Welcome to the Research and Creative Activity Update!
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.

These weekly email updates are archived on the RCA Website.

FUNDING OPPORTUNITIES

- Limited Submission Program: Bill & Melinda Gates Foundation – Influenza Vaccine Development
- Limited Submission Program: USDA-AFRI Education and Workforce Development
- Limited Submission Program: National Endowment for the Humanities (NEH) Summer Stipends
- Department of Energy – BioEnergy Engineering for Products Synthesis
- Department of Energy – Affordable and Sustainable Energy Crops
- Department of Energy – Process Development for Advanced Biofuels and Biopower
- Department of Energy – ARPA-E Duration Addition to electricity Storage (DAYS)

NEWS & NOTICES

- Working at the University-Industry Interface Webinar Series
- Summer Proposal Writing
- New Proposal Writing Resources

Limited Submission Program: Bill & Melinda Gates Foundation – Influenza Vaccine Development

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.

Bill & Melinda Gates Foundation – Influenza Vaccine Development: Notify RCA by 5/11/2018

The Bill & Melinda Gates Foundation has announced the opening of a new Grand Challenges grant opportunity: Ending the Pandemic Threat: A Grand Challenge for Universal Influenza Vaccine Development. This Grand Challenge is being launched during the centenary year of the 1918 flu pandemic, with the goal of identifying novel, transformative concepts that would lead to development of a truly universal flu vaccine. Such a vaccine would alleviate the need for annual seasonal influenza vaccination campaigns and would prepare the world for the next influenza pandemic. They are looking for proposals that engage scientists across a variety of disciplines (including those new to the influenza field), demonstrate innovative thinking by incorporating concepts or technologies not currently being used within/addressed by the influenza vaccine field, and present concepts and strategies that are “off the beaten track,” significantly radical in conception, and daring in premise. Examples of what they are looking for may fall into broad categories:

- Antigen-centric: discovering new antigens/targets through Artificial Intelligence, Machine Learning, and/or Deep Learning approaches to get beyond traditional surface hemagglutinin
- Host-centric: approaches that (a) generate, enhance, or modify human immune protection, including sterilizing
immunity (b) ensure longer term (possibly life-long) immune response (c) describe surrogates for longevity of immune response and (d) that target specific tissue or cell types for appropriate induction of local and systemic immunity leading to broader and longer protection

- **Technology-centric**: including (a) novel vaccine concepts, targets and constructs inspired by new observations or understanding about the nature of the influenza virus or the human response to it and (b) applications of radically new technologies for disease protection, such as production of immunogens using synthetic biology or radical genetic engineering approaches
- **Enabling advances**: including challenge models to quickly demonstrate safety and proof-of-concept for influenza vaccines

*Application deadline: June 22, 2018*

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**Limited Submission Program: USDA-AFRI Education and Workforce Development**

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**USDA-AFRI Education and Workforce Development [EWD] : Notify RCA by 5/15/2018**

The Agriculture and Food Research Initiative - Education and Workforce Development (EWD) program (formerly the Food, Agriculture, Natural Resources and Human Sciences Education and Literacy Initiative, or ELI) focuses on developing the next generation of research, education, and extension professionals in the food and agricultural sciences. In FY 2018, EWD invites applications in four areas: professional development opportunities for K-14 teachers and education professionals; training of undergraduate students in research and extension; fellowships for predoctoral candidates; and fellowships for postdoctoral scholars.

- **The Professional Development for Secondary School Teachers and Education Professionals (PD- STEP) program** area seeks to increase the number of K-14 teachers and educational professionals trained in the Food and Agricultural Sciences. Any single institution may submit a maximum of three grant applications, with a limit of one award per lead institution.
  *Agency application deadline: July 11, 2018*

- **The Research and Extension Experiences for Undergraduates (REEU) program** area promotes research and extension learning experiences for undergraduates such that upon graduation they may enter the agricultural workforce with exceptional skills. This initiative will allow colleges and universities to provide fellowship opportunities for undergraduate students. Any single institution may submit a maximum of three grant applications, with a limit of one award per lead institution.
  *Agency application deadline: June 28, 2018*

- **Predoctoral and postdoctoral fellowships** program areas help to develop new scientists and professionals to enter research, education, and extension fields within the food and agricultural sciences. Individuals must apply for these fellowships.
  *Agency application deadline: July 19, 2018*

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**Limited Submission Program: National Endowment for the Humanities (NEH) Summer Stipends**

*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.

**NEH Summer Stipends : Contact Christina Weber regarding the nomination process**

NEH Summer Stipends support individuals pursuing advanced research that is of value to humanities scholars, general audiences, or both. Eligible projects usually result in articles, monographs, books, digital materials and publications, archaeological site reports, translations, or editions. Projects must not result solely in the collection of data; instead they must also incorporate analysis and interpretation. Summer Stipends support continuous full-time work on a humanities project for a period of two consecutive months. Summer Stipends support projects at any stage of development. Up to two applicants may be nominated by their institution.

*Agency application deadline: September 26, 2018 (for projects beginning May 2019)*
Department of Energy – BioEnergy Engineering for Products Synthesis

BioEnergy Engineering for Products Synthesis is a multi-topic Funding Opportunity Announcement (FOA) from DOE that seeks to develop highly efficient conversion processes for improving the affordability of fuels and products from biomass and waste streams. The FOA seeks early-stage research proposals that cover several topics pertaining to conversion processes:

- Innovative catalysts for thermochemical processing
- New biological approaches for higher conversion efficiency
- Novel bio-based products that outperform conventional materials (e.g., plastics, polymers, etc.)
- Conversion of wet organic wastes to biofuels, bioproducts, and biopower
- Conversion of carbon dioxide (CO₂) to make fuels and products
- New processes to break down lignin and synthesize higher value biofuels and bioproducts


Department of Energy – Affordable and Sustainable Energy Crops

The Affordable and Sustainable Energy Crops funding opportunity supports early-stage research and development related to the production of affordable and sustainable non-food dedicated energy crops that can be used as feedstocks for the production of biofuels and bioproducts. Projects selected under this Funding Opportunity Announcement (FOA) will seek to:

- Conduct small-scale field testing of new varieties of energy crops
- Measure crop performance and environmental effects relative to traditional cropping and pasture systems
- Define cost-effective methods for planting, harvesting, collecting, and storing biomass


Department of Energy – Process Development for Advanced Biofuels and Biopower

The Process Development for Advanced Biofuels and Biopower funding opportunity supports early-stage research to develop integrated processes for:

- Production of cost-competitive drop-in biofuels, including renewable jet fuel and renewable diesel fuel
- Processes to convert municipal solid waste and biosolids into biopower


Department of Energy – ARPA-E Duration Addition to electricitY Storage (DAYS)

ARPA-E has announced up to $30 million in funding for projects as part of a new program: Duration Addition to electricitY Storage (DAYS). DAYS project teams will build innovative technologies to enable long-duration energy storage on the power grid, providing reliable electricity for 10 to approximately 100 hours. DAYS teams will develop energy storage systems that are deployable in almost any location and discharge electricity at a per-cycle cost target much lower than what is possible in systems available today. The funding opportunity is open to a range of storage technology choices, including thermal, mechanical, electrochemical, chemical, and others. Driving the challenge are an aggressive set of cost targets, siting, power output, and duty cycle requirements. The DAYS program requires that all proposed storage systems be charged by electricity alone and produce electricity as the sole output.


Working at the University-Industry Interface Webinar Series

If you have missed any of the Working at the University-industry Interface Webinar Series the last three webinars and presentation materials are available online.
Preparing Proposals, Budgeting

Video Link: http://budurl.me/eabuh
Last date to watch webinar: May 20, 2018

Addressing Compliance, Contracting and Consulting and Outside Activities

Video Link: https://budurl.me/p4um5
Presentation Materials Link: https://www.academicimpressions.com/online_training/0218-uidp5.pdf
Last date to watch webinar: June 3, 2018

Managing Intellectual Property (IP) Issues

Video Link: https://budurl.me/cg23t
Presentation Materials Link: https://www.academicimpressions.com/online_training/0218-uidp6.pdf
Last date to watch webinar: June 3, 2018

Summer Proposal Writing

As you prepare proposals this summer, check out the Proposal Development Resources website for tools and resources. Whether you are developing a single investigator proposal or a larger initiative, the Research Development staff is also available to assist with proposal development. Contact the office at ndsu.researchdev@ndsu.edu to set up a time to discuss your proposal.

New Proposal Writing Resources

New resources developed by Principal Investigator Leader have recently been added to the Research and Creative Activity website. They include recorded webinars and handouts for the following topics:

- NIH Funding: Revise and Resubmit Rejected Applications
- Transitioning from an Early Investigator Award to the Coveted R01
- Beyond the Graduate Student: Research with Undergraduates

Access to the recordings and materials can be found here. Your NDSU login information is needed to access the site.