Congratulations to all award recipients from May!

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 >>

Upcoming Events

- **DEPSCoR Day at University of South Dakota**
  July 19, 2022 / Learn more >>

- **REGISTRATION OPEN: AICoRN Summit & DaCCoTA Symposium**
  August 4-5, 2022 / Learn more >>

- **SAVE THE DATE: Summer Undergraduate Research Programs Poster Session**
  August 5, 2022; 10am-12pm / A.Glenn Hill Center

- **REGISTRATION OPEN: DARPA Forward Regional Events on National Security Innovation**
  August-December, 2022 / Learn more >>
FUNDING OPPORTUNITIES

- DEPSCoR: Research Collaboration
- DoD: Congressionally Directed Medical Research Programs
- FAA: Aviation Research
- Fulbright Scholars Program
- National Archives and Records Administration
- NEH: Humanities Connections
- NETL: Faculty Research Program
- NIH NOSI: Office of Disease Prevention – Screening
- NIH: Bioengineering Partnerships with Industry
- NIH: Transformative AI/ML to Identify Determinants of Health and Life Span
- NSF DCL: NSF-NIST Interaction in Basic and Applied Scientific Research
- NSF: Building Synthetic Microbial Communities
- NSF: Chemistry Disciplinary Research Programs
- NSF: Computational and Data-Enabled Science and Engineering
- RWJF: Culture of Health
- USDA: Education and Workforce Development
- USDA: Foundational and Applied Science
- USDA-APHIS: Animal Disease Preparedness and Response Program

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 by close of business on the notification deadline.

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

- LOC: Connecting Communities Digital Initiative
  Notification Deadline: 06/30/2022
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.

- **HRSA: Strengthen Evidence for Maternal and Child Health Programs**
  *Notification Deadline: 07/07/2022*

- **NEH: Summer Stipends**
  *Internal Pre-proposal Deadline: 07/15/2022; 4pm*

- **NIH: Genome Research Experiences to Attract Talented Undergraduates into Genomic Fields to Enhance Diversity**
  *Deadline: 07/01/2022*

- **WTGrant Scholars: Improving the Lives of Youth in the U.S.**
  *Deadline: 07/06/2022*

- **DOE: Scale-Up of Integrated Biorefineries and Greenhouse Gas Reduction in First Generation Ethanol Production**
  *Deadline: 07/08/2022*

- **NIH: Faculty Institutional Recruitment for Sustainable Transformation Cohort**
  *Deadline: 07/12/2022*

- **NIH: Science Education Partnership Award**
  *Deadline: 07/13/2022*

- **Stanley Smith Horticultural Trust**
  *Deadline: 07/15/2022*

- **NSF: IUSE / Professional Formation of Engineers** *(one slot available)*
  *Deadline: 07/18/2022*

- **Breast Cancer Alliance: Young Investigator Grants**
  *Deadline: 07/22/2022*

- **Mathers Foundation: Basic Research in Life Sciences**
  *Deadline: 07/31/2022*

- **Macy Faculty Scholars Program: Medical and Nursing Education**
  *Deadline: 08/01/2022; 2:00pm*
• NSF: Physics Frontiers Centers  
  Pre-application Deadline: 08/01/2022
• NSF: Resilient & Intelligent NextG Systems  
  Deadline: 08/01/2022
• DOE EnergyShed  
  Deadline: 08/01/2022
• LOC: Community Collections  
  Deadline: 08/01/2022
• DOE: RENEW - Basic Energy Sciences  
  Deadline: 08/02/2022
• NEA: Our Town  
  Deadline: 08/04/2022
• DOE: RENEW - High Energy Physics  
  Deadline: 08/15/2022
• Templeton Foundation: Spiritual Yearning Research Initiative  
  Letter of Inquiry Deadline: 08/19/2022
• NIH: Director's Early Independence Award  
  Deadline: 09/02/2022
• NIH: Cancer Center Support Grants  
  Deadline: 09/25/2022
• NIH: Bridges to the Baccalaureate  
  Deadline: 09/26/2022
• NIH: Bridges to the Doctorate  
  Deadline: 09/27/2022
• NEH: Infrastructure and Capacity Building Challenge Grants  
  Deadline: 09/27/2022

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.
DEPSCoR: Research Collaboration

The Department of Defense (DoD) announces the fiscal year 2022 (FY22) Defense Established Program to Stimulate Competitive Research (DEPSCoR) – Research Collaboration (RC).

This funding opportunity [FOA-AFRL-AFOSR-2022-0006] aims to create basic research collaborations between a pair of researchers, namely 1) Applicant / Principal Investigator (PI), a full-time faculty member who has never served as a PI on a prior DoD directly funded research Prime award and 2) Collaborator / co-Principal Investigator (co-PI), an investigator who will provide mentorship to the Applicant and has served as a PI on a DoD directly funded research Prime award active between 1 October 2015 and 30 September 2022. This structure is aimed at introducing potential applicants to the DoD’s unique research challenges and its supportive research ecosystem.

White paper deadline: September 19, 2022

DoD: Congressionally Directed Medical Research Programs

The Department of Defense (DoD) Congressionally Directed Medical Research Programs (CDMRP) are currently accepting applications in a number of programs, including the following:

- Breast Cancer Research Program (BCRP)
- Kidney Cancer Research Program (KCRP)
- Lung Cancer Research Program (LCRP)
- Melanoma Research Program (MRP)
- Peer Reviewed Cancer Research Program (PRCRP)
- Prostate Cancer Research Program (PCRP)

Deadlines vary by program
FAA: Aviation Research

The FAA Aviation Research Grants Program encourages and supports innovative, advanced research of potential benefit to the long-term growth of civil aviation and commercial space transportation. The pursuit of basic and applied research in scientific and engineering disciplines that have the potential to further knowledge and understanding on a broad front of emerging technologies is crucial to the realization of this goal. The intent is to encourage applied research and development to enhance technology assimilation, transfer, and development in the FAA. The FAA Aviation Research Grants Program does not require the immediate application to Research and Development (R&D) programs, although this may occur in some cases. The FAA encourages the submission of proposals that embrace the entire spectrum of physical, chemical, biological, medical, psychological, mathematical, and engineering sciences.

The following list illustrates topics of interest to those who may consider applying for a grant under this funding opportunity:

1. Capacity and Air Traffic Control Technology;
2. Communications, Navigation, and Surveillance;
3. Aviation Weather;
4. Airports;
5. Aircraft Safety Technology;
6. Human Factors and Aviation Medicine;
7. Systems Science / Operations Research; and
8. Unmanned Aircraft System (UAS) Unmanned Traffic Management (UTM), Class E Upper Airspace Traffic Management (ETM), and Urban Air Mobility (UAM).

Whitepapers are accepted on a quarterly basis; upcoming deadlines include August 2, 2022; November 1, 2022; and January 2, 2023.

Fulbright Scholars Program

The Fulbright U.S. Scholar Program offers over 400 awards in more than 130 countries for U.S. citizens to teach, conduct research and carry out professional projects around the
world. College and university faculty, as well as artists and professionals from a wide range of fields are eligible to apply.

There are multiple types of awards, but Fulbright Scholar Awards comprise the bulk of awards offered and include opportunities for professionals, artists, and scholars at all career-levels. Location and eligibility vary across all awards, and some awards may be restricted to certain career levels or types of scholars. Please see here for three unique opportunities within the U.S. Scholar program:

- **Global Scholar Award**
- **Public Policy Fellowship**
- **Arctic Initiative**

*Deadline: September 15, 2022*

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**National Archives and Records Administration**

Through the National Historical Publications and Records Commission (NHPRC), the National Archives and Records Administration (NARA) support projects that promote access to America’s historical records to encourage understanding of our democracy, history, and culture. NHPRC currently has several open grant opportunities. Note that cost share is required for these programs.

- **Public Engagement with Historical Records**
  The NHPRC seeks projects that encourage public engagement with historical records, including the development of new tools that enable people to engage online.
  *Optional draft deadline: August 4, 2022*
  *Final deadline: October 6, 2022*

- **Archival Projects**
  The NHPRC seeks archival projects that will significantly improve online public discovery and use of historical records collections.
  *Optional draft deadline: August 4, 2022*
  *Final deadline: October 6, 2022*
NEH: Humanities Connections

The Humanities Connections program seeks to expand the role of the humanities in undergraduate education at two- and four-year institutions. Awards support innovative curricular approaches that foster partnerships among humanities faculty and their counterparts in the social and natural sciences and in pre-service or professional programs (such as business, engineering, health sciences, law, computer science, and other technology-driven fields), in order to encourage and develop new integrative learning opportunities for students.

Humanities Connections projects must include:

• substantive and purposeful integration of the subject matter, perspectives, and pedagogical approaches of two or more disciplines (with a minimum of one in and one outside of the humanities)
• collaboration between faculty from two or more departments or schools at one or more institutions
• experiential learning as an intrinsic part of the proposed curriculum
• long-term institutional support for the proposed curriculum innovation(s)

Competitive applications will demonstrate:

• that the proposed curricular project expands the role of the humanities in addressing significant and compelling topics or issues in undergraduate education at the applicant institution(s)
• that these projects develop the intellectual skills and habits of mind cultivated by the study of the humanities
• that faculty and students will benefit from meaningful collaborations in teaching and learning across disciplines as a result of the project

The Humanities Connections program includes two funding levels: Planning and Implementation

The new guidelines for this program will be available July 1, 2022. Applications will be due September 1, 2022.

NETL: Faculty Research Program
The Faculty Research Program offers qualified academic faculty an opportunity to collaborate with National Energy Technology Lab (NETL) principal investigators on research that is mutually beneficial to NETL and the participant at state-of-the-art NETL facilities. While typical appointments are part-time, some appointments are offered during the summer and as a sabbatical. Prior to the appointment, the NETL principal investigator and participant will define the scope of research and schedule the appointment period. Appointment periods range from two weeks to more than one year. Funding varies and is awarded based upon the participant’s academic salary. See the NETL On-Site Research Core Competencies.

NETL Research and Development Areas:
- Carbon Management
- Chemical Reaction Engineering
- Combustion Science
- Computational Research
- Environmental Science
- Fuel Cell Research
- Geosciences
- High Temperature / High Pressure Science
- Materials Performance
- Methane Hydrates Research
- Process Development
- Reciprocating Engines Research
- Remote Sensing
- Sensors and Controls
- Separations Science
- Surface Science

To be eligible, the participant must:
- Be a full-time regular permanent faculty member at an accredited college / university with a research interest in NETL core R&D areas.
- Must provide a detailed statement of educational objectives and projected benefits to be realized as a result of the appointment.
- Part-time appointment candidates must submit a Part-Time Approval Form.
- Sabbatical appointment candidates must include a statement describing the financial arrangements with their academic institution, including fringe benefits paid by the institution (state as a percentage of salary and itemize).
NIH NOSI: Office of Disease Prevention - Screening

The National Institutes of Health (NIH) Office of Disease Prevention (ODP), along with participating institutes and centers, has released two Notices of Special Interest (NOSIs) related to preventative and evidence-based screening services.

**NOT-OD-22-106** encourages applications proposing to test multilevel strategies and interventions to improve the uptake of evidence-based screening services across the lifespan and in populations including, but not limited to, those experiencing health disparities and those that are underserved. Studies addressing efficacy, effectiveness, dissemination and implementation research, as well as studies seeking to understand and address barriers to screening are encouraged.

**NOT-OD-22-107** solicits applications proposing to strengthen the evidence base for preventive screening services where the evidence is lacking, of poor quality, conflicting, or the balance of benefits and harms cannot be determined. This NOSI encourages the development and use of innovative and rigorous methods and approaches to close high priority evidence gaps to elevate screening services to a level suitable for a definitive grade or recommendation.

For both NOSIs, the specific research interests of participating NIH Institutes and Centers are detailed within the notice.

*Both NOSIs are open through May 8, 2025.*

NIH: Bioengineering Partnerships with Industry

This Funding Opportunity Announcement (FOA) [PAR-22-123](#) solicits applications from research partnerships formed by academic and industrial investigators to accelerate the development and adoption of promising bioengineering tools and technologies that can address important biomedical problems. The objectives are to establish these tools and technologies as robust, well-characterized solutions that fulfill an unmet need and are...
capable of enhancing our understanding of life science processes or the practice of medicine. Awards will focus on supporting multidisciplinary teams that apply an integrative, quantitative bioengineering approach to developing technologies. The goal of the program is to support technological innovations that deliver new capabilities which can realize meaningful solutions within 5 – 10 years.

Deadline: September 26, 2022

NIH: Transformative Artificial Intelligence and Machine Learning Based Strategies to Identify Determinants of Exceptional Health and Life Span (R21/R33 Clinical Trial Not Allowed)

This Funding Opportunity Announcement (FOA) [RFA-AG-23-033] invites applications seeking to develop novel, transformative artificial intelligence / machine learning (AI/ML) strategies and computer automation to integrate, extract, and interpret multi-omic (i.e., genome, epigenome, transcriptome, proteome, metabolome, microbiome, phenome) data sets from human exceptional longevity (EL) cohorts and multiple non-human species that display a wide variation in life span, and to decipher the relationships between DNA, RNA, proteins, metabolites, and other cell variables, as well as links to disease risks and exceptionally healthy aging. The investigative team(s) for this FOA is / are expected to be multi-disciplinary, encompassing expertise in AI/ML and a variety of disciplines, including, but not limited to, aging biology, comparative biology, and bio / chemo informatics. This FOA utilizes the National Institutes of Health's (NIH) Phased Innovation Award (R21/R33) activity code. During the R21 phase, investigative teams will design and develop intelligent and innovative algorithms and novel AI/ML based computational strategies. During the R33 phase, teams will apply the developed AI/ML tools to complex, heterogenous multi-omic data sets from exceptional healthy aging human cohorts and non-human species to discover novel protective molecular factors that influence EL, and to develop translational strategies on omic-based therapeutic target(s) to prevent or delay age-related diseases, including Alzheimer’s disease (AD) and AD-related dementias (ADRD), and enhance human health span.

Deadline: October 21, 2022
NSF DCL: NSF-NIST Interaction in Basic and Applied Scientific Research

The National Science Foundation (NSF) and National Institute of Standards and Technology (NIST) have shared interests in a variety of basic and applied scientific and engineering fields. This Dear Colleague Letter (DCL) calls attention to opportunities for researchers supported by NSF to collaborate with researchers in the NIST Laboratories and User Facilities.

Principal Investigators (PIs) with current active NSF awards are eligible to submit NSF supplemental funding requests for travel expenses and per diem associated with work on-site at NIST to collaborate on research with NIST staff and access specialized research instrumentation.

Before submitting a supplemental funding request, PIs are strongly encouraged to consult the NSF Program Director for their current award. Details of a proposed collaboration must be discussed in advance with the NIST collaborator and documented in the submitted NSF supplemental funding request. These requests must include a description of the proposed work, including a brief scientific or engineering justification. Note that NSF grantees must establish a plan to collaborate with a NIST employee on their own based on mutual interests and consistent with NIST’s mission. The supplemental funding request budget may include only travel and per diem costs associated with collaborative work at NIST. Support may be requested for any NSF-supported project participants (PIs, co-PIs, post-doctoral scholar, undergraduate and graduate students, and other personnel) associated with the joint NSF-NIST activity, but NSF funds will not be provided for NIST employees. Indirect costs may be charged in accordance with the organization’s indirect cost rate agreement.

The participating NIST laboratories and user facilities are:

- Communications Technology Laboratory (CTL) [https://www.nist.gov/ctl](https://www.nist.gov/ctl)
- Engineering Laboratory (EL) [https://www.nist.gov/el](https://www.nist.gov/el)
- Information Technology Laboratory (ITL) [https://www.nist.gov/itl](https://www.nist.gov/itl)
- Materials Measurement Laboratory (MML) [https://www.nist.gov/mml](https://www.nist.gov/mml)
- Physical Measurement Laboratory (PML) [https://www.nist.gov/pml](https://www.nist.gov/pml)
- Center for Neutron Research (NCNR) [https://www.nist.gov/ncnr](https://www.nist.gov/ncnr)
- Center for Nanoscale Science and Technology (CNST) [https://www.nist.gov/cnst](https://www.nist.gov/cnst)
For detailed information and more about participating NIST laboratories and user facilities, see: NSF-NIST Interaction in Basic and Applied Scientific Research.

**NSF: Building Synthetic Microbial Communities for Biology, Mitigating Climate Change, Sustainability and Biotechnology (Synthetic Communities)**

The goal of this solicitation [NSF 22-607](#) is to support research that addresses one or more of the three themes:

1. define the underlying mechanisms or rules that drive the formation, maintenance or evolution of synthetic microbial communities,
2. use synthetic microbial communities to address fundamental biological questions, including questions in molecular biology, cellular / organismal biology, ecology and evolution and/or
3. build synthetic communities with biotechnology, bioeconomy or environmental engineering applications, including but not limited to the production of novel biorenewable chemicals, biodegradation of recalcitrant or “forever chemicals,” enabling a circular bioeconomy, fostering sustainable agriculture and mitigating the impacts of climate change. For theme 3, the emphasis should be on designing communities with novel capabilities and understanding the underlying mechanisms that lead to these novel capabilities.

To better understand the societal benefits and risks, as well as the potential for misuse or unintended damage to natural biological systems, synthetic microbial communities proposals should include a careful consideration of the social, ethical, and biosafety/security dimensions of the research. Investigators may choose to address these issues either as part of intellectual merit or broader impacts.

*Deadline: October 3, 2022*

**NSF: Chemistry Disciplinary Research Programs**
The National Science Foundation (NSF) Division of Chemistry (CHE) has released two solicitations to cover the nine CHE disciplinary research programs.

**NSF 22-605** applies to the following six CHE programs:
- Chemical Catalysis (CAT) – **Deadline 09/30**
- Chemical Measurement and Imaging (CMI) – **Deadline 10/31**
- Chemical Structure Dynamics and Mechanisms-B (CSDM-B) – **Deadline 09/30**
- Chemical Synthesis (SYN) – **Deadline 09/30**
- Environmental Chemical Sciences (ECS) – **Deadline 10/31**
- Macromolecular, Supramolecular and Nanochemistry (MSN) – **Deadline 10/31**

**NSF 22-606** is piloting the removal of deadlines for the submission of proposals to the remaining three CHE programs:
- Chemistry of Life Processes (CLP),
- Chemical Structure, Dynamics, and Mechanisms-A (CSDM-A) and
- Chemical Theory, Models and Computational Methods (CTMC).

Exceptions to deadlines for both of these solicitations are CAREER, EAGER, RAPID, and RAISE proposals.

**NSF: Computational and Data-Enabled Science and Engineering (CDS&E)**

The goal of the CDS&E meta-program [PD 22-8084](#) is to identify and capitalize on opportunities for major scientific and engineering breakthroughs through new computational and data-analysis approaches and best practices. The CDS&E meta-program supports projects that harness computation and data to advance knowledge and accelerate discovery above and beyond the goals of the participating individual programs. The intellectual drivers may be in an individual discipline, or they may cut across more than one discipline in various Divisions and Directorates. A CDS&E proposal should enable and / or utilize development and adaptation of advances in research and infrastructure in computational and data science. The CDS&E meta-program is not intended to replace existing programs that support projects involving computation or the analysis of large or complex data sets using established methods. Rather, proposals submitted to the CDS&E meta-program must have a significant component of computational or data science that goes well beyond what would normally be included in these programs.
RWJF: Exploring the Future to Build a Culture of Health

The Robert Wood Johnson Foundation (RWJF) program "Pioneering Ideas: Exploring the Future to Build a Culture of Health" seeks proposals that are primed to influence health equity in the future. The Foundation is interested in ideas that address any of these four areas of focus:

1. Future of Evidence;
2. Future of Social Interaction;
3. Future of Food;

Additionally, the Foundation welcomes ideas that might fall outside of these four focus areas, but which offer unique approaches to advancing health equity and progress toward a Culture of Health.

USDA: Education and Workforce Development

The Agriculture and Food Research Initiative (AFRI) - Education and Workforce Development (EWD) program focuses on developing the next generation of research, education, and extension professionals in the food and agricultural sciences. In 2022, the National Institute of Food and Agriculture (NIFA) requests applications for the AFRI’s Education and Workforce Development program areas to support:

1. professional development opportunities for K-14 educational professionals;
2. non-formal education that cultivates food and agricultural interest in youth;
3. workforce training at community, junior, and technical colleges;
4. training of undergraduate students in research and extension;
5. fellowships for predoctoral candidates and postdoctoral scholars; and
6. special workforce development topics.

Deadlines vary by program area.
USDA: Foundational and Applied Science

The Agriculture and Food Research Initiative (AFRI) Foundational and Applied Science Program supports grants in six AFRI priority areas to advance knowledge in both fundamental and applied sciences important to agriculture:

1. Plant Health and Production and Plant Products;
3. Food Safety, Nutrition, and Health;
4. Bioenergy, Natural Resources, and Environment;
5. Agriculture Systems and Technology; and
6. Agriculture Economics and Rural Communities.

Deadlines vary by program area.

USDA-APHIS: National Animal Disease Preparedness and Response Program

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) is soliciting applications to the National Animal Disease Preparedness and Response Program (NADPRP) to support projects in the topic areas listed below.

- Topic 1. Develop, Enhance, and Exercise State and Tribal Animal Disease Outbreak Emergency Response Plans
- Topic 2. Support Livestock and Poultry Biosecurity
- Topic 3. Enhance Depopulation, Carcass Disposal, and Decontamination Capabilities
- Topic 4. Support Animal Movement Decisions in a Disease Outbreak
- Topic 5. Enhance Animal Disease Traceability for a Disease Outbreak
- Topic 6. Support Outreach & Education on Animal Disease Prevention, Preparedness, and Response Topics
- Topic 7. Develop and Deliver Training & Exercises for Animal Agriculture Sector Responders
- Topic 8. Commodity-Specific Topics, including (a) projects to advance the development of sheep and goat vaccines, and (b) projects to prevent and prepare for foreign and emerging aquatic animal diseases.
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.