President Biden proposed the creation of the Advanced Research Projects Agency for Health (ARPA-H) to improve the U.S. government’s ability to speed biomedical and health research. Public Law 117-103 was enacted on March 15, 2022, authorizing the establishment of ARPA-H within the U.S. Department of Health and Human Services.

Recent advances in biomedical and health sciences—from immunotherapy to treat cancer, to the highly effective COVID-19 vaccines—demonstrate the strengths and successes of the U.S. biomedical enterprise. Such advances present an opportunity to revolutionize how to prevent, treat, and even cure a range of diseases including cancer, infectious diseases, Alzheimer’s disease, and many others that together affect a significant number of Americans.

ARPA-H will support transformative high-risk, high-reward research to drive biomedical and health breakthroughs—ranging from molecular to societal—that would provide transformative solutions for all patients.
Evaluators Needed: Student Research Day

NDSU Student Research Day is just around the corner on April 19, 2022, in the Memorial Union. We are excited for the 120+ student presentations, but are in need of evaluators!

Details on the schedule are provided below. If you have time to be an evaluator for one (or more) of the sessions, please sign up here. Thank you for considering being a volunteer at this event!

SCHEDULE:

9:30-11:30am
Undergraduate Student Poster and Oral Presentations

1:00-3:00pm
Graduate Student Poster and Oral Presentations

Volunteer to be an evaluator >>

Grant Writing for Early Career Scientists

April 12, 2022 | 1-2pm

The Department of Energy (DOE) Basic Energy Sciences - Early Career Network (BES-ECN) is hosting a free webinar on the grant writing and review process. Learn tips and best practices from experts on how to successfully craft a scientific proposal for federal grants, industry partnerships, and non-profit support. After short presentations from each panelist, there will be a live question and answer session.
FUNDING OPPORTUNITIES

- Breast Cancer Alliance: Young Investigator Grants - LIMITED
- DARPA: Bio-inspired Restoration of Aged Concrete Edifices
- DoD: Congressionally Directed Medical Research Program
- DoD: Office of Naval Research STEM Program
- DOE DCL: Supplements for Hosting / Collaborating with Students and Scientists Impacted by War in Ukraine
- DOE: Waste Feedstocks and Conversion R&D
- EPA: Sustainable Materials Management Grant
- High Plains Intermountain Center for Agricultural Health and Safety: Pilot Grants
- NEH: Digital Projects for the Public
- NIH: Leveraging Health IT to Address and Reduce Disparities
- NIH: Science Education Partnership Award - LIMITED
- NIH: Understanding Misinformation among Populations that Experience Health Disparities
- NSF: Campus Cyberinfrastructure
- NSF: Cybersecurity Innovation for Cyberinfrastructure
- NSF: Human Networks and Data Science
- NSF: Smart and Connected Communities
- PepsiCo
- Spencer Foundation: Large Research Grants on Education
- USDA: Education and Workforce Development
- USDA: Foundational and Applied Science
- USDA: Sustainable Agricultural Systems

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.

- **NSF: Research Traineeship**  
  Notification Deadline: 04/06/2022
- **WTGrant Scholars: Improving the Lives of Youth in the U.S.**  
  Notification Deadline: 04/06/2022
- **NIH: Genome Research Experiences to Attract Talented Undergraduates into Genomic Fields to Enhance Diversity**  
  Notification Deadline: 04/06/2022
- **NIH: Faculty Institutional Recruitment for Sustainable Transformation Cohort**  
  Notification Deadline: 04/12/2022
- **NIH: Science Education Partnership Award**  
  Notification Deadline: 04/13/2022
- **Breast Cancer Alliance: Young Investigator Grants**  
  Notification Deadline: 04/20/2022

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: Health Workforce Research Center**  
  Deadline: 4/14/2022
- **DOE: Urban Integrated Field Laboratories**  
  Deadline: 04/19/2022
- **DOE: AI Research for High Energy Physics**  
  Deadline: 04/21/2022
• **NEA: Challenge America**  
  *Deadline: 04/21/2022*

• **Prevent Cancer Foundation**  
  *Deadline: 04/25/2022*

• **NIH: Collaborative Program Grant for Multidisciplinary Teams**  
  *Deadline: 04/27/2022*

• **USDA-NIFA: Rural Health and Safety Education**  
  *Deadline: 04/29/2022*

• **SAMHSA: Grants to Expand Substance Abuse Treatment Capacity in Adult and Family Treatment Drug Courts**  
  *Deadline: 05/09/2022*

• **NSF: Research Visioning for CISE - Future Research Directions**  
  *Deadline: 05/10/2022*

• **NSF: Training-based Workforce Development for Advanced Cyberinfrastructure**  
  *Deadline: 05/16/2022*

• **VentureWell: Course & Program Grants**  
  *Deadline: 05/18/2022*

• **NIH: Research Experience in Genomic Research for Data Scientists**  
  *Deadline: 05/25/2022*

• **NIH: Undergraduate Research Training Initiative for Student Enhancement**  
  *Deadline: 05/26/2022*

• **NIH: Team-based Design in Biomedical Engineering Education**  
  *Deadline: 05/30/2022*

• **USDA-NIFA: American Rescue Plan Technical Assistance Investment Program**  
  *Deadline: 06/01/2022*

• **NIH: Asthma and Allergic Diseases Cooperative Research Centers**  
  *Deadline: 06/03/2022*

• **USDA-NIFA: Outreach and Assistance for Socially Disadvantaged Farmers and Ranchers and Veteran Farmers and Ranchers**  
  *Deadline: 06/08/2022*

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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.

Breast Cancer Alliance: Young Investigator Grants – 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.

BCA YIG: Notify RCA by 04/20/2022, 5:00pm if you are interested in submitting to this program.

Breast Cancer Alliance (BCA) invites clinical doctors and research scientists who are in the early stages of their careers, including post docs, whose current proposal is focused on breast cancer, to apply for funding for the Young Investigator Grant (YIG). This grant is intended to help advance the careers of young researchers who do not yet have their own major grant support but who design and conduct their own independent research projects.

This is a two-year grant for a total of $125,000, with half the grant award being paid out each year. Applicants for the 2023 award must (i) not have held a tenure track faculty or tenure track research position for more than four years following completion of their training, as of March 1, 2023; (ii) not have been a principal investigator on an NIH R01 or equivalent national / international non-mentored award; and (iii) dedicate at least 50% of their work effort to research.
LIMITED SUBMISSION: BCA will accept a maximum of two YIG applications per institution.

DARPA: Bio-inspired Restoration of Aged Concrete Edifices

The Bio-inspired Restoration of Aged Concrete Edifices (BRACE) Program [HR001122S0029] aims to prolong the serviceability of DoD structures and airfield pavements by integrating a self-healing capability into existing concrete. The DoD relies on steel-reinforced concrete structures such as missile silos and naval piers that are many decades old, not easily replaced, and subject to cracking and corrosive deterioration. The DoD also relies on concrete airfield pavements in expeditionary settings, which are subject to damage from overuse or attack and require rapid repair under logistically challenged circumstances. Unfortunately, state-of-the-art approaches to maintain concrete are one-time interventions, limited to remediation of defects at or near the surface, and typically necessitate down-time for critical assets. No current technology provides persistent crack repair and prevention for defects deep inside existing aged concrete or prolonged repair of damaged airfield pavements. Inspired by vascular systems that support continuous repair in multicellular organisms and ecosystems, the BRACE Program will develop bio-inspired approaches that 1) penetrate deep into aged concrete to form a healing “vasculature” for persistent damage repair, and 2) combine with new concrete to increase the durability of runway patch repairs. To achieve these goals, BRACE performers will engineer and operationalize vascularizing agents for both long-term (e.g., steel-reinforced marine or buried infrastructure) and rapid (e.g., expeditionary airfield) use cases.

Abstract Deadline: April 29, 2022, 3pm

DoD: Congressionally Directed Medical Research Program

The Department of Defense (DoD) Congressionally Directed Medical Research Program (CDMRP) has a number of open funding opportunities in their various funding programs, including:

- Peer Reviewed Medical Research Program (PRMRP)
Deadlines vary by program.

DoD: Office of Naval Research (ONR) Science, Technology, Engineering, and Mathematics (STEM) Program

ONR seeks a broad range of applications for augmenting existing and/or developing innovative solutions that directly maintain and/or cultivate a diverse, world-class STEM workforce to maintain the U.S. Navy and Marine Corps’ technological superiority. The goal of proposed efforts must provide solutions that establish, build, and/or maintain STEM educational pathways and workforce opportunities for diverse U.S. citizens directly relevant to ONR science and technology areas.

This Funding Opportunity Announcement (FOA) [N00014-22-S-F006] is specifically seeking STEM education and outreach projects that address scientific and technical areas identified in the FOA, including:

- Cybersecurity
- Bio-centric Technologies
- AI
- Training and Education
- Social and Cultural
- Materials Engineering (particularly corrosion)
- Mental and Physical Health

Applicants are strongly encouraged to contact the appropriate Program Officer who is the point of contact for a specific technical area to discuss their research ideas.

This announcement will remain open through March 31, 2023.
DOE DCL: Supplements for Hosting / Collaborating with Students and Scientists Impacted by War in Ukraine

Today, the Department of Energy (DOE) Office of Science (SC) published a Dear Colleague letter encouraging university principal investigators who currently receive financial assistance from SC to consider requesting supplemental funds to host or collaborate with students or scientists who have been impacted by the war in the Ukraine. You can read the full letter [here](#).

DOE: Bioenergy Technologies Office – Waste Feedstocks and Conversion R&D

This Funding Opportunity Announcement (FOA) [DE-FOA-0002636](#) supports development of high-impact technology R&D to accelerate the growth of the bioeconomy by requesting applications across BETO’s mission space in Feedstock Technologies and Conversion R&D. Specifically, this FOA supports two high-impact technology areas in the BETO program R&D portfolio: waste feedstock strategies to improve bioenergy and resource recovery from diverse waste streams; and improved organisms and inorganic catalysts to address conversion process robustness and improve the economics of sustainable biofuels production.

*Concept paper deadline: April 18, 2022; 4pm*

EPA: Sustainable Materials Management Grant

EPA Region 8 (Colorado, North Dakota, Montana, South Dakota, Utah and Wyoming) is [soliciting applications](#) that address the national and regional priority of decreasing the environmental impact of materials with a focus on reducing greenhouse gas emissions (GHGs, EPA Overview of Greenhouse Gases). This funding opportunity is designed to both decrease materials generated (source reduction) and increase the diversion of materials through reuse, recycling, and other strategies. Currently, there is inadequate infrastructure in the Mountains and Plains Region (EPA Region 8) to support these goals. Applications must directly benefit at least one of the EPA Region 8 States or one of the 28 tribal nations in the Region.
High Plains Intermountain Center for Agricultural Health and Safety: Pilot Grants

High Plains Intermountain Center for Agricultural Health and Safety (HICAHS) Pilot/Feasibility Grants Program funds innovative research projects that promote worker health and safety in the agriculture, forestry, or fishing industries. The Request for Applications (RFA) is targeted to students, post-docs, junior investigators or investigators new to occupational safety and health in agriculture.

Priority consideration is given to projects that directly impact the HICAHS region: Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming. Grants have a maximum award amount of $25,000 (including up to 8% indirect costs) with a project period of ~11 months.

Deadline: May 11, 2022

NEH: Digital Projects for the Public

The Digital Projects for the Public program supports projects that interpret and analyze humanities content in primarily digital platforms and formats, such as websites, mobile applications and tours, interactive touch screens and kiosks, games, and virtual environments.

All Digital Projects for the Public projects should

- present analysis that deepens public understanding of significant humanities ideas;
- incorporate sound humanities scholarship;
- involve humanities scholars in all phases of development and production;
- include appropriate digital media professionals;
- reach a broad public through a realistic plan for development, marketing, and distribution;
- create appealing digital formats for the general public; and
• demonstrate the capacity to sustain themselves.

All projects should demonstrate the potential to attract a broad, general, nonspecialist audience, either online or in person at venues such as museums, libraries, or other cultural institutions. Applicants may also choose to identify particular communities and groups, including students, to whom a project may have particular appeal.

Optional draft deadline: May 5, 2022
Application deadline: June 8, 2022

NIH: Leveraging Health Information Technology to Address and Reduce Health Care Disparities (R01 Clinical Trial Optional)
This funding opportunity announcement (FOA) [PAR-22-145] seeks to support research that examines the impact of leveraging health information technology (health IT) to reduce disparities in access to and utilization of health care services, patient-clinician communication, and health outcomes for populations that experience health disparities in the U.S.

Standard R01 deadlines apply. Upcoming deadlines: June 5, October 5, February 5

NIH: Science Education Partnership Award (SEPA) – 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 SEPA: Notify RCA by 04/13/2022, 5:00pm if you are interested in submitting to this program.
The SEPA program [PAR-20-153] supports P-12 and informal science education (ISE) activities that: (1) enhance the diversity of the biomedical, behavioral and clinical research workforce and (2) foster a better understanding of NIH-funded biomedical, behavioral and clinical research and its public health implications. The SEPA program targets two primary audiences: (1) SEPA formal or classroom-based projects, provide STEM content, pedagogical expertise, and problem solving skills to teachers, students, and families in communities not generally supported by advanced and innovative educational practices, and (2) SEPA informal science education (ISE) activities, conducted in outside-the-classroom venues as well as in science centers and museums, target both workforce diversity and improved public health literacy. Applications that target pre-kindergarten to grade 12 (P-12) or ISE topics that are not be addressed by existing school, community, or ISE-based activities are encouraged.

Proposed projects:

- May focus on any area of NIH-funded research
- Must address broader impact issues, i.e., the potential to benefit society and contribute to the achievement of specific, desired workforce diversity and capabilities, societal, and health literacy outcomes.

To accomplish the stated over-arching goal, this FOA will support innovative educational activities with a primary focus on:

- **Courses for Skills Development**: For example, advanced courses in a specific discipline or research area, or specialized research or analytical skills such as biostatistics and data science.
- **Research Experiences**: Research experiences for P-12 teachers and students that will provide hands-on exposure to research methods and concepts that are not available through conventional teacher training or classroom activities.
- **Mentoring Activities**: Programs that provide mentors and near-peer role models, in terms of age, gender, race, and ethnicity, for P-12 students.
- **Curriculum or Methods Development**: For example, to improve biomedical, behavioral, or clinical science education, or to develop novel instructional approaches or computer and data science-based educational tools.
• Outreach: Activities that enhance workforce diversity, community health and medicine knowledge through dissemination of educational resources and biomedical, behavioral and clinical research findings.

LIMITED SUBMISSION: An eligible institution may submit one application per due date.
the CISE Core programs (NSF 21-616).

This DCL invites transformative, cross-disciplinary and potentially clean slate approaches to enable sustainability across all levels of the entire computing stack from hardware to networking to software applications. Proposals are encouraged to consider diverse notions of sustainability and propose suitable metrics for quantifying impact. Traditional energy efficiency and power savings methods alone are not in scope for this DCL. Computing techniques for sustainability in other fields are not in scope for this DCL. This DCL seeks ambitious and forward-thinking proposals on Design for Sustainability in Computing along multiple dimensions that go beyond energy efficiency.

See full letter for more information.

NSF: Human Networks and Data Science

The Human Networks and Data Science (HNDS) program [NSF 22-505] supports research that enhances understanding of human behavior by leveraging data and network science research across a broad range of topics. HNDS research will identify ways in which dynamic, distributed, and heterogeneous data can provide novel answers to fundamental questions about individual and group behavior. HNDS is especially interested in proposals that provide data-rich insights about human networks to support improved health, prosperity, and security.

HNDS has two tracks:

**Human Networks and Data Science – Infrastructure (HNDS-I).** Infrastructure proposals will address the development of data resources and relevant analytic techniques that support fundamental Social, Behavioral and Economic (SBE) research. Successful proposals will, within the financial resources provided by the award, construct user-friendly large-scale next-generation data resources and relevant analytic techniques and produce a finished product that will enable new types of data-intensive research. The databases or techniques should have significant impacts, either across multiple fields or within broad disciplinary areas, by enabling new types of data-intensive research in the SBE sciences.

**Human Networks and Data Science – Core Research (HNDS-R).** Core research proposals will advance theory in a core SBE discipline by the application of data and
network science methods. This includes the leveraging of large data sets with diverse spatio-temporal scales of measurement and linked qualitative and quantitative approaches, as well as multi-scale, multi-level network data and techniques of network analysis. Supported projects are expected to yield results that will enhance, expand, and transform theory and methods, and that generate novel understandings of human behavior – particularly understandings that can improve the outcomes of significant societal opportunities and challenges. HNDS-R encourages core research proposals that make innovative use of NSF-supported data networks, data bases, centers, and other forms of scientific infrastructure including those developed by HNDS-I (formerly RIDIR) projects.

Upcoming deadlines: July 14, 2022; January 12, 2023

**NSF: Smart and Connected Communities**

The goal of the NSF Smart and Connected Communities (S&CC) program solicitation [NSF 22-529](https://www.nsf.gov) is to accelerate the creation of the scientific and engineering foundations that will enable smart and connected communities to bring about new levels of economic opportunity and growth, safety and security, health and wellness, accessibility and inclusivity, and overall quality of life.

For the purposes of this solicitation, communities are defined as having geographically-delineated boundaries—such as towns, cities, counties, neighborhoods, community districts, rural areas, and tribal regions—consisting of various populations, with the structure and ability to engage in meaningful ways with proposed research activities. A “smart and connected community” is, in turn, defined as a community that synergistically integrates intelligent technologies with the natural and built environments, including infrastructure, to improve the social, economic, and environmental well-being of those who live, work, learn, or travel within it.

The S&CC program encourages researchers to work with community stakeholders to identify and define challenges they are facing, enabling those challenges to motivate use-inspired research questions. **The S&CC program supports integrative research that addresses fundamental technological and social science dimensions of smart and connected communities and pilots solutions together with communities.**
This S&CC solicitation will support research projects in the following categories:

- **S&CC Integrative Research Grants (SCC-IRG) Tracks 1 and 2.** Awards in this category will support fundamental integrative research that addresses technological and social science dimensions of smart and connected communities and pilots solutions together with communities. Track 1 proposals may request budgets ranging between $1,500,001 and $2,500,000, with durations of up to four years. Track 2 proposals may request budgets up to $1,500,000, with durations of up to three years.

- **S&CC Planning Grants (SCC-PG).** Awards in this category are for capacity building to prepare project teams to propose future well-developed SCC-IRG proposals. Each of these awards will provide support for a period of one year and may be requested at a level not to exceed $150,000 for the total budget.

*Proposals accepted anytime, until April 1, 2024

**PepsiCo Opportunities**

PepsiCo currently has several open funding opportunities:

- Characterizing plant proteins as they undergo extrusion
- Biodegradable coatings or adhesives for PHA films
- Identifying alternate sources of potable water
- Rapid acrylamide detection in drinking water

*Deadline: May 31, 2022

**Spencer Foundation: Large Research Grants on Education**

The [Large Research Grants on Education Program](#) supports education research projects that will contribute to the improvement of education, broadly conceived, with budgets ranging from $125,000 to $500,000 for projects ranging from one to five years. The Foundation anticipates awarding grants with budgets across each of the following funding tiers -- $125,000 to 250,000; $250,001 to $375,000; and $375,001 to $500,000. Projects are evaluated within tier, and the Foundation *strongly* encourages applicants to submit for funding that best fits their project rather than applying for the highest amount.
This program is “field-initiated” in that proposal submissions are not in response to a specific request for a particular research topic, discipline, design, method, or location. The goal for this program is to support rigorous, intellectually ambitious and technically sound research that is relevant to the most pressing questions and compelling opportunities in education.

*Intent to apply deadline: May 4, 2022 – 12pm (noon)*

**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: Sustainable Agricultural Systems**

The Agriculture and Food Research Initiative's Sustainable Agricultural Systems (SAS) program area promotes the sustainable supply of abundant, affordable, safe, nutritious, and accessible food and other agricultural products, while enhancing economic opportunities and improving the long-term health and well-being of all Americans.

Funding will support projects focused on increasing agricultural productivity; optimizing water and nitrogen use efficiency; protecting yield losses from stresses, diseases, and pests; reducing food-borne diseases; and advancing development of biobased fuels, chemicals, and coproducts. This RFA is soliciting creative and visionary project applications that use transdisciplinary teams and integrated research, education, and extension / outreach activities to promote convergence of science and technology to solve present and future food and agricultural production system challenges.

*Letter of Intent Deadline: April 27, 2022*

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Have questions, ideas, or suggestions for the RCA Update? [Contact Us]
The Office of Research and Creative Activity (RCA) sends weekly emails to NDSU faculty and staff to provide current information on various topics including funding opportunities, grant program changes, research resources, deadlines, notices, and training.

You are receiving this notification through the NDSU official employee listserv or sub-list. The official listserv refreshes after each pay period.

North Dakota State University does not discriminate on the basis of age, color, disability, gender expression/identity, genetic information, marital status, national origin, public assistance status, race, religion, sex, sexual orientation, or status as a U.S. veteran. Direct inquiries to: Equal Opportunity Specialist, Old Main 201, 701-231-7708 or Title IX/ADA Coordinator, Old Main 102, 701-231-6409.

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