

NDSU OFFICE OF
RESEARCH AND CREATIVE ACTIVITY

RCA UPDATE

December 14, 2020

Funding Opportunity Edition

Transition to InfoEd SPIN Funding Opportunity Database

NDSU will transition to a new funding opportunity database on January 1, 2021. At that time, SPIN by InfoEd Global will replace Pivot by Proquest. This change is in response to campus feedback and budget considerations. Search functionality in SPIN is very similar to Pivot, so we hope this change will be seamless. However, the faculty expertise profiles that were part of the Pivot system are not included in the SPIN product.

Training opportunities and information about how to log in to SPIN will be announced soon.

Things to do before the transition:

1. If you have saved searches in Pivot that you would like to replicate in SPIN, review and record the search criteria now. [Learn how >>](#)
2. If you have tracked programs in Pivot that are of particular interest to you, you can export the list of those programs to help you replicate the list in SPIN. [Learn how >>](#)

If you have questions, please contact ndsu.researchdev@ndsu.edu.

NDSU GlobaKonnnect 2020 Small Community Water Supply Undergraduate Conference

The Nanoenvirology Research Group and NDSU Civil and Environmental Engineering invite you to attend this free virtual conference. Undergraduate students from 4 U.S. and 6 Indian academic institutions will be presenting their research on a variety of topics, organized into three sessions:

- Fluoride Removal from Drinking Water
- Drinking Water Treatment Technologies
- Water for Communities: Quantity and Quality

NDSU GlobaKonnnect 2020 Small Community Water Supply Undergraduate Conference

Wednesday, December 16, 2020

8:00am-10:45am

Zoom Link: <https://ndsu.zoom.us/j/91043236230>

Contact Achintya Bezbaruah (a.bezbaruah@ndsu.edu) with questions.

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.

- DOE: Scientific Discovery Through Advanced Computing - Partnerships in Basic Energy Sciences
First to Notify
- CDC: Reducing Inequities in Cancer Outcomes through Community-Based Interventions on Social Determinants of Health
Notification Deadline: 12/22/2020
- NEA: Grants for Arts Projects
Notification Deadline: 12/22/2020

- [NIH: Faculty Institutional Recruitment for Sustainable Transformation - Cohort](#)

Notification Deadline: 12/22/2020

- [NSF: EPSCoR Track 4 Research Fellows](#)

Notification deadline: 01/13/2021

- [Retirement Research Foundation](#)

Notification deadline: 01/20/2021

There are a number of limited submission grant programs with upcoming agency deadlines for which we did not receive any notifications of interest. For those interested in applying to the programs listed below, 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.

- [NSF: Partnerships for Innovation](#)

Agency deadline: January 13, 2021

- [NEH: Preservation Assistance Grants for Smaller Institutions](#)

Agency deadline: January 14, 2021

- [USDA-NIFA: Women and Minorities in STEM Fields](#)

Agency deadline: January 21, 2021

- [NSF: Ethical and Responsible Research](#)

Agency deadline: February 22, 2021

- [NSF: Scholarships in STEM](#)

Agency deadline: March 31, 2021

FUNDING OPPORTUNITIES

- [CDC: Reducing Inequities in Cancer Outcomes through Community-Based Interventions on Social Determinants of Health](#)
- [DARPA: Chemistry Directed Manufacturing](#)
- [DoD: Research Interests of the Air Force Office of Scientific Research](#)
- [DoD: National Defense Education Program for STEM, Biotech, and Civics Education, Outreach, and Workforce](#)
- [DOE: Scientific Discovery Through Advanced Computing: Partnerships in Basic Energy Sciences](#)

- [DOE: Systems Biology of Bioenergy-Relevant Microbes to Enable Production of Next-Generation Biofuels and Bioproducts](#)
 - [Mathematical Sciences](#)
 - [ND NASA EPSCoR Pre-Proposals](#)
 - [NEA: Grants for Arts Projects](#)
 - [NEH: Institutes for Advanced Topics in Digital Humanities](#)
 - [NIH: Faculty Institutional Recruitment for Sustainable Transformation – Cohort](#)
 - [NIH: Stephen I. Katz ESI Research Grant Program](#)
 - [NSF: Biology Education](#)
 - [NSF: Designing Materials to Revolutionize and Engineer our Future](#)
 - [NSF: EPSCoR Track 4 Research Fellows](#)
 - [NSF: Mid-Career Advancement](#)
 - [NSF: Molecular Foundations for Biotechnology](#)
 - [Retirement Research Foundation](#)
 - [USDA-NIFA: AFRI Sustainable Agricultural Systems](#)
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CDC: Reducing Inequities in Cancer Outcomes through Community-Based Interventions on Social Determinants of Health – 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.

CDC Reducing Inequities : Notify RCA by 12/22/2020, 4:00 p.m. if you are interested in submitting to this program.

The purpose of this funding opportunity [[RFA-DP-21-003](#)] is to conduct evaluation research to build an evidence base of innovative, community-based interventions across multiple domains of social determinants of health to reduce racial and ethnic disparities in cancer outcomes. Evaluation research is defined as the systematic application of public health research procedures for assessing the conceptualization, design, implementation, effectiveness and utility of public health interventions. This research would advance our understanding of what works, for whom and why.

Component A: Primary Cancer Prevention – to conduct evaluation research on an innovative, multi-sector intervention to reduce cancer risk in one or more socially or economically disadvantaged populations. This research will examine the implementation, impact, and causal mechanisms of the intervention’s effect to reduce cancer risk at the population level.

Component B: Cancer Screening – to conduct evaluation research on an innovative, multi-sector intervention to reduce inequities in the receipt of appropriate screening services (on-time initial screening, routine re-screening at recommended intervals, appropriate follow-up after inconclusive/incomplete screening) among one or more socially or economically disadvantaged populations. This research will generate knowledge about the implementation, impact, and causal mechanisms of the intervention’s effect on cancer screening outcomes.

Component C: Health and Wellbeing of Cancer Survivors – to conduct evaluation

research on an innovative, multi-sector intervention to address barriers to health and well-being among cancer survivors from one or more socially or economically disadvantaged populations. This research will generate knowledge about the implementation, impact, and causal mechanisms of the intervention's effect on the health and wellbeing of cancer survivors.

Applicants may apply for one Component (Component A, Component B or Component C).

LIMITED SUBMISSION: Only one application per institution is allowed.

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DARPA: Chemistry Directed Manufacturing

The purpose of this Polyplexus Pilot Topic Opportunity Notice [[HR001119S0075-24](#)] is to provide public notification of a research and development funding opportunity on the Polyplexus online platform. The Defense Advanced Research Projects Agency (DARPA) Defense Sciences Office (DSO) invites participation in [Polyplexus](#), which is an online, professional, technical conversation between the research community and DARPA Program Managers that will lead to the opportunity to submit abstracts and full proposals for a research and development project.

The focus of this topic is to discuss the possibility to create a new manufacturing capability that grows freeform solid objects without the need for a computer (CAD) model of the target object, specialized hardware (e.g., fluid handling devices) and other tooling typically required in additive manufacturing.

Abstracts and full proposals in response to this Polyplexus Pilot Topic Opportunity Notice must be submitted in accordance with the requirements outlined in Section IV of [BAA HR001119S0075](#).

Deadline for 2-page abstracts: January 4, 2021, 3:00pm

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DoD: Air Force Office of Scientific Research BAA

The Air Force Office of Scientific Research (AFOSR) plans, coordinates, and executes the Air Force Research Laboratory's (AFRL) basic research program in response to technical guidance from AFRL and requirements of the Air Force. Additionally, the office fosters, supports, and conducts research within Air Force, university, and industry laboratories; and ensures transition of research results to support U.S. Air Force needs. The focus of AFOSR is on research areas that offer significant and comprehensive benefits to our national war fighting and peacekeeping capabilities. These areas are organized and managed in two scientific Departments, each with specific topic areas of interest.

Engineering and Information Science

- Dynamic Materials and Interactions
- GHz-THz Electronics
- Energy, Combustion, and Non-Equilibrium Thermodynamics
- Unsteady Aerodynamics and Turbulent Flows
- High-Speed Aerodynamics
- Aerospace Composite Materials
- Multiscale Structural Mechanics and Prognosis
- Space Propulsion and Power
- Agile Science of Test and Evaluation

Physical and Biological Sciences

- Computational Cognition and Machine Intelligence
- Computational Mathematics
- Dynamical Systems and Control Theory
- Dynamic Data and Information Processing
- Information Assurance and Cybersecurity
- Mathematical Optimization
- Science of Information, Computation, Learning, and Fusion
- Trust and Influence
- Complex Networks
- Cognitive and Computational Neuroscience

[Download the Broad Agency Announcement \(BAA\) >>](#)

This BAA is open until superseded

DoD: National Defense Education Program for STEM, Biotech, and Civics Education, Outreach, and Workforce

The Department of Defense (DoD) National Defense Education Program (NDEP) [seeks innovative applications](#) on mechanisms to implement Science, Technology, Engineering, and Mathematics (STEM) education, outreach, and / or workforce initiative programs, here onto referred as STEM activities. NDEP also seeks innovative applications on mechanisms to specifically implement Biotechnology outreach and workforce development, which here onto will be referred as Biotech activities. Additional NDEP efforts also includes a pilot program in Enhanced Civics education.

The Department intends to award multiple grants in STEM activities, Biotech activities, and Enhanced Civics subject to the availability of funds. Applications for larger amounts may be considered on a case-by-case basis.

1. For STEM activities, there will be two (2) award levels:
 - STEM activities with maximum award of \$3,000,000 over 3 years;
 - Scalable STEM activities with maximum award of \$6,000,000 over four (4) years.
2. For Biotech activities, awards will have a maximum award of \$3,000,000 over three (3) years.
3. For Enhanced Civics education, there will be one award, with a maximum of \$2,000,000 for a period of two (2) years.

NOTE: Respondents are not required to address all three focus areas, but should direct their responses to one of the areas: 1 (STEM), 2 (Biotech), or 3 (Enhanced Civics Education).

Whitepaper deadline: January 25, 2021



**DOE: Scientific Discovery Through Advanced Computing:
Partnerships in Basic Energy Sciences – 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.

DOE pre-applications to this program are due January 19, 2021.

Due to the short timeline, PIs interested in applying to this program will be approved on a first-come, first-served basis. Email notifications of interest to ndsu.researchdev@ndsu.edu.

This program [[DE-FOA-0002441](#)] will support interdisciplinary teams to establish partnerships between domain scientists – in the fields of materials science, condensed matter physics, chemical sciences, geosciences, and energy-related biosciences – and applied mathematicians and / or computer scientists to overcome barriers between these disciplines. The integrated teams will engage with the SciDAC Institutes and allow full use of DOE HPC computing capabilities. Two topical areas of interest will be targeted:

- A. **Quantum Phenomena** of many-particle systems driven far from equilibrium. Applications are sought that drive and manipulate quantum effects such as coherence, entanglement, and novel states of matter by going beyond the use of existing quantum-based methods in their traditional regimes.
- B. **Predictive Control of Reaction Pathways** for chemical mechanisms in complex non-equilibrium and field-driven environments important in synthesis of materials and chemicals, and deconstruction of macromolecular structures such as plastics for polymer upcycling.

Efforts aimed at extending currently attainable length / time scales or increasing complexity and that algorithmically match efficiency enhancements offered by next generation computers will receive priority.

LIMITED SUBMISSION: Applicant institutions are limited to no more than 2 pre-applications and applications as the lead institution.

DOE: Systems Biology of Bioenergy-Relevant Microbes to Enable Production of Next-Generation Biofuels and Bioproducts

This announcement [[DE-FOA-0002448](#)] solicits applications for:

- A. research to advance the development of promising new model organisms, microbial functional capabilities, and biosynthetic pathways relevant to biofuels and bioproducts production; and
- B. research into the metabolic pathways that can achieve synthetic polymer deconstruction and conversion to recycled monomers.

Pre-application deadline: January 19, 2021

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Mathematical Sciences

There are several open funding opportunities for building collaborations in the Mathematical Sciences.

NSF: Conferences and Workshops in the Mathematical Sciences [[NSF 21-541](#)]

The National Science Foundation (NSF) Division of Mathematical Sciences (DMS) is accepting proposals for conferences, workshops, or conference-like activities which support research and training activities of the mathematical sciences community.

Proposals are accepted at any time.

Simons Foundation: Collaboration Grants for Mathematicians [[Solicitation](#)]

The Simons Foundation's Mathematics and Physical Sciences division invites applications for Collaboration Grants for Mathematicians to stimulate collaboration in the field primarily through the funding of travel and related expenditures. The goal of the program is to substantially increase collaborative contacts between accomplished, active mathematicians in the United States who do not otherwise have access to funding that could provide support for travel and visitors.

Deadline: January 28, 2021

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ND NASA EPSCoR Pre-proposals

North Dakota NASA EPSCoR (Established Program to Stimulate Competitive Research) is soliciting research **pre-proposals** from faculty at affiliate institutions (including NDSU). These pre-proposals are in response to the recent NASA R3 CAN (Cooperative Agreement Notice), Announcement Number: NNH21ZHA002C.

Eligibility:

- Faculty PI must be from an ND NASA EPSCoR affiliate institution.
- Research must be in STEM (science, technology, engineering, or mathematics) and demonstrate alignment with NASA priorities and one or more NASA Mission Directorates.
- Research must meet all eligibility requirements defined in the NASA EPSCoR R3 CAN Solicitation.

Proposal Submission Timeline:

- Pre-proposals due via online submission form to ND NASA EPSCoR: **Noon, 01/04/2021.**
- Pre-proposals will be evaluated in a down-select. Only one full proposal may move forward for consideration by NASA under each appendix. Only meritorious proposals will move forward.
- Successful pre-proposal team notified: 01/11/2021.
- Full proposal due in NSPIRES: 02/05/2021.

Research RFP

Budget Sheet

Online Submission Form

Finance questions may be directed to Laurie

Baumgartner: laurie.baumgartner@und.edu. **General** questions may be directed to Caitlin

Nolby: cnolby@space.edu or Marissa Saad: msaad@space.edu.

All of this information can be found on the ND NASA EPSCoR Announcement Page.

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NEA: Grants for Arts Projects – Limited Submission Program

[Limited submission grant programs](#) are those that indicate a limit on the number of proposals that may be submitted by an institution for a particular deadline. A selection process becomes necessary if more applicants express interest in applying than NDSU is allowed to submit to the grant program.

NEA : [Notify RCA](#) by 12/22/2020, 4:00 p.m. if you are interested in submitting to this program.

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

The Arts Endowment encourages projects that use the arts to unite and heal in response to current events, as well as address any of the following:

- Celebrate America's creativity and / or cultural heritage.
- Invite a dialogue that fosters a mutual respect for the diverse beliefs and values of all persons and groups.
- Enrich our humanity by broadening our understanding of ourselves as individuals and as a society.

LIMITED SUBMISSION: An organization may submit only one application for each separately identifiable and independent component.

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NEH: Institutes for Advanced Topics in Digital Humanities

The [Institutes for Advanced Topics in the Digital Humanities](#) 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.

Applicants may apply to create institutes that are a single opportunity or are offered multiple times to different audiences. Institutes may be as short as a few days or as long as six weeks and held at a single site or at multiples sites; virtual institutes are also permissible. Training opportunities could be offered before or after regularly occurring scholarly meetings, during the summer months, or during appropriate times of the academic year. The duration of a program should allow for full and thorough treatment of the topic; it should also be appropriate for the intended audience.

These professional development programs may focus on a particular computational method, such as network or spatial analysis. They may also target the needs of a particular humanities discipline or audience.

Optional Draft Deadline: January 9, 2021

Application Deadline: March 2, 2021



NIH: Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Program – FIRST Cohort (U54 Clinical Trial Optional) – 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 FIRST : [Notify RCA](#) by 12/22/2020, 4:00 p.m. if you are interested in submitting to this program.

The FIRST Cohort program [[RFA-RM-20-022](#)] aims to transform culture at NIH-funded extramural institutions by building a self-reinforcing community of scientists committed to inclusive excellence, through recruitment of a diverse group of early-career faculty who are competitive for an advertised research tenure-track or equivalent faculty position and who have demonstrated strong commitment to promoting diversity and inclusive excellence. Any individual who is competitive for a

research tenure-track or equivalent faculty position and who has demonstrated a strong commitment to promoting diversity and inclusive excellence is eligible for FIRST faculty positions.

The overall goals and specific measurable objectives that the program expects FIRST Cohort awardee institutions to accomplish are:

Goal 1: FIRST Cohort awardees must demonstrate institutional support and develop or modify a strategic plan with specific goals and strategies, interventions, and organizational policies that will be implemented to achieve significant systemic and sustainable institutional culture change over baseline toward inclusive excellence (at the faculty, department, and institution level). FIRST Cohort awardees are also expected to develop an evaluation plan to assess the impact on their institution of action taken toward FIRST program goals.

Goal 2: FIRST Cohort awardees must conduct recruitment activities for new faculty, outline institutional commitments, and develop recruitment committees based on past interests and commitments to diversity, equity, and inclusion. FIRST Cohort awardees are also expected to establish a retention plan to secure institutional commitment and supportive environment for new faculty hires.

Goal 3: FIRST Cohort awardees must develop strategies for the institution to establish individual research and career development plans and mentorship plans for all new faculty hired under this award. The applicants must describe how the program will reduce isolation, increase community building, and foster career development for the new faculty.

LIMITED SUBMISSION: Only one application per institution is allowed.

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NIH Stephen I. Katz ESI Research Grant Program (R01)

Early stage investigators (ESIs) may apply for this opportunity to support their innovative ideas **if they are proposing research that is a change in direction from their past work and experience, and for which they have no preliminary data.** For those ESIs who have preliminary data for research projects or those who want to continue on with their

current research direction, NIH's [Parent R01 funding opportunities](#) are still available.

[Katz ESI Research Grant Program Solicitation](#)

Standard R01 deadlines apply; next deadline is January 26, 2021.

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NSF: Biology Education

The National Science Foundation (NSF) has several open opportunities related to Biology Education:

Vision and Change in Undergraduate Biology Education [\[NSF PD 21-7412\]](#)

The National Science Foundation's (NSF's) Division of Undergraduate Education (DUE) in the Directorate for Education and Human Resources (EHR) acknowledges the need to expand and chronicle educational change efforts across the nation. To this end, DUE invites proposals to study the impact of the Vision and Change (V&C) movement in Undergraduate Biology Education. Specifically, this program seeks to support projects that evaluate a combination of factors such as the awareness, acceptance, adoption, and adaptation of V&C principles and outcomes including changes in curriculum, laboratories, and student retention, completion, and learning. Collectively, results of these projects are anticipated to describe the nature and extent of V&C's use within the undergraduate biology curriculum. The projects could also describe key factors and approaches taken by the V&C community that have the potential to be useful for improving undergraduate education in other scientific disciplines or in interdisciplinary STEM education.

Deadline: March 1, 2021

Dear Colleague Letter: Online Biology Education [\[NSF 21-026\]](#)

With this Dear Colleague Letter (DCL), the Directorates for Biological Sciences and Education and Human Resources encourage the submissions of proposals to the [Research Coordination Networks for Undergraduate Biology Education \(RCN-UBE\) Program](#) that focus on developing, piloting, and sharing innovative and transformative approaches for online undergraduate biology courses, particularly those that foster inclusive approaches that encourage student engagement and retention in biology.

Proposals should be submitted to the [RCN-UBE program](#) by January 29, 2021.

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NSF: Designing Materials to Revolutionize and Engineer our Future

Designing Materials to Revolutionize and Engineer our Future (DMREF) [[NSF 21-522](#)] is the primary program by which NSF participates in the [Materials Genome Initiative \(MGI\) for Global Competitiveness](#). MGI recognizes the importance of materials science and engineering to the well-being and advancement of society and aims to "deploy advanced materials at least twice as fast as possible today, at a fraction of the cost." MGI integrates materials discovery, development, property optimization, and systems design with a shared computational framework. This framework facilitates collaboration and coordination of research activities, analytical tools, experimental results, and critical evaluation in pursuit of the MGI goals. Consistent with the [MGI Strategic Plan](#), DMREF highlights four sets of goals:

- Leading a culture shift in materials science and engineering research to encourage and facilitate an integrated team approach;
- integrating experimentation, computation, data-intensive / data-driven approaches, and theory, and equipping the materials science and engineering communities with advanced tools and techniques;
- making digital data findable, accessible, interoperable, and reusable, and useful to the community; and
- creating a world-class materials science and engineering workforce that is trained for careers in academia or industry.

DMREF will accordingly support activities that significantly accelerate materials discovery and development by building the fundamental knowledge base needed to advance the design and development of materials with desirable properties or functionality. This will be accomplished through forming interdisciplinary teams of researchers working synergistically in a "closed loop" fashion, building a vibrant research community, leveraging data science, providing ready access to materials data, and educating the future MGI workforce. Achieving this goal could involve some combination of:

- strategies to advance materials design through testing methodology;
- theory, modeling, and simulation to predict behavior or assist in analysis of multidimensional input data; and
- validation through synthesis, growth, processing, characterization, and/or device demonstration.

NSF: EPSCoR Track 4 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.

NSF RII Track-4: [Notify RCA](#) by 01/13/2021, 5:00 p.m. if you are interested in submitting to this program.

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

The EPSCoR Research Infrastructure Improvement Track 4: EPSCoR Research Fellows (RII Track-4) Program [[NSF 20-543](#)] provides awards to build research capacity in institutions and transform the career trajectories of non-tenured 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: Mid-Career Advancement

The Mid-Career Advancement (MCA) program [[NSF 21-516](#)] offers an opportunity for scientists and engineers at the Associate Professor rank (or equivalent) to substantively enhance and advance their research program through synergistic and mutually beneficial partnerships, typically at an institution other than their home institution. Projects that envision new insights on existing problems or identify new but related problems previously inaccessible without new methodology or expertise from other fields are encouraged.

Partners from outside the PI's own sub-discipline or discipline are encouraged, but not required, to enhance interdisciplinary networking and convergence across science and engineering fields.

By (re)-investing in mid-career investigators, NSF aims to enable and grow a more diverse scientific workforce (more women, persons with disabilities, and underrepresented minorities) at high academic ranks, who remain engaged and active in cutting-edge research.

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 (Associate Professor rank or equivalent) stage. Participating programs in the Directorates for Biological Sciences (BIO), Geosciences (GEO), Engineering (ENG), Social,

Behavioral and Economic Sciences (SBE), and Education and Human Resources (EHR) will accept MCA proposals. PIs are encouraged to discuss the suitability of their MCA proposal with a program officer from the appropriate directorate (see https://www.nsf.gov/bio/MCA_contacts.jsp).

Deadline: February 1, 2021

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NSF: Molecular Foundations for Biotechnology

This initiative [[NSF 21-540](#)] calls for fundamentally new approaches in chemistry to drive new directions in biotechnology, an important Industry of the Future (IoF). Collaborative high risk / high reward projects are sought; the research must involve innovative chemistry.

A multi-year campaign is envisioned (contingent on availability of funding), targeting broad annual themes. This year's solicitation calls for synergistic scientific partnerships grounded in the principles of synthetic, physical organic and molecular recognition chemistry creating novel chemical biology tools to drive innovations in biotechnology. The focus is on the development and deployment of fundamentally new techniques to modify the structure, function and / or fate of proteins interacting with small molecules for important applications in biotechnology.

Letter of Intent deadline: January 14, 2021

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Retirement Research Foundation: Research 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.

RRF : [Notify RCA](#) by 01/20/2021, 5:00 p.m. if you are interested in submitting to

this program.

The [Retirement Research Foundation \(RRF\)](#) funds research that seeks to identify interventions, policies and practices to improve the well-being of older adults and / or their caregivers. Preference is given to projects aimed at generating practical knowledge and guidance that can be used by advocates, policy-makers, providers, and the aging network. Of particular interest are:

- Interventional trials; translational studies; and health services and policy research;
- Projects that build on the investigator's past studies;
- Proposals that include robust dissemination plans, if appropriate, to assure that findings reach audiences positioned to act on them.

LIMITED SUBMISSION: Only one proposal / letter of inquiry is allowed per department per grant cycle.



USDA-NIFA: AFRI Sustainable Agricultural Systems

Applications to the Agriculture and Food Research Initiative (AFRI) - Sustainable Agricultural Systems (SAS) [Request for Applications \(RFA\)](#) must focus on approaches that promote transformational changes in the U.S. food and agriculture system. USDA-NIFA seeks creative and visionary applications that take a systems approach for projects focused on the themes in the USDA Science Blueprint:

1. sustainable agricultural intensification;
2. agricultural climate adaptation;
3. value-added innovation; and / or
4. food and nutrition translation.

These projects are expected to significantly improve the supply of affordable, safe, nutritious, and accessible agricultural products, while fostering economic development and rural prosperity in America. These approaches must demonstrate current needs and anticipate future social, cultural, behavioral, economic, health, and environmental impacts. Additionally, the outcomes of the work being proposed should result in societal benefits, including promotion of rural prosperity and enhancement of quality of life for all

those involved in food and agricultural value chains from production to utilization and consumption.

Deadline varies by Program Area Priority; Letter of Intent due January 7, 2021.



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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