

RCA UPDATE

August 21, 2023

Grunwald named NDSU Associate Vice President for Research and Faculty Development

Heidi Grunwald, PhD, has been hired as the associate vice president for research and faculty development in the NDSU Office of Research and Creative Activity. She will play a vital role in NDSU's efforts to increase faculty success in securing external funding and to pursue strategic research priorities with both state and federal funding potential. She will help build momentum in key strategic research priorities through enhanced programs critical to building faculty success at all ranks in all the disciplines across campus (STEM, arts, humanities, social sciences, education, and more).



With an extensive background in research administration and development, Grunwald brings valuable experience to the position. During her nearly two decades at Temple University, she held various positions, including the role of assistant vice president for research. In this capacity, she managed diverse aspects such as operations, budgeting, financial reporting, and oversight of clinical trials.

Throughout her career, Grunwald has worked with partners including Historically Black Colleges and Universities (HBCUs) and local, regional, and national health and justice organizations. She co-designed software for managing survey panels and she co-founded a technology transfer, spin-out company that created software specializing in empirical legal research.

Grunwald is excited about the opportunities at NDSU. "It's an important time for NDSU and I know that I can contribute to the great future of the institution," she said. "I look forward to building and supporting a creative, successful team who can grow new sustainable, inter and transdisciplinary applied research and practice programs that will improve the global community."

Joining NDSU at a time when research is a key priority, Grunwald will work to support and maintain NDSU's R1 Carnegie Classification of Institutions of Higher Education ranking, one of NDSU President Cook's top priorities, and to build upon the existing research ecosystem with a focus on faculty success and research development programming. With new internal funding opportunities, such as the North Dakota Economic Diversification Research Funds, expected to launch soon, she will also manage forthcoming internal competitions and limited submission.

Grunwald's team will be responsible for enhancing NDSU's ability to compete for external funding by providing resources, training, and assistance related to developing successful research programs, such as grant writing workshops and faculty professional development opportunities and proposal writing resources and tools.

"Because of the CHIPS and Science Act and other recent legislation there are significant federal funding opportunities in research available now and Heidi can maximize our potential for success at those opportunities," said NDSU VPR Colleen Fitzgerald. "Heidi and the Research and Faculty Development Unit team will provide hands-on support focused on faculty, especially early career hires.

Grunwald will serve on Fitzgerald's leadership team, and will work collaboratively to identify and address gaps, capitalize on opportunities, and leverage resources and

assets for greater return on investment for NDSU.

“Someone with Heidi’s background is a key addition to our office,” said Fitzgerald. “Her experience as an academic researcher and as an administrator providing service to faculty members across a wide breadth of college environments has provided her with a key understanding of researcher needs along with the operational challenges present in today’s research administration. I am especially excited about the potential for growth in NIH and biomedical and health research, and in building out center-level initiatives, with the track record she brings to NDSU.”

Grunwald began her new role on August 18, 2023.

NDSU Strengthens International Partnerships with U.S. Ambassador's Visit to Campus

Elizabeth Fitzsimmons, the U.S. Ambassador to the Republic of Togo, visited NDSU on Friday, August 4. The visit, hosted by NDSU Vice President for Research and Creative Activity Colleen Fitzgerald, aimed to explore potential partnerships between Togo, NDSU, and North Dakota's National Guard, with a focus on bringing new educational and business opportunities back to Togo.



Togo, Ghana and the Republic of Benin are partner countries with North Dakota through the State Partnership Program (SPP). SPP is administered by the National Guard Bureau in close consultation with Defense Department officials and the State Department. The program aims to build trust, confidence and capabilities with

partner nations by providing an opportunity for National Guard members to interact with citizens and governments of partner countries.

"How do we build out that existing Togo-North Dakota relationship, with business and industry, agriculture, and NDSU being the three legs in those partnerships?" asked the Ambassador.

Accompanying the ambassador from Togo were Colonel Messan Avomado, Commander of Togo's Inaugural Military Region, Captain Jeremiah R. Colbert, and Robert Dedzi. They were joined by members of the North Dakota National Guard including Deputy Adjutant General Jackie Huber and U.S. Army Lt. Col. Mark McEvers, who serves as the North Dakota National Guard State Partnership Program director.



During their visit, the group had the opportunity to explore the Innovation Studio, a makerspace at the Incubator in the NDSU Research and Tech Park, featuring facilities like a woodshop, metal shop, 3D image lab, and textile lab. They learned how the Innovation Studio provides real-world education opportunities for students.

Next, the group visited an NDSU Psychology lab and met with a group that included NDSU Psychology Professor and Department Chair Clayton Hilmert, Professor Benjamin Balas, and Associate Professors Laura Thomas, Leah Irish, and Jeffrey Johnson and graduate student Jesujoba 'JJ' Olanrewaju. Fitzsimmons asked questions and engaged in discussions about how research can build new education opportunities for both NDSU and Togo students and professors. This led to ideas ranging from student and professor exchange opportunities to future collaborative research projects that would focus on West Africa.

The ambassador and the group then met with Denver Tolliver, Director of the NDSU Upper Great Plains Transportation Institute and learned about the institute's efforts to improve transportation safety. Fitzsimmons discussed transportation safety concerns in Togo and explored potential ways to enhance transportation overall in the country.

"Having Ambassador Fitzsimmons visit us is just a first step to build deeper relationships with Togo," said NDSU Vice President of Research Colleen Fitzgerald. "Given that NDSU's brand as a thought leader in AgTech resonates globally, and the strong ties in North Dakota thanks to the North Dakota Air National Guard, this opens the door to future collaborations in research and more."



Prior to the visit, Fitzsimmons expressed her commitment to creating opportunities for students and requested to speak with a student for an interview about her work and Togo. NDSU undergraduate student and communications intern for the Office of Research and Creative Activity Miranda Tetzloff had the privilege of engaging in a one-on-one conversation with Fitzsimmons at the end of the tour.

NDSU to host UIDP Xurban 2025 conference in Fargo

NDSU has been selected as the host conference site in summer 2025 for a national convening of companies, universities, and other key stakeholders with the goal of bolstering research, innovation, talent, and economic development outside of major metropolitan areas.



Strengthening
University-Industry
Partnerships

UIDP Xurban forums are held biannually by the non-profit University-Industry Demonstration Partnership (UIDP) at the site of a member university. UIDP provides its members – including many of the world's most innovative companies and world-class research universities – with an opportunity to increase the success of university-industry (U-I) collaborations and research projects. As a member of UIDP, NDSU faculty, staff and students may register to access valuable resources on best practices to support initiatives and efforts to advance industry and corporate partnerships.

NDSU and Fargo were chosen to host the event based upon the high level of collaborations between the university's researchers and the strength of the area's various established and start up industries.

"NDSU and Fargo will be a great location for Xurban 2025," said UIDP President and CEO Anthony Boccanfuso. "We were impressed by the many great industry, government, and community partnerships in the area and NDSU's reputation as a trusted source for innovation and commercialization."

NDSU's recent successes in national research initiatives including being classified as a Carnegie R1 institution, leading the eight university Great Plains I-Corps Hub, and the recent performance of the competitive \$160 million NSF Engines FARMS proposal (Grand Farm, the Fargo Moorhead West Fargo Chamber and the Greater Fargo Moorhead Economic Development Corporation all partnered with NDSU on the application).

"NDSU is poised to continue bringing national exposure to Fargo and the state and we are excited to be hosting an event with a reach like Xurban Fargo," said NDSU Vice President of Research Colleen Fitzgerald. "It's a real validation of the important research we're doing at NDSU in the areas of AgTech, cybersecurity, food and water security, life sciences and beyond, and of our partnerships with the incredible industry partners in the state. Many thanks to NDSU Associate Vice President for Strategic Research Initiatives Sheri Anderson who drilled down into our regional ecosystem strengths and shared the story of NDSU and Fargo with the UIDP selection committee."

Recent hires in the NDSU Office of Research and Creative Activity along with support from the North Dakota Legislature including \$2.5 million in Economic Diversification Research funding have strategically positioned NDSU to capitalize on opportunities for commercialization, entrepreneurship, and U-I partnerships in our region.

“NDSU’s Innovation Portfolio has always been a valuable connection to industry and strengthening it is a priority,” added Fitzgerald. “We recently welcomed Zane Gernhart, Executive Director of the Research Foundation and Cindy Graffeo, Innovation and Economic Development Director to our team. Both bring a wealth of experience, and they will have an immediate and major impact on helping our partner companies access and work with our researchers.”

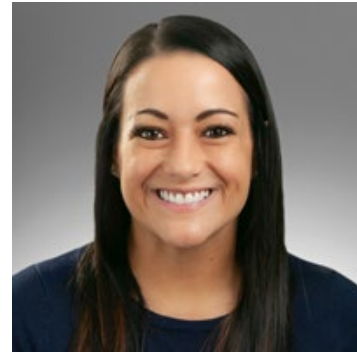
UIDP is a global, solutions-oriented network of top-tier innovation companies and world-class research universities that develops new approaches to partnership so members can have greater impact. Launched in 2006 by the National Academies of Science, UIDP convenes thought leaders from academic, corporate and government sectors to advance collaborations through new or better approaches; advance the idea-to-innovation process through U-I collaboration; and serve as a national resource for other parties who benefit from high value university-industry partnerships. UIDP became an independent non-profit organization in 2015.

The dates for Xurban 2025 have not yet been determined. Attendees from universities, industry, or government organizations are welcome to attend. More information about sponsorship for industry partners is forthcoming.

More information about [UIDP](#) >>

RCA welcomes new team members

Andrea Ludwig has joined the Research Integrity and Compliance team as the new IRB Administrator. Andrea has a bachelor's degree in sociology from Minnesota State University – Moorhead and an MBA specializing in Healthcare Management from Capella University. Andrea comes to NDSU from Sanford Health where she was most recently Graduate Medical Education Program Manager for their accredited hematology and oncology fellowship program.



Andrea will be located in Research 1, Rm 130. She can be reached at 701-231-8098 or andrea.ludwig@ndsu.edu.

Jenni Hitt has joined ND EPSCoR as the new Administrative Coordinator. Jenni has a breadth of experience in both the public and private sectors.

Jenni will be located in NDSU's Research 2 Building, Room 102H. She can be reached at 701-231-8400 or jenni.hitt@ndsu.edu.





BisonSpark TALKS

As part of our Big Idea Research Initiatives for the 2023-24 year, the Office of Research and Creative Activity (RCA) and the Faculty Research Council are issuing a call for October speakers for BisonSpark Talks.

Nomination packages due September 5, 2023

All NDSU faculty researchers from every discipline across campus, assistant professor to tenured full professor, are invited to submit a nomination package for a BisonSpark Talk. Sign up link below!

The nomination package should include a 2-minute zoom recording preview of the talk and include why your discipline matters to solving large economic or social challenges in one of [NDSU's priority research areas](#):

- Food, Energy and Water Security
- Cybersecurity, Computer Science and Software Engineering
- Life Sciences
- Entrepreneurship and Innovation

[Learn more and submit a package >>](#)

Watch a replay of the [BisonSparks Talk Info session \(8/21/23\)](#)



ACS
Chemistry for Life®

ACS Award for Affordable Green Chemistry

The ACS Award for Affordable Green Chemistry recognizes outstanding scientific discoveries that lay the foundation for environmentally-friendly products or manufacturing processes at a cost comparable to or less than that of current technologies or discoveries that deliver new applications with compelling cost/benefit profiles. To identify and recognize the discovery of new eco-friendly chemistries with the potential to enable products or manufacturing processes that are less expensive than existing alternatives.

The award consists of \$5,000 and a certificate. Up to \$2,500 for travel expenses to the meeting at which the award will be presented will be reimbursed.

Nominees may include:

- Individuals
- Research Teams (Maximum 3 Individuals)
- Representatives From an Organization (Company, University, or National Laboratory)
- Professors or Other Academic-Based Teams Whose Work Has Been Commercialized

Deadline: November 1

[Learn more >>](#)

Build **UP** Trust CHALLENGE

Awarding up to \$1.25 Million

The National Institutes of Health's (NIH) Build UP Trust Challenge seeks solutions that increase research participation and the adoption of medical care by building trust and improving engagement with historically underserved communities.

Racial injustice and inequities in healthcare contribute to health disparities. Lack of trust among underserved populations can lead to reluctance to engage with biomedical research and utilize healthcare technologies.

How to Participate

Here are key steps to participating in the NIH Build UP Trust Challenge:

- 1. Assessment**

Before registering, complete our [Readiness Tool](#) to help determine eligibility and to ensure that your solution is a strong fit for the Build UP Trust Challenge

- 2. Registration**

After completing the [Readiness Tool](#), you must register for the Build UP Trust Challenge by 5:00 PM Eastern Time on Tuesday, November 14, 2023.

- 3. Submission**

Once you've registered for the Build UP Trust Challenge, complete your

submission no later than 5:00 PM Eastern Time on Tuesday, December 5, 2023.

4. Evaluation

Valid submissions may receive feedback from up to five fellow participants. Projects within scope will also be evaluated by an expert panel, and a subset of top-scoring submissions will move on to the [Judging Panel](#).

5. Phase I Selection

Informed by [Judging Panel](#) results, NIH will review top-scoring submissions to select up to ten Finalists who will receive up to \$45,000 each for their solution and the opportunity to win one of four \$200,000 prizes.

[Learn more >>](#)

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 August 2023 edition:

- **Selected List of Mid-career Funding Opportunities in Humanities and HRSS** – We list awards for mid-career scholars in the humanities and humanistic social sciences.
- **Predictive Intelligence for Pandemic Prevention Phase II** – The new NSF funding opportunity is a great example of new directions and priorities at NSF. We discuss why.



- **National Institute of Justice: What it is, does, and funds** – The NIJ is the research funding arm of the Department of Justice. We discuss what they fund and where to find more info.
- **You've Submitted Your CAREER Proposal: What Now?** – Now that you've submitted your CAREER proposal, we discuss when you can expect to hear if you were funded, what the process will look like, what to do if your proposal is declined, and the path forward if you will no longer be eligible next year. (Reprinted and updated from Aug. 2021 issue)
- **Using ChatGPT When Writing Proposals: What It Can and Can't Do** – The world is going crazy about ChatGPT, but those of us who write proposals only have one question: can we use it to help us with our proposals? We discuss.
- **NSF Graduate Research Fellowship Program** – The new solicitation for the NSF GRFP is out. We provide an overview of this fellowship program for early-stage graduate students and discuss changes.
- **Basic Grant Writing Training Presentation** – The new academic year is about to start, and with it, new faculty arrive on campus, many of whom have had little experience writing grants. We discuss basic grant writing training for new faculty, advanced graduate students, and postdocs. (Reprinted from July 2016 issue)
- **Writing the 1.5-Page Practice Proposal** – Writing a grant proposal can be a daunting task, particularly for those who are new to the process. We discuss how starting with a 1.5-page practice proposal can help PIs ease into the process. (Reprinted from July 2013 issue)
- **It's Not Easy to Disinvite a Team Member** – Many funding opportunities require multi-disciplinary teams. We discuss the how to build those teams strategically and intentionally so that you don't find yourself in the difficult position of having to disinvite a team member. (Reprinted from July 2018 issue)

[Access these and many more articles \(requires NDSU log-in\) >>](#)

Submitting an NSF Proposal this Fall?

Avoid last minute compliance errors for Biosketches
and Current and Pending Support Forms

NSF Required SciENCv Effective October 23, 2023
Zoom Informational/Q&A Meeting

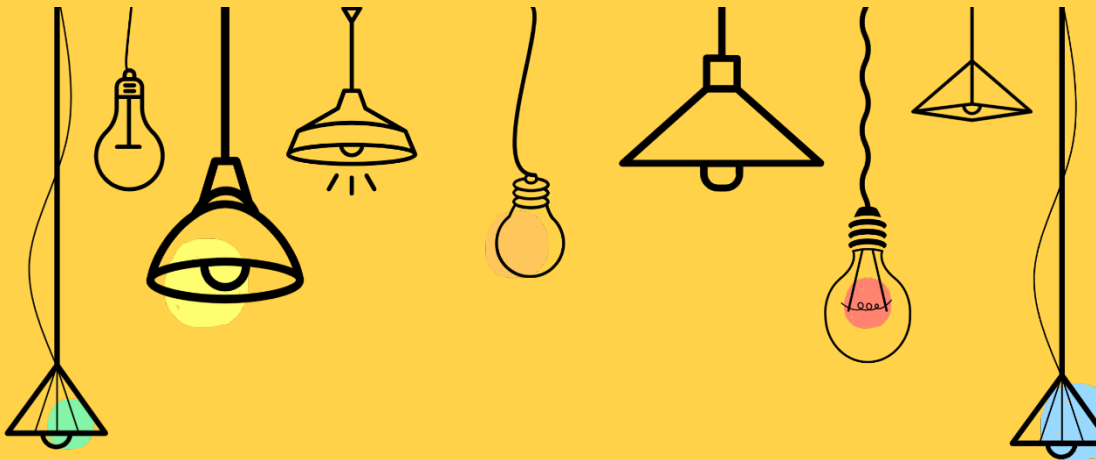
SciENCv

- Eliminates the need to repeatedly enter biosketch information
- Reduces the administrative burden associated with federal grant submission and reporting requirements
- Provides access to a researcher-claimed data repository with information on expertise, employment, education, and professional accomplishments
- Allows researchers to describe their scientific contributions in their own language

The SciENCv documentation is required for NSF and is optional for NIH.

Wednesday August 30 from 12-12:45PM

[Register to attend >>](#)



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) and get the process started.

Upcoming Events at a Glance

- **Consortium of Universities for Global Health**
Abstract Submission: September 15, 2023 | [Learn More >>](#)
- **I-Corps Updates Meeting**
September 14, October 5, November 2, December 7 / [Learn More >>](#)
- **NIH Office of Behavioral and Social Sciences Research Director's Webinar: The Theoretical and Practical Importance of Advancing Health Equity**
September 19, 2023 | [Register >>](#)

- **Partnerships for Innovation (PFI) Q&A Webinar**
October 3, December 2 | [Learn More >>](#)
- **Specialized Centers of Research Excellence on Sex Differences (SCORE) 2023 Annual Meeting Keynote Address**
November 3, 2023 | [Learn More >>](#)
- **Building Interdisciplinary Research Careers in Women's Health (BIRCWH) 2023 Annual Meeting**
December 5, 2023 | [Learn More >>](#)

Funding Opportunities

- [American Lung Association: Lung Cancer Discovery Award – LIMITED](#)
- [Art Omi: Residency](#)
- [Getty: Scholars Program](#)
- [Harry Ransom Center: Travel Stipends](#)
- [National Gallery of Art: Senior Fellowship Program](#)
- [NEH: Spotlight on Humanities in Higher Education](#)
- [NIH: Assay Development and Screening for Discovery of Chemical Probes, Drugs or Immunomodulators](#)
- [NIH: Development and Validation of Harmonized Methodologies to Measure NAD+ and Related Metabolites in Clinical Trials](#)
- [NIH: Elucidating Variability of Physiologic and Functional Responses to Exercise Training in Older Adults](#)
- [NIH: Feasibility Trails of the NIH Music-based Interventions Toolkit for Brain Disorders of Aging](#)
- [NIH: NCI Research Specialist](#)
- [NIH: Next Generation Chemistry Centers for Fusion Oncoproteins](#)
- [NIH: Time-Sensitive Research Opportunities in Environmental Health Sciences](#)
- [NSF: Computational and Data-Enabled Science and Engineering](#)
- [NSF: DCL - Critical Research on GreenHouse Gas Transport and Fate in the Planetary Boundary Layer and Above](#)
- [NSF: EDU Core Research](#)

- [NSF: Research Experiences for Teachers in Engineering and Computer Science](#)
- [NSF Track 2 Focused EPSCoR Collaborations \(RII Track-2 FEC\) – LIMITED](#)
- [PepsiCo: Recycling Technologies for Biodegradable Films](#)
- [The Bibliographical Society of America: William L. Mitchell Prize](#)
- [USDA: National Animal Disease Preparedness and Response Program](#)

Upcoming Limited Submission Program Deadlines

[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. Email notifications of interest to ndsu.researchdev@ndsu.edu by **close of business** on the notification deadline date.

If you identify a limited submission opportunity that is not on the list below, please notify ndsu.researchdev@ndsu.edu.

- [American Lung Association: Lung Cancer Discovery Award](#)
Notification Deadline: September 8, 2023
- [NSF Track 2 Focused EPSCoR Collaborations \(RII Track-2 FEC\)](#)
Notification Deadline: September 5, 2023

There are a number of limited submission grant programs with upcoming agency deadlines for which we did not receive any notifications of interest. For these programs, marked "**First to Notify**," approval to move forward with a full proposal submission to the funder will be given on a first come, first served basis.

- [NIH: Neuroscience Development for Advancing the Careers of a Diverse Research Workforce](#)
LOI Deadline: 08/26/2023
- [Johnson and Johnson: The WiSTEM2D Scholars Award Program](#)
Deadline: 09/30/2023

American Lung Association: Lung Cancer Discovery Award – LIMITED

[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.

[Notify RCA](#) by September 8, 2023, 5pm, if you are interested in submitting to this program.

The [Lung Cancer Discovery Award](#) is intended to promote the development of innovative concepts and approaches, which will ultimately significantly improve the morbidity and mortality of lung cancer. The approach might be through basic biology, including host and tumor genetics, or focus on screening, prevention, diagnosis and treatment. When applicable, researchers are encouraged to investigate hypothesis-driven research about health disparities including those that will inform evidence-based clinical practice or policy in historically underrepresented and underserved populations to reduce health inequity in healthcare.

LIMITED SUBMISSION: Only one application per Institution.



Art Omi: Residency

Art Omi: Artists invites artists, critics, and curators from around the world - representing a wide diversity of artistic styles and practices - to gather in rural New York to experiment, collaborate, and share ideas. [Art Omi: Artists Residency](#) nurtures deep creative and professional connections in a vibrant social setting. Each session, two dozen international artists are invited to the program, along with two critics/curators who participate as Critic Emeritus and Critic/Curator-In-Residence. These two individuals play a pivotal role in the residency as they facilitate discussions, help connect the artists with art world professionals through the Visitors Program, and conduct individual studio visits with the

artists in residence throughout the duration of the residency session. Residency dates: June 20-July 15, 2024.

Deadline: October 15, 2023

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Getty: Scholars Program

The Getty Scholars Program supports researchers in advancing knowledge of the arts and humanities and producing cutting-edge scholarship that contributes to the understanding and preservation of cultural heritage. While in residence, scholars have the opportunity to spend significant time at one of the world's premier art history collections while contributing to an international community committed to intellectual exploration and exchange.

Deadline: October 2, 2023

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Harry Ransom Center: Travel Stipends

Travel stipends are available for postdoctoral scholars, **independent researchers**, and graduates with master's degrees whose projects require less than one month's use of the Center's collections. Travel stipends may not be combined with other Ransom Center fellowships.

Deadline: November 1, 2023

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National Gallery of Art: Senior Fellowship Program

Senior fellowships are for full-time research, and scholars are expected to reside in Washington and to participate in the activities of the Center throughout the fellowship period. Lectures, colloquia, and informal discussions complement the fellowship program. Each senior fellow is provided with a study. Senior fellowships are intended for those who have held the PhD for five years or more at the time of application, or who possess an equivalent record of professional accomplishment.

Deadline: October 15, 2023



NEH: Spotlight on Humanities in Higher Education

The [Spotlight on Humanities in Higher Education](#) program supports the exploration and development of small projects that would benefit underserved populations through the teaching and study of the humanities at small and medium-sized colleges and universities. The program supports activities including but not limited to curricular or program development, expert consultations, speakers' series, student research, creation of teaching resources, and community engagement. Projects may benefit students, faculty, the institution or organization, and/or the community.

Deadline: October 18, 2023



NIH: Assay Development and Screening for Discovery of Chemical Probes, Drugs or Immunomodulators (R01 Clinical Trial Not Allowed)

Through this Funding Opportunity (FO) [[PAR-23-264](#)], the National Cancer Institute (NCI) intends to stimulate research in discovery and development of novel, small molecules for cancer. Molecules discovered through this FO may be used to probe cancer biology, to validate cancer targets, or as the basis for optimized drugs. Stages of discovery research covered by this FO include: 1) development of the primary screen assay(s) and testing in an initial pilot screen; 2) primary screen implementation to identify initial screening hits; 3) hit validation using a series of assays and initial medicinal chemistry inspection to prioritize the hit set.

Upcoming Letter of Intent Deadlines: September 5, January 5...



NIH: Development and Validation of Harmonized Methodologies to Measure NAD⁺ and Related Metabolites in Clinical Trials (U01 Clinical Trial Required)

This funding opportunity (FO) [[RFA-AG-24-039](#)] invites applications to develop and validate the standardized protocols for measuring nicotinamide adenine dinucleotide

(NAD+) and related metabolites levels in humans, including sample collection and storage, assays' calibration, and standardization of measurements across different types of samples, such as plasma, tissue, or serum extracts, and validation of these protocols. Limited preclinical animal studies may be proposed, if such studies are an integral part of the application, and if they are needed to test the select elements of the standardized protocols in animal models before such protocols can be tested in humans. Applications selected for funding will be funded by individual awards, but all award recipients funded under this FO will be required to interact as a network and exchange information, including discussing progress, pitfalls, and issues that arise during implementation of the studies.

Letter of Intent Deadline: October 2, 2023



NIH: Elucidating Variability of Physiologic and Functional Responses to Exercise Training in Older Adults (R01 Clinical Trial Required)

The National Institute on Aging (NIA) invites R01 applications that propose human studies to better understand factors underlying response variability to exercise training in older adults through this Funding Opportunity (FO) [[RFA-AG-24-045](#)]. This FO encourages studies that identify systemic modulators, biomarkers, and other potential mechanisms underlying exercise variation in outcomes that are clinically relevant for older adults. Additionally, this FO encourages transdisciplinary studies utilizing innovative design methods and analytical approaches combined with clinical phenotyping to disentangle the complicated relationships between endogenous and exogenous factors that drive response variation to exercise. Elucidating factors and mechanisms that underlie variations in exercise response, and the extent to which these factors are modifiable, may enable more precise and efficacious exercise prescriptions to optimize the clinical efficacy of exercise training in older adults.

Letter of Intent Deadline: October 3, 2023



NIH: Feasibility Trails of the NIH Music-based Interventions Toolkit for Brain Disorders of Aging (R34 Clinical Trial Required)

The purpose of this Funding Opportunity (FO) [[PAR-23-256](#)] is to support proof-of-concept feasibility trials guided by the NIH Music-based Interventions (MBI) Toolkit for research on brain disorders of aging. These early phase clinical trials will generate evidence supporting the validity of the NIH MBI Toolkit's guiding principles as well as the necessary pilot data to design a subsequent clinical efficacy or effectiveness study (or pragmatic clinical trial) using music-based interventions in the context of brain disorders of aging, including but not limited to Alzheimer's disease and Alzheimer's disease-related dementias, Parkinson's disease, and stroke. The data collected should address gaps in scientific knowledge in order to facilitate development of a competitive large-scale clinical trial.

Letter of Intent Deadline: September 20, 2023

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NIH: NCI Research Specialist (Laboratory-based Scientist) Award (R50 Clinical Trial Not Allowed)

This funding opportunity (FO) [[PAR-23-242](#)] invites grant applications for the Research Specialist Award (R50) in any area of NCI-funded cancer research. This FO is specifically targeted toward laboratory-based scientists. The Research Specialist Award is designed to encourage the development of stable research career opportunities for exceptional scientists who want to continue to pursue research within the context of an existing NCI-funded basic, translational, clinical, or population science cancer research program, but not serve as independent investigators. These non-tenure track scientists, such as researchers within a research program, are vital to sustaining the biomedical research enterprise. It is anticipated that only exceptional scientists who want to pursue research within the context of an existing NCI-funded cancer research program, but not serve as independent investigators, will be competitive for this award.

Letter of Intent Deadline: October 2, 2023

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NIH: Next Generation Chemistry Centers for Fusion Oncoproteins (UM1 Clinical Trial Not Allowed)

Through this Funding Opportunity (FO) [[RFA-CA-037](#)], the National Cancer Institute (NCI) intends to create multidisciplinary research groups or partnerships for the discovery of pharmacological agents to treat fusion oncoprotein-driven childhood cancers. This FO will use the UM1 mechanism to fund Next Generation Chemistry (NGC) Centers with interdisciplinary teams focusing on innovative medicinal chemistry, chemical biology and chemoproteomic approaches to target fusion oncoprotein-driven cancers.

The goal of this program is to accelerate innovative drug discovery focused on developing small molecules to effectively disrupt fusion oncoproteins through mechanisms including, but not limited to, inhibiting activities of fusion oncoproteins, blocking critical fusion oncoprotein interactions, modulating coding and/or noncoding RNAs required for fusion protein oncogenesis, and selectively degrading fusion proteins and/or proteins representing critical fusion oncoprotein dependencies. The NCI encourages applications to advance the discovery, preclinical development, and proof of concept testing of new, rationally designed candidate agents to treat fusion-derived childhood cancers. Funding priority will be given to applications that focus on fusion oncoproteins found in tumors that have high risk of treatment failure and for which there has been little progress in identifying targeted therapeutic agents. Applications focused on pediatric solid tumors and brain tumors are particularly encouraged. Small molecules are defined here as chemically synthesized drug-like compounds with molecular weights <2000 Da that can cross cell membranes to modulate fusion-oncoprotein functions.

Letter of Intent Deadline: October 15, 2023

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NIH: Time-Sensitive Research Opportunities in Environmental Health Sciences

This funding opportunity (FO) [[RFA-ES-23-004](#)] is intended to support novel environmental health research in which an unpredictable event or policy change provides a limited window of opportunity to collect human biological samples or environmental exposure data. The primary motivation of the FO is to understand the consequences of natural and human-made disasters, emerging environmental public health threats, and policy changes in the U.S. and abroad. A distinguishing feature of an appropriate study is the need for rapid review and funding, substantially shorter than the typical NIH grant review/award cycle, for the research question to be addressed and swiftly implemented.

The shortened timeframe will be achieved by more frequent application due dates and expediting peer review, council concurrence and award issuance. The entire cycle, from submission to award, is expected to be within 4-6 months.

Upcoming Deadlines: October 2, December 1, 2023; February 1, 2024

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NSF: Computational and Data-Enabled Science and Engineering (CDS&E)

The goal of the Computational and Data-enabled Science and Engineering (CDS&E) meta-program [[PD 23-8084](#)] is to identify and capitalize on opportunities for major scientific and engineering breakthroughs through new computational and data-analysis approaches and best practices. The CDS&E meta-program supports projects that harness computation and data to advance knowledge and accelerate discovery above and beyond the goals of the participating individual programs. The intellectual drivers may be in an individual discipline or cut across more than one discipline in various Divisions and Directorates. A CDS&E proposal should enable and/or utilize the development and adaptation of advances in research and infrastructure in computational and data science.

A CDS&E proposal should be submitted to one of the "Related Programs" or Divisions by the associated submission window, deadline, or target date listed in the table below.

Directorate	Division and Program	Submission
ENG	Division of Chemical, Bioengineering, Environmental, and Transport Systems	September 2023
ENG	Division of Civil, Mechanical and Manufacturing Innovation	September 2023
MPS	Division of Chemistry - Chemical Catalysis (CAT), Chemical Structure Dynamics and Mechanisms-B (CSDM-B), Chemical Synthesis (SYN)	September 2023
MPS	Division of Materials Research	October 16
MPS	Division of Astronomical Sciences - Advanced Technologies and Instrumentation	October 01

MPS	Division of Chemistry - Chemical Measurement and Imaging (CMI), Environmental Chemical Sciences (ECS), and Macromolecular, Supramolecular and Nanochemistry (MSN)	October 01
MPS	Division of Astronomical Sciences - Astronomy and Astrophysics Research Grants	October 01
MPS	Division of Physics: Investigator-Initiated Research Projects – Plasma Physics program	November :
MPS	Division of Chemistry - Chemistry of Life Processes (CLP), Chemical Structure, Dynamics, and Mechanisms-A (CSDM-A), Chemical Theory, Models and Computational Methods (CTMC)	Full propos:
MPS	Division of Mathematical Sciences	Full propos:

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NSF: DCL - Critical Research on GreenHouse Gas Transport and Fate in the Planetary Boundary Layer and Above (GHG-PBLA)

The Division of Atmospheric and Geospace Sciences (AGS) at the National Science Foundation (NSF) encourages the U.S. research community to submit innovative proposals for fundamental research to better understand GreenHouse Gas mixing/exchange, transport, and fate throughout the atmosphere in the Planetary Boundary Layer and Above (GHG-PBLA) [[NSF 23-120](#)]. In November 2022, the Cooperative Programs for Advancement of Earth System Science (CPAESS) at the University Corporation for Atmospheric Research (UCAR) held a community workshop on this topic. The workshop report identified gaps in current technologies, modeling, and measurements of GHGs, particularly in the atmospheric boundary layer. Gaps in measurement techniques and modeling prevent reliable estimates of GHG mixing/exchange, transport, and atmospheric fate. Two specific knowledge gaps were discussed in the workshop report: 1) sub-mesoscale processes, including turbulent eddies and atmospheric chemistry; 2) the "scale-up" of how smaller scale processes translate to mesoscale, large-scale, and global scale mixing and transport processes of GHGs in the atmosphere.

To address these gaps, NSF-AGS is inviting proposals from the U.S. research community in the following priority areas:

- Atmospheric modeling for improved understanding of GHG distribution processes to provide reliable GHG estimates and minimizing of concentration uncertainties.

- Measurement opportunities for improved understanding of planetary boundary layer (PBL) processes and reduction of GHG source attribution uncertainties.
- Modeling and parameterization to bridge the scale gaps and to better depict GHG transport and fate.
- Protocols for robust inter-comparison and assessment of the modeling of PBL processes and GHG exchanges between Earth's surface and its atmosphere.

This DCL does not constitute a new competition or program. Rather, proposals submitted in response to this DCL should be prepared and submitted in accordance with the general guidelines contained in the NSF Proposal & Award Policies & Procedures Guide (PAPPG) and instructions for relevant programs. Proposals may be submitted at any time, with funding expected in FY24 and FY25. Depending on the proposal focus, research topic, and scale of the science problem, proposals may be submitted to any AGS Atmosphere Section core program, which includes Physical and Dynamic Meteorology (1525), Atmospheric Chemistry (1524), Climate and Large-scale Dynamics (5740), and Paleoclimate (1530).

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NSF: EDU Core Research (ECR:Core)

EDU Core Research [[NSF 21-588](#)] is a fundamental research program that supports both curiosity-driven basic and use-inspired basic research. As such, proposals submitted to this ECR:Core solicitation must have strong potential to make important contributions to general, explanatory knowledge (e.g., theories) pertaining to STEM learning and learning environments, broadening participation in STEM, or STEM workforce development. Fundamental research generates knowledge and understanding with the potential for broad relevance. By contrast, applied research, which ECR does not fund, aims to generate knowledge primarily or solely with specific relevance (e.g., to a particular curriculum or technology) with direct and immediate implications for practice. The potential implications of ECR fundamental research for improving STEM education practice may be indirect and long-term rather than direct and immediate.

Deadline: October 5, 2023

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NSF: Research Experiences for Teachers in Engineering and Computer Science

The Research Experiences for Teachers (RET) in Engineering and Computer Science program [[NSF 21-606](#)] supports authentic summer research experiences for K-14 educators to foster long-term collaborations between universities, community colleges, school districts, and industry partners. With this solicitation, the Directorates for Engineering (ENG) and Computer and Information Science and Engineering (CISE) focus on a reciprocal exchange of expertise between K-14 educators and research faculty and (when applicable) industry mentors. K-14 educators will enhance their scientific disciplinary knowledge in engineering or computer science and translate their research experiences into classroom activities and curricula to broaden their students' awareness of and participation in computing and engineering pathways. At the same time, the hosting research faculty (PI) will deepen their understanding of classroom practices, current curricula, pedagogy, and K-14 educational environments.

Deadline: October 11, 2023

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NSF Track 2 Focused EPSCoR Collaborations (RII Track-2 FEC)

– LIMITED

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.

Notify RCA by September 5, 2023, 5pm, if you are interested in submitting to this program.

If an internal selection process is necessary, internal pre-proposals will be due September 27, 2023

RII Track-2 FEC [[NSF 22-633](#)] builds interjurisdictional collaborative teams of EPSCoR investigators in Science, Technology, Engineering, and Mathematics (STEM) focus areas consistent with the National Science Foundation 2022-2026 Strategic Plan.

Projects are investigator-driven and must include researchers from at least two EPSCoR eligible jurisdictions with complementary expertise and resources necessary to address challenges, which neither party could address as well or rapidly independently. RII Track-2 FEC projects have a comprehensive and integrated vision to drive discovery and build sustainable STEM capacity that exemplifies individual, institutional, geographic, and disciplinary diversity. Additionally, the projects' STEM research and education activities seek to broaden participation through the strategic inclusion and integration of diverse individuals, institutions, and sectors.

FY 2023/2023 Topical Focus Area:

Advancing climate change research and resilience capacity to expand opportunities for disproportionately affected communities

Note: RII Track-2 FEC projects can be either (i) a collaborative proposal from multiple organizations or (ii) a collaborative proposal from one organization with support for non-lead collaborating organizations requested as subawards

If you have questions about this program or would like to discuss the feasibility of your idea, please contact ndsu.researchdev@ndsu.edu.

LIMITED SUBMISSION: Only **ONE** RII Track-2 FEC proposal may be submitted in response to this solicitation by an organization in an RII-eligible jurisdiction. Investigators cannot be PI or co-PI on more than one RII Track-2 project, both currently awarded or in this competition, but may serve as senior personnel on any number of RII Track-2 proposals or awards.



PepsiCo: Recycling Technologies for Biodegradable Films

PepsiCo is looking for solutions to [convert bio-based packaging](#) back to starting materials or other high-value added chemicals (no fuels).

Solutions of interest include:

- Chemical Depolymerization
- Enzymatic Hydrolysis
- Solvent Extraction
- Pyrolysis and Gasification: While pyrolysis is not suitable for compostable packaging made from aliphatic polyesters due to the presence of oxygen, gasification under controlled conditions can break down the material into syngas and biochar. The syngas can then be used to produce valuable chemicals through downstream processes.
- Feedstock for Chemical Reactions: The bio-based packaging can be used as a feedstock in various chemical reactions to synthesize valuable chemicals and intermediates with specific applications.
- Fermentation: In the case of certain biopolymers like PHA, fermentation processes can be employed to produce bio-based chemicals or biofuels.
- Mechanical Recycling with Chemical Modification: Mechanical recycling processes can be combined with chemical modification techniques to improve the quality and properties of the recovered materials, making them suitable for high-value applications.
- Hybrid Recycling Approaches: Combining multiple techniques, such as enzymatic depolymerization followed by chemical conversion, can optimize the recovery of valuable chemicals from bio-based packaging

Our must-have requirements are:

- Technology should enable conversion to starting materials with high value applications.

The application takes approximately 45 minutes and is less than 500 words.

Deadline: September 30, 2023



The Bibliographical Society of America: William L. Mitchell Prize

The [Mitchell Prize](#) for research on British serials was endowed to honor William L. Mitchell, former librarian at the Kenneth Spencer Research Library at the University of Kansas, where he was curator of the Richmond P. and Marjorie N. Bond Collection of 18th-Century British Newspapers and Periodicals and of the Edmund Curll Collection. The Prize serves as an encouragement to scholars engaged in bibliographical scholarship on 18th-century periodicals published in English or in any language (including indigenous languages) within the British Isles, its colonies, former colonies, and occupied territories

including those in North America, Australia, the Caribbean, South Africa, and modern-day Bangladesh, India and Pakistan. 18th-century periodicals are defined as serial publications produced no earlier than 1688, and no later than the first decade of the 19th century; subject materials must be firmly rooted within the 1700-1800 time period. Awarded every three years, the prize brings a cash award of \$1,000 and a year's membership in the Society.

Deadline: October 2, 2023



USDA: National Animal Disease Preparedness and Response Program

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) is announcing the availability of funds in the National Animal Disease Preparedness and Response Program (NADPRP) to support projects in the priority topics listed below.

1. Develop, enhance, and exercise State and Tribal animal disease outbreak emergency response plans.
2. Support livestock and poultry biosecurity measures and programs.
3. Enhance capability and capacity for depopulation, carcass disposal, and decontamination in a disease
4. outbreak.
5. Support animal movement decisions in a disease outbreak.
6. Enhance animal disease traceability during a disease outbreak.
7. Support outreach & education on animal disease prevention, preparedness, and response.
8. Develop and deliver training & exercises for animal agriculture sector responders.
9. Advance the development of sheep and goat vaccines.
10. Enhance aquatic animal disease preparedness and response.

Deadline: October 20, 2023



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 ndsuhresearchdev@ndsuh.edu.

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

[Contact Us](#)



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.

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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.