

July 8, 2019

NDSU Assistant Professor Receives NSF CAREER Award

NDSU Assistant Professor Britt Heidinger recently received a \$1.29 million National Science Foundation CAREER Award. The NSF CAREER Award is the agency's most prestigious recognition for early stage faculty and supports scholars who are likely to become the academic leaders of the 21st century. Recipients are chosen on the basis of creative career development plans that integrate research and education within the context of their university's mission. Approximately 600 individuals are awarded each year.



Heidinger studies how organisms cope with stressful and changing environments and this five-year award will provide funding for research into how body size is impacted by climate in a familiar backyard bird, the house sparrow (*Passer domesticus*). In the mid 1800's, house sparrows were introduced into the U.S. from Europe and quickly spread across the country. Around this same time, a scientist named Bergmann noticed that animals are often larger at Northern than Southern latitudes and

suggested that this was because larger individuals are better able to retain heat in colder temperatures while smaller individuals are better at dissipating heat in warmer ones.

Consistent with his idea, within 100 years of introduction to the U.S., house sparrows were larger in the Northern than the Southern part of the country. Over the past 50 years, average temperatures have risen, and house sparrows are predicted to have shrunk, particularly in areas that have experienced greater increases in winter temperatures, such as North Dakota. But, not much is known about how these rapid changes in body size occur. Heidinger will use a combination of historical museum specimens, experiments and molecular techniques to investigate how body size has changed in response to rising temperatures.

While Heidinger's avian research experience frames the direction of her project, it also features an education component of providing REU opportunities for American Indian undergraduates. Students at United Tribes Technical College in Bismarck, ND and Oglala Lakota College in Kyle, SD will take part in the research. "I wanted to find a local need to help frame the direction of my NSF CAREER Award application and my experience providing STEM learning opportunities for American Indian students provided it. Besides creating research opportunities in the students' home areas, this will also extend the footprint of the study itself," she said. Heidinger notes that her time as co-director of the ND ESPCoR Nurturing American Tribal Undergraduate Research and Education (NATURE) Sunday Academy Program at NDSU gave her the perspective required for this aspect of the study.

In addition to upper Midwest resources, Heidinger will partner with individuals from the Biodiversity Institute & Natural History Museum at the University of Kansas. Through this partnership, she discovered specimens of house sparrows and the accompanying data from a research project in the 1970s that she hopes will provide an important historic perspective. At the conclusion of her study, she will share her data with the museum to

assist future researchers. In addition, individuals from the University of Kansas, Oklahoma State University and Louisiana State University will also contribute to the study.

NSF CAREER awardees at NDSU have received more than \$10 million in grants to conduct research in biology, biochemistry, chemistry, civil and electrical engineering, computer science, geosciences, pharmaceutical sciences, plant sciences, coatings and polymeric materials, and veterinary and microbiological sciences.



Congratulations to all award recipients from May 2019!

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 >>](#)

TEDxFargo

TEDxFargo 2019 will be held on July 25th, 2019 in the Fargo Civic Center.

The Research and Creative Activity office has a limited number of free tickets which will be made available to NDSU faculty, staff, and students

on a first-come, first-served basis. Please send an email to ndsu.researchdev@ndsu.edu to reserve your ticket.

Research ND Program & Final Application Deadline

The passage of Senate Bill 2224 by the North Dakota Legislative Assembly set the end of the Research ND program to June 30, 2021. ***This includes Venture Grants.*** All projects must be completed and final reports submitted to the North Dakota Department of Commerce by this date.

In addition, ***one more application opportunity remains for this program.*** Commerce has set the ***final*** application deadline for August 16, 2019. Only Research ND and Venture Grant Phase II applications will be accepted. Any applications funded from the August 16, 2019 submissions must be completed by June 30, 2021. Please plan accordingly.

Information on the Research ND program and Venture Grants can be found on the [Research ND webpage](#).

EXPORT CONTROLS FAQs

Q: I'm bringing an international visitor to campus, is there anything I need to do in advance?

A: Generally speaking, the export control regulations permit U.S. universities to allow foreign nationals (e.g., students, faculty, academic appointees, and non-employee participants in University programs) to

participate in fundamental research projects without securing a license, provided there are no controls on publication or access restrictions. We may also share with foreign nationals in the U.S. or abroad 'technology' or 'software' that arises during, or results from, fundamental research and is intended to be published. This carve-out is known as the Fundamental Research Exclusion, or the FRE. The export control regulations also permit U.S. universities to release information by instruction, also without securing a license.

However, it is important to note that even in the conduct of fundamental research and instruction, an export control license may be required if the project involves the exchange of export-controlled information, access to export-controlled technology, a non-research function (e.g., a service agreement) where there is access to export-controlled technology, or access to ITAR-controlled equipment.

If you have questions, please contact the NDSU Export Control Office at ndsu.exportcontrols@ndsu.edu for more information and assistance.

CONTENTS

FUNDING OPPORTUNITIES

- [NDSU Impact Fund](#)
- [NEH Media Projects](#)
- [NEH: Summer Stipends](#)
- [NIH: Collaborative Program Grant for Multidisciplinary Teams \(RM1\)](#)
- [NSF: Critical Aspects of Sustainability](#)

- [NSF: Division of Chemistry Disciplinary Research Programs](#)
- [NSF: Innovations in Graduate Education](#)
- [NSF: Major Research Instrumentation](#)
- [NSF: Research Traineeship Program](#)
- [ONR: FY2020 Young Investigator Program](#)

EVENTS & NOTICES

- [CoSearch at NDSU - Registration Open](#)
- [NIH Late Application Policy](#)
- [NSF Proposal Submissions using Research.gov](#)



Need to update your profile?
Click here to learn how!

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.

- [NSF Innovations in Graduate Education](#)
Notification Deadline: July 12, 2019
- [NEH Summer Stipends Program](#)
Pre-Proposal Deadline: July 26, 2019
- [NSF Major Research Instrumentation \(MRI\)](#)
Notification Deadline: September 5, 2019
- [NSF Research Traineeship \(NRT\)](#)
Notification Deadline: September 9, 2019
- [NIH Collaborative Program for Multidisciplinary Teams \(RM1\)](#)
Notification Deadline: September 9, 2019

NDSU Foundation and Alumni Association: Impact Fund

The NDSU Foundation and Alumni Association Grants Committee is now accepting applications for the Impact Fund Grant Program.

The NDSU Impact Fund Grant Program provides funding for projects that have a direct and positive impact on the lives of students. Annual contributions from alumni and friends of the University support this fund.

Applications are accepted from faculty, staff and recognized student groups.

The Impact Grant Fund Program offers grants of \$20,000 to \$75,000.

Find the application form and additional information for the NDSU Impact Grant Program at the NDSU Foundation website:

<https://www.ndsufoundation.com/impact-fund>.

For any further questions, please email Jennifer Reinhold, Grants Committee Liaison, at jennifer@ndsualumni.com.

Application Deadline: August 5, 2019 by 5 p.m.

^^

NEH: Media Projects - Production Grants

The National Endowment for the Humanities (NEH) Division of Public Programs is accepting applications for the [Media Projects: Production Grants program](#).

This program supports the production and distribution of documentary film, television, radio, and podcast projects that engage public audiences with humanities ideas in creative and appealing ways. All projects must be grounded in humanities scholarship in disciplines such as history, art history, film studies, literature, religious studies, philosophy, or anthropology.

Levels of funding:

Development grants (\$40,000 to \$75,000) enable media producers to collaborate with scholars to develop humanities content and to prepare programs for production. Awards should result in a script (for documentary film and television programs) or detailed treatment(s) (for radio programs and podcasts). They may also yield a detailed plan for outreach and public engagement in collaboration with a partner organization or organizations.

Production grants (\$100,000 to \$650,000) support the production and distribution of documentary films, television programs, radio programs, and podcasts.

Chairman's Special Awards (up to \$1 million) are offered for projects of

exceptional significance, audience reach, and complexity. A Chairman's Special Award project should examine important humanities ideas in new ways and demonstrate the potential to reach especially large audiences. These goals can often be accomplished through combining a variety of program formats, forming creative collaborations among diverse institutions, and significantly expanding the scope and reach of the project.

Application deadline: August 14, 2019



NEH: Summer Stipends - 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 Summer Stipends: The internal NDSU deadline for pre-proposals is 4pm on July 26, 2019. [Contact Christina Weber](#) for the pre-proposal requirements.

[NEH Summer Stipends](#) support individuals pursuing advanced research that is of value to humanities scholars, general audiences, or both. Eligible projects usually result in articles, monographs, books, digital materials and publications, archaeological site reports, translations, or editions. Projects must not result solely in the collection of data; instead they must also incorporate analysis and interpretation. Summer Stipends support continuous full-time work on a humanities project for a period of two consecutive months. Summer Stipends support projects at any stage of development. Up to two applicants may be nominated by their institution.

Application deadline: September 25, 2019 (for projects beginning May 2020)

NIH Collaborative Program Grant for Multidisciplinary Teams (RM1) – 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 9/9/2019, 5:00 p.m. if you intend to apply.

This National Institutes of Health (NIH) funding opportunity announcement (FOA / PAR-17-340) 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.

NSF: Critical Aspects of Sustainability

This funding opportunity includes the following:

- Division of Chemistry (CHE)
- Division of Materials Research (DMR)

- Division of Chemical, Bioengineering, Environmental and Transport Systems (CBET)
- Division of Civil, Mechanical and Manufacturing Innovation (CMMI)
- Division of Earth Sciences (EAR)

Economic development and human progress have led to a proliferation of manufactured chemicals and materials made from limited resources found in nature (i.e., minerals and metals, petroleum-based products and natural gas). Long-term sustainability requires consideration of the availability of specific natural resources, energy, and water usage. NSF continues to support efforts that seek to improve the efficiency with which natural resources are used to meet human needs for products and services. Sustainability research encompasses the design, manufacture and use of efficient, effective, safe and more environmentally-benign products and processes; stimulates innovation across all sectors to design and discover new chemicals and materials, production processes, and product stewardship practices; and, increases performance and value while meeting the goals of protecting and enhancing human health and the environment.

This program seeks to support basic research through core disciplinary programs aimed at improving the sustainability of resources for future generations while maintaining or improving current products in order to offer technologically-advanced, economically competitive, environmentally-benign and useful materials to a global society. In order to address these challenges, the program aims to identify opportunities for innovation in a wide range of contributing disciplines as well as integrative activities. This program encourages the development of new experimental and theoretical/modeling approaches that will aid in both reductionist and whole-systems approaches.

Proposal due dates vary by Division. Please see the funding announcement [[NSF PD 19-9102](#)] for detailed submission information.

NSF: Division of Chemistry - Disciplinary Research Programs

This solicitation [[NSF 19-577](#)] applies to nine CHE Disciplinary Chemistry Research Programs. It represents a new and enhanced mechanism for the chemistry research community to submit individual or small team research proposals to the NSF Division of Chemistry's disciplinary research programs. Proposers may submit only one proposal to the CHE Disciplinary Research Programs as the PI, co-PI or senior personnel per fiscal year. The projects supported by CHE explore the frontiers of chemical science, develop the foundations for future technologies and industries that meet changing societal needs, and prepare the next generation of chemical researchers.

Some of the areas supported by CHE include:

- designing, synthesizing and characterizing new molecules, catalysts, surfaces, and nanostructures - especially those with a focus on sustainability;
- increasing our fundamental understanding of chemical species and their chemical transformations, kinetics, and thermodynamics;
- developing new tools and novel instrumentation for chemical discovery, including those in sensing, communication, and data discovery science where increasing volumes and varieties of data are harnessed to advance innovation;
- determining structure-function relationships in biological systems and contributing to our understanding of the fundamental rules of life;
- observing, manipulating, and controlling the behavior of matter and energy in nanometer dimensions such as the quantum regime;
- understanding chemical processes in the environment; and
- solving complex chemical problems by the development of new theories, computations, models, and tools, including the synergistic combination of multiple types of instruments.

Submission Windows:

September 1, 2019 – September 30, 2019

All proposals to: Chemical Catalysis (CAT); Chemical Structure, Dynamics and

Mechanisms-A (CSDM-A); Chemical Structure, Dynamics and Mechanisms-B (CSDM-B); Chemical Theory, Models and Computational Methods (CTMC); and Chemical Synthesis (SYN).

October 1, 2019 – October 31, 2019

All proposals to: Chemical Measurement and Imaging (CMI); Chemistry of Life Processes (CLP); Environmental Chemical Sciences (ECS); and Macromolecular, Supramolecular and Nanochemistry (MSN).

^^

NSF Innovations in Graduate Education - 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 IGE: Notify RCA by 7/12/2019, 4:00 p.m. if you intend to apply.

The National Science Foundation Innovations in Graduate Education (IGE) Program [NSF 17-585] is designed to encourage the development and implementation of bold, new, and potentially transformative approaches to STEM graduate education training. The 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.

IGE focuses on projects aimed at piloting, testing, and validating innovative and potentially transformative approaches to graduate education. IGE projects are intended to generate the knowledge required for their customization, implementation, and broader adoption. The program supports testing of novel

models or activities with high potential to enrich and extend the knowledge base on effective graduate education approaches.

The program addresses both workforce development, emphasizing broad participation, and institutional capacity building needs in graduate education. Strategic collaborations with the private sector, non-governmental organizations (NGOs), government agencies, national laboratories, field stations, teaching and learning centers, informal science centers, and academic partners are encouraged.

LIMITED SUBMISSION: An eligible organization may participate in two Innovations in Graduate Education proposals per competition. **Participation includes serving as a lead organization on a non-collaborative proposal or as a lead organization, non-lead organization, or subawardee on a collaborative proposal.** Organizations participating solely as evaluators on projects are excluded from this limitation.

An individual may serve as Lead Principal Investigator (PI) or Co-PI on only one proposal submitted to the IGE program per annual competition.



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 MRI: Notify RCA by 9/5/2019, 5:00 p.m. if you intend to apply.

The National Science Foundation Major Research Instrumentation (MRI) Program [NSF 18-513] 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. **Cost sharing of precisely 30% of the total project cost is required.**

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.

LIMITED SUBMISSION: The MRI program requires that an MRI-eligible organization may, as a performing organization, submit or be included as a significantly funded subawardee in *no more than three MRI proposals*. Each performing organization is limited to a maximum of three proposals in the “Tracks” as defined above, with no more than two submissions in Track 1 and no more than one submission in Track 2.

^^

NSF Research Traineeship Program (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 NRT: [Notify RCA](#) by 9/9/2019, 5:00 p.m. if you intend to apply.

The National Science Foundation (NSF) Research Traineeship (NRT) program [[NSF 19-522](#)] 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 masters 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. The NRT program addresses workforce development, emphasizing broad participation, and institutional capacity building needs in graduate education. Strategic collaborations with the private sector, non-governmental organizations (NGOs), government agencies, national laboratories, field stations, teaching and learning centers, informal science centers, and academic partners are encouraged.

The NRT Program has announced the program's priority areas for FY2019 and FY2020. For FY2019 and FY2020, the NRT Program requests *proposals in any interdisciplinary research theme of national priority*, with special emphasis on the six [NSF Research Big Ideas](#). The NSF Research Big Ideas are Harnessing the Data Revolution (HDR), The Future of Work at the Human-Technology Frontier (HTF), Navigating the New Arctic (NNA), Windows on the Universe: The Era of Multi-Messenger Astrophysics (WOU), The Quantum Leap: Leading the Next Quantum Revolution (QL), and Understanding the Rules of Life: Predicting Phenotype (ROL).

LIMITED SUBMISSION: An eligible organization may participate in *two proposals* per competition. **Participation includes serving as a lead organization, non-lead organization, or subawardee on any proposal.** Organizations participating solely as evaluators on projects are excluded from this limitation.

ONR: FY2020 Young Investigator Program

The Office of Naval Research (ONR) [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 January 1, 2012, 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 (S&T) research program, to support their research, and to encourage their teaching and research careers.

An individual wishing to apply for the Young Investigator Program must submit a research proposal and at least one letter of support through NDSU Sponsored Programs Administration. Proposals addressing research areas (as described in the ONR Science and Technology Department section of ONR's website at www.onr.navy.mil) which are of interest to ONR program officers will be considered. Contact information for each division (a subgroup of an S&T Department) is also listed within the S&T section of the website. Applicants are ***strongly encouraged*** to contact the appropriate Program Officer who is the point of contact for a specific technical area to discuss their research ideas.

Application Deadline: August 16, 2019

[^^](#)

CoSearch NDSU - Registration Open

On **October 25th and 26th**, NDSU researchers will have 30 hours to share a research idea, hone the idea with an interdisciplinary team they meet at the event and pitch the idea to a panel of judges. CoSearch is open to all faculty members who are interested in collaboration and research, and it is an exciting opportunity for researchers from a variety of disciplines to bring their perspectives and work together to solve real-world problems.

For more information and to register, visit <http://cosearchndsu.com>.

^^

NIH Late Application Policy

As described on the [NIH Website](#) and in the NIH Late Application policy ([NOT-OD-15-039](#)) an on time application is an application that is submitted error-free by the due date. Applicant organizations can reject an application within the two-day viewing window and submit a *Changed/Corrected Application* which automatically replaces the original submission; however, for the *Changed/Corrected Application* to be considered on time, applicants must complete its submission by the application due date/deadline. NIH recommends applicants to submit early, at least two days before the due date; submitting early, provides time (=viewing window) to track the application, make any corrections needed to address errors & warnings (detected by Grants.gov and/or eRA) and/or other issues noted by the applicant in the e-application PDF generated in the eRA system, and submit a corrected application by the due date.

^^

NSF Proposal Submissions Using Research.gov

The National Science Foundation (NSF) has announced that as of June 24, 2019, the research community can prepare and submit full, research collaborative proposals with subawards in Research.gov. This is in addition to the existing capability (since April 2018) to prepare and submit full, research non-collaborative proposals in Research.gov. Since that initial release just over a year ago, the NSF has implemented several enhancements to the site, including additional flexibilities for PDF uploads, support for PDFs generated from LaTeX source documents, and compliance checks for fonts and font sizes.

Future enhancements to the Research.gov proposal system will allow the preparation and submission of separately submitted collaborative proposals from multiple organizations.

Compared to FastLane, the NSF grants management system launched in 1994, the Research.gov proposal system is much easier to use and provides proposers with faster document uploads and the ability to quickly create and update documents. NSF is encouraging PI's to try the new system, and is confident that PI's will find that this next generation grants management system is more efficient and less burdensome than FastLane.

Also, as of June 24, 2019, a new email notification functionality was implemented to generate Sponsored Project Office (SPO)/Authorized Organizational Representative (AOR) email notifications when Principal Investigators (PIs) enable proposal access to SPOs/AORs. A similar email notification is available in FastLane, and that capability has been added in Research.gov.

See the [NSF Research.gov](https://www.nsf.gov/researchgov) website for more information on this new system including instructions on initiating a proposal, submitting a proposal, and training resources available.

IT system-related questions should be sent to the NSF Help Desk at 1-800-381-1532 or rgov@nsf.gov. Policy-related questions should be directed to policy@nsf.gov. Other submission questions should be directed to Sponsored Programs, at ndsu.research@ndsu.edu.

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.

North Dakota State University does not discriminate on the basis of age, color, disability, gender expression/identity, genetic information, marital status, national origin, public assistance status, race, religion, sex, sexual orientation, or status as a U.S. veteran. Direct inquiries to: Equal Opportunity Specialist, Old Main 201, 701-231-7708 or Title IX/ADA Coordinator, Old Main 102, 701-231-6409.