

# COLLEGE HAPPENINGS

July 23, 2019

## FROM THE DEAN

### A Culture of Safety

As the start of the school year approaches it's common to set goals or resolutions for the upcoming year, and I have a special one for all of us. Let's make this academic year completely accident-free. We simply don't want any person in the college to suffer with an injury of any kind.

To prevent accidents, we need to continually cultivate a culture of safety among our faculty, staff and students. The American Chemical Society published a report on this very topic titled, [Creating Safety Cultures in Academic Institutions](#), and I encourage you to read it. The report lists elements of a strong safety culture which include:

- clearly defining responsibilities and accountability for safety from the highest administration, through the departments/schools, to individual faculty and staff;
- teaching laboratory and chemical safety, emphasizing "critical thinking" skills;
- promoting strong safety attitudes, awareness, and ethics (which reflects the proper attitude of valuing safety);
- learning from laboratory incidents; and
- promoting and communicating safety.

Individual PI's and lab supervisors have ultimate responsibility for ensuring that safe research practices are followed in their labs. This includes ensuring that researchers and students are wearing appropriate personal protective equipment (i.e. safety glasses, lab coats), that chemicals are properly labeled and stored, and that hazards are identified and corrected. NDSU's unit of [Environmental Health and Safety](#) in the University Police and Safety Office is the resource on campus for working in conjunction with faculty, staff and students to promote a safe working environment in laboratory spaces. They also assist with maintaining compliance with federal, state and local regulations associated with environmental, chemical and radiological issues.

Recently, the Environmental Health and Safety unit has been focused on ensuring the proper management of chemical waste at NDSU. This comes after inspections by the North Dakota Department of Environmental Quality found several violations and levied a \$200,000 fine on NDSU. Of that fine, \$50K is suspended if NDSU completes several steps, including increased hazardous waste training and laboratory inspections. Another \$50K of that fine will be suspended if future inspections by the Department of Environmental Quality do not find violations over the next two years. As a result, you can expect that laboratories where hazardous waste is generated and collected will be inspected by NDSU's Environmental Health and Safety unit on at least a monthly basis. In addition, there will be a requirement that hazardous waste training be completed each semester by individuals working in those labs.

We all have a responsibility to protect our students and to foster an atmosphere where safety takes top priority. Thank you for your help in this important task.



## IN THE NEWS

[NDSU team finishes fourth at autonomous vehicle competition](#)

[NDSU professor receives Global Food Security Award](#)

[College students being targeted for identity theft](#)

[Summer camp aims to ignite kids' passions for STEM](#)

## CONGRATULATIONS

Please let [College Happenings](#) know about honors, awards, new grants and other announcements so we can share them with other faculty and staff.

## UPCOMING EVENTS

Tuesday, August 13, **CoE Staff Luncheon**. 11:30 a.m. – 1:30 p.m. in the Memorial Union Mandan Room.

Wednesday, August 21, **Search Committee Training**. 10:00 a.m. – Noon in the Memorial Union Hidatsa Room.

[Register here.](#)

## COLLEGE OF ENGINEERING OUTSTANDING STAFF AWARD

We are excited to introduce an outstanding staff award for the College of Engineering to recognize and honor unusual dedication and outstanding contributions by a staff member in CoE.

Any NDSU staff member, faculty member, or student may submit a nomination letter of two pages or less describing the nominee's contributions to the success of the College of Engineering.

Nominations for outstanding staff awards should be submitted to Angela Thomassen ([angela.thomassen@ndsu.edu](mailto:angela.thomassen@ndsu.edu)). The nomination deadline is **Monday, July 29** at 5:00 p.m.

## FACULTY AWARD NOMINATIONS

Nominations are now being accepted for 2019-20 faculty awards processed through the Office of the Provost.

Nominations may be submitted by faculty, staff, students, alumni, and administrators, materials should be sent by email to [ndsu.provost@ndsu.edu](mailto:ndsu.provost@ndsu.edu). For descriptions of each award, criteria, and nomination materials, please see the [awards web page](#).

The Faculty Awards and Recognition Committee will review all nominations and select finalists for each award based upon the candidate's nomination materials after the stated deadline. Award recipients will be honored at the annual Celebration of Faculty Excellence.

## WHAT IS YUJA?

YuJa has replaced Tegrity as NDSU's supported video and lecture capture solution. In addition to lecture capture, YuJa can be used for video management, live streaming, video conferencing and creating video quizzes. For additional information, training resources and FAQs [click here](#).

## COSEARCH NDSU – REGISTRATION OPEN

On **October 25th and 26th**, NDSU researchers will have 30 hours to share a research idea, hone the idea with an interdisciplinary team they meet at the event and pitch the idea to a panel of judges. CoSearch is open to all faculty members who are interested in collaboration and research, and it is an exciting opportunity for researchers from a variety of disciplines to bring their perspectives and work together to solve real-world problems.

For more information and to register, visit <http://cosearchndsu.com>.

## FUNDING OPPORTUNITIES

### **Department of Defense (DoD) Defense Established Program to Stimulate Competitive Research (DEPSCoR)**

The Basic Research Office anticipates approximately \$3.6 million in total funding will be made available for this program to fund approximately six (6) awards up to \$600,000 (total cost) each. Each award will be funded up to \$200,000 (total cost) per year for three (3) years in the form of a grant.

- The application and submission process is completed in three stages: 1. Online Registration via AcquiTrak (required) 2. White Paper and Supporting Documentation submission via AcquiTrak (required) 3. Full Proposal Submission Package (via grants.gov REQUIRED) (by Invitation Only, Must Include Acceptance Email in Package)
- White papers are a MANDATORY component for the three-stage application and submission process. If applicants do not register and submit a White Paper and Supporting Documentation before the due dates and times, you will not be eligible to participate in the remaining Full Proposal submission process and are not eligible for funding.
- Proposed research should describe cutting-edge efforts on basic scientific problems. White papers deemed to be applied research, as opposed to basic research, will not advance to the proposal stage of the competition.
- Evaluation Criteria – White papers and proposals will be evaluated against the following criteria (each are equally important): 1. Scientific and technical merits of the proposed research; 2. The Applicant's and Collaborator's qualifications, ability to perform the proposed work, and the overall management approach; and 3. Relevance of the proposed research to the DoD.

#### *Key Dates:*

- AcquiTrak website open for registration and submission - 07/12/19
- Questions Regarding White Paper and Supporting Documentation (submitted by) - 7/31/19
- AcquiTrak Registration: No later than 11:59 PM Eastern Time on 10/18/19
- White Paper and Supporting Documentation - 10/25/19
- Notification of White Paper Selection - 12/16/19
- Proposal (by invitation only) - 02/14/20
- Notification of Selection for Award - 04/13/20

## RECENTLY SUBMITTED PROPOSALS

- Adam Curtis Gladen (PI), Yao Yu (CPI), Dilpreet Singh Bajwa (CPI). Development of a novel, thermochemical nanocellulose-based material for thermal energy storage. \$1,232,755 from the Department of Energy. 01/01/2020 – 12/31/2022.
- Trung Bao Le (PI). Dynamics of Floodwaters from Ice-Melting under Terrestrial and Martian Conditions. \$24,999 from the National Aeronautics and Space Administration. 08/16/2019 – 08/15/2020.
- Huojun Yang (PI). CAREER: Holistic evaluation of energy and exergy impact of irregular, multicellular cavities in built environments. \$508,182 from the National Science Foundation. 05/18/2020 – 05/17/2025.
- Halis Simsek (PI). CAREER: Integrated Multidisciplinary Research and Education Investigating The Novel Bacteriophage Therapy to Suppress Biological Foaming and Biomass Bulking In Industrial and lives. \$495,737 from the National Science Foundation. 02/01/2020 – 01/31/2025.
- Qifeng Zhang (PI). Verifying the Origin of Lithium Dendrite Formation in Garnet-Type Solid-State Electrolyte. \$17,877 from the University of North Dakota. 08/16/2019 – 08/15/2020.
- Benjamin Davis Braaten (PI). Electronically Tunable Materials and Devices Using Subwavelength Particles. \$110,000 from the U.S. Air Force. 09/01/2019 – 08/31/2020.
- Dharmakeerthi Nawarathna (PI). Au-Ag bimetallic nanostructures with high plasmonic enhancement capability for sensing applications. \$24,998 from the National Aeronautics and Space Administration. 08/16/2019 – 08/15/2020.
- Brian Slator (CPI). Tools and Toys for Using Retrieval Practice to Promote Classification Learning. \$498,191 from the National Science Foundation. 01/01/2020 – 12/31/2022.

## RECENT PUBLICATIONS

*For 2019, 74 publications by authors with the College of Engineering affiliation have appeared in various journals, according to the ISI Web of Science and submissions from faculty. Here are some of the most recent publications:*

- Alanazi, Abdulaziz, and Jeremy Straub. 2019. "Engineering Methodology for Student-Driven CubeSats." *Aerospace* 6 (5): 54. <https://doi.org/10.3390/aerospace6050054>.
- Arshid, A., Y. Huang, and D. Tolliver. 2019. "ADYTrack: Development of a Railroad Trackbed Model and Parametric Study of Track Modulus." *Geotechnical Engineering* 50 (2): 77–84.
- Datta, S., S. Rahman, M. S. Borhan, B. Saini-Eidukat, L. Cihacek, and K. Ringwall. 2019. "Quantification and Characterization of Particulate Matter Generated from Unpaved Roads in the Oil Development Area of Western North Dakota." *Transactions of the ASABE* 62 (3): 615–25. <https://doi.org/10.13031/trans.13169>.
- Fidantemiz, Yavuz F., Xinhua Jia, Aaron L. M. Daigh, Harlene Hatterman-Valenti, Dean D. Steele, Ali R. Niaghi, and Halis Simsek. 2019. "Effect of Water Table Depth on Soybean Water Use, Growth, and Yield Parameters." *Water* 11 (5): 931. <https://doi.org/10.3390/w11050931>.
- Jayasooriya, Vidura Dhananjaya, and Dharmakeerthi Nawarathna. 2019. "Label-Free Purification of Viable Human T-Lymphocyte Cells from a Mixture of Viable and Non-Viable Cells after Transfection by Electroporation." *Journal of Physics D-Applied Physics* 52 (36): 36LT01. <https://doi.org/10.1088/1361-6463/ab2b81>.
- Shojaeiarani, Jamileh, Mohammad Hosseini-Farid, and Dilpreet Bajwa. 2019. "Modeling and Experimental Verification of Nonlinear Behavior of Cellulose Nanocrystals Reinforced Poly(Lactic Acid) Composites." *Mechanics of Materials* 135 (August): 77–87. <https://doi.org/10.1016/j.mechmat.2019.05.003>.

*College Happenings* is distributed to the NDSU College of Engineering staff and faculty every other Tuesday.

Read past issues of *College Happenings* [here](#).

Deadline for submissions to *College Happenings* is 12:00 p.m. Fridays.

Contact [kyle.bosch@ndsu.edu](mailto:kyle.bosch@ndsu.edu) to submit items for *College Happenings*.

Follow the College of Engineering on social media.

