

NDSU OFFICE OF  
RESEARCH AND CREATIVE ACTIVITY

# RCA UPDATE

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February 3, 2020

## Funding Opportunity Edition

**Today's issue of the RCA Update is the first Funding Opportunity edition. Twice each month the RCA Update will completely focus on this information.**

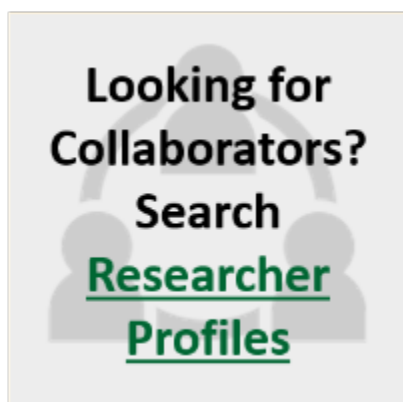
*Please note:* The NDSU Scholar's Database website has been retired. This public-facing tool was targeted at sharing faculty Pivot profile information with individuals who did not have access to Pivot but may have wanted to find collaborators at NDSU. All faculty profile information is still available to Pivot users and you should change any links to the Scholar's Database to <https://pivot.proquest.com/profiles/main>.

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## FUNDING OPPORTUNITIES

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Click here to learn how!

**Acton Institute: Mini-Grants on Free Market Economics**

The purpose of this grant program is to enhance the effectiveness in the research and teaching of market economics for faculty at colleges, universities, and seminaries across the United States and Canada. Grants range between \$1,000-\$10,000.

The Acton Institute invites proposals from faculty in one or more of the following broad categories:

- **Course development** — specifically adding new courses or strengthening existing courses in the curriculum which address the nature, morality, and purpose of free-market economics. This may include courses that deal with religion and economics, microeconomics, macroeconomics, political economy, ethics and economics, the history of economic thought, or other related subject areas.
- **Faculty research** —identifying scholarly projects that show promise for advancing the understanding of free markets and, ideally, demonstrate how the free market relates to Christian faith and ethics.

*Deadline: March 31, 2020*

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## **APS: Phillips Fund for Native American Research**

The [American Philosophical Society](#) is inviting applications to its Phillips Fund for Native American Research program. Through the program, grants of up to \$3,000 will be awarded in support of research in the areas of Native American linguistics, ethnohistory, and the history of Native Americans studies in the United States or Canada. Grants are intended to support travel, the cost of tape or film, and consultants' fees. Grants are not made for projects in archaeology, ethnography, or psycholinguistics; for the purchase of permanent equipment; or for the preparation of pedagogical materials.

The organization prefers to support the work of younger scholars who have received their doctorate. Applications are also accepted from graduate students for research on master's theses or doctoral dissertations.

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

*Proposal Deadline: March 2, 2020*



## **DARPA: Wideband Adaptive RF Protection (WARP)**

The Defense Advanced Research Projects Agency (DARPA) [seeks innovative proposals](#) to develop wideband, adaptive RF filters and cancellers that selectively attenuate interference and protect wideband digital radios from saturation. When exposed to interference/self-interference, the filters and cancellers will automatically sense and adapt to the electromagnetic environment through the intelligent control of its adaptive hardware. WARP will ultimately enable the use of wideband software defined radios in congested and contested environments.

*Proposal Deadline: May 21, 2020*



## **DOE / Bureau of Reclamation: Fish Protection Prize**

The U.S. Department of Energy (DOE) Water Power Technologies Office (WPTO) within the Office of Energy Efficiency and Renewable Energy (EERE) announced the opening of the [Fish Protection Prize](#), a prize focused on developing more reliable and sustainable water structures while protecting fish from traveling into unknown, dangerous waters, diversions, and intakes. The goal of the Prize is to improve fish protection, or exclusion, technologies to decrease the number of fish susceptible to river and canal diversions, unscreened diversion pipes, or intakes at hydropower dams. *The Concept Stage is open through April 25, 2020.* [Learn more >>](#)



## **DOE Notice of Intent: Workforce Development in Emerging Fields**

The Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy (EERE) [intends to issue](#) a Funding Opportunity Announcement (FOA) entitled “Workforce Development in Emerging Fields.” This funding opportunity will support leading-edge interdisciplinary research that promotes workforce development in emerging fields by supporting a coordinated expansion of existing joint graduate education programs with national laboratories to prepare the next generation of scientists and engineers. Consistent with Congressional guidance, **applicants will be restricted to land grant universities**. EERE plans to issue the FOA in February of 2020 via the [EERE Exchange website](#). If applicants wish to receive official notifications and information from EERE regarding this FOA, they should register in EERE Exchange. When the FOA is released, applications will be accepted only through EERE Exchange.



## DOJ: Law Enforcement Mental Health and Wellness

Law Enforcement Mental Health and Wellness Act (LEMHWA) funds are used to improve the delivery of and access to mental health and wellness services for law enforcement through training and technical assistance, demonstration projects, and implementation of promising practices related to peer mentoring mental health and wellness programs. The 2020 LEMHWA program will fund projects that develop knowledge, increase awareness of effective mental health and wellness strategies, increase the skills and abilities of law enforcement, and increase the number of law enforcement agencies and relevant stakeholders using peer mentoring programs. The Community Oriented Policing Services (COPS) Office, a federal provider of innovative, customer-focused resources that address the continuing and emerging needs of those engaged in enhancing public safety through community policing, has designed the [LEMHWA solicitation](#) to address law enforcement mental health and wellness. The 2020 LEMHWA program has been established to fund specific projects related to the following topic areas:

1. Peer Support Implementation Projects;
2. National Peer Support Program for Small and Rural Agencies;
3. LEMHWA Coordinator Assistance Provider, and
4. Invitational Applications.

Detailed descriptions of each of these topics are available in the application guide.

*Application deadline: March 31, 2020*



## **EPA: Pollution Prevention Grant Program**

The Environmental Protection Agency (EPA) is announcing a [grant competition](#) to fund two-year Pollution Prevention assistance agreements for projects that provide technical assistance (e.g., information, training, tools) to businesses and their facilities to help them develop and adopt source reduction practices (also known as “pollution prevention” or “P2”). P2 means reducing or eliminating pollutants from entering any waste stream or otherwise being released into the environment prior to recycling, treatment, or disposal. In keeping with the Pollution Prevention Act of 1990, EPA is encouraging P2 because implementing these practices can result in reductions in toxic pollutants, the use of water, energy and other raw materials, while also lowering business costs.

*Application deadline: March 31, 2020*



## **NARA: Publishing Historical Records in Documentary Editions**

The National Historical Publications and Records Commission (NHPRC) [seeks proposals to publish documentary editions of historical records](#). Projects may focus on broad historical movements in U.S. history, such as law (including the social and cultural history of the law), politics, social reform, business, military, the arts, and other aspects of the national experience, or may be centered on the papers of major figures from American history. Whether conceived as a thematic or a biographical edition, the historical value of the records and their expected usefulness to broad audiences must justify the costs of the project. **The Commission is especially interested in projects to commemorate the 250th anniversary of the Declaration of Independence.** They encourage

applications that use collections to examine the ideals behind the founding of the United States and the continual interpretation and debate over those ideals over the past 250 years. They welcome projects that engage the public, expand civic education, and promote understanding of the nation's history, democracy, and culture from the founding era to the present day.

The goal of this program is to provide access to, and editorial context for, the historical documents and records that tell the American story. Applicants should demonstrate familiarity with the best practices recommended by the Association for Documentary Editing (ADE) or the Modern Language Association (MLA) Committee on Scholarly Editions. All new projects (those which have never received NHPRC funding) must have definitive plans for publishing and preserving a digital edition which provides online access to a searchable, fully-transcribed and annotated collection of documents. New projects may also prepare print editions (including ebooks and searchable PDFs posted online) as part of their overall publishing plan, but the contents of those volumes must be published in a fully-searchable digital edition within a reasonable period of time following print publication. The NHPRC encourages projects to provide free public access to online editions. Projects that do not have definitive plans for digital dissemination and preservation in place at the time of application will not be considered.

Grants are awarded to collaborative teams (including at least two scholar-editors, in addition to one or more archivists, digital scholars, data curators, and/or other support and technical staff, as necessary) for collecting, describing, preserving, compiling, transcribing, annotating, editing, encoding, and publishing documentary source materials online and in print. Eligible documentary edition projects typically focus on original manuscript or typewritten documents, but may also include other formats, such as analog audio and/or born-digital records. Because of the focus on historical documentary sources, grants do not support preparation of critical editions of published works unless such works are just a small portion of the larger project. **This grant program does not support the production of film or video documentaries.**

*Optional Draft: April 1, 2020*

*Deadline: June 10, 2020*

## NDSU RCA: Research Development Travel Awards

The **Research Development Travel Award program** helps defray travel expenses for faculty presenting at national conferences or for supporting travel to visit archives or special collections. International opportunities may be accommodated if required for discipline-specific research. As this pool of funding is limited, please consider allowing individuals who do not have other sources of travel funding to apply for this opportunity.

More information and application instructions are posted on the [RCA website](#).

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## NDSU RCA: Research Support Services

The **Research Support Services program** helps defray the costs of support services required for research, creative, or scholarly activity. For example, funds may be used in one of the NDSU Core Facilities, another recharge/service center, or for transcription services.

More information and application instructions are posted on the [RCA website](#).

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## NEH: Fellowships

National Endowment for the Humanities (NEH) [Fellowships](#) are competitive awards granted to individual scholars pursuing projects that embody exceptional research, rigorous analysis, and clear writing. Applications must clearly articulate a project's value to humanities scholars, general audiences, or both.

Fellowships provide recipients time to conduct research or to produce books, monographs, peer-reviewed articles, e-books, digital materials, translations with annotations or a critical apparatus, or critical editions resulting from previous research. Projects may be at any stage of development. NEH invites research applications from scholars in all disciplines, and it encourages submissions



from independent scholars and junior scholars.

Applicants interested in research projects that are either born digital or require mainly digital expression and digital publication are encouraged to apply instead for [NEH-Mellon Fellowships for Digital Publication](#).

*Application deadline: April 8, 2020*

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## **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](#) of your interest in participating in this program by February 20, 2020, 5pm.**

This funding opportunity announcement ([FOA / PAR-20-103](#)) 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 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.

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## **NIH: Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management (R21)**

The purpose of this Funding Opportunity Announcement ([FOA / RFA-CA-20-007](#)) is to invite exploratory/developmental research grant applications (R21) for the development of innovative methods and algorithms in biomedical computing, informatics, and data science addressing priority needs across the cancer research continuum including cancer biology, cancer treatment and diagnosis, early cancer detection, risk assessment and prevention, cancer control and epidemiology, and/or cancer health disparities. As a component of the NCI's [Informatics Technology for Cancer Research](#) (ITCR) Program, this FOA encourages applications focused on the development of novel computational, mathematical, and statistical algorithms and methods that can considerably improve acquisition, management, analysis, and dissemination of relevant data and/or knowledge. The central mission of ITCR is to promote research-driven informatics technology across the development lifecycle to address priority needs in cancer research. In order to be successful, there must be a clear rationale for how the proposed informatics method or algorithm is novel and how it will benefit the cancer research field. See also: R01 Companion opportunity – [RFA-CA-20-011](#).

*Letter of Intent deadline: May 9, 2020*

*Application deadline: June 9, 2020*

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## **NIJ: Research and Evaluation on Technology-Facilitated Abuse for Criminal Justice Purposes**

With [this solicitation](#), the National Institute of Justice (NIJ) seeks applications for research and evaluation projects that will improve knowledge and practice related to identifying, preventing, investigating, prosecuting, and reducing technology-facilitated abuse, including sextortion, nonconsensual pornography (revenge porn), doxing, swatting, cyberstalking, and cyber-hate. NIJ will support scientifically rigorous projects designed to produce highly practical findings that will inform program, policy, practice and other efforts to address such crimes.

NIJ is particularly interested in research and evaluation projects addressing the following topics:

- Risk and protective factors associated with an individual falling victim to technology-facilitated abuse, as well as how individuals or organizations become involved in these types of crimes.
- Studies of the costs and consequences of technology-facilitated abuse (financial and otherwise), as well as how Internet-enabled harassment may be related to other crime(s).
- Studies of the effectiveness of approaches in identifying, preventing, investigating, and prosecuting technology-facilitated abuse (This may include consideration of legislation and/or training).
- Studies of the frequency and impacts of technology-facilitated abuse, in particular their effect on women and ethnic, religious, and racial minorities.

*Proposal Deadline: April 8, 2020*



## **NSF: Enabling Discovery through GENomic Tools (EDGE)**

The National Science Foundation (NSF) Enabling Discovery through GENomic Tools (EDGE) program [[NSF 20-532](#)] supports genomic research that addresses the mechanistic basis of complex traits in diverse organisms within the context (environmental, developmental, social, and/or genomic) in which they function. The EDGE program also continues to support the development of innovative tools, technologies, resources, and infrastructure that advance biological research focused on the identification of the causal mechanisms connecting genes and phenotypes. EDGE is designed to provide support for (1) the development of tools, approaches, and infrastructure aimed at testing cause and effect hypotheses between gene function and phenotypes in diverse plants, animals, microbes, viruses, or fungi for which these methods are presently unavailable, and (2) hypothesis-driven research that tests cause and effect relations between genotype(s) and phenotypes in non-model plants, animals, microbes, viruses, or fungi. These goals are essential to uncovering

the rules that underlie genomes-to-phenomes relationships, an area relevant to Understanding the Rules of Life: Predicting Phenotype, one of the 10 Big Ideas for future NSF investment.

*Proposals accepted anytime.*



## **NSF: Innovation Corps Hubs 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 I-Corps Hubs: Notify RCA of your interest in participating in this program by February 7, 2020, 5pm.**

The National Science Foundation (NSF) seeks to further develop and nurture a national innovation ecosystem that guides the output of scientific discoveries closer to the development of technologies, products, and services that benefit society. The goal of the NSF Innovation Corps (I-Corps) Program, created in 2011 by NSF, has been and will continue to be to reduce the time and risk associated with translating promising ideas and technologies from the laboratory to the marketplace. The I-Corps Program utilizes experiential learning of customer and industry discovery, coupled with first-hand investigation of industrial processes, to quickly assess the translational potential of inventions. The I-Corps Program is designed to support the commercialization of so-called "deep technologies," or those revolving around fundamental discoveries in science and engineering. The I-Corps program addresses the skill and knowledge gap associated with the transformation of basic research into deep technology ventures (DTVs).

In the program's initial phase, I-Corps Nodes and Sites were funded separately to serve as the backbone of the National Innovation Network (NIN). Previous solicitations for NSF I-Corps Nodes and NSF I-Corps Sites have now been archived. This new solicitation for I-Corps Hubs has been informed by feedback

received from the community and lessons learned over the first eight years of the program.

In 2017, the American Innovation and Competitiveness Act (AICA, Public Law 114-329, Sec. 601) formally authorized and directed the expansion of the NSF I-Corps Program. Through this solicitation [[NSF 20-529](#)], NSF seeks to evolve the current structure, in which NSF I-Corps Teams, Nodes, and Sites are funded through separate programs, toward a more integrated operational model capable of sustained operation at the scope and scale required to support the expansion of the NSF I-Corps Program as directed by AICA. In this more integrated model, I-Corps Hubs, comprising a Principal and at least two Partner institutions, form the backbone of the NIN, and each Hub has at least five Affiliates that extend the network to other institutions. Each Hub is funded through a single award. Throughout this solicitation, the term "Hub" refers to all associated organizations identified in a proposal responding to this solicitation, including the Principal, Partners, and Affiliates.

**Organizations may only be a participant (Principal, Partner or Affiliate) in one proposal per deadline.**

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## **NSF: Spectrum and Wireless Innovation Enabled by Future Technologies**

The National Science Foundation's Directorates for Engineering (ENG), Computer and Information Science and Engineering (CISE), Mathematical and Physical Sciences (MPS), and Geosciences (GEO) are coordinating efforts to identify new concepts and ideas on Spectrum and Wireless Innovation enabled by Future Technologies ([SWIFT / NSF 20-537](#)). A key aspect of this new solicitation is its focus on effective spectrum utilization and/or coexistence techniques, especially with passive uses, which have received less attention from researchers. Coexistence is when two or more applications use the same frequency band at the same time and/or at the same location, yet do not adversely affect one another. Coexistence is especially difficult when at least one of the spectrum users is passive, i.e., not transmitting any radio frequency (RF) energy. Examples of coexisting systems may include passive and active systems (e.g., radio astronomy and 5G wireless communication systems) or two active systems (e.g., weather radar and Wi-Fi). Breakthrough innovations

are sought on both the wireless communication hardware and the algorithmic/protocol fronts through synergistic teamwork. The goal of these research projects may be the creation of new technology or significant enhancements to existing wireless infrastructure, with an aim to benefit society by improving spectrum utilization, beyond mere spectrum efficiency. The SWIFT program seeks to fund collaborative team research that transcends the traditional boundaries of individual disciplines.

*Proposal Deadline: April 3, 2020*

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## **USDA-AFRI: Foundational and Applied Science**

The USDA Agriculture and Food Research Initiative (AFRI) Foundational and Applied Science Program supports grants in six AFRI priority areas to advance knowledge in both fundamental and applied sciences important to agriculture. The six priority areas are:

1. Plant Health and Production and Plant Products;
2. Animal Health and Production and Animal Products;
3. Food Safety, Nutrition, and Health;
4. Bioenergy, Natural Resources, and Environment;
5. Agriculture Systems and Technology; and
6. Agriculture Economics and Rural Communities.

*Research-only, extension-only, and integrated research, education and/or extension projects are solicited in this Request for Applications (RFA). [See Foundational and Applied Science RFA for specific details.](#)*

*Letter of Intent Deadline Varies by area, beginning February 19, 2020*

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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.*

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