

**NDSU** OFFICE OF  
RESEARCH AND CREATIVE ACTIVITY

# RCA UPDATE

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November 22, 2021

## Meet NDSU's New Faculty Members

Throughout the year, RCA will be highlighting new faculty in the weekly newsletter.  
Full profiles are available on the [RCA website](#).

### **Katelyn Nicolay, PhD**

#### **Athletic Training**

**What are your primary research and scholarly interests?**

Determining how to improve the authenticity of simulation learning activities, and evaluating how these activities contribute to critical thinking skill development in athletic training students.



**Where are you from and where did you pursue your education?**

I'm from Winnipeg, but have spent the last 7 years in Boston. I have a Bachelor of Kinesiology from the University of Manitoba, a Master of Science from Illinois State University, and a Doctor of Education from Northeastern University.

**What excites you about NDSU?**

I love how the university is such a big part of the community. You can feel the support for our academic and athletic programs no matter where you go.

**What motivates you?**

Watching my students become confident and skilled professionals.

[Learn more about Katelyn >>](#)

## **Emily Kalina, DNP, RN, FNP-C**

### **Nursing**

**What are your primary research and scholarly interests?**

Nurse Practitioner Education; Healthy Lifestyle Modifications; Depression and Anxiety Screening and Treatment; Cultural Diversity in the Health Care Setting; Rural Health Evaluation, Treatment, and Care Coordination for Cognitive Impairment of the Aged-Patient; Prevention, Evaluation, and Treatment of Acute and Chronic COVID-19 in the Outpatient Setting; Childhood Obesity; Colon Cancer Screening and Prevention; and Preconception and Prenatal Care in the Primary Care Setting.



**Where are you from and where did you pursue your education?**

I grew up in Grand Forks, ND, and attended North Dakota State University, graduating in 2000 with Bachelor's of Science in Nursing. I returned to NDSU in 2012 for Graduate School, and earned my Doctor of Nursing Practice with certification for Family Nurse Practitioner through American Association of Nurse Practitioners (AANP) in 2015.

**What excites you about NDSU?**

Being an alumni of NDSU, both undergraduate and graduate level, has provided me with a strong foundation of how great the university is both culturally and academically. I love getting out of my car in the morning and seeing the energy of

the students driven to learn and grow their futures here on campus. I am excited to continue to grow personally and professionally through work with fellow colleagues and students throughout the university.

**What motivates you?**

I am very motivated by personal growth and helping others see their potential and work towards goals. I am constantly striving to do better and use my knowledge to share with others looking for a similar purpose.

[Learn more about Emily >>](#)

## STUDENT RESEARCH DAY

 Save the Date  APRIL 19, 2022 

**NDSU Student Research Day** is a new event involving a collaboration between **NDSU EXPLORE**, **Gamma Sigma Delta**, and the **Graduate Student Council**. We are excited to bring together what once was three separate events into one day of celebrating undergraduate and graduate student research and creative projects.

**Please plan to join us on April 19, 2022 in the Memorial Union.**

**Watch for more information on registration and event details in early 2022.**

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## Congratulations to all award recipients from October!

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 >>](#)

## Upcoming Seminars and Events

- **Listening Sessions with Vice President Fitzgerald**  
[Learn more >>](#)
- **Elinor Coatings Celebration**  
November 23, 2021 / [Learn more >>](#)
- **NSF SBE Webinar: Understanding the Effectiveness of Public Health Guidance through Social Science Research**  
November 29, 2021 / [Learn more >>](#)
- **Lunch and Discussion: ND Soybean Council**  
January 20, 2022 / [Learn more >>](#)

## Student Research Opportunity: Map the System Program

NDSU's Center for Entrepreneurship is bringing to NDSU 'Map the System,' a program and competition for undergraduate and graduate students developed by the University of Oxford. The focus of the competition is on analyzing social problems in society and building a 'map' of the systems that surround the issue.

There are many great benefits that come from participating:

- Dig into a social issue you are passionate about.
- Choose to collaborate with other students or team members from other disciplines.
- Build your research and presentation skills.

- Develop system-level thinking.
- Formulate the ability to visually map complex systems surrounding a societal issue.
- Expand your professional network with connections to local and regional leaders.
- Compete locally and win a chance to travel to the Finals at Oxford University and win cash prizes.
- Become eligible for **up to \$10,000** to further your Map the System project.

**Learn more:**

- Check out the Competition: <https://mapthesystem.sbs.ox.ac.uk/home>
- Attend a Map The System Info Session:  
**Monday, Dec. 13<sup>th</sup> @ 3:30pm** | [Zoom Link](#) | Meeting ID: 976 7802 9787,  
Passcode: 122095  
**Monday, Jan. 10<sup>th</sup> @ 4:30pm** | [Zoom Link](#) | Meeting ID: 990 1043 7664,  
Passcode: 494674
- Contact Dr. Onnolee Nordstrom for more information: [Onnolee.nordstrom@ndsu.edu](mailto:Onnolee.nordstrom@ndsu.edu)

**Register:**

- Complete the registration form on the Map the System website [Map the System 2021 \(qualtrics.com\)](#)
- Select NDSU as participating institution.
- Option to register as an individual (we will get together in early January to discuss interest areas and form teams) or as a team if you already have a group of students you want to work with.



## November Issue: Research Development & Grant Writing News

The November issue of [Research Development and Grant Writing News](#) is now available to view. Use your NDSU login

information to access this resource. Various topics are covered, including:

- Funding Opportunities in the Humanities;
- New Funding Directions at the Department of Energy;
- Advice & Resources for Your NSF MRI Proposal;
- The First Step to STC Success is to Learn the Language;
- New Funding Directions at NOAA; and
- Editing the Proposal Introduction: The What, Why, How and So-What of a Preliminary Review.

### NIH Budget Guidance

NIH provides guidance on developing a budget [here](#). For the personnel section of the budget justification, NIH has formulated the following guidance:

**For a Modular Budget:**

The Personnel Justification should include the name, role, and **number of person-months devoted to this project** for every person on the project. Do not include salary and fringe benefit rate in the justification, but keep in mind the legislatively mandated [salary cap](#) when calculating your budget. Within a modular budget, generally only the personnel justification needs to be loaded into ASSIST for a NIH proposal.

**For a Detailed Budget:**

**Effort must be reported in person months.** For help converting percent effort to person months, see:

[https://grants.nih.gov/grants/policy/person\\_months\\_faqs.htm](https://grants.nih.gov/grants/policy/person_months_faqs.htm).

### NIH Virtual Seminar Resources

The National Institutes of Health (NIH) held their 2021 virtual seminar on Program Funding and Grants Administration during the first week of November. Many of the

resources from the seminar are available for you to access on the [NIH Grants Website](#):

- **Session recordings, transcripts, & slides:** [2021 NIH Virtual Seminar Presentation Materials](#)
- **How to contact NIH or figure out where to look:** Visit the [Help page](#) for guidance.
- **Grants Process Overview:** [grants.nih.gov](https://grants.nih.gov)

**Available Through December 4, 2021 on the [NIH Virtual Seminar website](#):**

- **Booth Documents and Videos:** Visit a specific booth in the Exhibit Hall or simply go to the navigation bar at the top of the page and click “Resources.”
- **Send resources you've been collecting in your 'Swag Bag.'** Email them to yourself and / or others at any time.

**Other resources to help you stay informed:**

- [NIH Extramural Nexus \(monthly newsletter\)](#)
- [NIH Virtual Seminars Email List](#)
- [NIH Guide to Grants and Contracts Listserv](#)
- [Twitter: @NIHgrants](#)

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## FUNDING OPPORTUNITIES

- [DHHS-ACL: Field Initiated Projects](#)
- [DOE: Computational Chemical Sciences](#) – LIMITED
- [NEH: Humanities Programs for Educators](#)
- [NIH: Preventing Opioid Misuse and Co-Occurring Conditions by Intervening on Social Determinants](#)
- [NIST: Public Safety Innovation Accelerator](#)
- [NSF DCL: Organismal Systems and Infection Biology](#)
- [NSF: Ethical and Responsible Research](#)
- [NSF: Mid-Career Advancement](#)

- [NSF: Social and Economic Sciences](#)
- [USDA-NIFA: Biotechnology Risk Assessment](#)

## 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](mailto:ndsu.researchdev@ndsu.edu).

If you identify a limited submission opportunity that is not on the list below, please notify [ndsu.researchdev@ndsu.edu](mailto:ndsu.researchdev@ndsu.edu).

- [DOE: Computational Chemical Sciences](#)  
*First to Notify*
- [HRSA: Leadership Education in Adolescent Health](#)  
*Notification Deadline: 11/30/2021*
- [HRSA: Sudden Unexpected Infant Death Prevention](#)  
*Notification Deadline: 11/30/2021*
- [NSF: MPS-Ascend External Mentoring](#)  
*Notification Deadline: 11/30/2021*
- [NSF: Community Facility Support - Synchrotron-based analytical capabilities advancing Earth and Environmental Sciences Research and Training](#)  
*Notification Deadline: 12/8/2021*
- [NIH: Diabetes Research Centers](#)  
*Notification Deadline: 12/8/2021*
- [NSF: Materials Research Science and Engineering Centers](#)  
*Notification Deadline: 12/8/2021*

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 [ndsu.researchdev@ndsu.edu](mailto:ndsu.researchdev@ndsu.edu).

### Looking for more funding opportunities?



RCA subscribes to SPIN by InfoEd Global, a database of more than 40,000 funding opportunities. Through this subscription, SPIN is free for current NDSU faculty, staff, and students.

For more information and to access this database, visit the [SPIN page](#) on the RCA website. If you have questions, please contact [ndsu.researchdev@ndsu.edu](mailto:ndsu.researchdev@ndsu.edu).

## DHHS-ACL: Field Initiated Projects

The purpose of the Field Initiated Projects program is to generate new knowledge through research or to develop methods, procedures, and rehabilitation technologies that maximize the full inclusion and integration into society, employment, independent living, family support, and economic and self-sufficiency of people with disabilities, especially people with the highest support needs. In carrying out a research activity under a **Field Initiated Projects research grant** [[HHS-2022-ACL-NIDILRR-IFRE-0009](#)], 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.

Field Initiated Projects *Development* proposals will be invited under a separate announcement.

*Deadline: January 17, 2022*

## DOE: Computational Chemical Sciences – Limited Submission

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.

**DOE CCS : Notify RCA if you are interested in submitting to this program. Because DOE pre-proposals are due January 7, 2022, approval to submit will be given on a first-come, first-served basis.**

The Department of Energy (DOE) Office of Science (SC) program in Basic Energy Sciences (BES) is soliciting new and renewal applications from small groups (of 2-3 Principal Investigators [PIs]) and integrated multidisciplinary teams (typically from multiple institutions) in Computational Chemical Sciences (CCS) [[DE-FOA-0002608](#)]. Single-investigator applications are not responsive to the objectives of this FOA. CCS will support basic research to develop validated, open-source codes for modeling and simulation of complex chemical processes and phenomena that will provide fundamental understanding and predictive control of these processes and phenomena through the full use of emerging and planned exascale computing capabilities. CCS focuses on developing capabilities that allow modeling and simulation of new or previously inaccessible complex chemical systems and / or provide dramatic improvements in fidelity, scalability, and throughput. Teams should bring together expertise in domain areas (e.g., electronic structure, chemical dynamics, statistical mechanics, etc.) and other areas important to advance computational tools such as data science, algorithm development, and software architectures. Priority will be given to efforts that address chemical transformations and energy transduction processes across multiple scales in complex environments and systems related to BES-supported basic research in scientific topics underpinning clean-energy technologies and transformative, low carbon manufacturing.

**LIMITED SUBMISSION:** Applicant institutions are limited to no more than two (2)

pre-applications and applications. There is no limit on the number of pre-applications on which an institution may appear as a partner (not the lead institution).

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## NEH: Humanities Programs for Educators

The National Endowment for the Humanities (NEH) Division of Education Programs has several open funding opportunities aimed at providing professional development for educators in the humanities.

Institutes for Higher Education Faculty 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 K-12 Educators 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.

The Landmarks of American History and Culture Program supports residential, virtual, and combined format projects that situate the study of topics and themes in K-12 humanities within sites, areas, or regions of historic and cultural significance. Projects aim to expand participants' knowledge of and approaches to teaching about diverse histories, cultures, traditions, languages, and perspectives in the United States and its jurisdictions.

*Optional draft deadline: January 19, 2022*

*Application deadline: February 22, 2022*

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## **NIH HEAL Initiative: Preventing Opioid Misuse and Co-Occurring Conditions by Intervening on Social Determinants (R01 Clinical Trials Optional)**

In April 2018, the National Institutes of Health (NIH) launched the [Helping to End Addiction Long-term Initiative or HEAL Initiative](#), an aggressive, trans-agency effort to speed scientific solutions to stem the national opioid public health crisis. Through this initiative the National Institute on Drug Abuse (NIDA), in partnership with other NIH Institutes, Centers, and Offices, requests applications for studies designed to develop and test multi-level interventions to prevent opioid misuse, opioid use disorder, and co-occurring conditions by intervening on social determinants of health (SDOH) [[RFA-DA-22-036](#)]. This initiative aims to build an evidence base for multi-level interventions that target malleable factors and conditions affecting the social context. Applications must seek to reduce health inequities in a U.S. population or population subgroup affected by the opioid crisis by studying the effects of a theory driven, multi-level intervention on the prevention of opioid misuse / opioid use disorder and co-occurring conditions. Such conditions could include mental health conditions and / or suicide, and may also include other substance use and substance use-related outcomes. The research project must examine the mechanisms by which the interventions exert their effects, and conduct economic analyses to inform decisions about adoption of strategies. Investigators should study interventions that are sustainable and easily taken to scale if effective.

*Deadline: March 2, 2022*

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## **NIST: Public Safety Innovation Accelerator**

The NIST Public Safety Innovation Accelerator Program 2022 [[2022-NIST-PSIAP-2022-01](#)] is seeking applications to accelerate research and development (R&D) around the use of mission critical voice (MCV), location-based services (LBS), and user interface / user experience (UIUX) for improving public safety communication technologies.

*Deadline: January 18, 2022*

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## NSF DCL: Organismal Systems and Infection Biology

With this Dear Colleague Letter (DCL) [[NSF 22-016](#)] the Division of Integrative and Organismal Systems (IOS) is calling for proposals that build on our ongoing programs to move forward our understanding of infection processes in natural systems. All study systems are appropriate, except those that focus solely on human diseases. Proposals that focus on building a mechanistic understanding are encouraged. Comparative approaches to the study of immune systems, in a phylogenetic context, are also encouraged; these studies are expected to discover conserved and convergent immune responses or cell types. Proposals that focus on interactions between immune responses and other physiological, developmental, neural and behavioral phenotypes are well suited to this call.

Research proposals should be submitted to the IOS program most-closely related to the proposed activities through the [IOS Core Programs solicitation](#) (NSF 21-506), the [Plant-Biotic Interactions](#) (NSF 20-576), the [Plant Genome Research Program](#) (NSF 21-507), or the [Enabling Discovery through Genomics](#) (NSF 21-546) solicitation. Proposals for [Research Coordination Networks](#) (RCN) should be prepared and submitted consistent with the guidelines in the RCN solicitation.

*Deadlines vary by program.*



## NSF: Ethical and Responsible Research

Ethical and Responsible Research (ER2) [[NSF 22-526](#)] research projects use fundamental research to produce knowledge about what constitutes or promotes responsible or irresponsible conduct of research and why, as well as how to best instill this knowledge into researchers, practitioners, and educators at all career stages. In some cases, projects will include the development of interventions or applications to ensure ethical and responsible research conduct.

The program funds research projects that identify:

1. factors that are effective in the formation of ethical science, technology, engineering, and mathematics (STEM) researchers;
2. approaches to developing those factors in all STEM fields that NSF supports; and

3. why and how those factors and approaches increase responsibly conducted research.

*Deadline: February 17, 2022*



## **NSF: Mid-Career Advancement**

The Mid-Career Advancement program [[NSF 21-516](#)] offers an opportunity for scientists and engineers at the Associate Professor rank (or equivalent) to substantively enhance and advance their research program through synergistic and mutually beneficial partnerships, typically at an institution other than their home institution. Projects that envision new insights on existing problems or identify new but related problems previously inaccessible without new methodology or expertise from other fields are encouraged.

Partners from outside the PI's own subdiscipline or discipline are encouraged, but not required, to enhance interdisciplinary networking and convergence across science and engineering fields.

*Deadline: February 7, 2022*



## **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: January 15, 2022*

- [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: January 15, 2022*

- [Security and Preparedness](#)

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

*Deadline: January 15, 2022*

- [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: January 15, 2022*

- [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: January 17, 2022*

- [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: January 18, 2022*

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## **USDA-NIFA: Biotechnology Risk Assessment Research Grants Program**

The purpose of the Biotechnology Risk Assessment Research Grants (BRAG) program [[USDA-NIFA-BRAP-008702](#)] is to support the generation of new information that will assist Federal regulatory agencies in making science-based decisions about the effects of introducing into the environment genetically engineered organisms (GE), including plants, microorganisms — such as fungi, bacteria, and viruses — arthropods, fish, birds, mammals and other animals excluding humans. Investigations of effects on both managed and natural environments are relevant.

*Letter of Intent due January 4, 2022*

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## Listening Sessions Scheduled with Vice President Fitzgerald

Over the next few weeks, NDSU Vice President for Research and Creative Activity (RCA) Colleen Fitzgerald will be conducting listening sessions with NDSU faculty and staff from all NDSU colleges. These sessions are aimed at gathering feedback and input for Colleen about how RCA can best collaborate with the NDSU researcher community and how we can reach the next level in research and creative activity together.



Upcoming sessions are listed below. You should have already received an invite about your specific session along with a Zoom link if you can't attend in person. If you have any questions about the listening sessions, contact Amy Kain ([amy.kain@ndsu.edu](mailto:amy.kain@ndsu.edu)).

### Human Sciences and Education

- 11/29/21, 2:00-2:50pm, Morrill 103

### Business

- 12/01/21, 3:00-3:50pm, Barry Hall 360

### Arts Humanities and Social Sciences

- 12/02/21, 11:00-11:50am, Morrill 103

### Health Professions

- 12/03/21, 11:00-11:50am, Morrill 103



## Elinor Coatings Open House

**November 23, 2021 | 10:30am-12:30pm**

You are welcome to join our friends at Elinor as they celebrate 15 years in business. You'll hear remarks from individuals from both Elinor and NDSU as well the chance to visit their new lab and office space in the NDSU Research 2 (R2) Building.

10:30 Lab Tours



11:00 Celebration Remarks and Cake Cutting

11:30 Luncheon and Open House

11:45 Lab Tours

NDSU Research 2 Building / Second Floor

1805 NDSU Research Park Drive

(Free Parking in RP Lot 10 am – 2 pm / No Permit Needed)



## **NSF SBE Webinar: Understanding the Effectiveness of Public Health Guidance through Social Science Research**

**November 29, 2021 | 11:00am-12:00pm**

The U.S. National Science Foundation (NSF) Directorate of Social, Behavioral, and Economic Sciences (SBE) and the Social Science Research Council are holding an informational webinar about advancing scientific understanding of public health guidance and its impacts on individuals and communities.

The COVID-19 pandemic has underscored the need for scientific investigation of the effects that public health guidance can have on U.S. society and the economy. The health and well-being of individuals, communities and entire regions of the U.S. can be fortified through fundamental scientific insights into how public health guidance is created, distributed and perceived by people. [Learn more and register >>](#)



## **Lunch and Discussion with ND Soybean Council**

**January 20, 2022 | 1:00-2:30pm**

On Thursday, January 20, from 11am – 12:30pm come to the Hidatsa Room in the Memorial Union to meet with staff from the North Dakota Soybean Council. At this event you will learn more about the “New Uses” Request For Proposals (RFP) that will be released at the start of the new year, and the current trends in the industry. The event will start with a short presentation from the ND Soybean Council on the RFP, the application process, and the proposal review process. The presentation will be followed by time for lunch and discussion. Lunch will be provided, and registration is necessary to get a count for ordering lunch. [Register to attend >>](#)



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

[Contact Us](#)



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*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.*

*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.*