NDSU OFFICE OF RESEARCH AND CREATIVE ACTIVITY

RCA UPDATE

NDSU researchers receive NSF EPSCoR Fellowships

Two NDSU researchers have received funding from the National Science Foundation (NSF) Established Program to Stimulate Competitive Research (EPSCoR) RII Track-4 Fellows program. Sarah Signor, assistant professor in biological sciences, and Di Wu, assistant professor in electrical and computer engineering, were each awarded for their respective research programs.
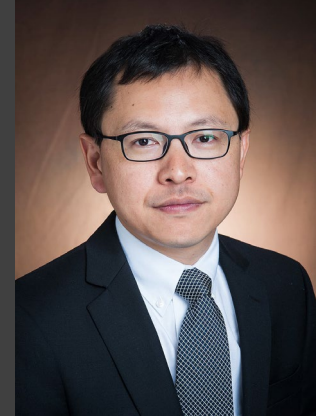
The EPSCoR RII Track-4 Fellows program provides an opportunity for researchers to spend extended periods of time at the nation's premier research facilities initiating new collaborative relationships. The researchers are expected to expand existing partnerships in ambitious new directions or make use of unique equipment not available at their home institution. The program also expects to improve the research capacity of the institution and jurisdiction more broadly.

Signor's fellowship will provide her training and tools to conduct 3' gene sequencing, a method developed at Memorial Sloan Kettering Cancer Center in New York. Learning this method will help Signor and her lab study the effects that stressful environmental conditions like heat, cold, or toxins have on organisms and how these conditions may lead to changes in an organism's gene expression to counteract their negative effects. During the fellowship, Signor will investigate how small fruit flies (Drosophila) utilize gene expression in adaptation to ethanol in their environment. Signor hopes that the training will enhance

the research capabilities of her lab and facilitate collaborations at NDSU across other research networks.

Wu's award will provide training for him and a graduate student at the National Renewable Energy Laboratory (NREL) in Golden, Colorado about new techniques for assessing the impact of renewable energy generation on grid operation. Wu will collaborate closely with NREL researchers and focus on how to better assess grid dynamic stability under variable and uncertain renewable energy generation and then bring this knowledge back to NDSU. The results of Wu's research will support the large-scale integration of renewable energy in power grids, thus providing higher-quality, more reliable, and cleaner electricity to millions of customers across the United States. In addition, he hopes his fellowship will foster a strong partnership between NDSU and NREL, which will help North Dakota better meet its renewable energy goals.

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.

Dionna Martel Joins RCA as Proposal & Award Officer

On February 10, Dionna Martel will join the RCA Sponsored Programs Administration team as the proposal & award officer. Dionna is currently a business coordinator in science and mathematics at NDSU and has more than eight years of experience working with grants through a variety of other positions at the university. She started at NDSU in 2012, working with Mukund Sibi and the Center for Protease Research (CPR). While in this position, Dionna managed budgets and grant accounts, maintained the CPR website, and assisted with annual grant progress reports preparation. In 2014, Dionna joined chemistry and biochemistry in a role maintaining grant fund accounts, preparing monthly expense reports, processing HR actions, and

collaborating with the recharge center billing. Since 2017, Dionna has served as a business coordinator in the science and mathematics business center. In this role, she expanded her experience on post-award management, including budget revisions, no-cost extensions, and expenditure compliance. SPA associate vice president Val Kettner said, "We are excited to have Dionna join our team. She has broad experience with the grant administration process and will bring a targeted Department / College perspective to our business processes."

Proposal Development Virtual Program

The Proposal Development Program provides professional development opportunities for faculty, staff, and graduate students who are new to proposal writing or are seeking a refresher about proposal writing skills and funding agency opportunities. This semester, these sessions will be held virtually on Zoom.

Collaborative Proposals: Best Practices in Organizing a Submission
Friday, February 19, 2021 | 12-1pm
Presenter: Christine Strohm, Ph.D., Grant Writing Consultant

Meeting Expectations of Funding Agencies: USDA
Wednesday, March 24, 2020 | 12-1pm
Presenter: Christine Strohm, Ph.D., Grant Writing Consultant

Register for these sessions >>
Zoom access information will be shared with registrants.

Congratulations to all award recipients from December 2020!

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 >>

SBIR / STTR Webinars from SHARPhub

SHARPhub, an NIH-funded program to assist in translating bioscience discoveries into startup companies, is offering multiple free webinars on SBIR / STTR programs.

Commercializing your research through SBIR / STTR Proposals
Wednesday, February 10 from 8:30 am to 1:00 pm CST
Learn about essential components of an effective plan, how to find and use cost-effective market research to direct your efforts, supporting documents you will need, and other tips for writing a winning plan.
REGISTER: https://bit.ly/2JfNCvZ

Cuss and Discuss
Friday, March 12 from 9 –10:30 am CST
Meet others planning to submit SBIR / STTR proposals to NIH, sharing challenges and learning from others.
REGISTER: https://bit.ly/371phUf

Reminder: Changes to NIH R15 REAP Program

Last year, the National Institutes of Health (NIH) changed the institutional eligibility for the R15 Research Enhancement Award Program (REAP) for Health Professional Schools and Graduate Schools. The calculation was changed to encompass total campus funding from NIH versus separating out the health professions schools and graduate schools. With this modification, overall NDSU NIH funding has exceeded

the limit for the REAP program resulting in NDSU being ineligible. However, it is important to note that due to the great work of NDSU faculty, the 2020 federal fiscal year NIH awards were $6.8M, bringing NDSU total NIH awards over the last 7 years to $41.6M.

NDSU still remains eligible for the NIH R15 AREA program, which is open to faculty with a primary appointment that is not in a health professional school or graduate school. Resources for applying to NIH programs are available on the RCA website. The NIH Ready Training program offered is a virtual, self-paced course to help prepare an R01 or R-series submission. If you have any questions about this information, please contact ndsu.research@ndsu.edu.

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Upcoming Limited Submission Program Deadlines

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

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

- EPA: Water Infrastructure Workforce Development
  Notification Deadline: 02/10/2021
- NSF: Enabling Quantum Leap
  Notification Deadline: 02/10/2021
- NIH Research Education: Biomedical Engineering
  Notification Deadline: 02/16/2021
- Breast Cancer Alliance
  Notification Deadline: 02/17/2021
- Arts Midwest: Grow, Invest, Gather
  Notification Deadline: 03/04/2021
- NEH: Challenge Grants
  Notification Deadline: 03/04/2021
- NIH: Collaborative Program for Multidisciplinary Teams
  Notification Deadline: 03/04/2021
- NIH Research Education: Genomic Research for Data Scientists
  Notification Deadline: 03/09/2021
- NIH Research Education: Enhancing STEM Educational Diversity
  Notification Deadline: 03/09/2021
- NSF Advanced Cyberinfrastructure Coordination Ecosystem: Services & Support
  Notification Deadline: 03/11/2021
- NSF Advanced Cyberinfrastructure Coordination Ecosystem: Services & Support - Coordination Office
  Notification Deadline: 03/11/2021

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: Ethical and Responsible Research
  Agency deadline: February 22, 2021
- USDA-NIFA: Biotechnology Risk Assessment
  Agency deadline: February 24, 2021
- NIJ: Office of Violence Against Women
  Multiple programs; Agency deadlines vary
- NSF: Scholarships in STEM
  Agency deadline: April 7, 2021

Looking for more funding opportunities?

On January 1, NDSU transitioned to a new funding opportunity database subscription: SPIN by InfoEd Global. SPIN is free for current NDSU faculty, staff, and students.

For more information, visit the SPIN page on the RCA website. If you have questions, please contact ndsu.researchdev@ndsu.edu.

Arts Midwest: Grow, Invest, Gather (GIG) Fund – 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.

Arts Midwest GIG: Notify RCA **by 03/04/2021, 5:00 p.m. if you are interested in submitting to this program.**

Arts Midwest's Grow, Invest, Gather (GIG) Fund provides financial support to arts

organizations for rebuilding and re-imagining creative engagement in their communities amidst the challenging uncertainty affecting all corners of the creative sector.

Who: Non-profit organizations located in Illinois, Indiana, Iowa, Michigan, Minnesota, North Dakota, Ohio, South Dakota, or Wisconsin and the Native nations that share this geography.

What: Applicants must:
1. Partner with a professional performing or visual artist/ensemble of high artistic excellence and merit.
2. Gather the community via at least two activities featuring the artist/ensemble (in-person or virtually).
3. For at least one activity, reach an audience with limited access to the arts.

When: Activities must take place between July 1, 2021, and December 31, 2021

How much: Grant awards are $2,500. Determination of awards for each grant period is dependent upon available funds and demand within each state.

LIMITED SUBMISSION: Only one application will be accepted per organization.

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Bush Foundation: Community Innovation Grants

Community Innovation Grants invest in great ideas and the people who power them. The grants support organizations coming together to solve community challenges. The Bush Foundation provides Community Innovation grants of $10,000 to $200,000. Grants under $20,000 are available from intermediary partner organizations. The grants are flexible, and can be used to develop new ideas, test ideas already imagined, or spread proven ideas for more impact.

The Foundation is open to considering ideas on a range of issues, with an eye toward whether they could have truly transformative impact. They are looking for the ideas with the greatest potential to make the region better for everyone. The idea can be big in scale

from the start or one that is starting small and could grow and spread. They are interested in ideas that inspire, equip, and connect people to lead change.

The Foundation prioritizes ideas that will make the region more equitable in opportunities and outcomes, especially for Black people, Indigenous people, people of color and/or people from rural communities. They are interested in proposals that address the conversations around racism and equality and/or the needs related to COVID-19.

Applications accepted year-round.

DoD ONR: Young Investigator Program

The Department of Defense (DoD) Office of Naval Research (ONR) is interested in receiving proposals for its Young Investigator Program. ONR's Young Investigator Program seeks to identify and support academic scientists and engineers who are in their first or second full-time tenure-track or tenure-track-equivalent academic appointment, who have received their PhD or equivalent degree on or after 01 January 2013, and who show exceptional promise for doing creative research. The objectives of this program are to attract outstanding faculty members of Institutions of Higher Education to the Department of the Navy's Science and Technology research program, to support their research, and to encourage their teaching and research careers.

Deadline: March 19, 2021

National Robotics Initiative 3.0 - Innovation in Integration of Robotics (NRI-3.0)

The National Robotics Initiative 3.0: Innovations in Integration of Robotics (NRI-3.0) program builds upon the preceding National Robotics Initiative (NRI) programs to support fundamental research in the United States that will advance the science of robot integration. The program supports research that promotes integration of robots to the benefit of humans including human safety and human independence.

Collaboration between academic, industry, non-profit, and other organizations is encouraged to establish better linkages between fundamental science and engineering

and technology development, deployment, and use.

The NRI-3.0 program is supported by multiple agencies of the federal government including the National Science Foundation (NSF), the U.S. Department of Agriculture (USDA), the National Aeronautics and Space Administration (NASA), the Department of Transportation (DOT), the National Institutes of Health (NIH), and the National Institute for Occupational Safety and Health (NIOSH).

Proposal Window: April 19-May 3, 2021

NEH: Infrastructure and Capacity Building Challenge 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.

NEH Challenge Grants: Notify RCA **by 03/04/2021, 5:00 p.m. if you are interested in submitting to this program.**

In anticipation of the 2021 guidelines being posted on March 18, 2021, we are soliciting notifications of interest in this program.

The purpose of the Challenge Grants program is to strengthen the institutional base of the humanities by enabling infrastructure development and capacity building. Awards aim to help institutions secure long-term support for their core activities and expand efforts to preserve and create access to outstanding humanities materials. The program funds two distinct types of projects, each with its own notice of funding opportunity:

- **Capital Projects** supports the design, purchase, construction, restoration, or renovation of facilities for humanities activities. This includes the purchase and installation of related moveable and permanently affixed equipment for exhibiting, maintaining, monitoring, and protecting collections (whether on

exhibit or in storage), and for critical building systems, such as electrical, heating ventilation and air conditioning, security, life safety, lighting, utilities, telecommunications, and energy management.

- **Digital Infrastructure** supports the maintenance, modernization, and sustainability of existing digital scholarly projects and platforms.

This program requires matching funds.

LIMITED SUBMISSION: NDSU may submit one proposal to this program per calendar year.

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NIH: Collaborative Program for Multidisciplinary Teams – 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 RM1: Notify RCA **by 03/04/2021, 5:00 p.m. if you are interested in submitting to this program.**

This National Institutes of Health (NIH) funding opportunity announcement (FOA / PAR-20-103) is designed to support highly integrated research teams of three to six PD / PIs to address ambitious and challenging research questions that are important for the mission of the National Institute of General Medical Sciences (NIGMS) and are beyond the scope of one or two investigators. Collaborative program teams are expected to accomplish goals that require considerable synergy and managed team interactions. Project goals should not be achievable with a collection of individual efforts or projects. Teams are encouraged to consider far-reaching objectives that will produce major advances in their fields. Applications that are mainly focused on the creation, expansion, and / or maintenance of

community resources, creation of new technologies or infrastructure development are not appropriate for this FOA.

LIMITED SUBMISSION: Only one application per institution is allowed per review round.

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NIH: Research on Biopsychosocial Factors of Social Connectedness and Isolation on Health, Wellbeing, Illness, and Recovery (R01 Clinical Trials Not Allowed)

This funding opportunity announcement (FOA) [PAR-21-145] invites research projects that seek to model the underlying mechanisms, processes, and trajectories of social relationships and how these factors affect outcomes in health, illness, recovery, and overall wellbeing. Both animal and human subjects research projects are welcome. Researchers proposing basic science experimental studies involving human participants should consider the companion FOA [PAR-21-144] "Research on Biopsychosocial Factors of Social Connectedness and Isolation on Health, Wellbeing, Illness, and Recovery (R01 Basic Experimental Studies with Humans Required)".

Deadline: March 17, 2021

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NSF DCL: Pilot Projects to Integrate Existing Data and Data-Focused Cyberinfrastructure to Enable Community-level Discovery Pathways

Through this Dear Colleague Letter (DCL) [NSF 21-046], NSF encourages proposals to the Cyberinfrastructure for Emerging Science and Engineering Research (CESER) program within the Office of Advanced Cyberinfrastructure for **pilot** projects that bring together researchers and CI experts to develop the means of combining existing community data resources and shared data-focused CI into new integrative and highly performing data-intensive discovery workflows that empower new scientific pathways. Aims of such pilot projects can include, but are not limited to:

- improving the end-to-end process of accessing, integrating and transforming research and education data to knowledge and discovery for one or more communities;
- creating new workflows and new usage modes to address multi-disciplinary and cross-domain scientific objectives;
- addressing emerging community-scale scientific data challenges such as real-time, streaming and on-demand data access; data discovery through knowledge networks and intelligent data delivery; enabling access to data with privacy concerns; and data fusion, integration and interoperability;
- enhancing the performance and robustness of community-scale data integration and discovery workflows such as through automated curation, end-to-end performance monitoring, provenance tracking, and means of assuring data trustworthiness; and
- federating learner data to empower innovative assessment tools for large-scale modeling of learning gains.

NSF welcomes submissions of proposals for pilot projects that address one or more of these aims in **all areas of science and engineering (S&E) research and education supported by NSF**. Within this array of aims, NSF encourages proposers to address, where appropriate, community-scale scientific data challenges stemming from the ongoing pandemic, whether technical in nature or related to broadening participation by, and increasing benefit to, diverse audiences, including groups underrepresented and underserved in STEM. **Proposals from organizations in Established Program to Stimulate Competitive Research (EPSCoR) jurisdictions are particularly encouraged.**

For more information, including topics of interest and how to respond, *read the full DCL >>*

Deadline: March 23, 2021

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Russell Sage Foundation: Social Science Research

The Russell Sage Foundation (RSF) will accept letters of inquiry (LOIs) under these core programs and special initiatives: Behavioral Economics; Decision Making & Human Behavior in Context; Future of Work; Social, Political and Economic Inequality. In addition, RSF will also accept LOIs relevant to any of its core programs that address at least one of the following issues:

- <u>Research on the Covid-19 pandemic and the resulting recession in the U.S.</u> Specifically, research that assesses the social, political, economic, and psychological causes and consequences of the pandemic, especially its effects on marginalized individuals and groups and on trust in government and other institutions. Our priorities do not include analyses of health outcomes or health behaviors. RSF seldom supports studies focused on outcomes such as educational processes or curricular issues, but does prioritize analyses of inequities in educational attainment or student performance.
- **Research focused on systemic racial inequality and / or the recent mass protests in the U.S.** Specifically, research that investigates the prevalence of racial disparities in policing and criminal justice and their social, political, economic, and psychological causes and consequences; the effects of the current social protest movement and mass mobilization against systemic discrimination; the nature of public attitudes and public policies regarding policing, criminal justice, and social welfare; and the effects of those attitudes in the current political environment.

Deadline: May 4, 2021

USDA-NIFA: Agriculture and Food Research Initiative - Foundational and Applied Science Program

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. The six priority areas are:

1. Plant Health and Production and Plant Products;
2. Animal Health and Production and Animal 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.

Research-only, extension-only, and integrated research, education and / or extension projects are solicited in this <u>Request for Applications (RFA)</u>.

Deadlines vary by program area

Wenner-Gren Foundation: Post-Ph.D. Research Grants in Anthropology

Post-Ph.D. Research Grants are awarded to individuals holding a Ph.D. or equivalent degree to support individual research projects. The program contributes to the Foundation's overall mission to support basic research in anthropology and to ensure that the discipline continues to be a source of vibrant and significant work that furthers our understanding of humanity's cultural and biological origins, development, and variation. The Foundation supports research that demonstrates a clear link to anthropological theory and debates, and promises to make a solid contribution to advancing these ideas. There is no preference for any methodology, research location, or subfield. The Foundation particularly welcomes proposals that employ a comparative perspective, can generate innovative approaches or ideas, and / or integrate two or more subfields.

The maximum amount of the Post-Ph.D. Research Grant is US $20,000.

Grants are for research expenses. Applicants can apply regardless of institutional affiliation, country of residence, or nationality. There is no time limit on the duration of the grant and funding may be requested to cover distinct research phases (for example, two summers) if this is part of the research design.

Deadline: May 1, 2021

Have questions, ideas, or suggestions for the RCA Update?

[Contact Us](#)