, 2023. There are a number of major changes introduced with this update:

- **FastLane will be Decommissioned.** NSF is preparing to transition the preparation and submission of all new proposals from FastLane to Research.gov on January 30, 2023. Previously submitted FastLane proposals and supplemental funding requests will be available for the research community to access until Friday, September 29, 2023.



- **New Certification Requirements for Biographical Sketches and Current and Pending Support.** Senior Personnel will be required to certify that the information provided in their Biographical Sketch and Current and Pending Support documents are accurate, current, and complete. This certification will be included in both SciENCv and the NSF fillable format for proposals submitted or due on or after January 30, 2023.
- **Effective October 2023, SciENCv will be required for preparation of biographical sketches and current and pending support.** Other formats, including the fillable PDF form, will no longer be accepted.

Spotlight on Research Integrity & Compliance

Institutional Animal Care and Use Committee – ensuring the welfare of animals used in research, teaching and exhibition

The NDSU Institutional Animal Care and Use Committee (IACUC) - is committed to complying with all applicable laws and regulations regarding the humane care and use of live vertebrate animals utilized for research, teaching, testing, and/or exhibition purposes at NDSU or by NDSU personnel.

All research and teaching involving animals goes through a rigorous protocol review process performed by a diverse committee of scientists, non-scientists, veterinarians, community members, and animal health professionals. Without approval by the IACUC, animal use cannot occur at NDSU.



NDSU maintains a Registration with the United States Department of Agriculture (USDA) and an Animal Welfare Assurance with the National Institutes of Health -

Office of Laboratory Animal Welfare (OLAW). The USDA conducts inspections of our facilities and records at least annually. NDSU also submits required reports to each agency, which ensures adherence to federal regulations and policies.

The IACUC and animal care personnel closely monitor the care and use of animals through daily observation of all animals, semi-annual inspections of all animal facilities, and an internal quality control program which identifies animal adverse events and seeks to correct them. All decisions concerning animal care at NDSU are made in consultation with the NDSU Attending Veterinarian.

NDSU remains committed to the humane care and use of animals in conducting important research that results in solutions to the complex problems of our day including: food production systems, food security, the health of our human populations, and sustainable societal infrastructure.

Review processes

All research, teaching, testing or exhibits involving live animals must be submitted for review in [Novelution](#). Protocol applications are reviewed for adherence to federal regulations and NDSU policy. Once approved, protocols may be updated through amendments if alterations to approved research procedures are necessary.

More information on IACUC review policies and procedures can be found on the [IACUC website](#).

Questions? Contact Tania Molden, IACUC Administrator (tania.molden@ndsu.edu / 701.231.8114) or Neil Dyer, Attending Veterinarian (neil.dyer@ndsu.edu / 701.231.7830).

**RCA Opportunity:
Faculty Fellow: Broadening Participation**

RCA is looking to appoint one or two Faculty Fellows with a term of up to two years to focus on Broadening Participation. The Fellow(s) will work closely with RCA to identify critical issues, gaps, as well as possibilities for broadening participation in NDSU research programs and in expanding partnerships. Fellow(s) will be expected to spend approximately four hours per week working on the development of the program, attending regular meetings, and implementing a focus area project.

Applications are due December 16, 2022.

[Learn more and apply >>](#)

Congratulations to all award recipients from September



View the complete list online: [PDF](#) | [Excel](#)

The awards listed are externally funded projects. Each month one of the RCA Updates will include prior month awards.

[See Award Reports from previous months >>](#)

FY2024 Programmatic Requests

Each year congressional delegations have the opportunity to submit programmatic funding requests for federal research programs. Programmatic requests are designed to add additional funding to federal agencies' budgets with the intent that a competitive funding opportunity will be released in connection with the funding increase.

NDSU's process for submitting requests for consideration is on the [RCA website](#).

The deadline for FY2024 submissions to RCA is December 20, 2022.

If you have questions about the process or would like to discuss a potential idea, please contact nds.researchdev@nds.edu.

SAVE THE DATE - APRIL 18, 2023

STUDENT RESEARCH DAY

Watch for further details about registration and deadlines in January

NDSU Student Research Day is a collaboration among NDSU EXPLORE, Gamma Sigma Delta, and the Graduate Student Council. Join us for a one-day celebration of undergraduate and graduate student research and creative projects.

Please plan to join us on April 18, 2023, in the Memorial Union



Graduate Student Opportunity: ND Water Resources Research Institute Fellowships

The 2023 ND Water Resources Research Institute fellowships are open to NDSU and UND graduate students conducting or planning thesis / dissertation research in

areas related to water resources. Applications will be accepted for proposed projects of between three and twelve months in length. The funding period is anticipated to be 09/01/2023 - 08/31/2024. Fellowship stipends will be \$800-\$1,000 per month for M.S. students and \$1,000-\$1,400 per month for Ph.D. students, depending on funding availability.

[Learn more >>](#)

RCA Funding Opportunities

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. 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.

Research Development Funding Agency Visit Travel Awards help defray expenses for faculty traveling to meeting with Program Officers / Program Directors at funding agencies. This program requires a 1:1 match from the applicant's department and / or college.

More information and application instructions are posted on the [RCA website](#).

Upcoming Events

- **NIH Virtual Workshop: Human Subjects Research**
December 6-7, 2022; 11am-3pm Daily / [Learn more >>](#)
- **DOE Office of Science Webinar: Early Career Research Program, EPSCoR, Funding for Accelerated, Inclusive Research; and Reaching a New Energy Sciences Workforce**
December 15; 3pm / [Learn more >>](#)
- **NIH Virtual Grants Conference**
February 1-2, 2023 / [Learn more >>](#)
- **Save the Date: Virtual Workshop: How to Pursue Funding From Mission Agencies**
February 15, 2023; Noon-1:30pm | [Learn more >>](#)
- **Save the Date: Student Research Day**
April 18, 2023
- **Save the Date: Virtual Workshop: Pursuing Funding for Education Research**
April 19, 2023; Noon-1:30pm | [Learn more >>](#)

FUNDING OPPORTUNITIES

- [BWF: Climate Change and Human Health Seed Grants](#)
- [DoD: Create the Future](#)
- [Graham Foundation: Architecture and the Designed Environment – LIMITED](#)
- [National Historical Publications and Records Commission](#)
- [NEH: Institutes for Advanced Topics in the Digital Humanities](#)
- [NIH NOI: Bidirectional Influences Between Adolescent Social Media Use and Mental Health](#)
- [NIH NOI: Maximizing Investigators Research Award for Early Stage Investigators](#)
- [NIH: National Cancer Institute Requests for Information](#)
- [NIH: Pilot Projects using Common Fund Data Sets](#)
- [NIH: Research Infrastructure Development for Interdisciplinary Aging Studies](#)
- [NSF EPSCoR Research Infrastructure Improvement Track 4: EPSCoR Research Fellows – LIMITED](#)
- [NSF: CISE Core Programs, Large Projects](#)
- [NSF: Cybersecurity Innovation for Cyberinfrastructure](#)

- [NSF: Mid-Career Advancement](#)
- [NSF: Social Psychology](#)
- [NSF: Strengthening the Cyberinfrastructure Professionals Ecosystem – LIMITED](#)
- [NSF: Training-based Workforce Development for Advanced Cyberinfrastructure](#)

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.

- [Graham Foundation: Architecture and the Designed Environment](#)
Notification Deadline: 12/12/2022
- [NSF: Strengthening the Cyberinfrastructure Professionals Ecosystem](#)
Notification Deadline: 12/16/2022
- [NSF EPSCoR Research Infrastructure Improvement Track 4: EPSCoR Research Fellows](#)
Notification Deadline: 01/11/2023
- [NIH: Undergraduate Research Training Initiative for Student Enhancement \(U-RISE\)](#)
Notification Deadline: 01/26/2023

There are a number of limited submission grant programs with upcoming agency deadlines for which we did not receive any notifications of interest. 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.

- [NSF: Quantum Sensing Challenges for Transformational Advances in Quantum Systems \(QuSeC-TAQS\)](#)
Deadline: 12/16/2022

- [CDC: Assessing the Effectiveness of Programs, Policies, or Practices that Affect Social Determinants of Health to Promote Health Equity and Reduce Health Disparities in Chronic Diseases](#)
LOI Deadline: 01/10/2023
- [NSF: Partnerships for Innovation](#)
Deadline: 01/11/2023
- [NIH: John Lewis NIMHD Research Endowment Program](#)
Deadline: 01/17/2023
- [NSF: Training-based Workforce Development for Advanced Cyberinfrastructure](#)
Deadline: 01/19/2023
- [NIH: Leading Equity and Diversity in the Medical Scientist Training Program](#)
Deadline: 01/23/2022
- [HRSA: Rural Communities Opioid Response Program-Evaluation](#)
Deadline: 01/27/2023
- [NIH: Collaborative Program Grant for Multidisciplinary Teams](#)
Deadline: 01/27/2023
- [Camille Dreyfus Teacher-Scholar Awards Program](#)
Deadline: 02/01/2023
- [NIH: Research Evaluation and Commercialization Hubs](#)
Deadline: 02/09/2023
- [NSF: Major Research Instrumentation](#) – Track 2 – proposals requesting \$1.4M-\$4M
Deadline: 02/21/2023
- [NSF: Major Research Instrumentation](#) – Track 3 – purchase, installation, operation, and maintenance of equipment and instrumentation to conserve or reduce the consumption of helium.
Deadline: 02/21/2023
- [NSF: Advanced Computing Systems & Services](#)
Deadline: 02/23/2023

Burroughs Wellcome Fund: Climate Change and Human Health Seed Grants

The Burroughs Wellcome Fund (BWF) aims to stimulate the growth of new connections between scholars working in largely disconnected fields who together might change the course of climate change's impact on human health.

To that end, BWF will award small, [early-stage grants](#) between \$2,500 and \$50,000 to promote growth of new connections between scholars, practitioners, educators, and / or communicators working to understand, spread the word about, and mitigate the impacts of climate change on human health. Topics of interest activities that build connections between basic/early biomedical scientific approaches and ecological, environmental, geological, geographic, and planetary-scale thinking, as well as with population-focused fields including epidemiology and public health, demography, economics, and urban planning. Also of interest is work piloting new approaches or new interactions toward reducing the impact of health-centered activities, for example, developing more sustainable systems for health care, care delivery, and biomedical research systems. Another area of interest is preparation for the impacts of extreme weather and other crises that can drive large scale disruptions that will immediately impact human health and delivery of health care. Public outreach, climate communication, and education efforts focused on the intersection of climate and health are also appropriate for this call.

Upcoming deadlines: January 12, April 12, and July 12, 2023

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DoD: Create the Future Independent Research Effort

The Create the Future Independent Research Effort (CFIRE) [[FOA-AFRL-AFOSR-2023-0001](#)] seeks to ensure the future technological superiority of the DoD by cultivating emerging areas of research at institutions of higher education. The topic areas that this FOA supports are independent from those described in the AFOSR open BAA (Research Interests of the Air Force Office of Scientific Research) and do not fall completely within any one research program. This FOA supports multidisciplinary research efforts, creating synergies to speed DoD-relevant research and development.

Proposals are sought in three topic areas:

- Astrodynamics
- Materials for Quantum Information Science
- Synthetic Biology

Graham Foundation: Architecture and the Designed Environment – 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.

Graham Foundation : Notify RCA by 12/12/2022, 5:00pm if you are interested in submitting to this program.

The Graham Foundation funds grants to organizations in the areas of architecture and the designed environment. For organizations, their priorities are to:

- assist with the production and presentation of significant programs about architecture and the designed environment in order to promote dialogue, raise awareness, and develop new and wider audiences;
- support organizations in their effort to take risks in programming and create opportunities for experimentation;
- recognize the vital role organizations play in providing individuals with a public forum in which to present their work; and
- help organizations to realize projects that would otherwise not be possible without the Foundation's support.

Overall, the Foundation is most interested in opportunities which enable them to provide critical support at key points in the development of a project or career.

LIMITED SUBMISSION: An organization or academic department / unit may only apply for one grant per year. (In the case of large institutions with multiple departments, a subsidiary department / unit may apply for one grant per year. For example, an academic department / unit at a university may apply for one grant per year.)

National Historical Publications and Records Commission

The National Historical Publications and Records Commission (NHPRC) has a number of open funding opportunities, which include the following:

- [Publishing Historical Records in Collaborative Digital Editions](#)
This program seeks proposals to publish online editions of historical records. All types of historical records are eligible, including documents, photographs, born-digital records, and analog audio.
Optional draft deadline: February 15, 2023; Final Deadline: May 3, 2023
- [Archives Collaboratives](#)
This program seeks Archives Collaboratives of three or more repositories working together to make their collections more readily available for public discovery and use.
Optional draft deadline: February 15, 2023; Final Deadline: May 3, 2023

See all NHPRC opportunities [here](#).

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NEH: Institutes for Advanced Topics in the Digital Humanities

The [Institutes for Advanced Topics in the Digital Humanities](#) (IATDH) program supports national or regional (multistate) training programs for scholars, humanities professionals, and advanced graduate students to broaden and extend their knowledge of digital humanities. Through this program, NEH seeks to increase the number of humanities scholars and practitioners using digital technology in their research and to broadly disseminate knowledge about advanced technology tools and methodologies relevant to the humanities.

This program aims to bring together humanities scholars, advanced graduate students, librarians, archivists, museum staff, computer scientists, information specialists, and others to learn about new tools, approaches, and technologies, and to foster relationships for future collaborations in the humanities. NEH encourages you to develop proposals for multidisciplinary teams that include the necessary range of intellectual, technical, and practical expertise. You may draw partners and collaborators from the private and public sectors and may include appropriate specialists from within and outside the United States. You should consider not only the practical applications of the institute topic, but also address ethical implications of its subject for humanities research, teaching, or public programming.

Optional draft deadline: December 15, 2022

Deadline: February 15, 2023



NIH NOI: Bidirectional Influences Between Adolescent Social Media Use and Mental Health (R01 Clinical Trial Optional)

The National Institute of Mental Health (NIMH) intends to promote a new initiative by publishing a Funding Opportunity Announcement (FOA) to solicit applications for research on bidirectional influences between social media use and adolescent mental health, psychiatric symptoms, and risk or resilience for psychopathology. Adolescents have increasing access to and spend an increasing amount of time engaging in online social interactions and consuming content on social media platforms, yet there is limited knowledge of how online social behavior and experiences interact with adolescent mental health and risk for psychopathology. This [Notice](#) is being provided to allow potential applicants sufficient time to develop meaningful collaborations and responsive projects.

The FOA is expected to be published in January 2023 with an expected application due date in March 2023.



NIH NOI: Maximizing Investigators Research Award for Early Stage Investigators (R35 – Clinical Trial Optional)

The purpose of this [Notice](#) is to inform the biomedical research community that NIGMS is planning to issue a Funding Opportunity Announcement (FOA) to continue the Maximizing Investigators Research Award for Early Stage Investigators (MIRA-ESI) (R35) program. The FOA is intended for new applications from Early Stage Investigators.

[Learn more about MIRA >>](#)

This Notice is being provided to allow potential applicants sufficient time to develop responsive projects.

The FOA is expected to be published in Spring 2023 with an expected first application due date in October 2023.

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NIH: National Cancer Institute Requests for Information

The National Institutes of Health (NIH) National Cancer Institute (NCI) has issued two Requests for Information (RFI):

Priorities for Precision Cancer Prevention of Pancreatic and Liver Cancer Science at NCI [\[NOT-CA-23-014\]](#)

Through this RFI, NCI is soliciting input on prioritization of cancer early detection, screening, and prevention science related to primary liver and / or primary pancreatic cancer.

Response Deadline: January 20, 2023

Priorities for Cancer Prevention and Symptom Management Science at NCI [\[NOT-CA-23-016\]](#)

Through this RFI, NCI is soliciting input on important new research directions for cancer screening, prevention and symptom management science.

Response Deadline: January 20, 2023

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NIH: Pilot Projects Enhancing Utility and Usage of Common Fund Data Sets (R03 Clinical Trial Not Allowed)

Several valuable and widely available data sets have been generated by multiple Common Fund programs. The purpose of this funding opportunity announcement (FOA) [\[RFA-RM-23-003\]](#) is to announce the availability of funding to demonstrate and enhance the utility of selected [Common Fund](#) data sets, including generating hypotheses and catalyzing discoveries. Award recipients are asked to provide feedback on the utility of the Common Fund data resources.

Deadline: February 3, 2023

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NIH: Research Infrastructure Development for Interdisciplinary Aging Studies (R61/R33)

This Funding Opportunity Announcement (FOA) [[PAR-23-053](#)] invites applications that propose to develop novel research infrastructure that will advance the science of aging in specific areas requiring interdisciplinary partnerships or collaborations.

This FOA utilizes NIH's R61/R33 Exploratory / Developmental Phased Award activity code. The R61 phase provides up to 2 years of support for initial developmental activities. The R33 phase provides up to 3 years of support for expanded activities.

Through this award, investigators will endeavor to develop a sustainable research infrastructure to support projects that address key interdisciplinary aging research questions.

To fund more advanced stage projects in this area, see [PAR-23-054](#).

Upcoming deadlines: July 3 and November 2, 2023

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NSF EPSCoR Research Infrastructure Improvement Track 4: EPSCoR Research Fellows – 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.

EPSCoR Track 4 : [Notify RCA](#) by 01/11/2023, 5:00pm 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 22-573](#)] 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: Computer and Information Science and Engineering – Core Programs, Large Projects

The NSF CISE Directorate supports research and education projects that develop new knowledge in all aspects of computing, communications, and information science and engineering through core programs. This solicitation [[NSF 23-524](#)] invites proposals on bold new ideas tackling ambitious fundamental research problems within scope of one or

more of the participating CISE divisions core programs listed below, and that are well suited to a large-scale integrated collaborative effort.

- Division of Computing and Communication Foundations (CCF):
 - Algorithmic Foundations (AF) [program](#) ;
 - Communications and Information Foundations (CIF) [program](#);
 - Foundations of Emerging Technologies (FET) [program](#); and
 - Software and Hardware Foundations (SHF) [program](#);

- Division of Computer and Network Systems (CNS):
 - Computer and Network Systems (CSR) [program](#);
 - Networking Technology and Systems (NeTS) [program](#);

- Division of Information and Intelligent Systems (IIS):
 - Human-Centered Computing (HCC) [program](#);
 - Information Integration and Informatics (III) [program](#); and
 - Robust Intelligence (RI) [program](#).

Teams should consist of two or more investigators (PI, co-PI(s), or other Senior Personnel) with complementary expertise. Investigators are strongly encouraged to come together within or across disciplines and / or institutions and combine their creative talents to identify compelling, transformative research agendas where the impact of the results will exceed that of the sum of each of their individual contributions. Investigators are especially encouraged to seek out partnerships in a wide class of institutions that together produce innovative approaches to the proposed research.

Proposals that are focused on research infrastructure are not appropriate for this solicitation.

Proposers are invited to submit proposals with total budgets from \$3,000,000 to \$5,000,000 and durations up to five years.

Deadline: February 28, 2023

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NSF: Cybersecurity Innovation for Cyberinfrastructure

The objective of the Cybersecurity Innovation for Cyberinfrastructure (CICI) program [[NSF](#)

[23-517](#)] is to advance scientific discovery and innovation by enhancing the security and privacy of cyberinfrastructure. CICI supports efforts to develop, deploy and integrate cybersecurity that will benefit the broader scientific community by securing science data, computation, collaborations workflows, and infrastructure. CICI recognizes the unique nature of modern, complex, data-driven, distributed, rapid, and collaborative science and the breadth of infrastructure and requirements across scientific disciplines, practitioners, researchers, and projects. CICI seeks proposals in three program areas:

1. **Usable and Collaborative Security for Science (UCSS):** Projects in this program area should support novel and/or applied security and usability research that facilitates scientific collaboration, encourages the adoption of security into the scientific workflow, and helps create a holistic, integrated security environment that spans the entire scientific cyberinfrastructure ecosystem.
2. **Reference Scientific Security Datasets (RSSD):** Projects in this program area should leverage instrumented cyberinfrastructure to capture metadata from scientific workflows and workloads as reference data artifacts that can help support reproducible security research, testing and evaluation.
3. **Transition to Cyberinfrastructure Resilience (TCR):** Projects in this program area should improve the robustness, trustworthiness, integrity, and/or resilience of scientific cyberinfrastructure through testing, evaluation, hardening, validation, and technology transition of novel cybersecurity research. The TCR area further encourages transition activities that advance the deployment and use of reproducibility in CI, workflows, and data.

Deadline: February 17, 2023

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NSF: Mid-Career Advancement (MCA)

The MCA program [[NSF 22-603](#)] offers an opportunity for scientists and engineers at the mid-career stage to substantively enhance and advance their research program and career trajectory. The MCA program provides protected time, resources, and the means to gain new skills through synergistic and mutually beneficial partnerships, typically at an institution other than the candidate's home institution. Partners from outside the Principal Investigator's (PI) own subdiscipline or discipline are encouraged, but not required, to enhance interdisciplinary networking and convergence across science and engineering fields. Research projects that envision new insights on existing problems or identify new problems made accessible with cutting-edge methodology or expertise from

other fields are encouraged.

*A key component of a successful MCA will be the demonstration that the PI's current research program could substantively benefit from the protected time, mentored partnership(s), and resources provided through this program, such that **there is a substantial enhancement to the PI's research and career trajectory, enabling scientific and academic advancement not likely without this support.***

The MCA is the only cross-directorate NSF program specifically aimed at providing protected time and resources to established scientists and engineers targeted at the mid-career stage. Participating programs in the Directorates for Biological Sciences (BIO), Geosciences (GEO), Social, Behavioral and Economic Sciences (SBE), Education and Human Resources (EHR), and Technology, Innovation and Partnerships (TIP) will accept MCA proposals. To help identify the disciplinary program in which the MCA should be reviewed, PIs are urged to investigate the research areas supported by the different directorates and participating programs.

PIs are strongly encouraged to discuss the suitability of their MCA proposal with a [Program Officer](#) from the appropriate directorate. PIs from EPSCoR jurisdictions are especially encouraged to apply.

[FAQs](#) for the MCA program are also available.

Deadline: March 1, 2023

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NSF: Social Psychology

The Social Psychology Program [[PD 22-1332](#)] supports research and research infrastructure to advance basic knowledge in social psychology. Proposed research should carry strong potential for creating transformative advances in the basic understanding of human social behavior. Among the many research topics supported are social cognition, attitudes, social and cultural influence, stereotypes, motivation, decision making, group dynamics, aggression, close relationships, social and affective neuroscience, social psychophysiology, emotions, prosocial behavior, health-related behavior, and personality and individual differences. Proposals that develop new theories or methods for

understanding social behavior are highly encouraged. Research samples should represent substantial ranges of ethnicities, socioeconomic backgrounds, cultures and other dimensions of human populations.

Deadline: January 15 and July 15, 2023



NSF: Strengthening the Cyberinfrastructure Professionals Ecosystem – Limited Submission Program

NSF SCIPE : [Notify RCA](#) by 12/16/2022, 5:00pm if you are interested in submitting to this program.

The overarching goal of this solicitation [[NSF 23-521](#)] is to democratize access to NSF's advanced cyberinfrastructure (CI) ecosystem and ensure fair and equitable access to resources, services, and expertise by strengthening how Cyberinfrastructure Professionals (CIP) function in this ecosystem. It aims to achieve this by (1) deepening the integration of CIPs into the research enterprise, and (2) fostering innovative and scalable education, training, and development of instructional materials, to address emerging needs and unresolved bottlenecks in CIP workforce development.

The SCIPE program is led by the Office of Advanced Cyberinfrastructure (OAC) in the Directorate for Computer and Information Science and Engineering (CISE) and has participation from other NSF directorates / divisions, as described in the solicitation. Not all directorates / divisions are participating at the same level, and some have specific research and education priorities. All projects are expected to clearly articulate how they address essential community needs, will provide resources that will be widely available to and usable by the research community, and will broaden participation from underrepresented groups. **Prospective PIs are *strongly encouraged* to contact the Cognizant Program Officers in CISE / OAC and in the participating directorate / division relevant to the proposal to ascertain whether the focus and budget of their proposed activities are appropriate for this solicitation.**

LIMITED SUBMISSION: Institutions are limited to one SCIPe proposal per competition.

NSF is holding a webinar about this opportunity on Wednesday, December 14, 2022. [Learn more and register >>](#)

NSF: Training-based Workforce Development for Advanced Cyberinfrastructure

The goals of this solicitation [[NSF 23-520](#)] are to (i) ensure broad adoption of CI tools, methods, and resources by the research community in order to catalyze major research advances and to enhance researchers' abilities to lead the development of new CI, and (ii) integrate core literacy and discipline-appropriate advanced skills in advanced CI as well as computational and data-driven methods for advancing fundamental research, into the Nation's undergraduate and graduate educational curriculum / instructional materials.

This solicitation calls for innovative, scalable training, education, and curriculum / instructional materials—targeting one or more of the solicitation goals—to address emerging needs and unresolved bottlenecks in the S&E research workforce development, from the postsecondary level to active researchers to CI professionals. The funded activities, spanning targeted, multidisciplinary communities, should lead to transformative changes in the state of **research** workforce preparedness **for advanced CI-enabled research** in the short- and long-term. This solicitation also seeks to broaden CI access and adoption by (i) increasing the adoption of advanced CI and computational and data-driven methods to a broader range of *S&E disciplines and institutions* and (ii) effectively utilizing the capabilities of individuals from a **diverse set of underrepresented groups**. Proposals from, and in partnership with, the aforementioned communities are especially encouraged.

There are two project classes as defined below:

- *Pilot* Projects: up to \$300,000 total budget with durations up to two years; and

- *Implementation Projects: Small* (with total budgets of up to \$500,000) or *Medium* (with total budgets of up to \$1,000,000) for durations of up to four years.

NSF is holding a webinar about this opportunity on Wednesday, December 14, 2022.

[Learn more and register >>](#)

Deadline: February 23, 2023

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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.

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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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.