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.

SEARCH FOR NDSU SCHOLARS

FUNDING OPPORTUNITIES

- DoEd: Graduate Assistance in Areas of National Need
- NIH: National Health and Aging Trends
- NIH: Genome Editing
- NIH: Human-Animal Interaction
- NSF/NIH: Interface of Biological and Mathematical Sciences
- NSF: Computing & Communication Foundations
- NSF/USDA-NIFA: INFEWS

NEWS & NOTICES

- IRB Update: Delay in Implementation of Revisions to Common Rule
- Electronic Research Administration Update

EVENTS

- RCA Staff to Present at Annual Faculty Conference
DoEd: Graduate Assistance in Areas of National Need

The U.S. Department of Education (DoEd) is inviting applications for new awards for the GAANN Program, which provides grants to academic departments and programs of institutions of higher education (IHEs) to support graduate fellowships for students with excellent academic records who demonstrate financial need and plan to pursue the highest degree available in their course of study at the institution. A project must provide fellowships in one or more of the following areas of national need, in an interdisciplinary program of study involving at least two of these areas, or for a multidisciplinary project. A multidisciplinary project is one that requests fellowships for more than a single academic department in one or more of the following areas, and in which each department’s program of study is independent. Four broad areas have been identified as national needs:

1. **Computer and Information Sciences**: Cybersecurity, secure computer programming, and artificial intelligence.

2. **Rebuilding the Nation’s Infrastructure**: The Administration’s Legislative Outline for Rebuilding Infrastructure in America identifies a need for public and private investment in rebuilding the Nation’s infrastructure. To meet this goal, the Nation needs to expand the prepared workforce to ensure timely planning, delivery, and inspection of infrastructure projects. Therefore, there is a national need to increase the number of professional engineers able to facilitate a wide range of infrastructure projects.

3. **National Civic Literacy**: Studies of American adults’ knowledge of American history and institutions have demonstrated low levels of knowledge and that “greater civic knowledge trumps a college degree as the leading factor in encouraging active civic engagement.” In order to improve civic engagement, Americans need a clear understanding of American history and the Western traditions that gave rise to the American Republic.

4. **Workforce Development**: The Nation needs innovative solutions that enable individuals to gain the knowledge and skills necessary to meet workforce demands through shorter-term programs that align with the needs of employers. Professional Science Master’s (PSM) degrees provide such a solution within graduate education. To better meet the Nation’s needs in computer and information sciences and in engineering, PSM programs are included as terminal degree programs chosen for these areas in this competition.

**Cost Share Required**: An institution must provide, from non-Federal funds, an institutional matching contribution equal to at least 25 percent of the grant amount received.

Searching for collaborators? Visit the NDSU Scholars database.

**Applications Due**: August 29, 2018
NIH: National Health and Aging Trends Study (U01)

This funding opportunity announcement (FOA RFA-AG-19-019) invites applications for the next five-year cycle of the National Health and Aging Trends Study (NHATS), the leading nationally representative, longitudinal data resource in the US for research on trends, dynamics, and disparities in late-life disability, and for studies of the social and economic consequences of late-life disability for individuals, families and society, including caregiving and end-of-life issues. NHATS has conducted seven annual rounds of data collection to date (an eighth round is in process) and is linked to the separately funded National Study of Caregiving (NSOC).

The goals of the next cycle are to:
1. Continue the current structure and design elements of NHATS;
2. Permit studies of long-term trends in disability prevalence;
3. Enrich measurement of cognitive capacity;
4. Enhance measurement of physical activity and sedentary behavior;
5. Continue linkages with administrative records; and
6. Augment data dissemination and user support.

*Letter of Intent Due: September 1, 2018; Applications Due: October 1, 2018*

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NIH: Expanding the Human Genome Engineering Repertoire (U01)

To maximize the potential of genome editing technology to treat as many diseases as possible, the NIH Somatic Cell Genome Editing (SCGE) program has been developed to accelerate the translation of genome editing technology into clinical applications. The key components of the SCGE program include:

1. better animal models for assessing genome editing in vivo (SCGE Animal Models, RFA-RM-18-012, RFA-RM-18-013, and RFA-RM-18-014);
2. tools and assays to detect adverse consequences of genome editing in human cells (SCGE Biological Systems, RFA-RM-18-015, RFA-RM-18-022, and RFA-RM-18-025);
3. new technologies to deliver genome editing machinery into disease-relevant cells and tissues in vivo (SCGE Delivery Technologies, RFA-RM-18-016 and RFA-RM-18-023);
4. novel genome editing and engineering systems (SCGE Editing Systems, RFA-RM-18-017 and RFA-RM-18-024); and
5. the SCGE Dissemination and Coordinating Center (SCGE DCC, RFA-RM-18-018).

The SCGE DCC will make the results, tools and technologies developed under this program widely available to facilitate adoption for translation into clinical applications.

The deliverables of the SCGE program will be a collection of tools, methods, data, and best practices that will accelerate development and testing of new treatments for many diseases (i.e., the SCGE Toolkit for Therapeutic Genome Editing or SCGE Toolkit). The SCGE program will involve collaborative research by a partnership of genome editing experts, delivery systems experts, animal model creators and testers, and assay developers to produce validated techniques and knowledge through exchange of expertise, information and research tools.
Awardees from all five SCGE program components will form a consortium, governed by a steering committee of investigators and NIH staff that will develop consensus policies and procedures for consortium-wide activities such as data and resource sharing. It is expected that all awardees will collaborate to accelerate the translation of genome editing technologies into treatments for human disease.

*Deadlines vary, depending on the selected RFA.*

### NIH: Human-Animal Interaction (HAI) Research (R21)

This Funding Opportunity Announcement ([FOA PAR-18-650](https://grants.nih.gov/grants/guide/pa-foa.html?Term=PAR-18-650)) invites grant applications for research to examine

1. the impact of Human-Animal Interactions (HAI) on typical and atypical child development and health;
2. the evaluation of animal-assisted intervention for children and adults with disabilities or in need of rehabilitative services;
3. the effects of animals on public health, including cost effectiveness of involving animals in reducing and preventing disease.

A solid research base is needed focusing on information about how children perceive, relate to and think about animals and how pets in the home impact children's social-emotional and cognitive development. In addition, research is needed on the impact of pets in the home on children's health-related behaviors (e.g. dog walking and the mitigation of obesity). On a practical level, issues such as at what age and how parents select and introduce pets into their home has important implications for child health and safety, e.g. how best to prevent injury or disease from pets. There is a need for evidence-based advice for parents and child care professionals. There also is a need for more research on Animal-Assisted Interventions (AAIs), including Animal-Assisted Therapies (AAT), which purposefully include an animal for therapeutic gains in humans across the lifespan.

*Applications due: March 30, 2019 (Letter of Intent due 30 days prior to application due date)*

### NSF / NIH: Research at the Interface of the Biological and Mathematical Sciences

The Division of Mathematical Sciences (DMS) in the Directorate for Mathematical and Physical Sciences (MPS) at the National Science Foundation (NSF) and the National Institute of General Medical Sciences (NIGMS) at the National Institutes of Health (NIH) plan to support fundamental research in mathematics and statistics necessary to answer questions in the biological and biomedical sciences. Both agencies recognize the need to promote **research at the interface between mathematical and life sciences**. This program is designed to encourage
new collaborations, as well as to support innovative activities by existing teams.  

*Application Submission Window: October 1-18, 2018*

**NSF: Computing and Communication Foundations (CCF): Core Programs**

The Division of Computing and Communication Foundations (CCF) supports transformative research and education projects that explore the foundations of computing and communication. CCF supports four core programs: Algorithmic Foundations (AF), Communications and Information Foundations (CIF), Foundations of Emerging Technologies (FET) and Software and Hardware Foundations (SHF). CCF-supported projects also integrate research and education activities to prepare future generations of computer science and engineering workers. Proposals submitted to this solicitation must be consistent with one of two project classes defined below.

Proposals will be considered for funding within their project classes:

- **Small Projects**, with total budgets up to $500,000 for durations of up to three years, are well suited to one or two investigators (PI and one co-PI or other Senior Personnel) and at least one student and/or postdoc.

- **Medium Projects**, with total budgets ranging from $500,001 to $1,200,000 for durations up to four years, are well suited to one or more investigators (PI, co-PI and/or other Senior Personnel) and several students and/or postdocs. Medium project descriptions must be comprehensive and well-integrated, and should make a convincing case that the collaborative contributions of the project team will be greater than the sum of each of their individual contributions. Rationale must be provided to explain why a budget of this size is required to carry out the proposed work.

*Application Window: September 24-October 2, 2018 (MEDIUM projects); November 1-15, 2018 (SMALL projects)*

**NSF and USDA-NIFA: Innovations at the Nexus of Food, Energy and Water Systems (INFEWS)**

The National Science Foundation (NSF) and the United States Department of Agriculture (USDA) announced a joint funding program: Innovations at the Nexus of Food, Energy and Water Systems (INFEWS). The overarching goal of INFEWS is to catalyze the well-integrated interdisciplinary research efforts to transform scientific understanding of the FEW nexus in order to improve system function and management, address system stress, increase resilience, and ensure sustainability. This program fits within NDSU’s strategic research themes. You can view this funding opportunity through the [NSF Solicitation](#), or the [USDA-NIFA RFA](#).

*Application Deadline: September 26, 2018.*
IRB Update: Delay in Implementation of Revisions to Common Rule

On June 18, 2018, HHS and 16 other federal departments and agencies announced a delay for an additional 6 months of the general compliance date of the revisions to the Common Rule. This rule allows institutions to implement three 'burden-reducing' provisions during the delay period including:

1. The revised definition of 'research', which deems certain activities not be research;
2. The allowance for no annual continuing review of certain categories of research; and
3. The elimination of the requirement that institutional review boards review grant applications or other funding proposals related to the research.

If institutions choose to implement these three provisions, such projects will be required to comply with the 2018 Requirements beginning January 21, 2019. The NDSU IRB continues to explore the feasibility of a partial implementation of our revised SOPs addressing the revised Common Rule. NDSU will continue to utilize the revised consent template for non-exempt research which was developed in response to the changes. The NDSU IRB will explore the feasibility of modifying continuing review procedures for new protocols falling under our HHS Assurance and projects up for continuing review between now and January 21, 2019. Research subject to FDA regulations or requiring review at a convened meeting will still require annual continuing review.

Electronic Research Administration System Update

In 2015, NDSU embarked on an effort to bring the first web-based electronic research administration and compliance system to campus. After a rigorous RFP process, Novelution Corp. was selected in mid-2016. Starting in 2002 as a custom web application software consultancy, Novelution has been designing, implementing, hosting, and supporting tailored enterprise electronic research administration software since 2006. At present, Novelution has fully shifted their company focus to only advancing research administration solutions. Members from the Sponsored Programs & Business Development units (under the VP for Research and Creative Activity) and members from Grant & Contract Accounting (under the VP for Finance and Administration) were identified as the initial Core Team. This Core Team has spent the last 2 years working with developers from Novelution on the sponsored research module, the first of 6 modules that will be deployed. The sponsored research module includes the ability to electronically complete and route proposals, budget preparation, electronic proposal approvals by departments and colleges, and submissions. The system will interface with PeopleSoft, and will create additional efficiencies for sharing data between Sponsored Programs and Grant & Contract Accounting. Additional modules that will be implemented (in order) are IRB, IACUC, IBC, COI and Effort Reporting. After months of development and continual iterative testing by the
sponsored research Core Team, the next phase is to identify faculty and
department/college user groups to assist in additional iterative testing. An initial roll-out
effort to campus is targeted to begin immediately after final user acceptance
testing.

RCA Staff to Present at NDSU’s Annual Faculty Conference – August 17, 2018
Research and Creative Activity staff involved with sponsored programs
administration and research integrity will be presenting during the concurrent
sessions at the August 17th Annual Faculty Conference in the NDSU Memorial
Union. Topics and session times include:

9:30 - 10:20 a.m. | Developing Proposal Budgets and Budget Justifications
Presented by Cindy Eleson and Vicki Miller
This session includes an introduction to proposal budgets, budget justifications
and a breakdown of cost categories.

10:30 – 11:20 a.m. | Getting Started: Research and Grants at NDSU
Presented by Amy Scott and Jill Mackenzie
This session is geared toward new faculty and will include an introduction to the
processes one needs to know to get started with research and grants at
NDSU. Topics covered include the grant proposal process, proposal transmittal
forms, and resources on the web.

1:00 - 1:50 p.m. | Hot Topics in Research Integrity and Faculty Research
Support at NDSU
Presented by Kristy Shirley, Julie Sherwood, Josie Hayden, and Sharon May
This session will include a basic overview of review processes for the IACUC
(animal care and use), IBC (biosafety) and IRB (human subjects) committees,
updates on recent and upcoming regulatory changes, information on export
controls, and a discussion of requirements for disclosing and managing potential
conflicts of interest.

For more information, visit the Faculty Conference Website.

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