NDSU OFFICE OF RESEARCH AND CREATIVE ACTIVITY

RCA UPDATE

June 10, 2019

NDSU Research Proves Area Fish Species Lives Beyond 100 Years

Research recently completed at NDSU has proven that the Bigmouth Buffalo (*Ictiobus cyprinellus*), a fish native to North America, lives more than eight decades longer than previously thought.

The study published in *Communications Biology* documents several individuals more than 100 years of age, with one at 112 years, which more than quadruples all previous age estimates for this species. In addition, many populations were documented to be 85-90 percent comprised of individuals more than 80 years old, suggesting unsuccessful reproduction since the 1930s.

The Bigmouth Buffalo is now known as the longest-lived freshwater teleost (a group of approximately 12,000 species) and the oldest age-validated freshwater fish (a group of about 14,000 species).

A research team led by Alec R. Lackmann, doctoral graduate research assistant in the NDSU Department of Biological Sciences, recently published their work about aging the fish.

Learn more about the team's research >>

Grants.gov has been publishing a "Grant Writing Basics" Blog Series. Topics covered include:

- Peer Review Panels and the Federal Grant Application Evaluations Process
- Understanding the Funder before Writing
- 3 Tips for Crafting Need Statements in Federal Grant Proposals
- How to start working on Future Funding Opportunities

To view these and other entries, visit the Grant Writing Basics category of the Grants.gov blog.

Effective Practices for Data

The National Science Foundation (NSF) recently published a Dear Colleague Letter (DCL) to describe and encourage effective practices for managing *research data*, including the use of persistent identifiers (IDs) for data and machine-readable data management plans (DMPs). Below are excerpts from the letter.

Per 2 CFR 200.315, "research data" refers to "the recorded factual material commonly accepted in the scientific community as necessary to validate research findings, but not any of the following: preliminary analyses, drafts of scientific papers, plans for future research, peer reviews, or communications with colleagues. This 'recorded' material excludes physical objects (e.g., laboratory samples). Research data also do not include: (i) Trade secrets, commercial information, materials necessary to be held confidential by a researcher until they are published,

or similar information which is protected under law; and (ii) Personnel and medical information and similar information the disclosure of which would constitute a clearly unwarranted invasion of personal privacy, such as information that could be used to identify a particular person in a research study."

NSF's Data Management Plan (DMP) requirement specifies that every proposal submitted to NSF must include a supplementary document of no more than two pages, titled "Data Management Plan." This document should describe how activities described in the grant proposal will conform to NSF policy on the dissemination and sharing of research results.

As early as January 2013, NSF allowed principal investigators (PIs) to report data products in their biographical sketches. This extension **put scientific data sets on a standing equal to** traditional publications, such as peer-reviewed journal articles, juried conference papers, book chapters, and monographs.

For information on allowable costs for data management and effective data practices, please see the complete NSF Dear Colleague Letter.

Note: NDSU has partnered with the DMPtool collaboration to facilitate use of the web tool provided at www.dmptool.org for the creation of customized Data Management Plans tailored to the requirements of various funding agencies. Currently you are able to use NDSU login credentials to access the DMP resources and tools.

EXPORT CONTROLS
PI and Export Controls

The Principal Investigator (PI) on a given project has the best understanding of his or her research and, therefore, is best suited for determining whether the particular technology, data, or information in that research may have export control issues.
Answering these questions will guide the PI in determining export control issues:

- Are you shipping equipment to a foreign country?
- Are you collaborating with foreign colleagues in foreign countries?
- Are you training foreign nationals in using equipment?
- Are you working with a country subject to US boycott (Cuba, Iran, North Korea, Sudan, Syria, Crimea region of Ukraine)?
- Is the RFP marked “Export Controlled”?
- Is the sponsor requiring pre-approval rights over the publications or participation of foreign nationals?

If you answer YES to any of these questions, a license determination must be made by the NDSU Export Controls office;
contact ndsu.exportcontrols@ndsu.edu for more information and assistance.

CONTENTS

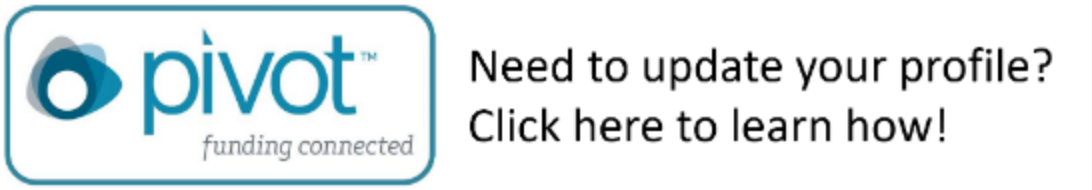
FUNDING OPPORTUNITIES

- Defense Health Program: Accelerating Innovation in Military Medicine
- Farmers Advocating for Organic Grant Program
- ND NASA EPSCoR: Travel and Research RFPs
- NDSU Foundation and Alumni Association: Impact Fund

- NEH: Summer Stipends
- NIH Forecasted Opportunity: Secondary Analyses of Existing Datasets of Tobacco Use and Health
- NSF: International Research Experiences for Students
- NSF: Opportunities for Promoting Understanding through Synthesis
- NSF: Research Experiences for Undergraduates (REU)
- Spencer Foundation: Small Research Grants on Education

NOTICES

- Save the Date: CoSearch NDSU
- Save the Date: NDSU EXPLORE 2020



Defense Health Program: Accelerating Innovation in Military Medicine

Applications submitted to the FY19 Accelerating Innovation in Military Medicine (AIMM) initiative [W81XWH-19-DMRDP-AIMM] must address at least one of the following Focus Areas:

- Algorithms/tools for decision support in a deployed or operational environment to: diagnose military-relevant disease, illness, or injury; prescribe mitigation and treatment strategies; and/or determine risk of Warfighter return to duty.
- Artificial Intelligence (AI)/deep learning for integrating heterogeneous data streams and analyzing data from wearables to support making informed healthcare decisions. Wearable sensor systems may pertain to, but are not limited to, the following or combinations of the following: infectious disease diagnosis; physiologic status monitoring; informing real-time casualty location and triage; and/or environmental monitoring.
- AI/deep learning for analyzing and interrogating large medical data sets to: identify patterns/predictors of disease, illness, or injury; and/or identify treatment outcomes.

Important aspects of the AIMM initiative are as follows:

- Supports highly creative and conceptually innovative high-risk research with the potential to accelerate critical discoveries or major advancements that will significantly impact military health and medicine; not intended to support incremental advances on previous or ongoing work.
- Supports applied research efforts that initiate or enhance potential game-changers that may not be supported by other funding mechanisms or core programs.
- Applications must address at least one of the FY19 Focus Areas, which include algorithms/tools for decision support in a deployed or operational environment, and AI/deep learning for integrating heterogeneous data streams and analyzing data from wearables to support making informed

healthcare decisions, as well as for analyzing and interrogating large medical data sets
- Cross-cutting, broadly applicable projects with the potential to benefit multiple DoD medical research program areas are highly encouraged.
- Presentation of preliminary data is not required, though not prohibited.
- Maximum funding of **$350,000** for direct costs (plus indirect costs)
- Maximum period of performance is **18 months**

A pre-application is required and must be submitted through the electronic Biomedical Research Application Portal (eBRAP) at https://eBRAP.org prior to the pre-application deadline. All applications must conform to the final Program Announcement and General Application Instructions available for electronic downloading from the Grants.gov website.

Pre-proposal deadline: July 26, 2019 (4:00PM Central Time)

^^

Farmers Advocating for Organic Grant Program

Farmers Advocating for Organic (FAFO) is a grant program funded entirely by annual, voluntary contributions from Organic Valley farmers. It's the largest farmer-funded grant program in the U.S. and one of the few focused solely on organic.

Grants are awarded to research, education and advocacy projects that advance FAFO's mission: to protect and promote the organic industry and the livelihood of organic farmers. Within this context, FAFO is currently prioritizing projects that focus on *Understanding Organic* (Projects that result in broader consumer and public understanding of the benefits of organic food and farming).

Academic institutions are eligible to submit a Letter of Interest (LOI) via the FAFO online grant portal. Average grant awards are $20,000.

Letter Of Interest Deadline: September 1, 2019

^^

ND NASA EPSCoR: Travel and Research

The North Dakota NASA Established Program to Stimulate Competitive Research (EPSCoR) is soliciting research and travel proposals from faculty at affiliate institutions (including 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.

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.

*Seed research proposals are due at **noon on July 15, 2019.***

- Travel RFP
- Research RFP
- Cover Sheet for Travel and Research Proposals
- Budget Sheet

NDSU applicants:

- If there ***are no*** required match elements in this solicitation, once you've completed the application with NDSU Sponsored Programs Administration, please share a copy of your proposal with our office (*ndepscor@ndus.edu*) or Research 2, Suite 102

- If there ***are*** required match elements in this solicitation, please work with both our office [NDSU EPSCoR manages NDSU's NASA state match dollars] and NDSU Sponsored Programs Administration as you prepare you proposal

If you have questions, please contact the ND EPSCoR office for assistance: ndepscor@ndus.edu / 701-231-7516.

^^

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 jennifero@ndsualumni.com.

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

^^

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)

^^

Forecasted Opportunity: NIH Secondary Analyses of Existing Datasets of Tobacco Use and Health (R21 Clinical Trial Not Allowed)

The National Institutes of Health (NIH) Tobacco Regulatory Science Program (TRSP), participating NIH Institutes and Centers (ICs) and the United States Food and Drug Administration (FDA) Center for Tobacco Products (CTP) intends to promote a new initiative by publishing a Funding Opportunity Announcement (FOA) to solicit applications for research proposing the

innovative analysis of existing (publicly available) nationally representative U.S. cross-sectional and longitudinal data, to investigate novel scientific ideas and/or to generate new models, systems, tools, methods, or technologies that have the potential for significant impact on biomedical or biobehavioral research in areas relevant to the Food and Drug Administration (FDA) - Center for Tobacco Products (CTP). Other publicly available data sets would be considered depending on the analyses to be conducted; however, nationally representative analyses will receive priority. Applications not using nationally representative data sets will need to provide justification why the data set is unique, and why the research questions cannot be answered from a (publicly available) national representative data set. This FOA encourages the analyses of public use datasets that may inform tobacco regulatory actions in the United States (U.S.). This Notice is being provided to allow potential applicants sufficient time to develop meaningful collaborations and responsive projects.

The FOA is expected to be published in Fall 2019 with an expected application due date in Fall 2019. This FOA will utilize the R21 activity code.

^^

NSF International Research Experiences for Students

The National Science Foundation (NSF) International Research Experiences for Students (IRES) program [NSF 19-585] supports international research and research related activities for U.S. science and engineering students. The IRES program contributes to development of a diverse, globally-engaged workforce with world-class skills. IRES focuses on active research participation by undergraduate or graduate students in high quality international research, education and professional development experiences in NSF-funded research areas. The overarching, long-term goal of the IRES program is to enhance U.S. leadership in research and education and to strengthen economic competitiveness through training the next generation of research leaders. This solicitation features three mechanisms; proposers are required to select one of the following tracks to submit their proposal.

Track I focuses on the development of world-class research skills in

international cohort experiences. Track II is dedicated to targeted, intensive learning and training opportunities that leverage international knowledge at the frontiers of research. Track III supports U.S. institutional collaborations to develop, implement and evaluate innovative models for high-impact, large-scale international research and professional development experiences for U.S. graduate students. Student participants supported by IRES funds must be citizens, nationals, or permanent residents of the United States.

Proposal Deadlines:
September 10, 2019 – Track-I: IRES Sites
September 17, 2019 – Track II: Advanced Studies Institutes
September 24, 2019 – Track III: New Concepts in International Graduate Experience

^^

NSF: Opportunities for Promoting Understanding through Synthesis

The National Science Foundation (NSF) Opportunities for Promoting Understanding through Synthesis (OPUS) program [NSF 19-584] seeks to provide opportunities for mid- to later-career investigators to develop new understanding of science in the fields supported by the Division of Environmental Biology (DEB) through two tracks of synthesis activities.

OPUS: Mid-Career Synthesis: This track aims to provide a mid-career researcher, defined as a candidate at the associate professor rank (or equivalent), with new capabilities to enhance their productivity, improve their retention as a scientist, and ensure a diverse scientific workforce that remains engaged in active research (including more women and minorities at high academic ranks). This track provides an opportunity for the mid-career scientist to enable a new synthesis of their ongoing research. Synthesis is achieved by developing new research capabilities through collaboration with a mentor to enable new understanding of the research system and questions of interest.

OPUS: Core Research Synthesis: This track provides an opportunity for an individual or a group of investigators to revisit and synthesize a significant body of their prior research in a way that will enable new understanding of their research system and questions of interest. This track would also be appropriate early enough in a career to produce unique, integrated insight useful both to the scientific community and to the development of the investigator's future career.

All four clusters within the Division of Environmental Biology (Ecosystem Science, Evolutionary Processes, Population and Community Ecology, and Systematics and Biodiversity Science) encourage the submission of these proposals enabling researchers to expand understanding and develop new insights in their research.

Proposal deadline: August 28, 2019

^^

NSF Research Experiences for Undergraduates Sites and Supplements

The National Science Foundation (NSF) Research Experiences for Undergraduates (REU) program [NSF 19-582] 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.

Proposal Deadline: August 28, 2019

^^

Spencer Foundation: Small Research Grants on Education

The Spencer Foundation Small Research Grants Program supports academic research projects that aim to study education with budgets up to $50,000 ranging from one to five years. The program is "field-initiated" in that proposal submissions are not in response to a specific request for a particular research topic, discipline, design, or method. The goal for this program is to support rigorous, intellectually ambitious and technically sound research, recognizing that learning occurs across the life course as well as across settings any of which may provide the basis for rewarding study that makes significant contributions to the field. It is anticipated that proposals will span a wide range of topics and disciplines.

Proposal deadline: July 1, 2019 (2:00PM Central Time)

^^

Save the Date: CoSearch NDSU
October 25-26, 2019

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.

More information, including registration, is coming soon.

^^

Save the Date: NDSU EXPLORE 2020

The 2020 NDSU EXPLORE Showcase of Undergraduate Research and Creative Activity will take place Wednesday, April 22, 2020.

Learn more about this event >>

^^

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.