

August 5, 2024

## **Navy team tours NDSU Bioactive Materials Research lab**

The Office of Research and Creative Activity recently hosted US Navy Admiral Munsch, Rear Admiral Peterson, and their team on a tour of the NDSU Bioactive Materials Research Laboratory (BMRL). NDSU received more than \$5M in research awards from the U.S. Navy in FY24.

NDSU Professor & Chair of Coatings & Polymeric Materials Dean Webster and NDSU Coatings & Polymeric Materials Senior Research Specialist Shane Stafslie discussed the research in their labs that screens coatings for a number of biological properties including antimicrobial and antifouling activity.

The BMRL is dedicated to the rapid discovery of biologically active coatings and materials for a variety of applications. A suite of automated tools and assays have been developed to facilitate high-throughput screening of coatings for a number of biological responses and properties such as antimicrobial/antifouling activity and biocompatibility.

The lab occupies 1,000 square feet of space with approximately 800 square feet of space equipped to conduct biosafety level 2 (BSL2) research activities involving the use of a variety of pathogenic microorganisms, such as *Pseudomonas aeruginosa*, *Escherichia coli* and *Staphylococcus aureus*.

A number of relevant marine fouling organisms, including bacteria, microalgae, and barnacles, are maintained year-round at NDSU.

In a [story](#) posted by his team after the visit, Admiral Munsch said, “The Bison of North Dakota State University are a hub of innovation and intellectual talent. Our visit underscored the Navy’s on-going commitment to investing in the next generation of leaders and scientists. By working together, we can address complex challenges and ensure our Navy remains at the forefront of technology and operational excellence.”



NDSU Coatings & Polymeric Materials Senior Research Specialist Shane Stafslie talks about his work developing and testing materials that limit marine growth and adhesion.



**DID YOU  
KNOW?**

- NDSU has been housing and maintaining adult barnacles in an artificial sea water-based aquarium tank rack system for use in Office of Naval Research sponsored coatings research for 18 years (since 2006).
- NDSU receives approximately 150-200 adult barnacles every 6 weeks from the Duke University Marine Laboratory in Beaufort NC.



NDSU Professor & Chair of Coatings & Polymeric Materials Dean Webster discusses the BMRL's work to limit the impact of biofouling on objects such as water intake valves.

Learn more about the [Bioactive Materials Research Lab \(BMRL\)](#) >>

## Summer 2024 Summer Research Poster Session

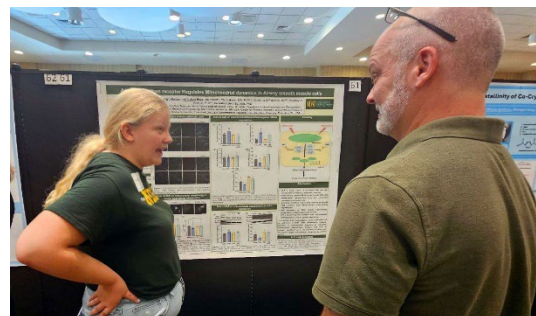
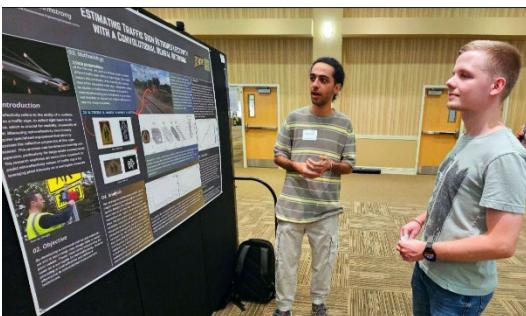
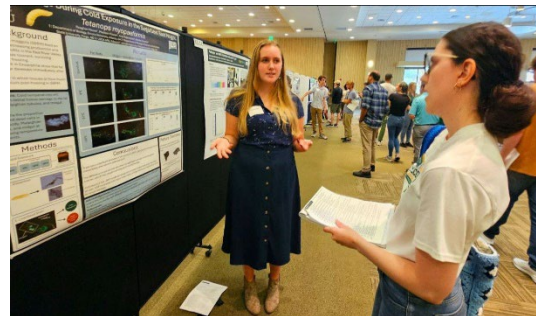
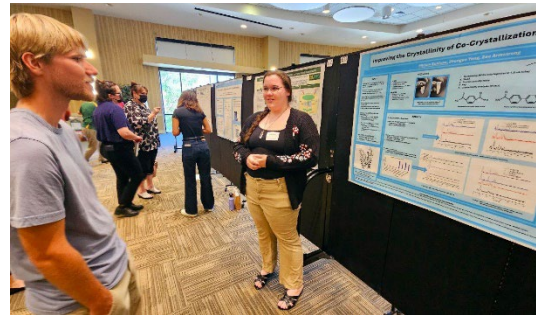
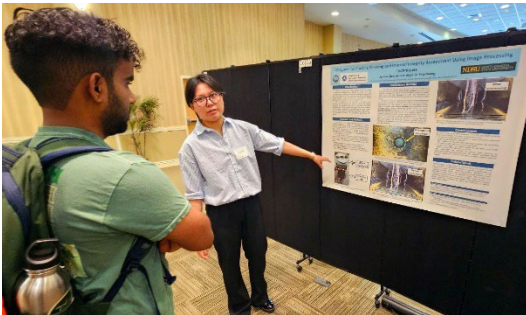
On August 2, more than 75 undergraduate students presented their work from the various research programs held on campus this summer.

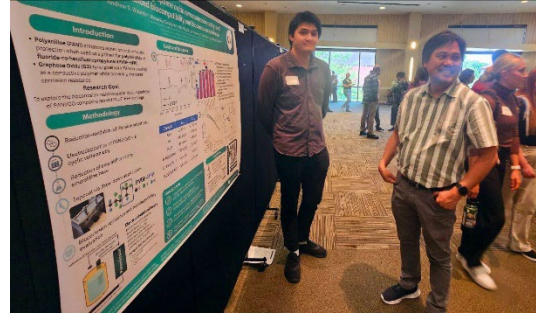
- **Agribusiness and Applied Economics**
- **Britt Heidinger Lab**
- **Chad Ulven Composite Group**
- **North Dakota Governor's School**
- **Parents Involvement with Children, Nurturing Intellectual Curiosity in Science (PICNICS)**
- **Pollination Nation**



- Computer Science
- Corrosion Engineering (CORE)
- Mechanical Engineering REU
- Mukund Sibi Lab
- NDSU ECE Sensor Group
- NDSU EXPLORE Summer Undergraduate Research Program
- NDSU Soybean Breeding
- Rust Lab, Department of Plant Pathology
- Sanku Mallik Lab
- Summer Undergraduate Biomedical Research Program (SUBRP)
- Summer Undergraduate Research Experience (SURE)
- USDA ENG Sensors Group
- Zhikai Liang Lab

[Summer Research Programs Poster Session Poster Guide >>](#)





## RCA welcomes Fettig and Berg

**Mackenzie Fettig** is the new RCA award intake officer. Mackenzie is responsible for managing the receipt of external awards, performing the initial review of documents for completeness of key elements, completion of sponsor required forms, assignment of SPA reviewers, and managing timely award processing and database entry.



Mackenzie is an NDSU alum and holds a bachelor's degree in strategic communication with an emphasis in public relations and advertising and journalism. Mackenzie most recently worked as the Executive Director of Dakota Gather (formerly EPIC Charities), a ND non-profit committed to prioritizing the public's well-being by strengthening the connection between people and the places we gather.

**Tom Berg** is the new RCA communications specialist. Tom is responsible for writing stories about researchers, making social posts, and other general comms activities for RCA. He splits his time between RCA comms and the FEWS initiative on the agriculture team that brings together research about food, energy, and water security.

Tom has a rich history of communications and writing experience, working first as a sports information coordinator at the University of South Dakota followed by a decade at Minnesota State University Moorhead working as the assistant athletic director for media relations. He most recently worked with NDSU associate professor and agronomist Andy

Robinson on a two-year book project about Andy's potato research.

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## Federal Agency requirements related to Foreign Talent Recruitment Programs

The [CHIPS and Science Act](#) requires federal funding agencies (e.g., National Science Foundation (NSF), Department of Defense (DoD), Department of Energy (DOE), etc.) to establish policies that require Covered Individuals to disclose if they are a party to a Foreign Talent Recruitment Program (FTRP) contract, agreement or arrangement and to certify at the time of any federal proposal submission and annually thereafter for the duration of affected awards that they are not a party to a Malign Foreign Talent Recruitment Program (MFTRP).

In addition, after Aug. 9, 2024, the Department of Defense is prohibited from funding a fundamental research project proposal that has a Covered Individual who is participating in an MFTRP.

For compliance with the CHIPS and Science Act, NSF has added the language below to the certifications in SciENCv. By submitting a proposal, investigators are certifying that they are not a party to an MFTRP. Other federal agencies are likely to add similar certification processes in the near future, including the NIH, which just announced their process which will be effective May, 2025.

***I certify that the information provided is current, accurate, and complete. This includes but is not limited to current, pending, and other support (both foreign and domestic) as defined in 42 U.S.C. §6605. I also certify that, at the time of submission, I am not a party to a malign foreign talent recruitment program.***

***Misrepresentations and/or omissions may be subject to prosecution and liability***

*pursuant to, but not limited to, 18 U.S.C. §§ 287, 1001, 1031 and 31 U.S.C. §§ 3729-3733 and 3802.*

More information on Foreign Talent Recruitment programs and what makes a FTRP malign is available at [RCA Research Security](#).



## Do you have an ORCID?

Some federal agencies are moving toward requiring investigators to register with a Digital Persistent Identifier (DPI) service, such as ORCID, to address the challenge of distinguishing researchers and their research activities from those of others with similar names.

As Federal Agencies continue to place emphasis on shoring up research security, and are paying closer attention to collaborations or relationships with individuals or entities believed to be at risk, it is essential to ensure that investigator's scholarly work is appropriately attributed.

Get [more information](#) about setting up your ORCID ID and distinguishing yourself in three easy steps >>

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# DEFENSE TECHCONNECT

## INNOVATION SUMMIT & EXPO



### Call for Technical Abstracts

The Department of Defense (DOD) seeks cutting-edge research applicable to both civilian and national security needs. The poster program attracts key government offices and funding channels. Showcase your research and technologies at the nation's premier gathering of industry and federal stakeholders.

Our government and industry clients are interested in the latest research across various technology domains, including:

- Energy and Resilience
- Biotech and Medical
- Microelectronics & Sensors
- Advanced Materials
- Advanced Manufacturing
- Advanced Communications
- Aerospace Technologies
- Autonomous Systems
- AI, Cyber & Digital Solutions
- and more!

Defense Techconnect is the nation's premier defense innovation event, connecting top dual-use solution providers with the nation's top military, industry and investment leadership. The event will be held Dec. 3-5 in Austin, TX.

Abstracts due by August 23. [Learn more >>](#)





## 2024 BioScience Summit

Sept. 17 & 18

Avalon Events Center

2525 9th Avenue South, Fargo

You are invited to attend the BioScience Summit and meet some of the nation's leading bioscience and medical device innovators, explore opportunities for collaboration, and find partnerships that will help to build out one of the nation's fastest growing bioscience ecosystems.

NDSU's Office of Research and Creative Activity is a sponsor of the 2024 BioScience Summit and will be hosting a panel called *Leveraging Higher Education Relationships*:

- (Moderator) Cindy Graffeo, Innovation and Economic Development Director, NDSU
- Teresa Connor, Dean of Health and Human Services, NDSU
- John McEvoy, Professor and Head of Microbiological Sciences, NDSU
- Alan Kallmeyer, Professor and Interim Dean of the College of Engineering, NDSU

The event is organized and co-hosted by the Greater Fargo Moorhead Economic Development Corporation (GFMEDC), Bioscience Association of North Dakota (BioND), North Dakota Department of Agriculture, and the North Dakota Department of Commerce.

[Get the full agenda and register for the Summit >>](#)



## 2024 Fargo-Moorhead Area Diversion Project Conference

The Fargo-Moorhead Area Diversion Project Conference, hosted by the ND Water Resources Research Institute (ND WRRI), provides an active local learning environment for faculty and students conducting research related to water resources. The conference will bring together a multi-discipline audience of experts from agencies, industry, and academia to learn about the project's status, social impact, and unique engineering design.

The 2024 Fargo-Moorhead Area Diversion Project Conference is brought to you with support from these partners:

**Metro Flood Diversion Authority | Discover Outdoors Riverkeepers | ND Department of Water Resources NOAA National Weather Service | USGS Dakota Water Science Center**

The FM Diversion Conference will be an opportunity for students and faculty researchers in water resources, engineering, and natural resources to learn about the project. While there is no cost for the event, seating is limited, and registration is required. **Please register before Aug. 5, 2024.**

[Learn more and register >>](#)



## **Unlocking DOD Funding for University Researchers course now available**

The free online video course is presented by Julia Barzyk, Ph.D., a former DOD funding agency program manager. The course is broken up into these lessons:

1. Why Consider DOD Funding
2. The DOD Approach to Funding
3. DOD Funding Organizations
4. DOD Programs
5. How to Search for DOD Funding
6. How to Learn what DOD has Funded
7. Connecting with People at DOD

## 8. Taking the Next Steps

While there is no charge to access the course, you will need to subscribe to the *Wise Investigator Newsletter* in order to access it. This newsletter provides strategies, tactics, and information to improve your success in getting research funding. The newsletter is also free and you can unsubscribe at any time.

[Learn more and access the course >>](#)



## Humanities North Dakota announces Fall 2024 classes and events

Whether you're a history buff, a literature lover, or simply someone who enjoys exercising your gray matter, Humanities ND has got something to pique your interest.

This Fall's lineup of online classes, webinars, and in-person events promises to challenge thinking, spark curiosity, and connect participants with fellow lifelong learners



across the state.

*[Get full details and registration information >>](#)*



## **Webinar: Office Hours: Preparing your SBIR/STTR Fast-Track Pilot Proposal**

**Thursday, August 15**

**1:00-2:30pm CT**

In this session, Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) program directors will discuss the [new SBIR/STTR Fast-Track pilot](#) that allows startups to develop new products and services based on prior NSF-funded research. Eligible companies can submit one proposal for more than \$2 million for a "Fast-Track" award to support research and development activities that may take up to three years to complete.

In this webinar, program directors will discuss eligibility and how to prepare your proposal. After an initial presentation, ample time will be allotted for questions from attendees.

Before joining the webinar, the NSF recommends that you:

- Review the [SBIR/STTR Fast-Track solicitation](#) to learn more about the program.

- Watch a recorded [NSF SBIR/STTR Fast-Track Pilot webinar](#) on NSF's YouTube channel.

[Register for the webinar >>](#)



## **TRANSCEND grant aims to expand clinical and translational research in ND**

The University of North Dakota was recently awarded an NIH Clinical and Translational Research (CTR-D) grant called TRANSCEND or "Translational Research Engaging North Dakota." The grant focuses on diseases prevalent in North Dakota and their potential environmental exposures. The ultimate goal of this 5-year grant is to expand clinical and translational (C&T) research in our state.

The TRANSCEND grant includes both NDSU and major clinical partner Sanford Health.

A new website connects researchers in the TRANSCEND network and allows for communication between future applicants and cores. In addition, it will feature diverse C&T training materials.

TRANSCEND will soon be announcing an RFA that focuses on North Dakota health issues, with opportunities for pilot grants and CME training in C&T research.

[Sign up to learn more about TRANSCEND and receive communications >>](#)

[Learn more about NIH's definitions of clinical and of translational research >>](#)



## Dear Colleague Letter: NAIRR Pilot Expansion

This Dear Colleague Letter (DCL) announces the interest of NSF in receiving proposals that expand the National Artificial Intelligence Research Resource (NAIRR) Pilot community under two different focus areas:

- Community outreach and training to new and emerging researchers
- Educators bringing inclusive AI-educational experiences to classrooms nationwide

Submissions led by teams located in Established Program to Stimulate Competitive Research (EPSCoR) jurisdictions or rural areas, and from Minority Serving Institutions (MSI) are encouraged.

Awarded teams, as appropriate, may be expected to maintain coordination with the NAIRR Pilot Program Management Office and any relevant NAIRR Pilot Working Groups.

[Read full letter >>](#)

**Research Development and Grant Writing News**

The Research and Creative Activity office 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.



Here are some articles you will find in the July 2024 edition:

- **NEH Humanities Connections Projects: A Funding Opportunity for Curricular Innovation at Two- and Four-Year Projects** – This funding opportunity supports connections between humanities and non-humanities faculty, and how proposals will be judged.
- **Funding Strategies: National Climate Resilience Framework by Federal Agency** – This recently released framework aligns climate resilience investments across the public and private sector through common principles and opportunities to build a climate resilient nation. Learn what PIs need to know.
- **An Overview of ED's FIPSE Program** – The long-running Fund for the Improvement of Postsecondary Education program supports the implementation of innovative educational reform ideas. Learn what ED is looking for in proposals to this program.
- **Last-Minute NSF CAREER Proposal Checklist 2024** – A checklist for PIs who plan to submit their NSF CAREER proposals this month, including new PAPPG requirements.
- **Preview of FY 2025 House Research Spending Bills** – Early details of spending under consideration to support research.
- **Does an NSF MRI Fit Your Situation?** – Many faculty need funding for instrumentation, but not all situations fit the NSF Major Research Instrumentation program. How to decide if your situation fits the MRI, and other avenues to pursue if it doesn't. (Reprinted from the November 2020 issue.)
- **Editing the Proposal Introduction: the What, Why, How, and So-What of a Preliminary Review** – How to evaluate and improve the proposal introduction. (Reprinted from October 2020 issue.)

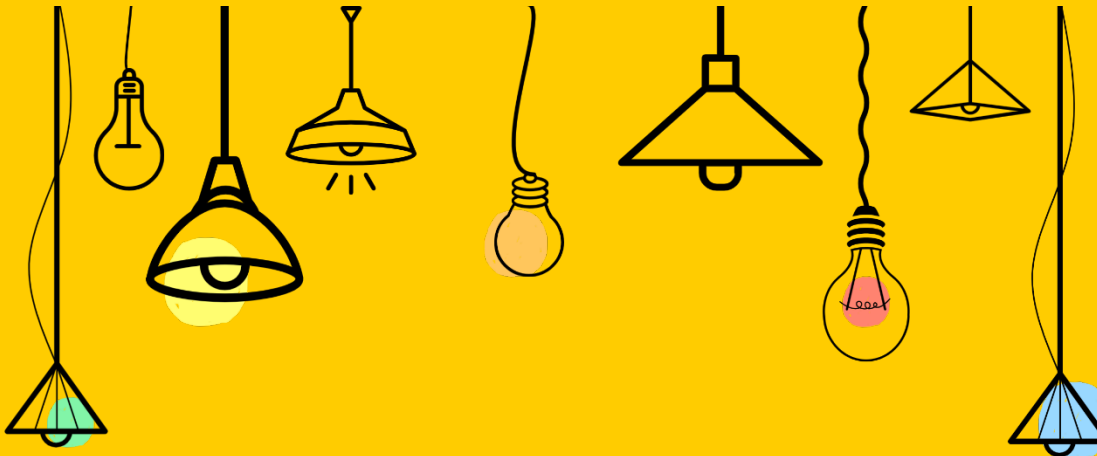
*Access these and many more articles (requires NDSU log-in) >>*



## Legacy IBC system to be phased out

In an effort to modernize all IBC protocols and move them to the Novelution system, the Legacy (paper) system is being phased out. Beginning in Nov. 2023, all Principal Investigators (PIs) at the time of annual update, or anytime a substantive change is requested, have been or will be notified that their protocols will transition to Novelution.

This process will continue through Oct 2024. At this time, the transition will be nearly complete as we wait for the review process on the last of the converted protocols. Once the transition is finalized the Legacy system will be retired.



## Have a big, bright idea about research at NDSU?

It's important that we continually challenge each other to come up with ambitious, big ideas in our research endeavors at NDSU. So we'd like to hear your ideas, and the bigger they are, the better.

While we can't promise all of them will succeed, we welcome you to share them - from an early concept or thought all the way to developed ideas that may just need some collaboration - send us an email ([bigideas@ndsu.edu](mailto:bigideas@ndsu.edu)) and get the process started.

# Funding Opportunities

## Developing and Demonstrating Nanosensor Technology to Detect, Monitor, and Degrade Pollutants (U.S. Environmental Protection Agency)

Continued exposure to certain PFAS, even at low levels, can cause harmful health effects. Rural and underserved communities specifically face barriers to frequent and rapid PFAS monitoring.

- This funding opportunity is soliciting research to develop and demonstrate nanosensor technology with functionalized catalysts that have the potential to degrade selected contaminants in addition to detecting and monitoring pollutants.
- Specifically, EPA is seeking proposals that use nanotechnology to detect, monitor, and degrade PFAS in groundwater or surface water that may be used as drinking water sources.

### **Award and Eligibility Information:**

- \$1,500,000
- Public, private, nonprofits/institutions/organizations, public and private institutions of higher education.

*Application deadline: Wednesday, November 13, 2024 (11:59:59 pm ET)*

## NSF Computer and Information Science and Engineering (CISE): Core Programs

The NSF CISE Directorate supports research and education projects that develop new knowledge in all aspects of computing, communications, and information science and engineering, as well as advanced cyberinfrastructure, through the following core programs:

- Division of Computing and Communication Foundations (CCF)
- Division of Computer and Network Systems (CNS)
- Division of Information and Intelligent Systems (IIS)

- Office of Advanced Cyberinfrastructure (OAC)

Proposers are invited to submit proposals in several project classes, which are defined as follows:

- Small Projects -- up to \$600,000 total budget with durations up to three years: projects in this class may be submitted to CCF, CNS, and IIS only;
- Medium Projects -- \$600,001 to \$1,200,000 total budget with durations up to four years: projects in this class may be submitted to CCF, CNS, and IIS only; and
- OAC Core Projects -- up to \$600,000 total budget with durations up to three years: projects in this class may be submitted to OAC only.

*Deadlines: Small projects: July 18-Sept. 30, 2024; Medium/OAC Core projects: Oct 1 - Oct 23, 2024*

### **Burroughs Welcome Fund (BWF) Career Awards at the Scientific Interface (CASI)**

BWF's Career Awards at the Scientific Interface (CASI) provide \$560,000 over five years to bridge advanced postdoctoral training and the first three years of faculty service. These awards are open to U.S. and Canadian citizens, permanent residents, and temporary residents.

*Deadline: Letter of intent due Sept. 4, 2024 (by 2:00 pm CT) | Invited proposals due Jan. 10, 2025*

### **Additional Opportunities**



## Limited submission programs

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.

### **Notice of Intent to Compete in Limited Submission Programs:**

The following Limited Submission programs are open for “Intent to Compete” notifications. If you are interested in submitting to any of these programs, please send an email to [ndsu.researchdev@ndsu.edu](mailto:ndsu.researchdev@ndsu.edu) by the dates indicated below. If more than two applicants respond we will run an internal pre-proposal phase.

### **Dielectric & Electrical Insulation Society Graduate Study Fellowship (Institute of Electrical and Electronics Engineers)**

This \$5,000 fellowship is aimed at students pursuing their Ph.D. degree and is awarded for a one-year research topic aside (but close to) the larger research project of the applicant. Research topics are expected to be in the broader field of interest of the IEEE DEI Society and may include:

- Insulating media, their electric and dielectric properties,
- Breakdown, charge transport and electrostatics,
- High-voltage effects, and related subjects.



Applicant must be a student member of IEEE and member of DEIS (or have applied for a student membership in IEEE at the time of application submission). Priority will be given to those applicants for whom the main advisor is also a DEIS member. Previous recipients of this award are not eligible for consideration.

*More information >>*

*Internal Date to Notify RCA: first to notify  
Application deadline: Sunday, Sept 1, 2024*

**Modern Equipment for Shared-use Biomedical Research Facilities:  
Advancing Research-Related Operations - S15 Clinical Trial Not  
Allowed (National Institute of Health Department of Health and  
Human Services)**

This Notice of Funding Opportunity (NOFO) invites eligible academic or research institutions to apply for funding support to purchase latest scientific equipment that will enhance and modernize research-supporting operations of existing shared biomedical research facilities.

- Targeted are laboratory research core facilities, animal research facilities, and other similar shared-use research spaces.
- The goal of this NOFO is to strengthen research-auxiliary activities of biomedical research facilities and to enhance the efficiency of their operations.

**Award and Eligibility Information:**

- \$350,000 direct costs only, funding for one single year.
- Any individual(s) with the skills, knowledge, and resources necessary to carry out the proposed research as the Program Director(s)/Principal

Investigator(s) (PD(s)/PI(s)) is invited to work with their organization to develop an application for support.

*More information >>*

*Internal Date to Notify RCA: first to notify*

*Application deadline: Sunday, Sept. 25, 2024*

## Looking for more funding opportunities?



RCA subscribes to SPIN by InfoEd Global, a database of more than 40,000 funding opportunities. Through this subscription, SPIN is free for current NDSU faculty, staff, and students.

For more information and to access this database, visit the [SPIN page](#) on the RCA website. If you have questions, please contact [ndsu.researchdev@ndsu.edu](mailto:ndsu.researchdev@ndsu.edu).

Have questions, ideas, or suggestions for the RCA Update?

[Contact Us](#)





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*The Office of Research and Creative Activity (RCA) sends bi-weekly emails to NDSU faculty and staff to provide current information on various topics including funding opportunities, grant program changes, research resources, deadlines, notices, and training.*

*You are receiving this notification through the NDSU official employee listserv or sub-list. The official listserv refreshes after each pay period.*

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

*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.*

