NDSU OFFICE OF RESEARCH AND CREATIVE ACTIVITY

RCA UPDATE

October 24, 2022

Welcome our new RCA student interns

The RCA Office is happy to welcome NDSU students Suleka Abdi, Leyla Hussein, and Miranda Tetzloff to the team.

Abdi is working with our research informatics analyst and assisting with reporting for RCA. She is studying computer science and plans a career in data engineering after graduation.

Hussein and Tetzloff are working in our communication team and assisting with a variety of tasks including writing, social media, and website maintenance. Leyla is studying political science and Miranda is studying strategic communication with a public health minor.

Welcome Suleka, Leyla, and Miranda!

Suleka Abdi

Leyla Hussein

Miranda Tetzloff

Grant Proposals (aka give me the money!)

Are you new to writing grant proposals? And not sure where to start in terms of text layout and section headings? We've prepared a basic research proposal template for you.

This template will be helpful for graduate students and faculty who are new to seeking funding for research. It's available for download on the RCA Forms page (Sponsored Programs Administration/proposal development). You will also find budget and budget justification tools on the RCA Forms page.

One last tip; always remember to review the sponsor's proposal guidelines. They are often found on their website and will detail what you need to do to apply for a potential grant.

Contact our office with any questions.

Research Development & Grant Writing News: October Issue

The October issue of Research Development and Grant Writing News is now available to view. Various topics are covered, including:

- What Is a Humanities Program Officer and When Should You Contact Them?
- NIH Expands Role of AI in Funding Solicitations
- ARPA-H: A New Funding Agency is Born!
- The Most Important First Decision in Grant Writing
- NIH Faculty Readiness & Submission Considerations
- In Proposals, Less is Often More
- What is the Significance of Your Proposed Humanities Project?
- Writing a Successful White Paper to NEH

Read October Issue >>
Use your NDSU login information to access this resource.

Graduate Student Opportunity: ND Water Resources Research Institute Fellowships

The 2023 ND Water Resources Research Institute fellowships are open to NDSU and UND graduate students conducting or planning thesis / dissertation research in areas related to water resources. Applications will be accepted for proposed projects of between three and twelve months in length. The funding period is anticipated to be 09/01/2023 - 08/31/2024. Fellowship stipends will be $800-$1,000 per month for M.S. students and $1,000-$1,400 per month for Ph.D. students, depending on funding availability.

Learn more >>

DOE Implementing Equity Plan Requirement for Research Grants

The Department of Energy Office of Science announced that research grant applications to the office must now include a "Promoting Inclusive and Equitable Research (PIER) Plan" describing strategies and activities project teams will use to promote diversity, equity, inclusion, and accessibility.

The office will evaluate the plans as part of the merit review process for all its solicitations as well as invited proposals from DOE national labs. It notes that the "complexity and detail of a PIER Plan is expected to increase with the size of the research team and the number of personnel to be supported."

Congratulations to all award recipients from July and August

- View the complete list of July awards: PDF | Excel
- View the complete list of August awards: PDF | Excel

The awards listed are externally funded projects. Each month one of the RCA Updates will include prior month awards.

See Award Reports from previous months >>

A Princeton University online conference

ENGAGE 2022

From benchtops and desktops to innovations and impacts.

Princeton University will host Engage 2022, a FREE, premier academic innovation and entrepreneurship conference, on November 3.

The free online Engage conference builds connections among university researchers, government partners, accelerators, investors, industry partners, entrepreneurs and stakeholders to turn research into impact.

Technology transfer session include:
- Almesha Campbell, Assistant Vice President for Research and Economic Development, Jackson State University

- Orin Herskowitz, Senior Vice President for Applied Innovation and Industry Partnerships, Columbia University, and Executive Director, Columbia Technology Ventures
- Bhavana Mohanraj, Associate Director of Ventures, Penn Center for Innovation, University of Pennsylvania
- Cortney Cavanaugh (moderator), New Ventures and Licensing Associate, Princeton University

Other speakers:
- Brad Burke, Executive Director, Global Consortium of Entrepreneurship Centers
- Anne Perigo, Associate Director, the Zell Lurie Institute for Entrepreneurial Studies at the University of Michigan
- Hayes Ferguson, Director, Farley Center for Innovation and Entrepreneurship at Northwestern University
- Tom Eisenmann, Chair, Harvard Innovation Labs, and Co-Chair, HBS Rock Center for Entrepreneurship
- Craig B. Arnold, Vice Dean for Innovation, Princeton University

Engage is organized by Princeton Innovation and is free and open to the public.

Learn more >>

RCA Funding Opportunities

Research Development Travel and Conference Support Awards help defray expenses for faculty presenting at national conferences (virtual or on-site) or for supporting travel to visit archives or special collections. As this pool of funding is limited, please consider allowing individuals who do not have other sources of travel funding to apply for this opportunity.

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

Research Development Funding Agency Visit Travel Awards help defray expenses for faculty traveling to meeting with Program Officers / Program Directors at funding agencies. This program requires a 1:1 match from the applicant's department and / or college.

More information and application instructions are posted on the RCA website.

Upcoming Events

- **NIH Grant Writing Webinar Series for Institutions Building Research and Research Training Capacity**
  November 1; 1-2:15pm / *Learn more >>*
- **Webinar: Emerging Trends in Federal Funding**
  November 3, 2022; 12-1pm. *Register >>*
- **REGISTRATION OPEN: DARPA Forward Regional Events on National Security Innovation**
  August-December, 2022 / *Learn more >>*
- **NSF Virtual Grants Conference**
  November 14-17, 2022 / *Learn more >>*

FUNDING OPPORTUNITIES

- Cisco Research
- Corteva: Sensors for Greenhouse Gas Emissions from Soils
- DOE NOI: Advanced Materials and Manufacturing Technologies
- EPA: Science to Achieve Results
- HHS-ACL: Field Initiated Research Projects
- High Plains Intermountain Center for Agricultural Health and Safety
- IES: Research Institute for Implementation Science in Education
- NEH: Humanities Institutes
- NIH / USDA: Biomedicine and Agriculture
- NIH: Early Career Research Award – Medical Rehabilitation
- NIH: Biomedical Informatics and Data Science
- NSF: Biological Anthropology
- NSF: Experiential Learning for Emerging and Novel Technologies
- PepsiCo: Opportunities in Packaging and Food Science
- RWJF: Culture of Health

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.

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

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.

- NSF: Louis Stokes Alliances for Minority Participation - STEM Pathways Implementation-Only
  Deadline: 11/18/2022
- NSF: Quantum Sensing Challenges for Transformational Advances in Quantum Systems (QuSeC-TAQS)
  Deadline: 12/16/2022
- NSF: Partnerships for Innovation
  Deadline: 01/11/2023
- NSF: Training-based Workforce Development for Advanced Cyberinfrastructure
  Deadline: 01/19/2023
- NIH: Collaborative Program Grant for Multidisciplinary Teams
  Notification Deadline: 01/27/2023
- NSF: Scholarships in STEM (S-STEM) Program
  Notification Deadline: 02/20/2023

Cisco Research

Cisco Research engages with academia to share knowledge and experience from the ground and collaborates with research labs across many domains to pave the way for future innovations. Current Requests for Proposals include:

- Sustainability;
- Augmented and Virtual Reality;
- Natural Language Processing;
- Cybersecurity in Emerging Tech Areas;
- Contactless Supply Chain; and

- Ethics in AI.

See the full list of opportunities >>

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Corteva: Low-cost, in-field sensors for greenhouse gas emissions from soils in agricultural settings

Corteva Agriscience is seeking [short, non-confidential proposals](#) for developing concepts to prototype or adapting existing technologies for in-field measurements of greenhouse gas emissions from soil. Proposals may be focused on direct measurements as well as highly correlated, ancillary measurements including environmental parameters.

Brief proposals are due November 30, 2022.

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DOE NOI: Advanced Materials and Manufacturing Technologies

The Office of Energy Efficiency and Renewable Energy (EERE) intends to issue, on behalf of the new Advanced Materials and Manufacturing Office Technologies Office (AMMTO) and the Building Technologies Office (BTO), a Funding Opportunity Announcement (FOA) entitled "[FY22 Advanced Materials and Manufacturing Technologies—Building Technologies Office Multi-topic Funding Opportunity Announcement](#)." EERE's AMO collaborates with industry, small business, universities, national laboratories, state and local governments and other stakeholders on emerging manufacturing technologies to drive U.S. industrial decarbonization, productivity and economic competitiveness. AMO has a mission to develop technologies that

1. reduce manufacturing energy intensity and industrial carbon emissions,
2. increase the competitiveness of the U.S. manufacturing sector with a focus on clean energy manufacturing, and
3. reduce the life cycle energy and carbon impact of manufactured goods in industry, buildings, transport, power, and agricultural sectors.

EERE's BTO develops, demonstrates, and accelerates the adoption of cost-effective technologies, techniques, tools and services that enable high-performing, energy-efficient and demand-flexible residential and commercial buildings in both the new & existing buildings markets, in support of an equitable transition to a decarbonized energy system by 2050, starting with a decarbonized power sector by 2035.

This FOA supports the Biden-Harris Administration's priorities to enhance manufacturing competitiveness through technological innovation by focusing in three main areas:

1. Next Generation Materials and Manufacturing,
2. Secure and Sustainable Materials, and
3. Energy Technology Manufacturing and Workforce Development.

This Notice is issued so that interested parties are aware of the EERE's intention to issue this FOA in the near term. All of the information contained in this Notice is subject to change. Prospective applicants to the FOA should begin developing partnerships, formulating ideas, and gathering data in anticipation of the issuance of this FOA.

EERE plans to issue the FOA in mid-November, 2022.

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EPA: Science to Achieve Results

The Environmental Protection Agency (EPA) Science to Achieve Results (STAR) Program has several open funding opportunities with deadlines in December:

- Understanding and Control of Municipal Solid Waste Landfill Air Emissions [EPA-G2023-STAR-B1]
- Early Career: Understanding and Control of Municipal Solid Waste Landfill Air Emissions [EPA-G2023-STAR-B2]
- Developing and Demonstrating Nanosensor Technology to Detect, Monitor, And Degrade Pollutants [EPA-G2023-STAR-A1]

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HHS-ACL: Field Initiated Research Projects

The purpose of the Field Initiated Projects program [HHS-2023-ACL-NIDILRR-IFRE-0000] is to generate new knowledge through research or to develop methods, procedures, and rehabilitation technologies -- to maximize the full inclusion and integration into society, employment, independent living, family / caregiver support, and economic and self sufficiency of people with disabilities, especially people with the greatest support needs. In carrying out a research activity under a Field Initiated Projects research grant, a grantee must identify one or more hypotheses or research questions and, based on the hypotheses or research questions identified, perform an intensive, systematic study directed toward producing (1) new scientific knowledge, or (2) better understanding of the subject, problem studied, or body of knowledge.

Letter of intent deadline: November 21, 2022

See also: Development Projects

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High Plains Intermountain Center for Agricultural Health and Safety

The HICAHS Community-Initiated Grants Program provides funds to organizations to augment existing or create new worker health and safety programs. The **Request for**

[Applications (RFA)](#) is targeted to organizations that serve people working in agricultural production or forestry: Extension, non-profits, health centers, commodity groups, and more.

Priority consideration is given to projects that directly impact the HICAHS region: Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming. Grants have a maximum award amount of $20,000 (including up to 8% indirect costs) with a project period of ~7 months.

Deadline: December 1, 2022

IES: Research Institute for Implementation Science in Education

The Institute of Education Studies (IES)-funded [Research Institute for Implementation Science in Education](#) (RIISE) is currently accepting applications for a two-year fellowship opportunity. The interdisciplinary RIISE program provides mentored training to established scholars (early, mid, or even later career) from any domain of education-related research surrounding the conceptualization, design, and execution of implementation research studies.

Fellows will receive:
- intensive learning and collaborations among fellow participants via the Summer Institute. At the Institute, fellows will have the opportunity to build knowledge, receive feedback, and forge new scientific collaborations;
- individual mentoring from a RIISE core faculty member to support the development of the fellow's research ideas and grant proposals;
- regular webinars for the presentation of additional didactic info, discussion of new literature, and ongoing support work on developing research projects; and
- instruction surrounding how to support other individuals to develop new knowledge / skills (the train-the-trainer approach).

RIISE applicants should have:
- a graduate degree (for example, PhD, EdD) in a field relevant to education research, broadly defined;
- a demonstrated record of education (or education-relevant) research;
- a strong interest in implementation research in education to support the use of evidence-based programs and practices;
- prior experience writing a grant for external federal research funding (for example, IES, NIH);
- an on-site mentor at their home institution who can support their progress in general grant writing and scholarly productivity;

- an existing or emerging relationship with an educational organization interested in partnering on an implementation project; and
- interest in preparing implementation research grants for submission to federal sponsors such as IES.

The 2023 RIISE in-person training will take place in Seattle from June 12-16, 2023.

Applications are due December 18, 2022.

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NEH: Humanities Institutes

The National Endowment for the Humanities (NEH) has several programs aimed at providing professional development for educators and academics.

- Institutes for K-12 Educators
  NEH-funded institutes are professional development programs that convene K-12 educators from across the nation to deepen and enrich their understanding of significant topics in the humanities and enhance their capacity for effective teaching and scholarship.
- Institutes for Higher Education Faculty
  NEH-funded institutes are professional development programs that convene higher education faculty from across the nation to deepen and enrich their understanding of significant topics in the humanities and enrich their capacity for effective scholarship and teaching.
- Institutes for Advanced Topics in the Digital Humanities
  The Institutes for Advanced Topics in the Digital Humanities program supports national or regional (multistate) training programs for scholars, humanities professionals, and graduate students to broaden and extend their knowledge of digital humanities.

The next deadlines for these programs are anticipated to be in February 2023.

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NIH / USDA: Research in Biomedicine and Agriculture Using Agriculturally Important Domestic Animal Species (R01)

The objective of this Funding Opportunity Announcement [PAR-23-031] is to encourage optimal utilization of large domestic animals in high-priority areas of biomedical and agricultural research. This initiative is designed to facilitate and encourage carefully designed research studies through meticulous selection of farm animals that mimic human developmental, physiological, and etiological processes to better understand the biology of normal reproduction and reproductive pathophysiology, normal and abnormal metabolism, developmental origin of diseases, precision nutrition, and improve prevention and treatment of diseases in both human and agriculturally important

domestic farm animals. The anticipated outcomes include both the elucidation of fundamental information relevant for the improvement of human health and an increase in the quality of healthy animal products. It is envisioned that each application will address mission-relevant areas of both agencies.

Deadline: December 15, 2022

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NIH: NCMRR Early Career Research Award (R03)

The National Center for Medical Rehabilitation Research (NCMRR) Early Career Research (ECR) Award [PAR-23-029] is intended to support both basic and clinical research from rehabilitation scientists who are establishing independent research careers. The research must be focused on one or more of the areas within the mission of NCMRR; applicants are encouraged to refer to the NIH Research Plan on Rehabilitation for strategic priorities. The NCMRR ECR Award R03 grant mechanism supports various types of projects including secondary analysis of existing data; small, self-contained research projects; development of research methodology; translational research; outcomes research; and development of new technology. Irrespective of the type of project, the intent of the NCMRR ECR Award R03 is for the Program Director(s) / Principal Investigator(s) to obtain sufficient preliminary data for a subsequent R01 application.

Deadline: March 28, 2023

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NIH: NLM Research Grants in Biomedical Informatics and Data Science (R01 Clinical Trial Optional)

The National Library of Medicine (NLM) supports innovative research and development in biomedical informatics and data science. This funding opportunity [PAR-23-034] focuses on biomedical discovery and data-powered health, integrating streams of complex and interconnected research outputs that can be translated into scientific insights, clinical care, public health practices, and personal wellness. The scope of NLM's interest in these research domains is broad, with emphasis on new and innovative methods and approaches to foster data driven discovery in the biomedical and clinical health sciences as well as domain-independent, scalable, and reusable / reproducible approaches to discovery, curation, analysis, organization, and management of health-related digital objects.

Upcoming deadlines: February 5, 2023; June 5, 2023

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NSF: Biological Anthropology

The Biological Anthropology Program [NSF 23-503] seeks to advance scientific knowledge about the processes that have shaped biological diversity in living and fossil humans and their primate relatives through support of basic research on human and primate evolution, biological variation, and interactions between biology, behavior, and culture. The program supports a portfolio of research that demonstrates engagement with biological anthropological and evolutionary theory; includes diverse and interdisciplinary methods in field, laboratory and computational settings; encompasses multiple levels of analysis (e.g., molecular, organismal, population, ecosystem) and time scales from the short-term to evolutionary; and considers the ethical implications and societal impacts of the research. The program also supports a wide range of broader impact activities as part of research grants, including research outcomes with inherent benefit to society, efforts to broaden participation in science, technology, engineering, and mathematics (STEM) research, training and outreach activities and other evidence-based activities developed within the context of the mission, goals, and resources of the organizations and people involved.

Upcoming deadlines: January 26, 2023; July 30, 2023

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NSF: Experiential Learning for Emerging and Novel Technologies

Through this new initiative, the Directorate for Education and Human Resources (EHR) and the newly established Directorate for Technology, Innovation and Partnerships (TIP) seek to support experiential learning opportunities for individuals from diverse professional and educational backgrounds that will increase access to, and interest in, career pathways in emerging technology fields (e.g., advanced manufacturing, advanced wireless, artificial intelligence, biotechnology, quantum information science, semiconductors, and microelectronics).

Key goals of the program [NSF 23-507] are to
1. expand access to career-enhancing experiential learning opportunities for a broader, more diverse population, including adult learners interested in re-skilling and / or upskilling (e.g., those who face or who have faced significant barriers to accessing a formal STEM education);
2. promote cross sector partnerships between organizations in emerging technology fields and those with expertise in workforce development; and
3. develop a workforce aligned with regional economies based on emerging technologies across the Nation, in alignment with the mission of the TIP Directorate.

Upcoming deadlines: March 2, 2023; September 14, 2023

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PepsiCo: Opportunities in Packaging and Food Science

PepsiCo is soliciting brief applications for three open calls:

- Recyclable closure for paper beverage bottles
- Methodologies to validate postbiotics functional benefits from plant-based fermentations
- Encapsulation technologies for beverage ingredients

PepsiCo will host a webinar discussing these partnering opportunities on Monday, October 31, at 9:00am. *Register to participate >>*

Deadline: November 30, 2022

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RWJF: Exploring the Future to Build a Culture of Health

The Robert Wood Johnson Foundation (RWJF) program "Pioneering Ideas: Exploring the Future to Build a Culture of Health" seeks proposals that are primed to influence health equity in the future. The Foundation is interested in ideas that address any of these four areas of focus:

1. Future of Evidence;
2. Future of Social Interaction;
3. Future of Food;
4. Future of Work.

Additionally, the Foundation welcomes ideas that might fall outside of these four focus areas, but which offer unique approaches to advancing health equity and progress toward a Culture of Health.

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

Contact Us

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.