

October 28, 2019

## Meet NDSU's New Assistant Professors

Throughout the year, RCA will be highlighting new faculty in the weekly newsletter. Full profiles are available on the [RCA website](#).

### **Xudong Rao, Ph.D.**

#### **Agribusiness and Applied Economics**

**What are your primary research and scholarly interests?**

Agribusiness management, risk & uncertainty, technology adoption, international development, agri-food policy.

**Where are you from and where did you pursue your education?**

I was born and grew up in China and came to the U.S. for my PhD degree at the University of Minnesota.



### **What excites you about NDSU?**

NDSU enjoys a good reputation in agriculture-related research. I am very excited to be able to join this great institution.

### **What motivates you?**

To explore the unknown part of the world and human society.

[Learn more about Xudong >>](#)

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## **Notice of NSF FastLane and Research.gov Outage**

**Please be advised that FastLane and Research.gov will be unavailable from Friday, November 8 at 8:00 PM EST until Tuesday, November 12 at 6:00 AM EST.**

The National Science Foundation (NSF) is migrating its business applications to a modern and flexible platform from November 8 at 8:00 PM EST through November 12 at 6:00 AM EST. As part of this effort, NSF will also upgrade the alpha-numeric character set used by the FastLane and Research.gov systems to correct text errors, such as special characters displaying as question marks ("?.") in proposals and project reports. This migration has been scheduled over the Veterans Day holiday weekend to minimize the impact of the systems downtime on the research community and NSF staff.

During this outage, **there will be no access to these websites, proposals cannot be prepared or submitted in FastLane and Research.gov, and project reports and cash requests cannot be submitted in Research.gov.** However, previously saved information and

uploaded documents in FastLane and Research.gov, including in-progress proposals and project reports, will be accessible after the migration is completed.

For IT system-related questions, please contact the NSF Help Desk at 1-800-381-1532 or [rgov@nsf.gov](mailto:rgov@nsf.gov). Any policy-related questions should be directed to [policy@nsf.gov](mailto:policy@nsf.gov).

## Proposal Development Program: Session Change

**The order of the Proposal Development Program sessions has changed.** The session about *Developing Evaluation Plans* will now take place on November 5, 2019, and the session on *Writing a Good First Page and Project Summary* will now take place on December 3, 2019. See below for the full schedule of the remaining sessions.

The purpose of the Proposal Development Program is to provide a professional development opportunity for those new to proposal writing or those seeking a refresher to hone proposal writing skills and increase knowledge about funding agency opportunities. There are still seats available – join us for the remaining fall sessions! [Register to reserve your spot >>](#)

### Fall 2019 Sessions

**Memorial Union Hidatsa Room | 12:30pm-1:30pm**

- November 5 - Developing Evaluation Plans
- November 19 - Proposal Budgeting
- December 3 - Writing a Good First Page and Project Summary
- December 17 - Peer Review

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## Environmental Research & Education Foundation Invites Proposals for Waste Management Practices

The [Environmental Research & Education Foundation](#) (EREF) provides funding for scientific research on, and educational initiatives related to, waste management practices.

To that end, EREF invites applications for projects and research that address any areas of integrated solid waste management, with a focus on research that increases sustainable solid waste management practices. The following areas will be considered: waste minimization; recycling; waste conversion to energy biofuels, chemicals, or other useful products (including waste-to-energy, anaerobic digestion, composting, and other thermal or biological conversion technologies); strategies designed to promote diversion to higher and better uses (e.g., organics diversion, market analysis, optimized material management, logistics, etc.); and landfilling. Previously awarded grants have

ranged from \$15,000 to more than \$500,000, with the average in recent years approximately \$160,000 over two years.

EREF's definition of solid waste includes municipal solid waste (e.g., residential, commercial, institutional); construction and demolition debris; certain industrial wastes (e.g., exploration and production waste, coal ash); and other wastes typically managed by the solid waste industry or generated by the public not included in the above items (e.g., electronic waste, disaster debris, etc).

See the EREF website for complete [program guidelines and application instructions](#).

*Pre-Proposal deadlines: December 1, 2019; May 1, 2020*



## **Microsoft: AI for Earth Grants**

[AI for Earth](#) awards grants to support projects that use AI to change the way people and organizations monitor, model, and manage Earth's natural systems. There are four areas of focus for this program:

1. **Climate:** The changing climate threatens human health, infrastructure, and natural systems. AI can give people more accurate climate predictions to help reduce the potential impacts.
2. **Agriculture:** By 2050, farmers must produce more food, on less arable land, and with less environmental impact to feed the world's increasing population. AI can help people monitor the health of farms in real time.
3. **Biodiversity:** Species are going extinct at an alarming rate. AI can help accelerate the discovery, monitoring, and protection of biodiversity across our planet.
4. **Water:** In the next two decades, demand for fresh water is predicted to dramatically outpace supply. AI can help people model Earth's water supply to help us conserve and protect fresh water.

AI for Earth grants provide access to Microsoft resources to support projects that change the way people and organizations monitor, model, and manage Earth's natural systems. Microsoft can support projects in three ways:

1. Data Labeling Grants
2. Azure compute credits grants
3. Special Grants with partner organizations

See the [AI for Earth](#) website for more information.

*Proposal deadlines: January 6, 2020; April 6, 2020; July 6, 2020; October 5, 2020*

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## **ND NASA EPSCoR: FY20 Cooperative Agreement Notice R3 Solicitation**

The North Dakota NASA Established Program to Stimulate Competitive Research (EPSCoR) is soliciting pre-proposals from North Dakota faculty in STEM fields to fulfill the following solicitation. Eligible proposers include faculty members at a [ND NASA EPSCoR affiliate institutions](#).

The NASA EPSCoR (Established Program to Simulate Competitive Research) FY20 Cooperative Agreement Notice (CAN) R3 Solicitation limits each jurisdiction to the submission of one proposal per each of the technical areas specified. This down-select process is to identify which proposal(s) will go forward for North Dakota.

More details on the down-select process can be found [here](#).

The R3 Solicitation and amendments can be found [here](#).

A PDF of the North Dakota NASA EPSCoR Pre-proposal Down-select with guidelines for proposers can be found [here](#).

**Pre-proposal Submission:**

Email pre-proposal as a PDF attachment by Noon on November 12, 2019 to: [casler@space.edu](mailto:casler@space.edu) and [cnolby@space.edu](mailto:cnolby@space.edu)

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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-19-373](#)) solicits 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.

Research areas of interest include understanding differences and similarities between objective social isolatedness and loneliness, how complex biopsychosocial processes are regulated in the body, what occurs in response to dysregulation, and antecedent processes that influence responses to the trajectories of social relationships. Studies that involve neurobiological approaches—for example, how social or isolated settings influence neurobiological systems, brain function, and/or behavior are welcome. Projects designed to study how changes in the quantity and/or quality of social connections influence health behaviors and outcomes are encouraged. This FOA also encourages projects that incorporate aims to promote methods and measures needed to support a cumulative and integrated approach to the study of social connectedness and isolation.

The terms "social connection" and "social connectedness" often are used interchangeably in research. For the purposes of this FOA, "social connectedness" encompasses both perceived and actual connections to others, as well as an individual's perception of belongingness to the social environment. Researchers with questions regarding these terms should inquire with IC scientific contacts.

*Deadline: March 17, 2020*

[Track this opportunity >>](#)

## **NSF Macrosystems Biology and NEON-Enabled Science (MSB-NES): Research on Biological Systems at Regional to Continental Scales**

The *Macrosystems Biology and NEON-Enabled Science: Research on Biological Systems at Regional to Continental Scales* program [[NSF 20-506](#)] solicits proposals that develop new conceptual frameworks, empirical studies, syntheses, modeling approaches, and training programs that will enhance integrated research of the biosphere at regional to continental scales, develop predictions, and forecast ecological change. This solicitation prioritizes use of NEON instrumental and observational data for Macrosystems Biology research and supports broader emulation of NEON data standards in the development and use of complementary public ecological data infrastructure.

The National Science Foundation (NSF) invites proposals from individual investigators or interdisciplinary teams of scientists to conduct innovative, integrated, mechanistic, systems-oriented macroscale biology ("Macrosystems Biology") research to detect, explain, and forecast the regional to continental scale consequences of changing climate, land-use, biogeochemical cycles, and biological invasions. Proposals should identify the scales where the ecological research challenges are the greatest and where research has the greatest potential to transform the fields of ecology and environmental biology by harnessing the tools of large-scale biological infrastructure for ecological research. Projects should be well grounded in theory and use novel, mechanistic, and quantitative approaches that develop a more predictive understanding of ecological dynamics at multiple scales and their contributions to the structure, function, and transformation of the biosphere.

*Deadline: January 16, 2020*

[Track this opportunity >>](#)

## **NSF: Track 2 Focused EPSCoR Collaborations (RII Track-2 FEC) - 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 EPSCoR Track 2 : Notify RCA by 11/01/2019, 5:00 p.m. if you intend to apply.**

**RII Track-2 FEC [NSF 20-504]** builds interjurisdictional collaborative teams of EPSCoR investigators in scientific focus areas consistent with NSF priorities. Projects are investigator-driven and must include researchers from at least two RII-eligible jurisdictions with complementary expertise and resources necessary to tackle those projects, which neither party could address as well or rapidly alone. The Science, Technology, Engineering, and Mathematics (STEM) research and education activities should seek to broaden participation through the strategic inclusion and integration of different types of individuals, institutions, and sectors throughout the project. Proposals must describe a comprehensive and integrated vision to drive discovery and build sustainable STEM capacity that exemplifies diversity of all types (individual, institutional, geographic, and disciplinary). The development of diverse early-career faculty is a critical component of this sustainable STEM capacity. A single proposal is submitted for a project. Support for non-lead collaborating institutions should be requested as subawards. Separately submitted collaborative proposals are not allowed. Each participating EPSCoR jurisdiction must have at least one co-PI on the project.

In FY 2020, RII Track-2 FEC proposals must be aligned with the following focus area: "Harnessing Big Data to solve problems of national importance." Solutions to many of the pressing problems facing society may require the integration of teams of scientists and engineers and the analysis of large and complex data sets arising from multi-disciplinary projects. Proposals submitted for the FY20 RII Track-2 FEC competition should be firmly placed in the context

of NSF's "Harnessing the Data Revolution," one of NSF's Ten Big Ideas, and must address a specific and compelling problem related to a scientific topic area of national importance. The proposals should clearly identify and motivate the importance and relevance of the chosen topic area in the context of complex data sets and the current status of ongoing work in the area. Projects should demonstrate a multi-disciplinary nature, with the analysis of complex, quantitative and/or qualitative data sets as the central activity. Development of algorithms and software frameworks for the integration of the diverse data sets may be included in the proposal. Successful proposals will emphasize how new information can be obtained from better connections among data sources, utilization of data (including data from multiple facilities, techniques, and/or instruments), and how this will be used to address the specific problem of national importance. Proposers are encouraged to take advantage of existing data sets, where available. The creation of large-scale databases per se is not the focus of this solicitation, although the development and enhancement of such databases may be proposed as one element towards producing the final provisioning of data cyberinfrastructure that significantly increases the value of these data as well as their insights, predictions, and ultimate applicability.

**For FY 2020, RII Track-2 FEC proposals are invited on a single topic: "Harnessing the Data Revolution to solve problems of national importance."**

**LIMITED SUBMISSION:** Only one RII Track-2 FEC proposal may be submitted in response to this solicitation by an organization in an RII-eligible jurisdiction.

[Track this opportunity >>](#)

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**Sigma: Nursing Research on Healthcare for Vulnerable Citizens**

The Sigma Theta Tau International Honor Society of Nursing was founded by six nurses in 1922. Today known as [Sigma](#), the organization continues to work to advance world health and celebrate nursing excellence in scholarship, leadership, and service.

In memory of Barbara Jonas, and in partnership with [Jonas Philanthropies](#), the organization is inviting applications for the Sigma Foundation for Nursing/Jonas Philanthropies collaborative research grant. Through the program, grants of up to \$10,000 will be awarded in support of pilot studies and/or developmental research with the potential to improve healthcare for the most vulnerable citizens of the United States. A single grant will be awarded within each of the following three categories: mental health, rural health, and veterans' healthcare.

Eligible applicants include registered nurses with a current license and doctoral nurse scholars (PhD, DNP, EdD, DNSc, PhD-DNP). Special consideration will be given to Jonas Scholars and Sigma members.

See the Sigma website for [complete program guidelines and application instructions](#).

*Proposal Deadline: December 1, 2019*

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## **Simons Foundation: Collaboration Grants for Mathematicians**

The [Simons Foundation](#) is inviting applications for its Collaboration Grants for Mathematicians program.

Through the program, grants of \$8,400 per year for up to five years will be awarded to increase collaborative contacts between accomplished, active mathematicians in the United States who do not otherwise have access to funding that allows support for travel or the hosting of visitors. Awards will be based on the quality and significance of the applicant's previous research and on the likely impact the grant will have on future research, both for the applicant

and the applicant's graduate students and/or postdoctoral fellows. Of the award, \$6,000 a year is designated for collaboration, travel, and research funds for the awardee; \$1,000 a year is designated for the awardee's department to enhance the research atmosphere of the department; and 20 percent (\$1,400) is designated for indirect costs. The foundation awards up to a hundred and forty grants a year.

To be eligible, applicants must have a PhD degree and hold a tenure-track or tenured position with a full-time appointment in a mathematics department with a PhD-granting program at an institution in the United States; have a current record of active research and publication in high-quality journals; and not currently hold any other external PI or co-PI grants with an end date after September 1, 2020. There are no citizenship requirements.

See the Simons Foundation website for [complete program guidelines and application instructions](#).

*Proposal Deadline: January 30, 2020*

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## **Society of American Archivists**

The [Society of American Archivists](#) works to promote the value and diversity of archives and archivists.

Through its grant program, the organization awards grants of between \$500 and \$5,000 for work that advances the mission and/or goals of the foundation, which include research and reporting about the profession, its practice, and its practitioners; the development of professional growth opportunities; recognition of archivists via scholarships, travel stipends, and awards; improving the performance of repositories; and efforts to persuade influential external organizations to create or promote archives.

Eligible applicants include practicing archivists, SAA component groups, other organizations of archivists, and allied professionals.

Letters of Inquiry are due December 1. Upon review, selected applicants will be invited to submit a full proposal by February 1, 2020.

See the Society of American Archivists website for [complete program guidelines and application instructions](#).

*Letter of Inquiry Deadline: December 1, 2019*



## **RCA Halloween Gathering**

Research and Creative Activity invites you to our Halloween Gathering on **Thursday, October 31**, at **3:00 p.m.** in the **Research 1 building, room 148**. Please join us! You're welcome to wear a Halloween costume. Ballots will be available to vote on the best costumes and prizes will be awarded. We hope to see you there!



## **Innovation Challenge Project Showcase**

The [Innovation Challenge](#) Project Showcase will celebrate all of the teams who entered this year's competition. Enjoy complementary appetizers while mingling with Tri-college student innovators. Cast your vote for the Dr. Wells People's Choice Award during the event.

**Monday, November 4, 2019**

**4:00pm**

**NDSU Memorial Union Great Plains Ballroom**



## **NDSU Rodent Training Series**

The final session of the NDSU Rodent Training Series will focus on **Venipuncture**. It will take place on **Wednesday, November 20** from **3-4:30pm** in **Van Es 107**. Space is limited so register early. [Register for this session >>](#)

The NDSU Rodent training series is a 4 course training series which covers basic mouse handling and techniques. The series is designed to provide foundational training and experience for faculty, staff, and students. The Rodent Training Series is sponsored by the Vice President for Research and Creative Activity. If you have questions about these sessions, please contact the IACUC Administrator, Josie Hayden, at 701.231.8114 or [josie.hayden@ndsu.edu](mailto:josie.hayden@ndsu.edu).

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## **National Council of University Research Administrators Education Program Workshops**

Sponsored Programs is sponsoring three webinars that are a part of the National Council of University Research Administrators (NCURA) education program.

### **Financial Research Compliance Workshop:**

The Financial Research Compliance workshop is a professional development opportunity that focuses primarily on the financial regulatory compliance aspects of Research Administration. This workshop provides an in-depth look at financial compliance issues through a combination of lecture, case studies, review of Federal audit reports, and a discussion of best practices.

**Date: November 20, 2019**

**Time: 1:30PM – 5:00PM**

**Location: Research 1, Room 148/154**

If you have any questions about these webinars, please contact the Sponsored Programs Office at [ndsu.research@ndsu.edu](mailto:ndsu.research@ndsu.edu) or call 701-231-8045.

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

[Contact Us](#)



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*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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