

June 1, 2021

NDSU Electron Microscopy Center receives Instrumentation Award

Scott Payne, PhD, director of the NDSU [Electron Microscopy Center](#), has received a \$595,000 award from the National Institutes of Health Shared Instrumentation Grant Program (NIH S10). This S10 award will fund a new cryo-capable transmission electron microscope (TEM).



In addition to standard TEM imaging and analysis, the new system will allow for preparation and characterization of flash-frozen samples, providing critical data for understanding structure and function of materials that cannot be fixed traditionally, such as proteins and soft polymers. It will serve as a screening instrument for the NIH High Resolution Cryo-Electron Microscopy Program at national service centers.

The proposal, titled “120kV Transmission Electron Microscope for Core Electron Microscopy Facility,” was strengthened by project descriptions from potential major users including Christopher Colbert (associate professor, chemistry and biochemistry), Mohiuddin Quadir (assistant professor, coatings & polymeric materials), Yagna Jarajapu (associate professor, pharmaceutical sciences), Sangita Sinha (professor, chemistry and biochemistry), Sheela Ramamoorthy

(associate professor, microbiological sciences), Yongki Choi (assistant professor, physics), and Achintya Bezbaruah (associate professor, civil & environmental engineering).

Payne commented, "This new instrument will replace a 100 kv TEM that is over 30 years old, and also will provide a whole new range of capability not previously available at NDSU. As a core service facility, we're always happy to offer new options to meet the expanding needs of our university researchers."

Virtual Meeting: NSF Directorate for Social, Behavioral, and Economic Sciences

Thursday, June 3, 2021 / 10-11am

RCA Research Development is hosting a one-hour virtual webinar with Dr. Arthur Lupia, the Assistant Director of the National Science Foundation (NSF) and head of the Directorate for Social, Behavioral, and Economic Sciences ([SBE](#)).

NSF SBE supports basic research on people and society. The SBE sciences focus on human behavior and social organizations and how social, economic, political, cultural, and environmental forces affect the lives of people from birth to old age and how people in turn shape those forces.



SBE funds a wide range of research programs. Organized into four divisions, these SBE programs support research that cuts across the human experience: Behavioral and Cognitive Sciences, Social and Economic Sciences, Multidisciplinary Activities, and the National Center for Science and Engineering Statistics.

[Register to attend >>](#)

Novelution IACUC Module now available for new submissions

New Protocol submissions may now be submitted via the Novelution Institutional Animal Care and Use Committee (IACUC) module. [Click here](#) to log in to Novelution.

Please contact the IACUC Office at 231-8114 if you have any questions.

Broader Impacts



How does your research impact society? Scientists and engineers funded by the U.S. National Science Foundation (NSF) are accountable to taxpayers for conducting research, and collectively moving their research beyond the lab to impact the public good, thereby benefitting the economy, society and discovery itself. This is what NSF defines as "Broader Impacts."

The Broader Impacts statement is a critical component of any research proposal submitted to NSF.

Resources are available to assist with developing a Broader Impacts plan:

- **Toolkit for Evaluating Broader Impacts**

The University of Colorado has developed a new online [Broader Impacts resource](#). This new tool provides a matrix of evaluation strategies that can be used to assess different types of broader impacts events or programs, as well as a searchable database of resources for evaluation methods ranging from surveys to

more informal tools for judging audience engagement.

- **NSF Broader Impacts Tips**

NSF recently published [NSF 101: Five tips for your Broader Impacts statement](#). Developed by program officers, these tips can help guide the development of Broader Impacts statements for grant proposals.

- **Broader Impacts Wizard**

This [free tool](#), developed by the Center for Advancing Research Impact in Society and Rutgers University, is designed to help you develop a broader impacts plan that will satisfy the National Science Foundation (NSF) Broader Impact requirements and fulfill your interest in communicating your science. The quick and easy process guides you through a series of questions that will help frame discussions and produce an outline of important points to include in your NSF proposal.

Webinar: Overview of USDA-NIFA Competitive Education Programs

Friday, June 11, 2021 / 1-3pm

Interested in learning more about the National Institute of Food and Agriculture (NIFA) education portfolio and grant opportunities? This webinar aims to raise awareness about NIFA's competitive education programs including K-12, undergraduate, and graduate programs as well as programs targeted to minority-serving institutions. NIFA staff will give an overview of programs and upcoming Request for Application (RFA) deadlines for FY2021/2022. The webinar will include opportunity for Q&A.

[Learn more and register >>](#)

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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.

- [NEA: Our Town](#)
Notification Deadline: 06/09/2021
- [Mallinckrodt Foundation](#)
Notification Deadline: 06/10/2021
- [NIH: Director's Early Independence Awards](#)
Notification Deadline: 06/16/2021
- [NIH: Bridges to the Baccalaureate](#)
Notification Deadline: 06/30/2021

There are a number of limited submission grant programs with upcoming agency deadlines for which we did not receive any notifications of interest. A full list of those programs is available on the [Limited Submissions page](#). 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. Email notifications of interest to ndsuh.researchdev@ndsuh.edu.

Looking for more funding opportunities?



On January 1, NDSU transitioned to a new funding opportunity database subscription: SPIN by InfoEd Global. SPIN is free for current NDSU faculty, staff, and students.

For more information, visit the [SPIN page](#) on the RCA website. If you have questions, please contact ndsuh.researchdev@ndsuh.edu.

DOE: Single-Use Plastics Recycling

The research and development (R&D) activities to be funded under this Funding Opportunity Announcement (FOA) [[DE-FOA-0002473](#)] will support the government-wide approach to the climate crisis by driving the innovation that can lead to the deployment of clean energy technologies, which are critical for climate protection. Specifically, this FOA will reduce demand for virgin polymer production by providing alternative starting materials such as recycled resins and biomass-based feedstocks. Novel recyclable materials and upcycling pathways will have demonstrated emissions reduction and energy savings through their lifecycle, which leads to a reduced climate impact of polymers and has the potential to create domestic recycling jobs.

This FOA aims to increase recycling, upcycling, or environmentally benign degradation of films by pursuing two approaches:

1. Development of recycling and upcycling pathways for plastic films that are economically favorable, lower greenhouse gas (GHG) emissions, and reduce the embodied energy of plastics; and
2. Redesign of multi-layer films to be inherently recyclable or biodegradable.

Concept paper deadline: June 28, 2021; 4pm

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Facebook: Agent-based User Interaction Simulation to Find and Fix Integrity and Privacy Issues

In this call, Facebook is particularly interested in research work that tackles the scientific and technical challenges faced in developing and deploying Web Enabled Simulation and that could also lead to longer and deeper collaboration between partners from the academic research community and the WW project team. WW is a Web Enabled Simulation (WES), in which user communities and their interactions and behaviors are simulated using machine learning, while the real platform infrastructure is both directly executed by the simulation and also is, itself, simulated in various off-line and synthetic versions.

Key Focus Areas:

- Testing Validation and Verification
- Scalability: Cyber-Cyber Digital Twin Scalability, Prediction, and Optimization
- Behavior: Modeling User Behaviors and Counter-Factual Interventions

To foster further innovation in this area, and to deepen collaborations with academia, Facebook invites faculty to respond to this call for research proposals pertaining to the aforementioned topics. Facebook anticipates awarding four to five awards up to \$100,000 each. Payment will be made to the proposer's host university as an unrestricted gift. For full details and to apply, please visit the [2021 agent-based user interaction simulation to find and fix integrity and privacy issues RFP page.](#)

Deadline: July 7, 2021

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Mallinckrodt Foundation: Biomedical Grants for Early Stage Investigators – 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.

Mallinckrodt Grants : [Notify RCA](#) by 06/10/2020, 4:00 p.m. if you are interested in submitting to this program.

The [Edward Mallinckrodt, Jr. Foundation](#) is a private foundation that funds basic biomedical research. The mission of the Foundation is to support early stage investigators engaged in biomedical research that has the potential to significantly advance the understanding, diagnosis, or treatment of disease. Any domestic biomedical institution, whether solely research or educational, is invited to [submit one candidate for the Mallinckrodt Board's consideration](#). Applicants should be in the first to fourth year of their tenure track faculty position and not have current R01 funding. Grants are usually \$60,000 and funding commences on October 1. No indirect costs are allowed. Salary is acceptable.

LIMITED SUBMISSION: Only one application per institution is accepted.

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NEH: Humanities Connections

The [Humanities Connections](#) program seeks to expand the role of the humanities in undergraduate education at two- and four-year institutions. Awards support innovative curricular approaches that foster productive partnerships among humanities faculty and their counterparts in the social and natural sciences and in pre-service or professional programs (such as business, engineering, health sciences, law, computer science, and other technology-driven fields), in order to encourage and develop new integrative learning opportunities for students.

Humanities Connections projects have four core features:

1. substantive and purposeful integration of the subject matter, perspectives, and pedagogical approaches of two or more disciplines (with a minimum of one in and one outside of the humanities).
2. collaboration between faculty from two or more separate departments or schools at one or more institutions.
3. experiential learning as an intrinsic part of the curricular plan.
4. long-term institutional support for the proposed curriculum innovation(s).

The Humanities Connections program includes two categories: **Planning** and **Implementation**.

The 2021 Funding Opportunity Announcement will be available July 14, 2021. The 2020 program guidelines are available now for review.

Deadline: September 14, 2021

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NIH: Bridges to the Baccalaureate – 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.

Bridges : [Notify RCA](#) by 06/30/2020, 4:00 p.m. if you are interested in submitting to this program.

The goal of the Bridges to the Baccalaureate Research Training Program [[PAR-19-299](#)] is to provide structured activities to prepare a diverse cohort of community college students to transfer to and complete a bachelor's degree in biomedical research fields. This funding opportunity announcement (FOA) provides support to eligible, domestic institutions to develop and implement effective, evidence-based approaches to biomedical training and mentoring that will keep pace with the rapid evolution of the research enterprise. NIGMS expects that the proposed research training programs will incorporate didactic, research, mentoring, and career development elements to prepare trainees to bridge from the

community college and complete the bachelor's degree in biomedical fields.

This program requires partnerships between two-year post-secondary educational institutions granting the associate degree with four-year colleges or universities that offer the baccalaureate degree.

LIMITED SUBMISSION: An institution may be the lead in only one Bridges to Baccalaureate Research Training Program at one time.

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NIH: Director's New Innovator Award Program (DP2 Clinical Trial Optional)

The [NIH Director's New Innovator Award Program](#) supports early stage investigators of exceptional creativity who propose highly innovative research projects with the potential to produce a major impact on broad, important areas relevant to the mission of NIH. Applications in all topics relevant to the broad mission of NIH are welcome, including, but not limited to, topics in the behavioral, social, biomedical, applied, and formal sciences and topics that may involve basic, translational, or clinical research. The NIH Director's New Innovator Award Program complements other ongoing efforts by NIH and its Institutes and Centers to fund early stage investigators. The NIH Director's New Innovator Award Program is a component of the [High-Risk, High-Reward Research \(HRHR\) Program](#) of the [NIH Common Fund](#).

Deadline: August 20, 2021

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NSF: Education and Human Resources (EHR) Core Research

The EHR Core Research (ECR) program [[NSF 21-588](#)] invites proposals for fundamental research (curiosity-driven basic research and use-inspired basic research) that contributes to the general, explanatory knowledge that underlies STEM education in one or more of the three broadly conceived Research Areas:

1. Research on STEM Learning and Learning Environments,
2. Research on Broadening Participation in STEM fields, and

3. Research on STEM Workforce Development.

Within this framework, the ECR program supports a wide range of fundamental STEM education research activities, aimed at learners of all groups and ages in formal and informal settings.

Fundamental research generates knowledge and understanding with the potential for broad relevance. The potential implications of ECR fundamental research for improving STEM education practice may be indirect and long-term rather than direct and immediate. Moreover, whether they include basic or use-inspired basic research, all successful ECR:Core proposals focus on the advancement or refinement of foundational knowledge for STEM education.

Deadline: October 7, 2021

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NSF: Methodology, Measurement, and Statistics

The Methodology, Measurement, and Statistics (MMS) Program [[NSF 19-575](#)] is an interdisciplinary program in the Directorate for Social, Behavioral, and Economic Sciences that supports the development of innovative analytical and statistical methods and models for those sciences. MMS seeks proposals that are methodologically innovative, grounded in theory, and have potential utility for multiple fields within the social, behavioral, and economic sciences. As part of its larger portfolio, the MMS Program partners with a consortium of federal statistical agencies to support research proposals that further the production and use of official statistics.

The MMS Program provides support through a number of different funding mechanisms. The following mechanisms are addressed in this solicitation:

- Regular Research Awards
- Awards for conferences and community-development activities
- Doctoral Dissertation Research Improvement (DDRI) Grants
- Research Experience for Undergraduates (REU) Supplements

Deadline: August 26, 2021

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NSF: Secure and Trustworthy Cyberspace - Small and Medium Projects

The Secure and Trustworthy Cyberspace (SaTC) program [[NSF 21-500](#)] welcomes proposals that address cybersecurity and privacy, and draw on expertise in one or more of these areas: computing, communication and information sciences; engineering; education; mathematics; statistics; and social, behavioral, and economic sciences. Proposals that advance the field of cybersecurity and privacy within a single discipline or interdisciplinary efforts that span multiple disciplines are both welcome. Proposals must be submitted pursuant to one of the following designations, each of which may have additional restrictions and administrative obligations as specified in this program solicitation.

- CORE: This designation is the main focus of the SaTC research program, spanning the interests of NSF's Directorates for Computer and Information Science and Engineering (CISE), Engineering (ENG), Mathematical and Physical Sciences (MPS), and Social, Behavioral and Economic Sciences (SBE).
- EDU: The Education (EDU) designation will be used to label proposals focusing entirely on cybersecurity education.
- TTP: The Transition to Practice (TTP) designation will be used to label proposals that are focused exclusively on transitioning existing research results to practice.

CORE and TTP proposals may be submitted in one of the following project size classes:

- Small projects: up to \$500,000 in total budget, with durations of up to three years; and
- Medium projects: \$500,001 to \$1,200,000 in total budget, with durations of up to four years.

Proposal window closes September 30, 2021

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NSF: Social and Economic Sciences

Several Programs of the National Science Foundation (NSF) Division of Social and Economic Sciences have upcoming deadlines:

- [Accountable Institutions and Behavior](#)
This program supports basic scientific research that advances knowledge and understanding of issues broadly related to attitudes, behavior, and institutions

connected to public policy and the provision of public services.

Deadline: August 16, 2021

- [Law and Science](#)

This program considers proposals that address social scientific studies of law and law-like systems of rules, as well as studies of how science and technology are applied in legal contexts. The program is inherently interdisciplinary and multi-methodological.

Deadline: August 2, 2021

- [Security and Preparedness](#)

This program supports basic scientific research that advances knowledge and understanding of issues broadly related to global and national security.

Deadline: August 16, 2021

- [Sociology](#)

This program supports basic research on all forms of human social organization -- societies, institutions, groups, and demography -- and processes of individual and institutional change.

Deadline: August 16, 2021

- [Decision, Risk and Management Sciences](#)

This program supports scientific research directed at increasing the understanding and effectiveness of decision making by individuals, groups, organizations, and society.

Deadline: August 18, 2021

- [Economics](#)

This program supports research designed to improve the understanding of the processes and institutions of the U.S. economy and of the world system of which it is a part.

Deadline: August 18, 2021

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NSF Virtual Grants Conference Registration Open

The National Science Foundation (NSF) Spring 2021 Virtual Grants Conference will be held the week of **June 7-11, 2021**. Registration is now open, and can be accessed [here](#). Sessions typically reach capacity very quickly, but sessions will be recorded and will be available on-demand shortly after the event and posted on the [website](#) and [YouTube](#) page.

In the meantime, please feel free to check nsfpolicyoutreach.com for the most up-to-date information and view [recordings](#) of sessions from previous years. You may also view the Fall 2020 Virtual Grants Conference recordings on our [YouTube](#) page.

If you have any logistical questions about this virtual conference, please contact grants_conference@nsf.gov.

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SHARPhub Webinars for Innovators and Entrepreneurs

The [SHARPhub Program](#) assists life science innovations that have been developed (or are developing) into a startup company with its headquarters and R&D operations in Kansas, Oklahoma, Nebraska, North Dakota, or South Dakota. SHARPhub is hosting a number of upcoming webinars:

June 9, 2021 / 8:30-10am

ABC of SBIR / STTR Funding

Find out whether your research is a candidate for SBIR / STTR federal R&D funding and learn SBIR / STTR program basics, including program purpose, eligibility, and sources of funding. This presentation will provide ample information to help you determine if you should seriously pursue proposal development and tools to help begin the process.

[Register now >>](#)

June 14, 2021 / 11am-12:30pm

Identifying SBIR / STTR funding opportunities and developing the Aims page for your project

Are you considering applying for Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs? Are you planning to reach out to SBIR / STTR program managers to gauge interest in your project? This is the right training for you.

[Register now >>](#)

June 21, 2021 / 8:30am-1pm

SBIR / STTR Proposal Prep for NIH

Discover the differences between SBIR and STTR, review how to navigate the NIH's SBIR website to research awarded projects, learn how to prepare an SBIR proposal, and find out how to avoid common pitfalls.

[Register now >>](#)

June 22, 2021 / 2-3pm

Entrepreneur Workshop Series: Licensing and Partnering agreements

Join the next session in this workshop series, hosted by NIA OSBR and the National Heart, Lung, and Blood Institute Small Business Program. The workshop includes breakout rooms on startup and university license agreements, partnerships and collaboration agreements, and negotiation tips.

[Register now >>](#)

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Virtual DEPSCoR Day

Wednesday, June 23, 2021 | 9am-4pm

The Defense Established Program to Stimulate Competitive Research (DEPSCoR) is holding a virtual DEPSCoR Day which will include overviews of currently open funding opportunities, various panel sessions, and breakout sessions with Program Officers representing the topics in the [Research Collaboration funding opportunity announcement](#). The tentative agenda is as follows:

9:00 AM: Welcome and Opening Remarks, Dr. Bindu Nair, Director, Basic Research

9:30 AM: Session 1: DEPSCoR Collaborative Research and Capacity Building FOAs

10:15 AM: Session 2: Tri-Service Basic Research Offices Overviews

11:00 AM: Session 3: Engagement and Brainstorming Ideas with Program Officers

11:30 AM: Lunch Break

12:30 PM: Session 4: Previous DoD-funded Researchers

1:00 PM: Session 5: DEPSCoR Awardees Lessons Learned

1:30 PM: Session 6: DEPSCoR Application Submission: Noblis nVision

2:00 PM: Break

2:30 PM: Session 7: DEPSCoR FY21 Topic Breakout Sessions

To participate in the Virtual DEPSCoR Day, you must [register](#) in advance no later than **June 16, 2021**.

You are encouraged to register early as space is limited. If you register and find you can no longer attend, please cancel your registration so we can accommodate as many participants as possible.

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Dakota Cancer Collaborative on Translational Activity (DaCCoTA) Virtual Symposium

June 18, 2021 / 8am-5pm

[Registration](#) is now open for the **2021 DaCCoTA Virtual Symposium**. It is free and open to the public.

The symposium includes:

- **Educational Opportunities (educational credit will be provided)**
 - Use of navigators in cancer care
 - Design, conduct and analysis of clinical trials
 - Navigating collaboration with industry
 - Best practices in community engagement
 - Mentorship: It takes two to tango
 - Demystifying the NIH study section
- **Poster Sessions**
- **DaCCoTA Awardee Presentations**
- **Networking Opportunities**

Register through the following link:

https://und.qualtrics.com/jfe/form/SV_ekW1Jpngue1U4Zf.

For additional information about the symposium and details regarding poster presentation requirements, please visit:

<https://med.und.edu/daccota/symposium.html>.

The DaCCoTA is supported by the National Institute of General Medical Sciences of the National Institutes of Health under Award Number U54GM128729.

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Workshops for Health Professionals

June 24, 2021 / 8:30am-12:30pm

Paul Casella, MFA, is a writer, teacher, editor and producer. Since 1988, Paul has worked with health professionals to improve the clarity and effectiveness of their manuscripts for publication, formal presentations, grant applications, slides, posters, videos, and other media for scientific purposes.

On June 24, 2021, Paul will visit the NDSU campus to conduct a series of workshops for health professionals:

- Writing for Publication
- Writing Effective NIH Grant Proposals
- Speaking for Success: Strategies for Effective Medical and Scientific Presentations

[Learn more and register >>](#)

This workshop is hosted by NDSU, UND, and the DaCCoTA. The workshop is sponsored by Great Plains IDeA-CTR.

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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.

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