Welcome to the Research and Creative Activity Update!

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.

These weekly email updates are archived on the RCA Website.

**FUNDING OPPORTUNITIES**

- DHHS-ACF: Child Maltreatment Reporting, Detection, Prevention
- DHHS: Health Information Technology
- DOE: Wind R&D
- ND NASA EPSCoR: Research and Travel Awards
- NIH: Diet & Physical Activity Assessment Modeling
- NSF: Advancing Informal STEM Learning
- NSF: Major Research Instrumentation
- NSF: Research Traineeship
- NSF: Research Experiences for Undergrads
- NSF-BIO: Research Experiences for Teachers
- NSF-BIO: Research Assistantships for High School Students
- NSF-CMMI: Transforming Advanced Manufacturing
- Spencer Foundation: Education Research

**NEWS & NOTICES**

- RCA Awards Bioinformatics Seed Grants
- New IACUC Guiding Principle
- July Issue of Research Development and Grant Writing News
- Webinar: Air Liquide 2018 Scientific Challenge

**DHHS-ACF: Best Practices for Use of Text and Chat-Based Tech in Child Maltreatment Reporting, Detection, and Prevention**

The purpose of this Funding Opportunity Announcement (FOA) from the Administration for Children and Families (ACF) is to solicit proposals for a grant to develop and expand text and chat-based capabilities for child maltreatment prevention, resource sharing, detection, and reporting. In doing this work, the grantee is required to

(1) determine best practices and protocols pertaining to the use of text and chat-based technology within the child
abuse and neglect reporting context;
(2) identify evidence-based and/or evidence-informed strategies for appropriate communication, identity verification, and privacy protection for youth who may be victims of maltreatment; and
(3) develop strategies for successfully sharing resources with youth who may be experiencing maltreatment.
The protocols and strategies should be widely disseminated and applicable to national hotline environments.
Applicants must possess the capacity to coordinate with hotlines administered by the Administration for Children and Families (ACF) such as the National Domestic Violence Hotline and the National Human Trafficking Hotline. This grant will be for one 24-month project period.
*Application Deadline: August 13, 2018*

**DHHS: Leading Edge Acceleration Projects (LEAP) in Health Information Technology**

Through the proliferation of new methods and advanced solution that are scalable across the health care industry, *this funding opportunity* from the Department of Health and Human Services (DHHS) will address well-documented and fast emerging challenges which inhibit the development, use, and/or advancement of well-designed, interoperable health information technology (IT). New approaches are expected to further a new generation of health IT development and inform the implementation and refinement of standards, methods, and techniques for overcoming major barriers and challenges in an innovative fashion as they are identified. This funding opportunity is specifically interested in innovative solutions and breakthrough advances in the following areas of interest:

(1) expanding the scope, scale, and utility of population-level data-focused APIs; and

(2) advancing clinical knowledge at the point of care.

*Applications will be accepted until 2023*

**DOE: Advanced Wind R&D to Reduce Costs and Environmental Impacts**

DOE's Wind Energy Technologies Office has released a Funding Opportunity Announcement (FOA) entitled "Advanced Wind R&D to Reduce Costs and Environmental Impacts." This FOA will provide up to $6 million in funding to support efforts aimed at catalyzing technical and operational solutions to reduce environmental compliance costs and environmental impacts of land-based and offshore wind turbines. *Cost share is required for this program.*

The FOA will support research under three Topic Areas:

- **Topic Area 1 ($2 million):** Reducing costs and environmental impacts associated with bat curtailment at wind plants through optimized curtailment strategies that align curtailment with periods of highest risk.
- **Topic Area 2 ($2 million):** Developing advanced components and other instrumentation for advanced bat deterrent technologies.
- **Topic Area 3 ($2 million):** Developing offshore wind instrumentation for environmental monitoring and mitigation, such as tools that monitor blade collision or that mitigate the impacts of noise from siting and construction activities.

*Concept papers are due on August 15, 2018, and are required for submission of a full application.*

**ND NASA EPSCoR: Research and Travel Awards**

The North Dakota NASA Established Program to Stimulate Competitive Research (EPSCoR) is soliciting both research seed proposals and travel proposals from faculty at UND and NDSU to conduct NASA-relevant research in one or more Requests For Applications (RFAs) that are designed to promote and expand particular NASA research sub disciplines in North Dakota. Travel awards will be made to collaborate with NASA centers.

One of the primary goals of the RFA research emphasis and the NASA EPSCoR program is to assist faculty in developing research programs that can be funded outside of the NASA EPSCoR program in the future. Therefore, proposers should specifically include a plan to develop and expand their proposal into an independently funded research group beyond the timeframe of this funding opportunity. A goal of ND NASA EPSCoR is also to assist the
development of multiple NASA relevant research clusters in North Dakota. Proposals involving collaboration across departments, universities, and research groups/scientists at NASA Centers, are strongly encouraged.  

Search for collaborators in the Pivot Scholars database >>

The period of performance for both travel awards and research awards is August 16, 2018 - May 5, 2019. The full research RFP, travel RFP, additional details, and downloadable forms can be found on the ND NASA EPSCoR webpage. If you have questions, contact ND EPSCoR.

Application Deadline: August 10, 2018 at noon

NIH: Diet and Physical Activity Assessment Methodology (R01)
This funding opportunity from the National Institutes of Health (NIH), PA-18-856, encourages innovative research to enhance the quality of measurements of dietary intake and physical activity. Applications submitted to this FOA may include development of: novel assessment approaches; better methods to evaluate instruments; assessment tools for culturally diverse populations or various age groups, including children and older adults; improved technology or applications of existing technology; statistical methods/modeling to improve assessment and/or to correct for measurement errors or biases; methods to investigate the multidimensionality of diet and physical activity behavior through pattern analysis; or integrated measurement of diet and physical activity along with the environmental context of such behaviors.

Application Deadline: October 5, 2018; February 5, 2019; June 5, 2019

NSF: Advancing Informal STEM Learning – 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.

Advancing Informal STEM Learning (AISL): Notify RCA by 8/1/2018 at 4:00 p.m. if you intend to apply.

The Advancing Informal STEM Learning (AISL) program seeks to advance new approaches to and evidence-based understanding of the design and development of STEM learning opportunities for the public in informal environments; provide multiple pathways for broadening access to and engagement in STEM learning experiences; advance innovative research on and assessment of STEM learning in informal environments; and engage the public of all ages in learning STEM in informal environments. The AISL program supports six types of projects:

1. Pilots and Feasibility Studies,
2. Research in Service to Practice,
3. Innovations in Development,
4. Broad Implementation,
5. Literature Reviews, Syntheses, or Meta-Analyses, and
6. Conferences

Application deadline: November 7, 2018.

NSF: Major Research Instrumentation (MRI) – 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 Major Research Instrumentation (MRI): Notify RCA by 9/5/2018 at 5:00 p.m. if you intend to apply.

The Major Research Instrumentation (MRI) Program serves to increase access to multi-user scientific and engineering instrumentation for research and research training in our Nation's institutions of higher education and not-for-profit scientific/engineering research organizations. An MRI award supports the acquisition or development of a multi-user research instrument that is, in general, too costly and/or not appropriate for support through other NSF programs. An MRI proposal may request support for either the acquisition or development of a research instrument.
- Track 1: Track 1 MRI proposals are those that request funds from NSF greater than or equal to $100,000 and less than $1,000,000. Two proposal submissions are allowed per organization.
- Track 2: Track 2 MRI proposals are those that request funds from NSF greater than or equal to $1,000,000 up to and including $4,000,000. One proposal submission is allowed per organization.


NSF: Research Traineeship (NRT) – 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 Research Traineeship Program (NRT): Notify RCA by 9/10/2018 at 5:00 p.m. if you intend to apply.

The National Science Foundation (NSF) Research Traineeship (NRT) program is designed to encourage the development and implementation of bold, new, and potentially transformative models for STEM graduate education training. The NRT program seeks proposals that explore ways for graduate students in research-based master’s and doctoral degree programs to develop the skills, knowledge, and competencies needed to pursue a range of STEM careers. The program is dedicated to effective training of STEM graduate students in high priority interdisciplinary research areas, through the use of a comprehensive traineeship model that is innovative, evidence-based, and aligned with changing workforce and research needs.

Letter of Intent Due: December 6, 2018; Full Proposals Due: February 6, 2019

NSF: Research Experiences for Undergraduates

The National Science Foundation (NSF) Research Experiences for Undergraduates (REU) program supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. REU projects involve students in meaningful ways in ongoing research programs or in research projects specifically designed for the REU program. This solicitation features two mechanisms for support of student research:

1. REU Sites are based on independent proposals to initiate and conduct projects that engage a number of students in research. REU Sites may be based in a single discipline or academic department or may offer interdisciplinary or multi-department research opportunities with a coherent intellectual theme. Proposals with an international dimension are welcome.

2. REU Supplements may be included as a component of proposals for new or renewal NSF grants or cooperative agreements or may be requested for ongoing NSF-funded research projects.

Application deadline: August 22, 2018

NSF-BIO DCL: Research Experiences for Teachers

The National Science Foundation (NSF) recently published a Dear Colleague Letter (DCL) regarding a funding opportunity that enables K-12 science educators to participate in projects funded by the Directorate for Biological Sciences (BIO). The goal of the Research Experiences for Teachers (RET) activity is to enhance the professional development of K-12 science educators through research experiences at the emerging frontiers of science in order to bring new knowledge into the classroom. BIO strongly encourages all of its grantees to make special efforts to identify talented teachers who can participate in this RET activity to integrate research and education. Another goal of the RET supplement activity is to build collaborative relationships between K-12 science educators and the NSF research community. BIO is particularly interested in encouraging its researchers to build mutually rewarding partnerships with teachers at urban or rural schools and those in school districts with limited resources.

Read the full letter >>

NSF-BIO DCL: Research Assistantships for High School Students

As a part of a new or renewal National Science Foundation (NSF) proposal or as a supplemental funding request to an
existing NSF Award, the Directorate for Biological Sciences (BIO) will consider requests that:

- Foster interest in the pursuit of studies in the Biological Sciences; and
- Broaden participation of high school students, particularly those who are underrepresented minorities, persons with disabilities, and women in sub-disciplines where they are underrepresented.

Read the full letter >>

NSF-CMMI DCL: Transforming Advanced Manufacturing Core Programs

The National Science Foundation (NSF) recently published a Dear Colleague Letter (DCL) regarding a change in the program description for the Advanced Manufacturing (AM) cluster effective August 15, 2018. Core programs in the AM cluster have been consolidated to form the Advanced Manufacturing (AM) program that addresses fundamental research needed to revitalize American manufacturing to grow the national prosperity and workforce, and to reshape the Nation's strategic industries. The AM program seeks to accelerate advances in manufacturing technologies with emphasis on multi-disciplinary research that fundamentally alters and transforms manufacturing capabilities, methods and practices.

Potential research areas include:

- Manufacturing at all length scales, from nano-to-macro, enabling new paradigms in material processing and structure formation;
- New processes and processing regimes utilizing novel processing conditions - often at the extremes of current conditions or using externally imposed fields;
- Integration of machine learning with manufacturing;
- Materials processing offering unprecedented control and range of the microstructures and properties;
- Surface and interface engineering allowing new engineering structures or levels of performance;
- Innovations in manufacturing machines and processes;
- Cybermanufacturing research enabling leaps in the evolution of network-accessed manufacturing services;
- Processes extending the use of materials in forms beyond their accessed range such as in extreme environments;
- Manufacturing of bio-incorporated and compatible structures.

Effective August 15, 2018, the Manufacturing Machines and Equipment, Materials Engineering and Processing, Nanomanufacturing and Cybermanufacturing programs will no longer be accepting new proposals. Investigators on active awards from these archived programs must still submit project reports and may submit supplemental funding requests.

Read the full letter >>

Spencer Foundation: Education Research

The Spencer Foundation is accepting Letters of Intent from investigators for its Lyle Spencer Research Awards program. Grants of up to $1 million will be awarded in support of intellectually ambitious, large-scale education research projects. In an effort to create much-needed space for creative and ambitious research projects that promise to advance our understanding of educational practice and its improvement, the program encourages proposals from scholars across a variety of disciplines and fields. To be eligible, principal investigators and co-PIs must have an earned doctorate in an academic discipline or professional field, or appropriate experience in an education research-related profession. See the Spencer Foundation website for complete program guidelines, an FAQ, information about previous grant recipients, application procedures, and to register for an informational webinar.

Deadline: Letter of Intent due October 2, 2018

RCA Awards Bioinformatics Seed Grants

The Research and Creative Activity Office has announced awards for Round 5 of the Bioinformatics Seed Grant Program. These seed grants are intended to launch promising new research projects in bioinformatics, bringing them
to the point where they can attract more funding from external sources. Awards have been made for the following projects:

- Teresa Bergholz, Microbiological Sciences  
  Project Title: Identification of genetic elements associated with virulence phenotypes of *Listeria monocytogenes*

- Changhui Yan, Computer Science  
  Project Title: Discovery of genetic variants associated with type 2 diabetes

### New IACUC Guiding Principle

The Institutional Animal Care and Use Committee (IACUC) recently approved the **Pest/Invasive Species Control** Guiding Principle. All IACUC Guiding Principles and accompanying forms/logs can be found on the [NDSU IACUC Guidelines](#) website and [Forms](#) page.

### July Issue of Research Development and Grant Writing News

The July issue of *Research Development and Grant Writing News* is now available to view. Use your NDSU login information to access this resource. Various topics are covered, including:

- It’s Not Easy to Disinvite a Team Member
- Overview of the New Department of Education Institute of Education Science (IES) RFAs
- NSF’s STEM Education for the Future
- How the Department of Education and IES Review Grant Applications

### Webinar: Air Liquide 2018 Scientific Challenge

Air Liquide and NineSigma will host a 1-hour webinar to provide details on the **2018 Scientific Challenge**: Using Essential Small Molecules to Improve Air Quality and Combat Climate Change. **July 31, 2018 | 9 a.m. – 10 a.m.** | [Register](#) | [Questions](#)

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