The College of Science and Math Summer Undergraduate Research Symposium is scheduled for this Friday, August 2, from 1-3 pm, in the Atrium of the A. Glen Hill Center. The research symposium will feature presentations from students who have attended the College’s annual Research Experience for Undergraduates (REU) entitled “Growing up STEM” and will also include presentations from students who have participated in research experience sessions on campus this summer including the Biological Sciences and Computer Science departments.

As a capstone experience, the symposium reflects an excellent professional development opportunity for students and an opportunity to learn more about the exciting work being done by faculty within the colleges.
Jennifer Momsen, NDSU associate professor of Biology, is principal investigator of “Growing Up STEM” with associate professor of Physics Warren Christensen. She commented, "We are so excited for these students who’ve done amazing work this summer!" Momsen and Christensen’s REU has involved more than 60 students during the past seven years.

The National Science Foundation (NSF) has announced a supplemental funding opportunity to provide support for mentored, student-led design projects that are directly related to currently funded NSF awards from the Engineering Directorate.

The goals of these supplements are the following:

1. To connect student design projects to innovative, NSF-supported research and the latest advances in engineering science.
2. To expose students to the discovery process of research while preparing them for their roles in the engineering workforce.
3. To provide a team of students with the funds necessary to pursue the design process, from need finding, industry and customer discovery, through prototyping and validation.

The following Divisions in the Directorate for Engineering are participating in this program:

- Chemical, Bioengineering, Environmental and Transport Systems (CBET)
- Civil, Mechanical, and Manufacturing Innovation (CMMI)
- Electrical, Communications, and Cyber Systems (ECCS)

To learn more, read the full text of the Dear Colleague Letter.
The Research and Creative Activity Office will be closed from 9am-1pm on Tuesday, August 13, 2019 for a staff retreat. Please plan accordingly.

NSF Budgets: Participant Support Costs

The National Science Foundation (NSF) defines “participant support costs” as direct costs “such as stipends or subsistence allowances, travel allowances, and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with NSF-sponsored conferences or training projects.” When including these costs in your budget, they must be on the participant support line within the budget (Line F) and must be specified, itemized and justified in the budget justification of the proposal. Speakers and trainers are not generally considered participants and should not be included in this section of the budget. Indirect costs (facilities and administrative costs or F&A) are not allowed on participant support costs. For more information please see the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter II.C.2.g(v). You can also read the FAQs on this topic in the May 2017 issue of the NSF Proposal & Award Policy Newsletter.

Budget questions can also be sent to the Budget & Program Officers in Sponsored Programs Administration at ndsu.research@ndsu.edu.
CONTENTS

FUNDING OPPORTUNITIES

- Defense Established Program to Stimulate Competitive Research
- Indigo Agriculture: The Terraton Challenge
- NIH: Centers of Biomedical Research Excellence (COBRE)
- NIH: Collaborative Program Grant for Multidisciplinary Teams (RM1)
- NSF: Major Research Instrumentation
- NSF: Research Traineeship Program

Looking for Collaborators? Visit the NDSU Scholars Database

In Search of Equipment? Check the NDSU Equipment Database

Need to update your profile? Click here to learn how!
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.

- NSF Major Research Instrumentation (MRI)
  Notification Deadline: September 5, 2019
- NSF Research Traineeship (NRT)
  Notification Deadline: September 9, 2019
- NIH Collaborative Program for Multidisciplinary Teams (RM1)
  Notification Deadline: September 9, 2019
- NIH Centers of Biomedical Research Excellence (COBRE)
  Notification Deadline: September 30, 2019

Defense Established Program to Stimulate Competitive Research

The Defense Established Program to Stimulate Competitive Research (DEPSCoR) program aims to create basic research collaborations between a pair of researchers, namely

1. Applicant (Principal investigator, Mentee), a non-previously DoD-funded, full-time faculty member with the skills, knowledge, and resources necessary to conduct the proposed research as the principal investigator and
2. Collaborator (co-Principal Investigator, Mentor), an investigator who was previously funded by DoD within the last seven years.

Though this is a collaboration between Applicant and Collaborator, Applicant’s Institution of Higher Education (IHE) will submit the proposal. Applicant and Collaborator are eligible to apply if your IHE is located in an eligible State/Territory. IHEs in North Dakota are eligible for this program.

The Defense Technical Information Center [website](#) contains a non-comprehensive repository of government-funded scientific, technical, and engineering information for the DoD. Researchers new to DoD (Applicant) are encouraged to visit the site as a starting point for identifying past and present DoD-funded researchers.

The program is sponsored and managed by the Basic Research Office, Office of the Under Secretary of Defense for Research and Engineering and administered through the Air Force Office of Scientific Research.

*Application deadline: March 20, 2020*

---

**Indigo Agriculture: The Terraton Challenge**

Indigo announced the opening of applications for [The Terraton Challenge](#), a call for entrepreneurs and innovators to accelerate the sequestration of one trillion tons of atmospheric carbon dioxide into agricultural soils. The Challenge is a component of [The Terraton Initiative](#), established by Indigo in June 2019, to unlock the immediate, scalable, and affordable opportunities that agriculture presents in addressing climate change.

For its inaugural year, The Terraton Challenge will focus on three opportunities:
• **Accelerate**: Novel products and innovative processes that accelerate the speed at which carbon dioxide is captured and stored in agricultural soils, optimizing the impact of regenerative agricultural practices.

• **Quantify**: Proposals to catalyze a more efficient, scalable, and data-rich approach to soil sampling and carbon stock measurement.

• **Reward**: Additional proposals, in the form of new protocols, insurance products, or market-based incentives that reward growers for sequestering soil carbon or reducing emissions.

Indigo has secured prominent thought leaders, from academics to entrepreneurs, to serve as judges, mentors, and advisers to the competitors. Additionally, Indigo is partnering with the Laboratory for Innovation Science at Harvard to develop an enduring challenge framework that engages innovators from disparate disciplines and sectors across the globe. Up to $3 million in funded contracts will be awarded to winners in each track.

*The Terraton Challenge application period will run for ten weeks, closing October 1, 2019.*

---

**NIH: Centers of Biomedical Research Excellence (P20) - Limited Submission Program**

*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.

**NIH COBRE**: [Notify RCA](#) by 9/30/2019, 5:00 p.m. if you intend to apply.

The National Institutes of Health Centers of Biomedical Research Excellence
(COBRE) [PAR-19-313] are thematic, multidisciplinary centers that augment and strengthen institutional biomedical research capacity. This is accomplished by expanding and developing biomedical faculty research capability and enhancing research infrastructure, including the establishment of core facilities needed to carry out the objectives of a multidisciplinary, collaborative program. Only institutions in IDeA (EPSCoR) states are eligible to apply. An application in response to this funding opportunity announcement (FOA) must have a thematic scientific focus in a specific area in basic, clinical, or translational research including community engagement and outreach research as appropriate. **Applications addressing health challenges of rural populations in IDeA states are encouraged.**

The PD(s)/PI(s) must be an established biomedical or behavioral research scientist, who leads, as the principal investigator, at least one peer-reviewed research grant from NIH, NSF or other Federal or non-Federal sources that is closely related to the scientific theme of the proposed Center and has mentoring and administrative experience to lead the COBRE program to meet its goals.

*View a list of currently active COBRE centers* >>

NDSU has had three previously funded COBRE centers, one each in the Departments of Chemistry, Psychology, and Pharmaceutical Sciences.

*Letter of Intent due: December 28, 2019 (30 days prior to deadline); Final application deadline: January 28, 2020.*

---

**NIH Collaborative Program Grant for Multidisciplinary Teams (RM1) – Limited Submission Program**

**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.

**NIH RM1:** Notify RCA by 9/9/2019, 5:00 p.m. if you intend to apply.

This National Institutes of Health (NIH) funding opportunity announcement (FOA / PAR-17-340) is designed to support highly integrated research teams of three to six PD/PIs to address ambitious and challenging research questions that are important for the mission of the National Institute of General Medical Sciences (NIGMS) and are beyond the scope of one or two investigators. Collaborative program teams are expected to accomplish goals that require considerable synergy and managed team interactions. Project goals should not be achievable with a collection of individual efforts or projects. Teams are encouraged to consider far-reaching objectives that will produce major advances in their fields. Applications that are mainly focused on the creation, expansion, and/or maintenance of community resources, creation of new technologies or infrastructure development are not appropriate for this FOA.

---

**NSF Major Research Instrumentation (MRI) – Limited Submission Program**

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.

**NSF MRI:** Notify RCA by 9/5/2019, 5:00 p.m. if you intend to apply.

The National Science Foundation Major Research Instrumentation (MRI) Program [NSF 18-513](#) serves to increase access to multi-user scientific and engineering instrumentation for research and research training in our Nation’s institutions of higher education and not-for-profit scientific/engineering research organizations. An MRI award supports the acquisition or development of a multi-user research instrument that is, in general, too costly and/or not
appropriate for support through other NSF programs. **Cost sharing of precisely 30% of the total project cost is required.**

An MRI proposal may request support for either the acquisition or development of a research instrument.

- **Track 1:** Track 1 MRI proposals are those that request funds from NSF greater than or equal to $100,000 and less than $1,000,000. Two proposal submissions are allowed per organization.
- **Track 2:** Track 2 MRI proposals are those that request funds from NSF greater than or equal to $1,000,000 up to and including $4,000,000. One proposal submission is allowed per organization.

**LIMITED SUBMISSION:** The MRI program requires that an MRI-eligible organization may, as a performing organization, submit or be included as a significantly funded subawardee in no more than three MRI proposals. Each performing organization is limited to a maximum of three proposals in the “Tracks” as defined above, with no more than two submissions in Track 1 and no more than one submission in Track 2.

**NSF Research Traineeship Program (NRT) – Limited Submission Program**

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.

**NSF NRT:** Notify RCA by 9/9/2019, 5:00 p.m. if you intend to apply.

The National Science Foundation (NSF) Research Traineeship (NRT) program [NSF 19-522](#) is designed to encourage the development and implementation of
bold, new, and potentially transformative models for STEM graduate education training. The NRT program seeks proposals that explore ways for graduate students in research-based masters and doctoral degree programs to develop the skills, knowledge, and competencies needed to pursue a range of STEM careers. The program is dedicated to effective training of STEM graduate students in high priority interdisciplinary research areas, through the use of a comprehensive traineeship model that is innovative, evidence-based, and aligned with changing workforce and research needs. The NRT program addresses workforce development, emphasizing broad participation, and institutional capacity building needs in graduate education. Strategic collaborations with the private sector, non-governmental organizations (NGOs), government agencies, national laboratories, field stations, teaching and learning centers, informal science centers, and academic partners are encouraged.

**The NRT Program has announced the program’s priority areas for FY2019 and FY2020.** For FY2019 and FY2020, the NRT Program requests proposals in any interdisciplinary research theme of national priority, with special emphasis on the six [NSF Research Big Ideas](#). The NSF Research Big Ideas are Harnessing the Data Revolution (HDR), The Future of Work at the Human-Technology Frontier (HTF), Navigating the New Arctic (NNA), Windows on the Universe: The Era of Multi-Messenger Astrophysics (WOU), The Quantum Leap: Leading the Next Quantum Revolution (QL), and Understanding the Rules of Life: Predicting Phenotype (ROL).

**LIMITED SUBMISSION:** An eligible organization may participate in two proposals per competition. Participation includes serving as a lead organization, non-lead organization, or subawardee on any proposal. Organizations participating solely as evaluators on projects are excluded from this limitation.
Have questions, ideas, or suggestions for the RCA Update?

Contact Us

The Office of Research and Creative Activity (RCA) sends 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.