RCA Update - April 13, 2020 Edition

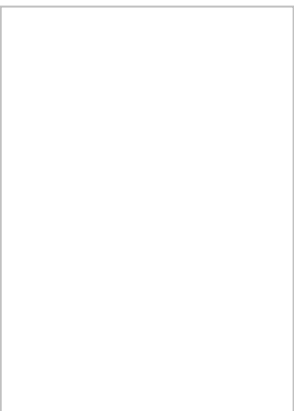All NDSU Employee list <NDSU-EMPLOYEE-OFFICIAL@LISTSERV.NODAK.EDU>
on behalf of
Kain, Amy <amy.kain@NDSU.EDU>

Mon 4/13/2020 3:43 PM

To: NDSU-EMPLOYEE-OFFICIAL@LISTSERV.NODAK.EDU <NDSU-EMPLOYEE-OFFICIAL@LISTSERV.NODAK.EDU>

April 13, 2020

Dear colleagues:

This week's RCA Update marks nearly one month since COVID-19 has required us to start working in new and different ways. I want to thank you for your flexibility during this time and perhaps most impressively, I want to thank you for continuing the excellent research you do in the midst of so many other obligations. Even amid a pandemic, the important business of creating tomorrow's breakthroughs continues at NDSU.

However, I know there are still many questions, so we have recently updated the RCA website with additional funding agency guidance and COVID-19 funding opportunities. The federal agency information includes Frequently Asked Questions (FAQs), awardee guidance on changes to processes (including any changes to reporting requirements), no-cost extensions, and proposal due date extensions. The COVID-19 funding opportunities are an archive of the ones we share in the weekly RCA Update. You can find all this and other COVID-19 information on the main page of the RCA website.

Two reminders: if you haven't yet done so, please complete the PPE Donation survey and review the Guidance for NDSU Principal Investigators for Researchers Paid on Federal Grants or Contracts During COVID-19 Pandemic.

If you cannot find answers to any questions, please do not hesitate to contact the RCA staff with questions you have on COVID-19 information.

Kind regards,
Jane Schuh
Vice President
Research and Creative Activity

COVID-19 Guidance for researchers is available on the RCA Website. As this situation is rapidly changing, please refer to the NDSU COVID-19 Preparedness and Response page for additional information.

Congratulations to all award recipients from February 2020!

View the complete list online: 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 >>

Biosafety Cabinet Recertification

In late April or May a group from UND is planning to be on campus to recertify biosafety cabinets at NDSU. They have capacity to recertify additional units during their visit and their time will likely be more difficult to schedule later this year. If your equipment is in need of recertification, please contact Heather Vinson, Biosafety Officer at UND (heather.vinson@UND.edu / 701-777-2444) to be added to the process.

Reports Available on RCA Website

RCA makes various reports and data available on the RCA Website. These include:

- Detailed proposal and award data via interactive Power BI reports;
- Sponsored Program Administration's Annual Reports, including a snapshot of the fiscal year 2019 report; and
- The Higher Education Research and Development (HERD) Expenditures Survey numbers for fiscal year 2018.

NSF Research.gov Update

Effective March 30, 2020, the research community can prepare and submit separately submitted collaborative proposals from multiple organizations in Research.gov. Proposers can now prepare full research proposals in Research.gov that are:

- Single submissions from one organization (available since April 2018);
- Single submission collaborative proposals with subawards (available since June 2019);
- Separately submitted collaborative proposals from multiple organizations.

For more information and information about additional planned updates, view the complete announcement.

NIH eRA Migration and Downtime

The electronic Research Administration (eRA) system used by the National Institutes of Health (NIH) is planning to migrate its modules and data to the Amazon Web Services (AWS) cloud. During this migration, from 7a.m. CT on Friday, April 17 to 7 p.m. CT on Monday, April 20, all eRA modules (eRA Commons, ASSIST, IAR, iEdison, etc.) and all informational websites (era.nih.gov, etc.) will be unavailable.

Any affected due dates will be covered under NIH's late application policy due to COVID-19, which allows all applications submitted late for due dates between March 9, 2020, and May 1, 2020, to be accepted through May 1, 2020.

For more information, view the complete announcement.

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DoD: Peer Reviewed Medical Research Program

The FY20 Defense Appropriations Act provides funding to the Department of Defense Peer Reviewed Medical Research Program (PRMRP) to support medical research projects of clear scientific merit and direct relevance to military health. The vision and mission of the PRMRP is to improve the health, care, and well-being of all military Service members, Veterans, and

beneficiaries by encouraging, identifying, selecting, and managing medical research projects of clear scientific merit and direct relevance to military health. All applications submitted to the PRMRP must address at least one of the FY20 PRMRP Congressionally directed topic areas:

- Chronic Migraine and Post-Traumatic Headache
- Congenital Heart Disease
- Constrictive Bronchiolitis
- Diabetes
- Eating Disorders
- Emerging Viral Diseases
- Food Allergies

- Immunomonitoring of Intestinal Transplants
- Inflammatory Bowel Diseases
- Metals Toxicology
- Mitochondrial Disease
- Musculoskeletal Health
- Chronic Fatigue Syndrome
- Nutrition Optimization
- Pancreatitis

- Plant-Based Vaccines
- Resilience Training
- Respiratory Health
- Sleep Disorders and Restriction
- Sustained Release Drug Delivery
- Vascular Malformations
- Women's Heart Disease

For more information, and to view all available funding mechanisms under this program, visit the PRMRP website.

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DOE: AI and Decision Support for Complex Systems

The DOE Office of Science program in Advanced Scientific Computing Research (ASCR) issued a funding opportunity announcement (DE-FOA-0002321) to announce its interest in research applications to explore potentially high-impact approaches in the development and use of artificial intelligence and machine learning in the context of **computational decision support for complex systems**.

Required pre-application deadline: May 6, 2020; Application deadline: June 5, 2020

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DOE: Scientific Machine Learning for Modeling and Simulations

The DOE Office of Science program in Advanced Scientific Computing Research (ASCR) issued a funding opportunity announcement (DE-FOA-2319) to announce its interest in research applications to explore potentially high-impact approaches in the development and use of artificial intelligence and machine learning for **predictive scientific modeling and simulations**.

Required pre-application deadline: May 1, 2020; Application deadline: May 29, 2020

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DOI: Montana / Dakotas Cultural and Paleontological Resource Management

The Department of the Interior (DOI) Bureau of Land Managment (BLM) Montana / Dakotas manages archaeological and historic sites, artifact collections, places of traditional cultural importance to Native Americans and other communities, and paleontological resources that occur on federal lands in the states of Montana and the Dakotas. Collectively, these heritage resources represent thousands of years of human occupation, and millions of years of the earth's natural history. BLM Cultural Heritage and Paleontology Programs coordinate management, preservation, education and outreach efforts, economic opportunities, and public uses of a fragile, nonrenewable scientific record that represents an important component of America's heritage. The BLM Montana / Dakotas Cultural Heritage and Paleontology Resource Management Programs seek to establish partnerships that collaboratively encourage the public

to learn about and engage with heritage resources in Montana and the Dakotas, with the goals of building a meaningful conservation stewardship legacy through expanding public access for recreation opportunities on public lands, working to ensure meaningful consultation and self-determination for Tribes, enhancing visitor experience on public lands by better meeting infrastructure and maintenance needs, and eliminating unnecessary steps and duplicative reviews while maintaining rigorous environmental standards.

Deadline: June 5, 2020

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HRSA: Telehealth Network Grant Program

The Health Resources and Services Administration (HRSA) announced a new opportunity to apply for federal funding aimed towards promoting rural Tele-emergency services with an emphasis on tele-stroke, tele-behavioral health, and Tele-Emergency Medical Services (Tele-EMS). This will be achieved by enhancing telehealth networks to deliver 24-hour Emergency Department (ED) consultation services via telehealth to rural providers without emergency care specialists. The program will invest approximately $8.7 million over four years to support up to 29 applicant organizations.

Deadline: June 15, 2020

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NIH: Mechanisms and Consequences of Sleep Disparities in the U.S. (R01 – Clinical Trial Not Allowed)

The purpose of this funding opportunity announcement (PAR-20-164) is to promote research to understand the underlying mechanisms of sleep deficiencies among health disparity populations and how sleep deficiencies may lead to disparities in health outcomes.

Letter of Intent deadline: June 14, 2020; Application deadline: July 14, 2020

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NIH: Ruth L. Kirschstein National Research Service Award (NRSA) Short-Term Institutional Research Training Grant (Parent T35)

The National Institutes of Health (NIH) will award Ruth L. Kirschstein National Research Service Award (NRSA) Short-Term Institutional Research Training Grants (PA-20-162) to eligible, domestic institutions to develop and/or enhance research training opportunities for predoctoral students interested in careers in biomedical, behavioral, or clinical research. Many NIH Institutes and Centers (ICs) use this NRSA program exclusively to support intensive, short-term research training experiences for health professional students (medical students, veterinary students, and/or students in other health-professional programs) during the summer. This program is also intended to encourage training of graduate students in the physical or quantitative sciences to pursue research careers by short-term exposure to, and involvement in, the health-related sciences. The training should be of sufficient depth to enable the trainees, upon completion of the program, to have a thorough exposure to the principles underlying the conduct of biomedical research.

Standard deadline dates apply; the first standard application due date for this FOA is May 25, 2020.

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NIH: Science Education Partnership Award (SEPA) (R25 – Clinical Trial Not Allowed) – Limited Submission Opportunity

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 SEPA : Notify RCA by 4/22/2020, 5:00 p.m. if you are interested in submitting to this program.

The NIH Research Education Program (PAR-20-153) supports research education activities in the mission areas of the NIH. The overarching goal of this R25 program is to support educational activities that complement and/or enhance the training of a workforce to meet the nation's biomedical, behavioral and clinical research needs.

To accomplish the stated over-arching goal, this program will support creative educational activities with a primary focus on:

- Courses for Skills Development
- Research Experiences
- Mentoring Activities
- Curriculum or Methods Development
- Outreach

Information on current SEPA projects can be found at: https://www.nigms.nih.gov/Research/crcb/sepa/Pages/default.aspx and https://www.nihsepa.org.

Applicants are strongly encouraged to consult with the SEPA Scientific / Research Contact to be advised on the appropriateness of the intended project for SEPA program objectives and the priorities of the NIGMS.

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NSF: Cyber-Physical Systems

Cyber-physical systems (CPS) are engineered systems that are built from, and depend upon, the seamless integration of computation and physical components. Advances in CPS will enable capability, adaptability, scalability, resiliency, safety, security, and usability that will expand the horizons of these critical systems. CPS technologies are transforming the way people interact with engineered systems, just as the Internet has transformed the way people interact with information. New, smart CPS drive innovation and competition in a range of application domains including agriculture, aeronautics, building design, civil infrastructure, energy, environmental quality, healthcare and personalized medicine, manufacturing, and transportation. CPS are becoming data-rich enabling new and higher degrees of automation and autonomy. Traditional ideas in CPS research are being challenged by new concepts emerging from artificial intelligence and machine learning. The integration of artificial intelligence with CPS especially for real-time operation creates new research opportunities with major societal implications.

While tremendous progress has been made in advancing CPS technologies, the demand for innovation across application domains is driving the need to accelerate fundamental research to keep pace. At the same time, the CPS program (NSF 20-563) seeks to open new vistas for the research community to think beyond the usual cyber-physical paradigms and structures and propose creative ideas to address the myriad challenges of today's systems as well as those of the future that have not yet been designed or fielded.

The CPS program aims to develop the core research needed to engineer these complex CPS, some of which may also require dependable, high-confidence, or provable behaviors. Core research areas of the program include control, data analytics, and machine learning—including real-time learning for control, autonomy, design, Internet of Things (IoT), mixed initiatives including human-in- or human-on-the-loop, networking, privacy, real-time systems, safety, security, and verification. By abstracting from the particulars of specific systems and application domains, the CPS program seeks to reveal cross-cutting, fundamental scientific and engineering principles that underpin the integration of cyber and physical elements across all application domains. The program additionally supports the development of methods, tools, and hardware and software components based upon these cross-cutting principles, along with validation of the principles via prototypes and testbeds. This program also fosters a research community that is committed to advancing education and outreach in CPS and accelerating the transition of CPS research into the real world.

Deadlines vary by project size.

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NSF: Research on the Impact of COVID-19 on Undergraduate STEM Education

NSF has encouraged submission of proposals related to Coronavirus Disease 2019 (COVID-19), as described in a previous Dear Colleague Letter. The Division of Undergraduate Education (DUE) is specifically interested in research on the **impact of the COVID-19 outbreak on undergraduate education.** The outbreak has altered undergraduate education in unforeseen ways, including forcing temporary closures and unplanned switches to online classes. DUE thinks that research about the impacts of such responses on students and educators could provide important new knowledge about STEM learning, virtual learning environments, the impact of stress on learning, and many other important topics.

If you are engaged in such research or would like to do so, you are encouraged to consider submitting a proposal to any of our relevant funding programs, including the Improving Undergraduate STEM Education (IUSE): EHR program, the IUSE:HSI program, the S-STEM program, the ATE program, the Noyce Program, and the ECR Core research program.

Alternatively (or in addition), if you have an urgent research need or opportunity, you may consider submitting proposals via the following funding mechanisms:

1. Submit a Rapid Response Research (RAPID) proposal.
   See Chapter II.E.1 of the NSF Proposal and Award Policies and Procedures Guide
2. Request supplemental support for your existing award.
   See Chapter VI.E.4 of the NSF Proposal and Award Policies and Procedures Guide
3. Organize a conference or workshop.
   See Chapter II.E.7 of the NSF Proposal and Award Policies and Procedures Guide

Possible topics of interest for these funding mechanisms include, but are not limited to, research on the effectiveness of switching from an in-person to a completely online educational format and research on how the outbreak affects student attitudes, interests, and performance in

STEM.

Important: You should contact a program officer to explore whether your needs might be appropriate for funding via the RAPID, Supplemental Support, or Conference mechanisms. A list of DUE staff is available at https://www.nsf.gov/staff/staff_list.jsp?org=DUE&from_org=DUE.

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Alan Alda Center for Communicating Science: Webinar

Register for an online program with the Alda Center to share your science and work with peers, from wherever you are.

Free Webinar
The A.R.T. of Connecting: Overcome Boredom and Engage Any Audience - *April 22*
Join David P. Otey and discover a new paradigm for technical presentations - one based on the best available science about how to connect with an audience and create engagement. Attendees will encounter ideas that may challenge the conventional wisdom about how to construct and deliver a scientific talk.

View all online learning programs at the Alda-Kavli Learning Center.

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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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