

OFFICE OF RESEARCH AND CREATIVE ACTIVITY

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RCA ANNOUNCEMENTS

NEWS

Webster named to prestigious NAI Fellows Program



The NDSU combinatorial Materials Research Laboratory (CMRL) utilizes an automated approach with robotic systems to rapidly synthesize and test large libraries of diverse materials

Dean Webster, a professor and chair of the coatings and polymeric materials department at NDSU, has been named one of 170 Fellows for 2024 by the National Academy of Inventors (NAI). Webster will be formally inducted during the annual NAI conference in Atlanta in June 2025.

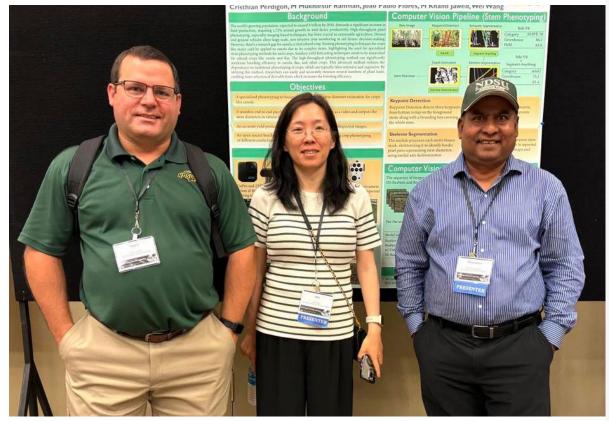
The NAI Fellows Program recognizes inventors who have demonstrated a prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development, and the welfare of society. As the highest



professional distinction conferred by the Academy, NAI Fellow status is accorded solely to academic inventors.

read more

Rahman's research on precision agriculture a collaborative work



Flores, Wand, and Rahman

Mukhlesur Rahman, NDSU associate professor of plant sciences, is conducting collaborative research in the area of precision agriculture thanks to three grants funded from the United States Department of Agriculture's National Institute of Food and Agriculture. Using artificial intelligence, robotics and agriculture science, Rahman and core collaborators at NDSU and beyond are directing their energy to address critical challenges in precision agriculture, including autonomous weed management, prediction of yield and agronomic traits, and 3-D scene reconstruction of agricultural farms.



read more

NSF Funding boosts STEM students and research at NDSU



Hodgson (second from left) and the Herd S-Stem Scholars at the 2024 AAAS meeting

In 2022, the North Dakota State University department of biological sciences received a \$1.4 million award from the National Science Foundation's (NSF) Scholarships in Science, Technology, Engineering and Mathematics (S-STEM) program to help fund scholarships for

students with unmet financial need and provide academic and career support for students pursuing STEM degrees.

The NSF has several funding opportunities available for researchers at NDSU like the S-STEM grant received by the biological sciences department. The NDSU Research and Creative Activity Office helps facilitate NSF awards, which includes helping with pre-award info, conducting training or working with interested researchers to help them submit a proposal. A top priority for campus this year has been to boost NSF competitiveness for NDSU research proposals.

read more

We're looking for presenters! BisonSpark Talks will be held on March 6, 2025



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



NEW NSF and NIH listservs now available

Two new targeted listservs are now available for NDSU researchers. Agency-specific funding opportunities, trainings, and announcements will be sent via these listservs while general research-related information from the RCA office will continue to be distributed to the NDSU-FACULTY@listserv.nodak.edu listserv.

- NDSU-NSF-opportunties@listserv.nodak.edu
- NDSU-NIH-opportunties@listserv.nodak.edu

NOTE: We are prepopulating each listserv with anyone who has submitted to either the NSF or NIH in the last year. However, you can also manage your own subscription <u>here</u>.

BY THE NUMBERS

\$11,450

Donations made to the Office of Research and Creative Activity on NDSU Giving Day 2024.

Thank you for your support!

ACTIVE RCA INTERNAL FUNDING OPPORTUNITIES

RCA Transformative Research Leadership Program Pilot Planning Grants - Round 2

Nomination Packet Deadline: January 17, 2025 (applicants will be notified of decision by February 5, 2025)

These pilot planning grants will provide up to \$75,000 to build capacity for demonstrating readiness to submit competitive large, federal center-level proposals led by NDSU PIs. A planning grant consists of a series of activities that are designed to ramp up to the submission of a large, center-level project, including but not limited to networking, building and working as a team, proofs of concept, preliminary research, enhancing broader impacts, and developing and/or deepening relationships with industry partners.

Pls must be at the Associate Professor rank or above and have a prior funding track record as a Pl from the agency where submission is intended. These projects require a reduction in Pl workload the equivalent of a 3-credit course (or administrative or other release equivalent to a 3-credit course) during the planning phase.

learn more and apply



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

NSF Scholarships in Science, Technology, Engineering and Mathematics Program (S-STEM)

The main goal of the S-STEM program is to enable academically talented, low-income students to pursue successful careers in promising STEM fields. Ultimately, the S-STEM program seeks to increase the number of academically promising low-income students who graduate with an S-STEM eligible degree and contribute to the American innovation economy with their STEM knowledge. Recognizing that financial aid alone

cannot increase retention and graduation in STEM, the program provides awards to institutions of higher education (IHEs) not only to fund scholarships, but also to adapt, implement, and study evidence-based curricular and co-curricular^[a] activities that have been shown to be effective in supporting recruitment, retention, transfer (if appropriate), student success, academic/career pathways, and graduation in STEM.

To be eligible, scholars must be domestic low-income students with academic ability, talent, or potential and demonstrated unmet financial need who are enrolled in an associate, baccalaureate, or graduate degree program in an S-STEM eligible discipline. Proposers must provide an analysis that articulates the characteristics and academic needs of the population of students they are trying to serve. NSF is particularly interested in supporting the attainment of degrees in fields identified as critical needs for the Nation. It is up to the proposer to make a compelling case that such a field serves a critical need in the United States. **Up to two proposals can be submitted from each institution**.

Program Solicitation here

KEY DATES

- Internal Date to Notify RCA of Intent to Submit: December 23, 2025 by 5 pm CST
- Internal Date to Submit RCA Pre-proposal if needed: Jan. 21, 2025 by 5 pm CST
- Application Date for Full Proposal to NSF: March 4, 2025 by 5pm CST

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 NIH, Basic Instrumentation Grant (BIG) Program (S10 Clinical Trial Not Allowed)

The BIG Program supports acquisitions of scientific instruments that are justified by investigators' needs to pursue their scientific projects in basic, translational, or clinical fields. *The program requires that three Major Users with NIH-funded research projects demonstrate significant need for the requested instrument.* Once the requirement of three Major Users with NIH research funding has been met, additional users may be included. It is expected that the instrument, by augmenting institutional research capabilities, will invigorate current research, contribute to opportunities for novel research projects, stimulate new collaborations, and increase overall research competitiveness.

The BIG Program provides funds to purchase a single piece of new, costly, specialized, commercially available instrument or an integrated instrumentation system. An integrated instrumentation system is one in which the components, when used in conjunction with one another, perform a function that no single component can provide. The components must be dedicated to the system and not used independently. Types of instruments supported include, but are not limited to, basic cell sorters, confocal microscopes, ultramicrotomes, gel imagers, or computer systems. Applications for standalone computer systems (supercomputers, computer clusters, and data storage systems) will only be considered if the system is solely dedicated to biomedical research. All instruments, integrated systems, and computer systems must be dedicated to research only.

Program Solicitation here

KEY DATES

- Internal Date to Notify RCA of Intent to Submit: January 17, 2025 by 5 pm CST
- Internal Date to Submit RCA Pre-proposal: Feb 15, 2025 by 5 pm CST (if needed)
- Application Date for Full Proposal to NIH: June. 2, 2025 by 5pm CST

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 <u>Science and</u> <u>Technology (S&T) Plan</u>. 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



NIH Research Enhancement Award (R15): What You Need to Know...And Recent Changes

Thursday, January 30, 2025 1:30 – 3:00 p.m. CT

In this virtual event, participants will learn about the two NIH R15 programs:

- 1. Academic Research Enhancement Award (AREA) for Undergraduate-Focused Institutions
- 2. Research Enhancement Award Program (REAP) for Health Professional Schools and Graduate Schools

These grants are designed to provide support for meritorious research at domestic institutions that have not been major recipients of NIH support, to strengthen the research environment at these institutions, and to give students an opportunity to gain significant biomedical research experience. Webinar participants will gain insights into the application process and the review criteria with an opportunity to participate in a live Q&A with a panel of NIH experts.

During this live event, participants will gain insight into:

- Eligibility details for both AREA and REAP R15 programs
- Application components
- The NIH Simplified Review Framework (SRF) for R15s
- Resources and contacts

registration required

NSF Launches Newsletter for 75th Anniversary



As the U.S. National Science Foundation's 75th anniversary approaches next spring, a newsletter sharing information about the agency's enduring impact on discovery, innovation and education is now available. The monthly newsletter will share stories of groundbreaking research and transformative initiatives that have shaped our world, while looking ahead to the future of science and engineering.

manage your NSF newsletters subscriptions

Spencer Launches New Initiative on AI and Education



This initiative will support novel research on key, forward-leaning topics on AI, equity, and education. Ultimately, the initiative aims to offer evidence-based guidance that centers the needs of young people so that the technology solutions, systems, and policy directions we are utilizing and building contribute to the learning and thriving of all students.

These technologies are a source of great promise as well as concern, particularly around how they will impact equity in education systems and our most vulnerable communities. Scholars have identified areas of teaching and learning that AI could potentially benefit, from supporting teacher learning to reducing the administrative burden in schools. They have also identified a range of challenges, from a widening digital divide to algorithmically driven bias and discrimination to the environmental costs of computationally demanding AI systems.

Rigorous research is necessary to properly weigh these concerns while remaining open to the potential for AI to positively transform educational systems from early childhood to higher education and beyond.

Activities under the AI & Education initiative will:

• Support novel research on key, forward-leaning topics on AI and education;

- Cultivate new connections and collaborations between researchers, the tech industry, policymakers, and educators; and
- Broaden the public discourse on AI and education. Click the button below to find out more about the kind of research we are looking to fund under this initiative.

The Spencer Foundation has been a leading funder of education research since 1971 and is the only national foundation focused exclusively on supporting education research.

get more information



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:

• Identify and employ crucial steps to prepare to write

- Acquire key information about effective NIH writing strategies
- Apply those strategies as you write and revise a draft of your submission
- Utilize your skills to critique the work of others, which will lead to sharpening of your own skills
- 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</u> <u>benefits of membership</u>. Also included are the slides and manual used in this *Bootcamp*.

register for the R-Series bootcamp



National Institutes of Health

Reminder: NIH FORMS-I Grant Application Forms and instructions must be used for due dates on or after January 25, 2025

Applicants must use FORMS-I application packages for due dates on or after January 25, 2025 and must use FORMS-H application packages for due dates on or before January 24, 2025 (see <u>NOT-OD-24-086</u> for details).

Applicants are encouraged to submit early to allow time to work through any unforeseen issues. Also, applicants are encouraged to use the contact information below to address questions and challenges.

Additional Updates:

- FORMS-I Grant Application Instructions will be posted on the <u>How to Apply</u> -<u>Application Guide</u> page in November 2024. All significant changes to form instructions will be listed in Section G.120 Significant Changes.
- FORMS-I application packages are currently being posted to all active Notices of Funding Opportunities (NOFOs). NIH expects to complete this process by December 2024, with all application forms packages posted 30 calendar days or more prior to receipt dates.
- See <u>High-level Summary of Form Changes in FORMS-I Application</u>
 <u>Packages</u> for a full list of known form changes. These changes will be implemented with application form packages identified with a Competition ID of "FORMS-I" and associated application guide instructions.
- All FORMS-H application forms packages will be updated with a close date of January 24, 2025.

NOTE: Application due dates remain unchanged. Applicants must refer to the NOFO for key date information.

For a transition period, both FORMS-H and FORMS-I application packages will be active simultaneously. Applicants must choose the appropriate application package for their due date when presented with both FORMS-H and FORMS-I application packages on the same NOFO.

get additional information

RCA ANNOUNCEMENTS

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



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. *NOTE: Dates are currently tentative - more information will be released soon.*

- 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

Watch for more information about this Bootcamp coming at the beginning of January.

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 December 2024 edition:

- Does Your Humanities Proposal Have Inside and Outside Appeal?
- Funding: Artificial Intelligence & the Future of Work
- Changes to EPA Notices of Funding Opportunity
- NSF Funding for AI Education, Training and Broadening Participation
- NIH's New Science of Science Scholars Program Pilot
- In Proposals, Less is Often More

access these articles and more (requires NDSU login)

Research Compliance in the Union

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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.

LEWIS-BURKE

A S S O C I A T E S LLC

NDSU Webinar with Lewis-Burke Associates: Federal Policy and the New Administration

January 22, 12:00pm - 1:00pm, Zoom

Lewis-Burke Associates, LLC is a federal government relations firm covering both Congress and the federal agencies that works with NDSU to anticipate policy and priority changes that will impact research and education. In addition to working with members of Congress to shape legislation to support research and higher education, Lewis-Burke tracks federal rulemaking, implementation, and leadership to position NDSU for success.

In anticipation of the new Presidential Administration and makeup of Congress, Christina Laridaen and Otto Katt will give a presentation for NDSU faculty and staff and answer questions focused on higher education policies that may be considered in the coming years and its impacts on students, research, technology transfer, and workforce development.

Christina Laridaen [Principal] focuses on agriculture, environment, conservation, and resilience topics, and is well-versed in the research, education, and extension policy within USDA NIFA, ARS, and NRCS. She supports Lewis-Burke clients by providing in depth information about actions in Congress and at federal agencies and strategizing new initiatives and positioning for success.

Otto Katt [Principal and Chair, Talent and Workforce Development Practice] focuses on issues related to workforce and education policy, immigration, economic development, research, and tax policy. He provides strategic guidance on legislative, administrative, and regulatory issues at the Department of Education (ED) and Department of Labor (DOL), in addition to other federal agencies.

registration is required

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.