OFFICE OF RESEARCH AND CREATIVE ACTIVITY

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RCA UPDATE JANUARY 2025

RCA ANNOUNCEMENTS

NEWS

NDSU researchers testify at ND State Legislative Committee





Ryan McGrath (I), NDSU Associate Professor of Health, Nutrition, and Exercise Sciences and Armstrong Aboah (r) NDSU Assistant Professor of Transportation Engineering testify in support of SB 2003.

NDSU researchers Ryan McGrath and Armstrong Aboah joined NDSU VPR Colleen Fitzgerald, NDSU alumni Paul Steffes and others in testifying at the North Dakota Senate Appropriations – Education and Environmental Committee in support of SB 2003. If passed, the bill will provide additional funding for the ND Economic Diversification Research Fund (EDRF), which funded research in the state at a total of \$5.5 million during the past two years.

NDSU invested its \$2.5 million into a suite of programs across a "Innovations to Practice" pathway. These included an **Infrastructure Program** to support acquisition of instrumentation and equipment that creates industry engagement, furthers research, and provides student training opportunities; a **Faculty Development Program** designed to increase faculty research competitiveness and develop new partnerships; a **Technology Acceleration Program** to fast-track ideas and technologies toward commercialization; and an **Experiential Learning Program** that supports students through undergraduate research opportunities, community-engaged programs, and other professional development opportunities. In addition, NDSU and UND created the **University Collaboration Research Program (UCRP)**, an initiative that funded collaborative projects involving faculty from across North Dakota.

McGrath's work, funded through the URCP, is studying the treatment of agerelated disease and disability through a honey/pomegranate antioxidant supplement. Initial findings suggest blood pressure and the rate of muscle force development may benefit from such supplementation.

Armstrong's research, funded through TAP, aims to reduce the number of work zone fatalities by increasing driver awareness through an AI-driven visual and audio alert system. He plans to work with the North Dakota DOT to pilot and evaluate the effectiveness of the research.

Watch testimony

Get more information about all the NDSU EDRF-funded projects

Introducing Atom Grants



North Dakota State University's Office of Research and Creative Activity (RCA) has transitioned away from using the Sponsored Programs Information Network (SPIN) tool to search for grant opportunities to AI-enabled, Atom Grants.

Atom Grants provides an innovative, AI-powered platform that allows faculty and researchers to create customized grant opportunity searches that match current or future faculty interests. Unlike traditional keyword-based searches, researchers can now find relevant funding opportunities by using natural language descriptions of their research—including the ability to input abstracts from existing papers directly into the search system.

The platform automatically generates researcher profiles by analyzing existing public outputs and can deliver personalized email alerts on a preferred scheduling basis with matching funding opportunities. Additionally, powerful AI features assist throughout the application process by extracting key requirements, generating submission checklists, and automatically assessing eligibility criteria, ensuring researchers can focus more on their work and less on administrative tasks.

Key features:

- AI-powered semantic search
- Extensive funding opportunity database
- Personalized funding opportunity newsletter (weekly to monthly frequency)
- User-friendly interface with advanced search filters
- Time-saving grant eligibility and submission checklists
- "Chat with proposal" feature to learn more about funding opportunity details

Today, you will receive an email inviting you to login to Atom Grants via your Bison Log. You will be directed to a Single Sign-On (SSO).

<u>View this short video to learn how to sign in to Atom Grants for the first time using SSO.</u>

Once you log in, you should see an initial profile that was generated by the Alenabled platform based on your ORCID ID and other publicly available publications. You can tweak your preferences, do one-off searches, and scheduled funding alerts. RCA will host a few office hours in early February if you have questions.

For more information on navigating Atom Grants and searching for funding opportunities, view this video to learn how to navigate Atom Grants in detail.

We're looking for presenters!

BisonSpark Talks will be held on March 6, 2025



March 6, 2025

1:00-3:00 pm Oceti Sakowin Ballroom, NDSU Memorial Union

Short talks about

NDSU research

to ignite conversation

Designed to highlight the expertise of NDSU researchers and to generate curiosity about their results, BisonSpark Talks are five minute presentations featuring innovative stories of the work of NDSU researchers. The event aims to spark the next collaborative ideas for research activities.

Submit your presentation to be considered for this year's event.

learn more

Increasing NSF Competitiveness

Open House: Understanding new EPSCoR programs and leveraging EPSCoR affiliation in applications to every NSF directorate

Feb. 5, 12:00pm Meadowlark, Memorial Union BYO lunch (coffee, tea, and soft drinks provided) +Zoom

Learn about the unique opportunities present to researchers in North Dakota through the EPSCoR Excellence Research Infrastructure Improvement (E-RISE) Program.

Learn more

NSF Career Award Spring Bootcamp

Are you interested in applying for an NSF Career Award? This bootcamp is a great way to guide you through the process.

- Jan. 27, 12:00-1p
 Kick off, familiarization with online bootcamp materials
- Feb. 24 12:00-1p
 Intellectual Merit / Broader Impacts
- March 24, 12:00-1p
 Educational Component
- April 28, 12:00-1p Ugly first draft
- May 19, 12:00-1p
 Other sections/ continue to work with consultant
- June July
 Work with consultant as needed

register

BY THE NUMBERS

North Dakota Economic Diversification Research Fund (EDRF) details

<u>Learn more</u> about the EDRF programs and projects

\$2.5

million

41

projects

ACTIVE RCA INTERNAL FUNDING OPPORTUNITIES



RCA Conference Support

Application Deadline: Rolling

The RCA Conference Development Support award is intended to help cover up to \$3,000 in expenses for hosting and developing a regional conference that brings recognition to NDSU faculty. This support can include funding for:

event room and event reservation costs

- · food and meals served during the conference
- materials to be used in support of the event (i.e., flyers, pens, paper, registration booth items, etc.)

NOTE: This is not for faculty travel expenses to conferences.

Applications will be processed in the order received, and awards will be made until all funds are allocated. The conference must be completed by **Friday**, **May 30**, **2025**.

learn more and apply

LIMITED SUBMISSION Up to 2 Pre-Applications DOE Research in Basic Plasma Science and Engineering

Program Summary:

The U.S. Department of Energy's Office of Science, under the Fusion Energy Sciences (FES) program, is issuing a \$5 million Notice of Funding Opportunity (NOFO) to carry out hypothesis-driven, frontier-level research leading to significant advances in the fundamental understanding of basic plasma science and engineering. This NOFO seeks new or renewal single-investigator or small-group applications from universities, DOE/NNSA National Laboratories, DOE SC Scientific User Facilities, and non-profit organizations with an aim to expand current knowledge or explore new frontiers of knowledge in the FES General Plasma Science areas including astrophysical, dusty, and low temperature plasma.

Each applicant can receive between \$300,000 and \$900,000 over three years.

Cost sharing or matching funds are not required for this program.

Complete program solicitation

KEY DATES

Internal Date to Notify RCA: First to Notify

• Pre-Application Deadline: February 14, 2025

Application Date for Full Proposal to DOE: April 4, 2025

E-MAIL NOTIFICATIONS TO: ndsu.researchdev@ndsu.edu

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.

LIMITED SUBMISSION National Endowment for the Arts Research Labs

Program Summary:

NEA Research Labs funds projects that support transdisciplinary research teams grounded in the social and behavioral sciences, yielding empirical insights about the arts for the benefit of arts and non-arts sectors alike. The NEA may enter into up to one subsequent renewal award with the recipient of a NEA Research Labs grant for a project consistent with the intent of these guidelines. Any such future awards are subject to agency priorities, the availability of funds, awardee performance, and the agency's regular review process.

The NEA Research Labs program requires a **confirmed** partnership between the official applicant organization and at least one: (a) an arts organization *or* (b) an individual artist or culture bearer who may not be affiliated with an arts organization at the time of application. The arts partner is expected to participate substantially in the NEA Research Lab activities.

Expected dollar value of awards is \$100,000-\$300,000. A 1:1 Cost-share/match required.

Complete program solicitation

KEY DATES

- Internal Date to Notify RCA of Intent to Submit: February 3, 2025 by 5 pm CST
- Internal Date to Submit RCA Pre-proposal: February 18, 2025 by 5 pm CST (if needed)
- Decision Made Week of March 3
- Full Application Due March 24, 2025

E-MAIL NOTIFICATIONS TO: ndsu.researchdev@ndsu.edu

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.

LIMITED SUBMISSION DOE - EXPRESS:2025 Exploratory Research for ExtremeScale Science

Program Summary:

The Department of Energy, Office of Science program in Advanced Scientific Computing Research (ASCR) hereby announces its interest in basic research to explore potentially high-impact approaches in scientific computing and extreme-scale science. The Exploratory Research for Extreme-Scale Science (EXPRESS) opportunities exist for the following research topics:

1. Quantum computation based on topological concepts

- 2. Local and Campus-Area Quantum Networking for Next Generation Parallel Quantum Computing
- 3. Neuromorphic Computing
- 4. Computational Physical Systems
- 5. Deep Understanding of Al Models

Each applicant can receive between \$200,000 to \$1,000,000, lasting up to two years in duration.

Cost sharing or matching funds are not required for this program.

Complete program solicitation.

KEY DATES

- Internal Date to Notify RCA: First 2 to Notify in each of the categories.
- Pre-Application Deadline: February 25, 2025
- Full Application Due May 6, 2025

E-MAIL NOTIFICATIONS TO: ndsu.researchdev@ndsu.edu

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.

Request for internal expression to submit to:
EPSCoR Research Incubators for STEM Excellence
Research Infrastructure Improvement (E-RISE RII) NSF E-RISE (NSF 23-588)

NSF EPSCoR, E-RISE RII projects will be focused on North Dakota statewide teams, driven by expertise in a technical/scientific area aligned to state industry sectors, to generate partnerships and workforce development. This EPSCoR program supports the incubation of research teams and products in a scientific topical area that links to research priorities identified in the submitting jurisdiction's approved **Science and Technology (S&T) Plan**. E-RISE RII invites innovative proposals that will lead to the development and implementation of sustainable broad networks of individuals, institutions, and organizations that will transform the science, technology, engineering, and mathematics (STEM) research capacity and competitiveness in a jurisdiction within the chosen field of research.

E-RISE RII projects must be designed to incubate

- 1. areas of research capacity building within a chosen research topic;
- 2. the development of a skilled workforce that is relevant to the project and its outcomes;
- 3. promotion of diversity, equity, access, and a culture of inclusion of different types of academic institutions (see below) and non-academic sectors (e.g., industry and government);
- 4. integration of the research with societal impacts in a time-bound manner; and
- 5. sustainability of a clear pathway towards preserving the resulting research incubator's team and products beyond E-RISE RII funding.

NSF E-RISE is a limited submission mechanism whereby each institution in the jurisdiction can only serve as the lead institution on one proposal each year. There is no limit on the number of proposals per jurisdiction. NDSU, RCA is soliciting an "Expression of Interest to PI," a proposal for any of the next three cycles (August 2025, 2026, and 2027). We encourage you to think broadly about ideas/networks within the jurisdiction and to explore research topics that may not be fully baked but where we have expertise to lead.

NSF EPSCoR E-RISE Goals:

The E-RISE RII program aims to support EPSCoR-eligible jurisdictions to:

1. Build a jurisdiction-wide network of teams of researchers and sectors that incubate high-quality research in a defined STEM disciplinary area or topic of

- choice that is aligned with jurisdictional priority areas and EPSCoR's mission and goals.
- 2. Develop high-quality hypothesis- and problem-driven research projects that will sustain project outcomes beyond the E-RISE RII funding, including the development of effective STEM education and workforce development opportunities within the research topic that engages diverse audiences across the jurisdiction and establishes meaningful partnerships at the individual and institutional levels both within the jurisdiction and beyond.

Program Solicitation here

KEY DATES

 NDSU Expressions of Interest will be accepted through January 31, 2025

submit your expression of interest

FUNDING AGENCY ANNOUNCEMENTS

Registration is now open for the Bouvier Group's live bootcamp training for R-Series applicants

This live Zoom call training event is designed for those preparing to write an NIH submission and for the people who advise them.

The bootcamp will span four

Thursdays: February 6, 13, 20, and 27. Each two-hour session will



begin at 1:00 PM CT, giving you a focused dose of grantwriting expertise every week.

• **February 6:** Preparation

• February 13: Specific Aims

• **February 20:** Significance & Innovation

• **February 27:** Approach

Key Takeaways: At the end of the training, you will:

- 1. Identify and employ crucial steps to prepare to write
- 2. Acquire key information about effective NIH writing strategies
- 3. Apply those strategies as you write and revise a draft of your submission
- 4. Utilize your skills to critique the work of others, which will lead to sharpening of your own skills
- 5. Develop better grantwriting skills that will carry forward on all submissions, whether to NIH or other funding agencies

Existing library members are welcome to join for no extra cost. Registration includes full access to our *Master the R Series* on-demand course for a full year, along with <u>all the benefits of membership</u>. Also included are the slides and manual used in this *Bootcamp*.

register for the R-Series bootcamp



Early Career Research Program for FY 2025 + webinar

The U.S. Department of Energy (DOE) announced it is accepting applications for the 2025 DOE Office of Science Early Career Research Program to support the research of outstanding scientists early in their careers. The program will support over 80 early career researchers for five years at U.S. academic institutions, DOE national laboratories, and Office of Science user facilities.

To be eligible for the program, a researcher must be an untenured, tenure-track assistant or associate professor at a U.S. academic institution or a full-time employee at a DOE national laboratory or Office of Science user facility who is within 10 years of having earned their doctorate degree. Awards to an institution of higher education will be approximately \$875,000 over five years and awards to a DOE national laboratory or Office of Science user facility will be approximately \$2,750,000 over five years.

Pre-applications are mandatory and are due on February 18, 2025, at 5:00 p.m. ET. Applications will be due on April 22, 2025, at 11:59 p.m. ET. Only those applicants that receive notification from DOE encouraging a formal application may submit full applications.

Register to attend a webinar on this opportunity on January 31, 2025, at 3:00 pm.

Get additional information



New Grants Training/Technical Assistance Resources

USDA-NIFA has developed a number of new resources for applicants and grantees, especially to assist new and underrepresented applicants to NIFA programs. Visit this one-stop page for most **Grants Training/Technical Assistance information**.

You will find links to recordings of some past events on this page as well, including:

- Multi-day grant support technical assistance workshops.
- Grant applicant/awardee technical assistance sessions.
- Webinars in collaboration with the National Agricultural Library to increase awareness about their resources.

This site also includes a mock panel video to demonstrate how a panel operates, information about volunteering to serve as a panelist, and required training for panel managers and panelists. The Competitive Grants Application Process Overview is a new tool which assists new applicants and those at small organizations to help search and write applications. In addition, the site has information about planned activities and registration information. NIFA is seeking input for additional topics to be included on the website and in future webinars.

Your feedback will help NIFA enhance access to its grants programs and improve services for all.



Agriculture and Food Research Initiative - Foundational and Applied Science Program

In 2025, applications are sought in the following priority areas:

- 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

Deadlines vary by program, but the earliest is July 17.

Also, a new requirement:

A mentoring plan is now required for all AFRI grant applications (excluding conference grants, equipment grants and sabbatical grants) for any project that involves any type of education, training or mentoring of students or other individuals including high school students, undergraduate students, graduate students, professional degree students, postdoctoral scholars, other professionals or any other individual receiving any type of formal, or non-formal or vocational training on the project.

For additional important details, see the FY 2025-2026 Foundational and Applied Science (FAS) RFA Additional Information for Part IV, C on the AFRI RFA Resources webpage.



Crop Protection and Pest Management

The Crop Protection and Pest Management program addresses high priority issues related to pests and their management using integrated pest management (IPM) approaches at the state, regional, and national levels. CPPM supports projects that ensure food security and respond effectively to other major societal pest management

challenges with comprehensive IPM approaches.

Projects must be economically viable, ecologically prudent, and safe for human health. CPPM also addresses IPM challenges for emerging issues and existing priority pest concerns that can be addressed more effectively with new and emerging technologies.

Application deadline is March 6.

For more information, read the **CPPM funding opportunity**.



AFRI - Foundational and Applied Science Program

The 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 program's goal is to invest in agricultural production research, education and Extension projects for more sustainable, productive, and economically-viable plant and animal production systems.

The global agricultural output needs to be expanded significantly to meet the food needs of the population expected in 2050; thus, it is imperative to develop innovative, safe, and sustainable management strategies for livestock (including poultry and aquaculture species), crops, and critical underlying resources.

Application deadlines vary.

For more information, read the <u>AFRI – Foundational and Applied Science program</u> <u>funding opportunity</u>.

Military Health System Research Symposium (MHSRS) Call for Abstracts

The 2025 MHSRS Call for Abstracts is opened until February 16 2025.

The TENTATIVE dates and location for the 2025 MHSRS are August 4-7, 2025 at the Gaylord Palms Resort and Convention Center, Kissimmee, FL

The MHSRS is the Department of Defense's premier scientific research meeting. It provides a collaborative environment for military medical care providers with deployment experience, DoD scientists, academia, and industry to meet and exchange information on the unique medical needs of the Warfighter.

More information including:

- titles and descriptions of the 2025 scientific breakout sessions
- submit an abstract
- access Frequently Asked Questions concerning the Call for Abstracts process

is available on the **MHSRS** website



Collaborating Beyond the Humanities

The Education Division offers multiple opportunities to foster curricular innovation, including Humanities Connections, now in its ninth year. On January 30, 2025 from 2:00-4:00 pm EST, the division will host a virtual convening on "Collaborating Beyond the Humanities," focusing on the health humanities as an exemplary site of cross-disciplinary collaboration. In the first hour, speakers in the health humanities—including former NEH project directors—will explore the joys, opportunities, and challenges of this work. In the second hour, all participants may join breakout rooms for further discussion.

Speakers include:

- Sari Altschuler (associate professor of English and founding director of the Health, Humanities and Society Program, Northeastern University)
- Scott Muir (director of undergraduate initiatives, National Humanities Alliance)
- Vincent Punzo (professor of psychology and founder of medical humanities at Earlham College)
- Elizabeth Dzeng (associate professor of medicine, University of California-San Francisco)

register

NATIONAL # ARTICINATION ARTICIN

Research Grants in the Arts (RGA)

The Research Grants in the Arts (RGA) program is a funding opportunity under the NEA's Research Awards portfolio. The program supports research studies that investigate the value and/or impact of the arts, either as individual components of the U.S. arts ecosystem or as they interact with each other and/or with other domains of American life.

The NEA welcomes research proposals that align with at least one of the priority areas and possible questions within the agency's FY 2022-2026 **research agenda**.

learn more

SBIR/STTR ABCs Webinar

January 29 at 1:00pm - 2:30pm

The University of North Dakota Center for Innovation (UND CFI) has allocated funding to assist companies in applying for Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) grants.



Companies can choose from professional consultation and/or grant-writing services to support their applications. Up to 14 hours of services are available per company, valued at \$3,500.

Important Note: Phase 0 funds may not be used for:

- Travel expenses
- Salaries/wages
- Equipment or supplies

Join an informative webinar about this program on Jan. 29: more details and **Registration**

RCA ANNOUNCEMENTS

Important dates related to internal programs of interest to NDSU faculty researchers can be found on the Faculty Development Calendar.



Research Development and Grant Writing News

Research and Creative Activity holds a subscription to Research Development and Grant Writing News, a monthly newsletter full of helpful tips and information about funding agencies and writing successful grant proposals.

Selected articles in the January 2025 edition:

- NSF's Proposal Plagiarism Perp Walk
- AFRI Foundational & Applied Science Program 2025
- The NSF Mid-Career Advancement Program
- NSF 2025 Research Infrastructure Guide
- Know the Type of Project You're Proposing

access these articles and more (requires NDSU login)



Autor boot spy longs.)

Research Compliance in the Union



Join IACUC and IBC administrator Tania Molden and IRB administrator Andrea Ludwig every second Thursday between 11:30am-1:00pm at their information sessions in the NDSU Memorial Union.

It's an opportunity for anyone involved in research with human subjects, animals, or biosafety materials to get answers to any question, receive guidance on research compliance, and to have a chat with Tania and Andrea.

No appointments necessary - just stop by, connect, and confirm you're on the right path with your research and protocols.

The <u>Office of Research and Creative Activity (RCA)</u> sends 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. This listserv refreshes every 24 hour 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.

We collectively acknowledge that we gather at NDSU, a land grant institution, on the traditional lands of the Oceti Sakowin (Dakota, Lakota, Nakoda) and Anishinaabe Peoples in addition to many diverse Indigenous Peoples still connected to these lands. We honor with gratitude Mother Earth and the Indigenous Peoples who have walked with her throughout generations. We will continue to learn how to live in unity with Mother Earth and build strong, mutually beneficial, trusting relationships with Indigenous Peoples of our region.