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Office of Research and Economic Development, University of Nebraska–Lincoln

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RESEARCH

Office of Research and Economic Development

RESEARCH AND CREATIVE ACTIVITY

July 1, 2019 – June 30, 2020

**Major Sponsored Programs and Faculty Accomplishments
in Research and Creative Activity**

University of Nebraska–Lincoln



Bob Wilhelm

Vice Chancellor for Research
and Economic Development

This booklet highlights successes in research, scholarship and creative activity by University of Nebraska–Lincoln faculty during the fiscal year running July 1, 2019, to June 30, 2020.

It lists investigators, project titles and funding sources on major grants and sponsored awards received during the year; fellowships and other recognitions and honors bestowed on our faculty; books published by faculty; performances, exhibitions and other creative activity; and patents and licensing agreements issued. Based on your feedback, the Office of Research and Economic Development expanded this publication to include peer-reviewed journal articles and conference presentations and recognize students and faculty mentors participating in the Undergraduate Creative Activities and Research Experience Program (UCARE) and the First-Year Research Experiences program (FYRE).

While metrics cannot convey the full story of our work, they are tangible measures of impact. Nebraska achieved a record \$317 million in total research expenditures in FY 2019, a 26% increase over the past decade. Thanks to your efforts, our university is making progress toward its goal of approaching \$450 million in research expenditures by 2025.

Husker researchers are stimulating economic growth through university-sponsored industry activity. Nebraska Innovation Campus created 1,657 jobs statewide and had a total economic impact of \$324.1 million in FY 2019. NUTech Ventures brought in \$6.6 million in licensing income in FY 2020. The University of Nebraska system now ranks 65th among the top 100 academic institutions receiving U.S. patents, jumping 14 spots from 2019.

I am proud of the Nebraska Research community for facing the challenges of 2020 with grit and determination. Our researchers quickly adapted to develop solutions

for an evolving pandemic — all while working apart and keeping themselves and their families safe. As an institution, we made a commitment to embrace an anti-racism journey and work toward racial equity. Advancing conversations and developing lasting solutions is among the most important work we can do as scholars.

Against the backdrop of the pandemic, rising racial and social tensions, and natural disasters, Nebraska researchers worked diligently to address other pressing issues, such as obesity and related diseases, nanomaterials, agricultural resilience and the state's STEM workforce.

Let's continue looking forward to what we can accomplish together. Thank you for participating in the grand challenges process and helping identify the wicked problems that Nebraska has unique expertise to solve. Soon, ORED will unveil a Research Roadmap that outlines how our campus will develop research expertise; enrich creative activity; bolster commitment to diversity, equity and inclusion; enhance economic development; and much more.

Amidst the uncertainty of 2020, I remain confident in our faculty's talent and commitment. I am pleased to present this record of accomplishments.

Bob Wilhelm

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I am proud of the Nebraska
Research community for
facing the challenges of 2020
with grit and determination.

Awards of \$5 Million or More

Active awards, July 1, 2019–June 30, 2020

* Indicates new in 2019–2020

Bevins, Rick

Psychology/ Rural Drug Addiction Research Center

Rural Drug Addiction Research Center

\$11,854,178 NIH-NIGMS

4/5/19 – 2/29/24

Khan, Bilal Sociology/Rural Drug Addiction Research Center

Tyler, Kimberly Sociology/Rural Drug Addiction Research Center



The Rural Drug Addiction Research Center was created in April 2019 as a National Institutes of Health Center of Biomedical Research Excellence, or COBRE. Under the leadership of Rick Bevins, Chancellor's Professor of psychology, the center's mission is to advance understanding of causes, impacts and interventions related to rural drug

addiction in the Midwest, a geographic area that has been historically understudied. Designed to be interdisciplinary and data-driven, the research links pre-clinical studies to field-based behavioral, neural, social, clinical, translational research and dissemination.

Bloom, Kenneth

Physics and Astronomy

U.S. CMS Operations at the LHC

\$6,257,263 NSF through Princeton University

1/1/12 – 12/31/21



Ken Bloom, professor of physics and astronomy, coordinates the U.S. contingent of the international research team conducting experiments using the Large Hadron Collider (LHC) at CERN, the European Organization for Nuclear Research in Switzerland. This grant from the National Science Foundation enables the UNL team to support the current High-

Luminosity LHC (HL-LHC) upgrade project.

Brank, Eve

Center on Children, Families and the Law

Training on Family and Policy Services

\$11,268,815 DHHS-ACF through
Nebraska Department of Health and Human Services

1/1/18 – 12/31/21

Olson, Kathryn Center on Children, Families and the Law



Eve Brank, professor of psychology and director of the Center on Children, Families and the Law (CCFL), and Kathryn Olson, research assistant professor and assistant director of CCFL, lead this effort to develop and deliver training to child and family services specialists consistent with federal and state statutes and policy. With the support of the Nebraska Department of

Health and Human Services and the Administration for Children and Families in the U.S. Department of Health and Human Services, the program encompasses development and delivery of child protection and safety training for child protection and safety workers in Nebraska.

Cahoon, Edgar

Biochemistry/Center for Biotechnology/ Center for Plant Science Innovation/ Nebraska Center for Redox Biology

R11 Track-1: Center for Root and Rhizobiome Innovation (CRR1)

\$10,062,433 NSF-EPSCoR

6/15/16 – 5/31/21

Adamec, Jiri Biochemistry/Center for Biotechnology/

Center for Plant Science Innovation/

Nebraska Center for Redox Biology

Clemente, Thomas Agronomy and Horticulture/

Center for Biotechnology/

Center for Plant Science Innovation/

Nebraska Center for Redox Biology

Drijber, Rhae Agronomy and Horticulture/

Center for Biotechnology/

Center for Plant Science Innovation/

Nebraska Center for Redox Biology

Griep, Mark Chemistry/Center for Biotechnology/

Center for Plant Science Innovation/

Nebraska Center for Redox Biology

Helikar, Tomas Biochemistry/Center for Biotechnology/

Center for Plant Science Innovation/

Nebraska Center for Redox Biology

Herr, Joshua Plant Pathology/Center for Biotechnology/

Center for Plant Science Innovation/

Nebraska Center for Redox Biology

Moriyama, Etsuko Biological Sciences/Center for Biotechnology/

Center for Plant Science Innovation/

Nebraska Center for Redox Biology

Russo, Sabrina Biological Sciences/Center for Biotechnology/
Center for Plant Science Innovation/
Nebraska Center for Redox Biology

Schachtman, Daniel Agronomy and Horticulture/
Center for Biotechnology/
Center for Plant Science Innovation/
Nebraska Center for Redox Biology

Schnable, James Agronomy and Horticulture/
Center for Biotechnology/
Center for Plant Science Innovation/
Nebraska Center for Redox Biology

van Dijk, Karin Biochemistry/Center for Biotechnology/
Center for Plant Science Innovation/
Nebraska Center for Redox Biology

Walia, Harkamal Agronomy and Horticulture/
Center for Biotechnology/
Center for Plant Science Innovation/
Nebraska Center for Redox Biology

Weber, Karrie Biological Sciences/
Earth and Atmospheric Sciences/
Center for Biotechnology/
Center for Plant Science Innovation/
Nebraska Center for Redox Biology

Yu, Bin Biological Sciences/Center for Biotechnology/
Center for Plant Science Innovation/
Nebraska Center for Redox Biology

Zhang, Chi Biological Sciences/Center for Biotechnology/
Center for Plant Science Innovation/
Nebraska Center for Redox Biology



The University of Nebraska–Lincoln is leading a \$20 million, Nebraska-based research effort to improve crop productivity. Funded with a five-year award from the National Science Foundation’s Established Program to Stimulate Competitive Research, or EPSCoR, this project draws upon a range of expertise in Nebraska.

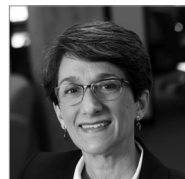
The university is teaming with scientists at the University of Nebraska Medical Center, University of Nebraska at Kearney and Doane University on the Center for Root and Rhizobiome Innovation. Project leader is Edgar Cahoon, George Holmes Professor of biochemistry and director of the Center for Plant Science Innovation. The research uses a holistic strategy to study root and soil microbe interactions and to develop new biological tools to enhance crop performance.

Graef, Michelle **Center on Children, Families and the Law**
Quality Improvement Center for Workforce Development
\$15,235,500 DHHS-ACF
9/30/16 – 9/29/21

Ells, Mark Center on Children, Families and the Law

Paul, Megan Center on Children, Families and the Law

Stephenson, Kate Center on Children, Families and the Law



The University of Nebraska–Lincoln has launched the Quality Improvement Center for Workforce Development with a five-year, \$15 million grant to the Center on Children, Families and the Law from the U.S. Department of Health and Human Services Administration for Children and Families-Children’s Bureau.

Under the leadership of Michelle Graef, associate professor in the Center on Children, Families and the Law, this multidisciplinary project studies and tests promising strategies to help child welfare agencies recruit and retain staff workers. Nebraska collaborates with three national child welfare consultants and researchers at the University of Colorado, Denver; University of Louisville; and University of Tennessee, Knoxville. The center draws on a range of expertise, including social work, industrial organizational psychology, human resource management, educational psychology, implementation science and the law.

Heng-Moss, Tiffany **College of Agricultural Sciences and Natural Resources**

Developing the Next Generation of Rwandan Agricultural Leaders
\$47,492,836 Various Associations/Foundations
7/1/15 – 5/31/23

Davis, Josh Global Affairs

Waller, Steven Center for Grassland Studies



With grants totaling more than \$47,000,000, the College of Agricultural Sciences and Natural Resources (CASNR) at the University of Nebraska–Lincoln is partnering with various associations and foundations to provide educational opportunities for Rwandan students to participate in the CASNR Undergraduate Scholars Program (CUSP). In support of a

Practical Agriculture Institute in Rwanda, Rwandan students are identified and selected to participate in CUSP to pursue a Bachelor of Science degree in integrated science – an individualized program of study focused on conservation agriculture, entrepreneurship, leadership and innovative thinking. The students’ degree programs are specifically designed to be relevant to Rwandan agricultural production and the country’s goal of building resilience into its agricultural ecosystems. CASNR dean Tiffany Heng-Moss leads this effort.

Moxley, Rodney **Veterinary Medicine and Biomedical Sciences**

Shiga-Toxigenic *Escherichia coli* (STEC) in the Beef Chain:
Assessing and Mitigating the Risk by
Translational Science, Education and Outreach
\$24,808,592 USDA-AFRI
1/1/12 – 12/31/19
Thippareddi, Harshavardhan Food Science and Technology



Rodney Moxley, Charles Bessey Professor of veterinary medicine and biomedical sciences, leads a major project involving 12 universities and other institutions to target eight of the most dangerous *E. coli* strains throughout the beef production chain. Funded by a \$25 million Agriculture and Food Research Initiative grant from the U.S. Department of Agriculture’s National Institute of Food and Agriculture, the project’s long-term goal is to reduce the occurrence and public health risks from Shiga toxin-producing *E. coli* in beef, while preserving an economically viable and sustainable beef industry. The project explores the public health, economic and environmental impacts of existing or new intervention strategies on predicted and actual STEC exposure risk. Innovative education, extension and evaluation efforts are intertwined with research on beef chain STEC risk mitigation and decreased numbers of human STEC cases.

Rilett, Laurence **Civil and Environmental Engineering/
Nebraska Transportation Center**

University Transportation Centers Open Competition 2016
\$13,000,900 DOT
12/5/16 – 9/30/22



The Mid-America Transportation Center, a consortium of academic institutions led by the University of Nebraska–Lincoln, leads a five-year, \$13 million research center, funded by the U.S. Department of Transportation through the Fixing America’s Surface Transportation Act, to improve transportation safety in Nebraska and neighboring states. The center, which emphasizes challenges facing rural areas and underserved communities, was designated the University Transportation Center of

its four-state region after a competitive review. Laurence Rilett, MATC director and the Keith W. Klaasmeyer Chair in engineering, leads the research center. Funding enables MATC to leverage its track record of success in transportation research and education to improve safety in the four Region 7 states: Nebraska, Iowa, Kansas and Missouri. MATC is housed in the university’s College of Engineering. Its partner institutions include the University of Nebraska at Omaha, University of Nebraska Medical Center, University of Iowa, University of Kansas, University of Kansas Medical Center, Missouri University of Science and Technology, Lincoln University and Nebraska Indian Community College. The consortium also has partnerships with several private- and public-sector entities, including a longstanding relationship with the Nebraska Department of Transportation.

Schachtman, Daniel **Agronomy and Horticulture/
Center for Plant Science Innovation/
Center for Biotechnology**

Systems Analysis of the Physiological and Molecular Mechanisms
of Sorghum Nitrogen Use Efficiency, Water Use Efficiency
and Interactions with the Soil Microbiome
\$13,460,684 DOE
8/15/15 – 8/14/21
Dweikat, Ismail Center for Plant Science Innovation/
Agronomy and Horticulture
Ge, Yufeng Biological Systems Engineering



Daniel Schachtman, George Holmes Professor of agronomy and horticulture and director of the university’s Center for Biotechnology, leads a \$13.5 million, multi-institutional research effort to improve sorghum as a sustainable source for biofuel production. A five-year grant from the U.S. Department of Energy funds this highly collaborative project that takes a comprehensive approach to understanding how plants and microbes interact and to learn which sorghum germplasm can grow with less water and nitrogen. The University of Nebraska–Lincoln is collaborating with scientists at Danforth Plant Science Center, Washington State University, University of North Carolina–Chapel Hill, Boyce Thompson Institute, Clemson University, Iowa State University, Colorado State University and the DOE-Joint Genome Institute.

Takacs, James**Chemistry/Nebraska Center for
Integrated Biomolecular Communication**Nebraska Center for Integrated Biomolecular Communication
(NCIBC)

\$11,038,329NIH-NIGMS
 8/15/16 – 7/31/21
 Becker, Donald Biochemistry/NCIBC
 Buan Murphy, Nicole Biochemistry/NCIBC
 Cerny, Ronald Chemistry/NCIBC
 Clarke, Jennifer Statistics/Food Science and Technology/NCIBC
 DiRusso, Concetta Biochemistry/NCIBC
 Dodds, Eric Chemistry/NCIBC
 Hage, David Chemistry/NCIBC
 Harris, Edward Biochemistry/NCIBC
 Kidambi, Srivatsan Chemical and Biomolecular Engineering/NCIBC
 Lee, Jaekwon Biochemistry/NCIBC
 Morton, Martha Chemistry/NCIBC
 Powers, Robert Chemistry/NCIBC
 Riethoven, Jean-Jack Center for Biotechnology/ NCIBC
 Stains, Clifford Chemistry/NCIBC
 Velander, William Chemical and Biomolecular Engineering/NCIBC
 Zhou, You Center for Biotechnology/NCIBC



With a five-year, \$11 million grant from the National Institutes of Health, the University of Nebraska–Lincoln has established a research center focused on investigating cellular-level miscommunications that contribute to complex diseases like cancer, diabetes and chronic liver disease. The NCIBC serves as a hub for interdisciplinary collaborations among

Nebraska's biomedical researchers and involves faculty at the University of Nebraska Medical Center, as well. The center, directed by James Takacs, Charles J. Mach University Professor of chemistry, fosters a systems approach, combining the research activities of chemists, biochemists, engineers and bioinformaticists. It connects researchers developing new molecular probes and analytical techniques with those unraveling molecular mechanisms of diseases.

Tsymbal, Evgeny**Physics and Astronomy/
Nebraska Center for Materials and Nanoscience**Materials Research Science and Engineering Center:
Polarization and Spin

\$9,629,898NSF
 11/1/14 – 10/31/21



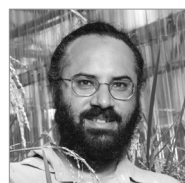
The Materials Research Science and Engineering Center (MRSEC) was established in 2002 with a grant from the National Science Foundation and involves scientists from the Departments of Physics and Astronomy, Chemistry, Mechanical & Materials Engineering, and the School of Biological Sciences. MRSEC projects focus on

fabricating and studying new magnetic structures and materials at the nanometer scale. The research has applications in advanced computing and data storage, handheld electronic devices, advanced sensors and future medical technologies.

Walia, Harkamal**Agronomy and Horticulture**

R11 Track-2 FEC: Comparative Genomics and Phenomics Approach
 to Discover Genes Underlying Heat Stress Resilience in Cereals
 \$5,783,738 NSF-EPSCoR
 8/1/17 – 7/31/21

Morota, Gota Animal Science
 Obata, Toshihiro Biochemistry
 Yu, Hongfeng Computer Science and Engineering
 Zhang, Chi Biological Sciences
 Zhang, Qi Statistics



Harkamal Walia, associate professor of agronomy and horticulture, leads a project to explore the effects of high nighttime temperatures on wheat and rice. Temperature stress can lead to severe losses in the yield and quality of crops, especially wheat and rice, two major cereal crops worldwide. With the support of a \$5.78 million grant from the National Science Foundation's Established Program to Stimulate Competitive Research (EPSCoR), Walia's team is investigating genes and genetic variants in wheat and rice to identify genetic markers and physiological characteristics tied to heat tolerance. The team also collaborates with researchers from Arkansas State University and Kansas State University.

Nebraska Center for Energy Sciences Research
\$6,250,000..... Nebraska Public Power District
4/1/16 – 3/31/21

Yoder, Ron **Institute of Agriculture and Natural Resources**

Rwandan Institute of Conservation Agriculture (RICA)
\$17,210,366 Various Sources
10/13/17 – 12/31/20

Davis, Josh Global Affairs
Heng-Moss, Tiffany College of Agricultural Sciences
and Natural Resources



The Rwanda Institute for Conservation Agriculture (RICA) is a unique and innovative English language institution dedicated to preparing the next generation of agricultural leaders of Rwanda and East Africa. Under the leadership of Ron Yoder, senior associate vice chancellor for IANR, the University of Nebraska is serving as a critical academic

partner, helping to design and implement the curriculum and campus operations, especially during RICA's critical start-up phase. RICA students will learn the principles of conservation agriculture and One Health while emphasizing written communication, leadership and entrepreneurship. Students at RICA will be exposed to six different enterprises including beef cattle and small ruminants, dairy, poultry and swine, row and forage crops, vegetable and tree crops, irrigation and mechanization.

**Nutrition and Health Sciences/
Nebraska Center for the Prevention of
Obesity Diseases through Dietary Molecules**

COBRE: Nebraska Center for the Prevention of Obesity Diseases through Dietary Molecules

\$11,655,208NIH-NIGMS
8/5/14 – 5/31/24

Lim, Jung Yul Mechanical & Materials Engineering
Sukumaran, Sunil Nutrition and Health Sciences
Wang, Yongjun Nebraska Center for the Prevention of
Obesity Diseases through Dietary Molecules



With the support of an \$11.6 million grant from the National Institutes of Health's Center of Biomedical Research Excellence (COBRE) program, the university has established the Nebraska Center for the Prevention of Obesity Diseases through Dietary Molecules. The center, under the leadership of Janos Zempleni, Willa Cather Professor of molecular

nutrition, focuses on understanding nutrition and obesity at the molecular level. Answering molecular-level questions regarding obesity and related diseases is a crucial first step toward curbing this national epidemic. The University of Nebraska Medical Center collaborates on the center, which aims to establish a community of nationally recognized researchers in nutrition, genetics, biochemistry, food science, immunology and computer science. The long-term goal is to become a leader in nutrient signaling and the prevention of obesity and obesity-related diseases, including non-alcoholic fatty liver disease, cardiovascular disease and Type 2 diabetes.

Awards of \$1 Million to \$4,999,999

Active awards, July 1, 2019–June 30, 2020

* Indicates new in 2019–2020

Allen, Craig Natural Resources

NRT-INFEWS: Training in Theory and Application of Cross-scale Resilience in Agriculturally Dominated Social Ecological Systems
\$2,998,886 NSF
Munoz-Arriola, Francisco Biological Systems Engineering
Soh, Leen-Kiat Computer Science and Engineering
Twidwell, Dirac Jr. Agronomy and Horticulture

Allmand, Matthew Extension/Biological Systems Engineering/ Food Science and Technology

Manufacturing Extension Partnership Center for Nebraska
\$1,350,000 DOC-NIST

Balkir, Sina Electrical and Computer Engineering

Low-Power Signal-Processing Electronics
for Unattended Radiation Monitoring Sensors
\$1,060,772 DoD-DTRA
Bauer, Mark Electrical and Computer Engineering
Hoffman, Michael Electrical and Computer Engineering

Barlow, Steven Special Education and Communication Disorders

Somatosensory Modulation of Salivary Gene Expression
and Oral Feeding in Preterm Infants
\$2,797,503 NIH-NICHD

Becker, Donald Biochemistry/ Nebraska Center for Redox Biology

Molecular Mechanisms of Disease
\$1,141,760 NIH-NIGMS
Harris, Edward Biochemistry

Bellows, Laurie Graduate Studies

TRIO – Ronald E. McNair Postbaccalaureate Achievement Program
\$1,191,963 ED

Benson, John Natural Resources

Assessment of Adult Female and Neonatal Mule Deer (*Odocoileus hemionus*) Survival, Movements and Habitat Use in Nebraska
\$1,358,070 Nebraska Game and Parks Commission

Bevins, Rick Psychology

Interceptive Conditioning with Nicotine: Changes in Abuse Liability
\$1,786,220 NIH-NIDA

Bilder, Christopher Statistics

Group Testing for Infectious Disease Detection:
Multiplex Assays and Back-End Screening
\$1,137,836 NIH-NIAID

Binek, Christian Physics and Astronomy/Nebraska Center for Materials and Nanoscience

Nebraska Nanoscale Facility of NNCI
\$3,494,096 NSF
Lai, Rebecca Chemistry/Nebraska Center for
Materials and Nanoscience
Liou, Sy-Hwang Physics and Astronomy/Nebraska
Center for Materials and Nanoscience
Sellmyer, David Physics and Astronomy/Nebraska
Center for Materials and Nanoscience
Shield, Jeffrey Mechanical & Materials Engineering/
Nebraska Center for Materials and Nanoscience

Bloom, Kenneth Physics and Astronomy

Open Science Grid Consortium
\$2,280,837 NSF through University of Wisconsin-Madison
SI2-SSI Data Intensive Analysis for
High Energy Physics (DIANA/HEP)
\$1,001,324 NSF

Bobaru, Florin Mechanical & Materials Engineering

MURI Center for Material Failure
Prediction through Peridynamics
\$1,016,131 DoD-AFOSR through University of Arizona

Centurion, Martin Physics and Astronomy

*Nuclear and Electronic Dynamics in
Ultrafast Ring-Conversion Molecular Reactions
\$2,000,000 DOE
Ultrafast Electron Diffraction from Aligned Molecules
\$1,041,385 DOE

Clemente, Thomas **Agronomy and Horticulture/
Center for Plant Science Innovation**

R11 Track-2 FEC: Functional Analysis
of Nitrogen Responsive Networks in Sorghum
\$1,337,633 NSF-EPSCoR through
HudsonAlpha Institute for Biotechnology
Ge, Yufeng Biological Sciences/
Center for Plant Science Innovation
Schnable, James Agronomy and Horticulture/
Center for Plant Science Innovation
Yang, Jinliang Agronomy and Horticulture/
Center for Plant Science Innovation

Center for Advanced Bioenergy and Bioproducts Innovation
\$3,886,388 DOE through
University of Illinois-Urbana-Champaign
Cahoon, Edgar Biochemistry/
Center for Plant Science Innovation

Daly, Ed **Educational Psychology/
Nebraska Center for Research on
Children, Youth, Families and Schools**

School Psychology Specialization in Toddlers
with Autism Spectrum Disorders
\$1,249,730 ED

Detweiler, Carrick **Computer Science and Engineering**
NRI: Enabling Unmanned Aerial Systems (UAS) Fire Ignitions
in Complex Firefighting Contexts

\$1,003,270 NSF
Allen, Craig Natural Resources
Bradley, Justin Computer Science and Engineering
Duncan, Brittany Computer Science and Engineering
Pytlík Zillig, Lisa Public Policy Center
Twidwell, Dirac Jr. Agronomy and Horticulture

Dodds, Eric **Chemistry**
A Research Program on Advancing Biomedical Glycoproteomics
\$1,999,597 NIH-NIGMS

Dombrowski, Kirk **Sociology**
Injection Risk Networks in Rural Puerto Rico
\$3,211,865 NIH-NIDA
Khan, Bilal Sociology

Dowben, Peter **Physics and Astronomy/Nebraska
Center for Materials and Nanoscience**

E2CDA: Type I: Antiferromagnetic Magneto-electric
Memory and Logic
\$3,573,423 NSF/Semiconductor Research Corp
Binek, Christian Physics and Astronomy/Nebraska
Center for Materials and Nanoscience
Sinitskii, Alexander Chemistry/Nebraska
Center for Materials and Nanoscience
Tsymbal, Evgeny Physics and Astronomy/Nebraska
Center for Materials and Nanoscience

Duppong Hurley, Kristin **Special Education and
Communication Disorders**

Parent Connectors: An Efficacy Study of Peer Support
for Parents of Middle-School Youth with Emotional Disturbance
\$3,206,013 ED-IES
Torkelson-Trout, Alexandra Special Education and
Communication Disorders

Dzenis, Yuris **Mechanical & Materials Engineering**

Optimal Stent Selection for the Femoropopliteal Artery
\$1,028,824 NIH-NHLBI through UNMC
Desyatova, Anastasia Mechanical & Materials Engineering

Engen-Wedin, Nancy **Teaching, Learning and Teacher Education**
Indigenous Roots Teacher Education Program

\$1,174,067 ED

Erixson, John **Nebraska State Forest Service**

Cooperative Forestry Program
\$1,806,398 USDA-FS

Faller, Ronald **Midwest Roadside Safety Facility/
Nebraska Transportation Center**

*Crash Testing of Various Bridge Guardrails and Transitions, Phase II
\$2,100,000 Hawaii Dept of Transportation
Bielenberg, Robert Midwest Roadside Safety Facility
Holloway, Jim Midwest Roadside Safety Facility
Lechtenberg, Karla Midwest Roadside Safety Facility
Rasmussen, Jennifer Midwest Roadside Safety Facility
Reid, John Mechanical & Materials Engineering
Rosenbaugh, Scott Midwest Roadside Safety Facility
Song, Chung Civil and Environmental Engineering
Steelman, Joshua Civil and Environmental Engineering
Stolle, Cody Midwest Roadside Safety Facility

*Low-Cost, Sacrificial, Energy-Absorbing, Crash Cushion
 \$1,072,614Traffix Devices Inc.
 Bielenberg, RobertMidwest Roadside Safety Facility
 Holloway, JimMidwest Roadside Safety Facility
 Lechtenberg, KarlaMidwest Roadside Safety Facility
 Rasmussen, JenniferMidwest Roadside Safety Facility
 Rosenbaugh, ScottMidwest Roadside Safety Facility
 Stolle, CodyMidwest Roadside Safety Facility

Midwest States Pooled Fund Roadside Safety Program Year 29
 \$1,235,000DOT-FHWA through
 Nebraska Department of Transportation
 Bielenberg, RobertMidwest Roadside Safety Facility/
 Nebraska Transportation Center
 Lechtenberg, KarlaMidwest Roadside Safety Facility/
 Nebraska Transportation Center
 Rasmussen, JenniferMidwest Roadside Safety Facility/
 Nebraska Transportation Center
 Rosenbaugh, ScottMidwest Roadside Safety Facility/
 Nebraska Transportation Center
 Stolle, CodyMidwest Roadside Safety Facility/
 Nebraska Transportation Center

Fischer, Jean **Nutrition and Health Sciences**
 Supplemental Nutrition Assistance Program (SNAP-ED)
 \$1,822,398USDA-FNS through
 Nebraska Department of Health and Human Services
 Behrends, DonnaNutrition and Health Sciences
 Franzen-Castle, LisaNutrition and Health Sciences
 Johnson, Mary AnnNutrition and Health Sciences
 Sehi, NatalieNutrition and Health Sciences
 Wielenga, VanessaNutrition and Health Sciences

Fontaine, Joseph **Natural Resources**
 Assessing the Effects of Habitat Incentive Programs and
 Public Access Programs on Pheasant Population
 Dynamics and Hunter Harvest
 \$1,989,522Nebraska Game and Parks Commission
 Damsky, DavidNatural Resources
 Foggia, JenniferNatural Resources
 Reed, TylerNatural Resources

Forbes, Cory **Natural Resources**
 DRK-12 High School Students Climate Literacy
 Through Epistemology of Scientific Modeling
 \$1,136,602NSF

Garcia Ruiz, Hernan **Plant Pathology/
 Nebraska Center for Virology**
 Recognition and Recruitment of RNA Viruses
 into RNA Silencing Pathways
 \$1,312,105NIH-NIGMS

Gervais, Sarah **Psychology**
 Integrating Alcohol Myopia and Objectification
 to Understand Sexual Assault
 \$1,097,073NIH-NIAAA
 DiLillo, DavidPsychology
 Dodd, MichaelPsychology
 Fritz, MatthewEducational Psychology

Graef, George **Agronomy and Horticulture**
 *Increasing Genetic Diversity, Yield, and Protein of
 U.S. Commercial Soybean Germplasm
 \$1,429,751United Soybean Board/Smith/Bucklin
 Clemente, ThomasAgronomy and Horticulture
 Hyten, David Jr.Agronomy and Horticulture

Grassini, Patricio **Agronomy and Horticulture**
 Developing Solutions for Closing the Yield Gap
 in Smallholder Oil Palm Plantations in Indonesia
 \$4,246,035Norwegian Ministry of Foreign Affairs

Guo, Jiantao **Chemistry**
 Improve the Safety of an Efficacious Live-Attenuated
 HIV-1 Vaccine Through Unnatural Amino Acid-Mediated Suppression
 of Blank Codon
 \$1,919,552NIH-NIAID
 Li, QingshengBiological Sciences
 Niu, WeiChemistry

Catalytic Asymmetric Hydroboration:
 Uncapping the Potential with Two-point Binding Substrates
 \$1,232,002NIH-NIGMS

Hage, David **Chemistry**
 Chromatographic Studies of Functional Proteomics
 \$1,075,264NIH-NIDDK

Harris, Edward **Biochemistry**
 Liver-Mediated Clearance of Low Molecular Weight Heparins
 \$1,486,339NIH-NHLBI
 Dodds, EricChemistry

Harwood, David Earth and Atmospheric Sciences/
Antarctic Drilling Program

Hebert, Michael **Special Education and Communication Disorders/
Nebraska Center for Research on
Children, Youth, Families and Schools**

Helikar, Tomas Biochemistry

A Predictive Multi-Scale Model of the Immune System:
An Integrated Resource for Interdisciplinary Applications
\$2,025,567NIH-NIGMS

Houston, Adam **Earth and Atmospheric Sciences**
RII Track-2 FEC: Unmanned Aircraft System

Irmak, Suat Biological Systems Engineering

Jacobson, Beth Student Affairs

Johnson, Matthew Psychology/
Center for Brain, Biology and Behavior

Khalimonchuk, Oleh Biochemistry/
Nebraska Center for Redox Biology

Mechanisms of Mitochondrial Quality Control and Protection	
\$1,421,695	NIH-NIGMS

Kievit, Forrest Biological Systems Engineering

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Knoche, Lisa**Nebraska Center for Research on
Children, Youth, Families and Schools**

Getting Ready 0-3 (GR03): Supporting the Development of
Infants/Toddlers Through an Integrated Parent-Teacher
Relationship-Based Approach

\$2,498,510DHHS-ACF
Bovaird, JimEducational Psychology
Marvin, ChristineSpecial Education and
Communication Disorders/
Nebraska Center for Research on
Children, Youth, Families and Schools
Sheridan, SusanNebraska Center for Research on
Children, Youth, Families and Schools

Kravchenko, Ilya**Physics and Astronomy**

*Maximizing Returns from the CMS Experiment: Analysis of
Run 2 Data and Preparation for the High-Luminosity LHC

\$1,500,000NSF
Bloom, KennethPhysics and Astronomy
Claes, DanielPhysics and Astronomy

Particle Physics Research with the CMS Experiment at the LHC
\$2,070,000NSF
Bloom, KennethPhysics and Astronomy
Claes, DanielPhysics and Astronomy

Lechtenberg, Karla**Midwest Roadside Safety Facility**

NYSDOT-MASH-1: MASH 2016 Safety Facility
Hardware Evaluations - Phase I System C1 and C3

\$3,228,715DOT-NYDOT through
Nebraska Department of Transportation
Faller, RonaldMidwest Roadside Safety Facility
Holloway, JimMidwest Roadside Safety Facility
Rasmussen, JenniferMidwest Roadside Safety Facility
Song, ChungCivil and Environmental Engineering
Steelman, JoshuaCivil and Environmental Engineering
Stolle, CodyMidwest Roadside Safety Facility

Lehn, Joyce**Student Affairs**

Student Support Services Program

\$2,647,468ED

Lei, Yuguo**Chemical and Biomolecular Engineering**

A Single Conical Tube Device
for Precision CAR-T Cells Manufacturing

\$1,060,857NIH-NCI
Viljoen, HendrikChemical and Biomolecular Engineering
Xu, ZhengStatistics
Zhang, ChiBiological Sciences

Lewis, Jim**Center for Science, Mathematics
and Computer Education/Mathematics**

*Educating Undergraduate Students for STEM
Career Opportunities in Nebraska: Networks,
Experiential Learning, and Computational Thinking

\$3,580,869NSF
Donsig, AllanMathematics
Duncan, BrittanyComputer Science and Engineering
Goodburn, AmyExecutive Vice Chancellor and
Chief Academic Officer
Radu, PetronelaMathematics
Sharif, BonitaComputer Science and Engineering
Smith, WendyCenter for Science, Mathematics
and Computer Education
Soh, Leen-KiatComputer Science and Engineering

Li, Qingsheng**Biological Sciences/
Nebraska Center for Virology**

Next Generation Broadly Neutralizing Antibodies
to Clear HIV-1 Reservoir

\$1,526,720NIH-NIAID through University of Maryland

Li, Xu**Civil and Environmental Engineering**

Mitigating the Risk of Antibiotic Resistance at Critical Control Points
in the Beef Cattle Manure Management Systems
\$1,200,000USDA-NIFA
Bartelt-Hunt, ShannonCivil and Environmental Engineering
Erickson, GalenAnimal Science
Schmidt, AmyAnimal Science/Biological Systems Engineering
Wang, BingFood Science and Technology

Lu, Yongfeng**Electrical and Computer Engineering**

3D-Printing of Diamond-Composite Structures
using Selective Laser Semi-Melting

\$1,187,483DoD-MDA

Portable Fiber Laser System and Method to Remove Pits
and Cracks on Sensitized Surfaces of Aluminum Alloys
\$1,975,000DoD-ONR

Lubben, Bradley **Agricultural Economics**
 North Central Risk Management Education Center
 \$4,152,528 USDA-NIFA

MacDonald, James **Animal Science**
 Enhancing Animal Protein Through Crops and Cattle
 \$1,000,000 Foundation for Food and Agriculture Research
 Awada, Tala Natural Resources
 Banerjee, Simanti Agricultural Economics
 Blanco, Humberto Agronomy and Horticulture
 Drewnoski, Mary Animal Science
 Erickson, Galen Animal Science
 Okalebo, Jane Natural Resources
 Parsons, Jay Agricultural Economics
 Redfearn, Daren Agronomy and Horticulture
 Suyker, Andy Natural Resources

Mahmood, Rezaul **Natural Resources**
 High Plains Regional Climate Center
 \$3,531,430 DOC-NOAA
 Sorensen, William Natural Resources
 Stiles, Crystal Natural Resources
 Umphlett, Natalie Natural Resources

McQuillan, Julia **Sociology**
 *Worlds of Connections: Engaging Youth with Health Research
 Through Network Science and Stories in Augmented Reality
 \$1,235,707 NIH-NIGMS
 Diamond, Judy University of Nebraska State Museum
 Spiegel, Amy Social and Behavioral
 Science Research Consortium
 Syron, Colleen Art, Art History and Design
 Wonch Hill, Trish Social and Behavioral
 Science Research Consortium

Meiklejohn, Colin **Biological Sciences**
 Investigating the Special Role of Sex Chromosomes in Speciation:
 Discovering the Molecular Identities, Functions, and Evolutionary
 Histories of X-Linked Hybrid Male Sterility Genes in *Drosophila*
 \$1,298,165 NIH-NIGMS

Mendoza-Gorham, Joan **Student Affairs**
 Lincoln Upward Bound
 \$1,511,785ED
 Upward Bound Math/Science Program
 \$1,511,785ED

Namkung, Jessica **Special Education and
 Communication Disorders/
 Nebraska Center for Research on
 Children, Youth, Families and Schools**

*Exploring Cognitive and Foundational Processes
 Underlying Pre-Algebra Among Students With and
 Without Mathematics Learning Difficulties
 \$1,399,534 ED-IES
 Bovaird, James Educational Psychology/
 Nebraska Center for Research on
 Children, Youth, Families and Schools
 Koziol, Natalie Nebraska Center for Research on
 Children, Youth, Families and Schools
 Smith, Wendy Center for Science, Mathematics
 and Computer Education/
 Nebraska Center for Research on
 Children, Youth, Families and Schools

Napolitano, Scott **Educational Psychology/
 Center for Brain, Biology and Behavior/
 Nebraska Center for Research on
 Children, Youth, Families and Schools**
 School Psychology Specialization in Concussion/
 Mild Traumatic Brain Injury (mTBI)
 \$1,191,884ED

Nelson, Timothy **Psychology/
 Center for Brain, Biology and Behavior**
 Executive Control and Adolescent Weight Trajectories
 \$2,443,777 NIH-NIDDK
 Brock, Becca Psychology/Center for Brain, Biology and Behavior
 Nelson, Jennifer Research and Economic Development/
 Center for Brain, Biology and Behavior

Role of Executive Control in Adolescent Substance Use
 and Co-occurring Problems
 \$1,301,978 NIH-NIDA through
 Boys Town National Research Institute
 Espy, Kimberly Psychology/
 Center for Brain, Biology and Behavior
 Nelson, Jennifer Psychology/
 Center for Brain, Biology and Behavior

Neta, Mital **Psychology/**
Center for Brain, Biology and Behavior
 Functional Brain Networks Mediating
 Individual Differences in Valence Bias
 \$1,826,454 NIH-NIMH

Ngoko Djikap, Jean Marcel **Physics and Astronomy**
 Dynamics of Few-Body Atomic Processes
 \$2,565,804 DOE

Nugent, Gwen **Nebraska Center for Research on**
Children, Youth, Families and Schools
 Testing the Efficacy of INSIGHTS for Promoting Positive
 Learning Environments and Academic Achievement in Nebraska:
 A Replication Study
 \$3,299,957 ED-IES
 Bovaird, James Educational Psychology/
 Nebraska Center for Research on Children,
 Youth, Families and Schools
 Sheridan, Susan Educational Psychology/Nebraska Center for
 Research on Children, Youth, Families and Schools

Olson, Kathryn **Center on Children, Families and the Law**
 *New Worker Pre-Service Training in the Eastern Service Area
 (Douglas and Sarpy Counties)
 \$1,473,248 DHHS-ACF through
 Nebraska Department of Health and Human Services
 Brank, Eve Center on Children, Families and the Law

Pannier, Angela **Biological Systems Engineering**
 Using Cell Priming and Telecommunications Modeling to
 Enhance Gene Delivery for Stem Cell Therapies (DP2)
 \$2,332,072 NIH-NIBIB

Pegg, Mark **Natural Resources**
 Missouri River Sportfish Ecology and Management
 \$1,324,787 Nebraska Game and Parks Commission
 Hamel, Martin Natural Resources

Pope, Kevin **Natural Resources**
 Human Dimensions of Nebraska's Fisheries
 \$1,747,225 DOI-FS through
 Nebraska Game and Parks Commission
 Chizinski, Christopher Natural Resources

Rajca, Andrzej **Chemistry**
 New Nitroxide Spin Labels for Distance
 Measurements in Biological Systems
 \$1,745,253 NIH-NIGMS
 Rajca, Suchada Chemistry

Synthesis of Metal-Free Magnetic
 Resonance Imaging Contrast Agents
 \$1,208,299 NIH-NIBIB
 Rajca, Suchada Chemistry

Ray, Chittaranjan **Civil and Environmental Engineering/**
Nebraska Water Center/
Robert B. Daugherty Water for Food Institute
 Securing Water for and from Agriculture Through Effective
 Community and Stakeholder Engagement
 \$1,054,083 USDA-NIFA through
 Pennsylvania State University
 Burbach, Mark Natural Resources/
 Robert B. Daugherty Water for Food Institute
 Burkhart-Kriesel, Cheryl .. Panhandle Research and Extension Center
 Fulginiti, Lilyan Agricultural Economics/
 Robert B. Daugherty Water for Food Institute
 Groskopf, Jessica Panhandle Research and Extension Center/
 Robert B. Daugherty Water for Food Institute
 Perrin, Richard Agricultural Economics/
 Robert B. Daugherty Water for Food Institute
 Rudnick, Daran West Central Research and Extension Center/
 Robert B. Daugherty Water for Food Institute
 Weigle, Jason Southeast Extension Center

Savaiano, Mackenzie **Special Education and**
Communication Disorders
 *Mid-Plains Professional Upgrade Partnership - Visual Impairment
 \$1,162,200 ED
 Caruso, Eric Special Education and Communication Disorders
 Mid-Plains Professional Upgrade Partnership - Sensory Disabilities
 \$1,082,718 ED
 Thomas, Anne Special Education and Communication Disorders

Schnable, James	Agronomy and Horticulture/ Center for Plant Science Innovation
*TGCM: (T)rait, (G)ene, and (C)rop Growth (M)odel-Directed Targeted Gene Characterization in Sorghum	
\$2,675,039	DOE
Ge, Yufeng	Biological Systems Engineering/ Center for Plant Science Innovation
Sigmon, Brandi	Plant Pathology/ Center for Plant Science Innovation
Scott, Stephen	Computer Science and Engineering
Operationalizing Cyber Situational Awareness Research: Capability Exploration	
\$1,525,215	DoD-Offutt Air Force Base-STRATCOM through National Strategic Research Institute
Haugerud, Rick	Information Services
Magilton, Elsbeth	Law
Variyam, Vinod	Computer Science and Engineering
Sellmyer, David	Physics and Astronomy/Nebraska Center for Materials and Nanoscience
Studies of Artificially Structured Composite Magnets	
\$1,768,002	DOE
Sheridan, Susan	Educational Psychology/ Nebraska Center for Research on Children, Youth, Families and Schools/ Buffett Early Childhood Institute
Early Learning Contexts in Rural and Urban Nebraska	
\$4,599,878	ED-IES
Bovaird, James	Educational Psychology/ Nebraska Center for Research on Children, Youth, Families and Schools/ Buffett Early Childhood Institute
DeKraai, Mark	Public Policy Center/ Nebraska Center for Research on Children, Youth, Families and Schools/ Buffett Early Childhood Institute
Knoche, Lisa	Nebraska Center for Research on Children, Youth, Families and Schools/ Buffett Early Childhood Institute
A Randomized Trial of Conjoint Behavioral Consultation (CBC) with Latino Students: A Replication Study	
\$3,499,987	ED-IES
Bovaird, James	Educational Psychology
Wheeler, Lorey	Nebraska Center for Research on Children, Youth, Families and Schools

	Early Learning Network Lead
\$1,999,987	ED
Knoche, Lisa	Nebraska Center for Research on Children, Youth, Families and Schools
Sinitiskii, Alexander	Chemistry
*DNA-Enabled Hierarchical Assembly of Graphene Electronics	
\$4,499,998	DoD-ONR
Soh, Leen-Kiat	Center for Science, Mathematics and Computer Education/ Computer Science and Engineering
Adapt, Implement and Research at Nebraska: A Statewide Implementation Study of a Researcher-Practitioner Partnership for K-8 Computer Science Education	
\$2,000,000	NSF
Nugent, Gwen	Nebraska Center for Research on Children, Youth, Families and Schools
Smith, Wendy	Center for Science, Mathematics and Computer Education
Trainin, Guy	Teaching, Learning and Teacher Education
Speck, Kate	Public Policy Center
Nebraska Youth Suicide Prevention 2019-2024	
\$3,610,121	DHHS-SAMHSA
Bulling, Denise	Public Policy Center
Hoffman, Stacey	Public Policy Center
Storz, Jay	Biological Sciences
RII Track-2 FEC: Using Natural Variation to Educate, Innovate, and Lead (UNVEIL): A Collaborative Research Network to Advance Genome-to-Phenome Connections in the Wild	
\$1,856,000	NSF through University of Montana
Meiklejohn, Colin	Biological Sciences
Montooth, Kristi	Biological Sciences
Mutational Pleiotropy, Epistasis, and the Adaptive Evolution of Hemoglobin Function	
\$1,437,536	NIH-NHLBI
Sun, Xinghui	Biochemistry
*Role of lncRNA Meg3 in Obesity-Induced Endothelial Senescence and Insulin Resistance	
\$1,955,473	NIH-NHLBI
Harris, Edward	Biochemistry
Khalimonchuk, Oleh	Biochemistry

Sutter, Peter **Electrical and Computer Engineering**
Exploring and Embracing Heterogeneity
in Atomically Thin Energy Materials
\$1,238,000 DOE
Sutter, Eli Mechanical & Materials Engineering

Svoboda, Mark **Natural Resources**
Providing Drought Information Services for the Nation:
The National Drought Mitigation Center
\$2,443,222 DOC-NOAA
Bathke, Deborah Earth and Atmospheric Sciences
Fuchs, Brian Natural Resources
Knutson, Cody Natural Resources
Tadesse, Tsegaye Natural Resources

Terry, Benjamin **Mechanical & Materials Engineering**
En-route Care for Acute Respiratory
Distress Syndrome (ARDS) Maturation
\$1,259,336 DoD-Offutt Air Force Base-STRATCOM through
National Strategic Research Institute

Thomas, Amanda **Teaching, Learning and Teacher Education/
Nebraska Center for Research on
Children, Youth, Families and Schools**
Nebraska STEM: Supporting Elementary Rural Teacher Leadership
\$1,499,493 NSF
Forbes, Cory Natural Resources/
Nebraska Center for Research on
Children, Youth, Families and Schools
Homp, Michelle Center for Science, Mathematics and
Computer Education/
Nebraska Center for Research on
Children, Youth, Families and Schools
Nugent, Gwen Nebraska Center for Research on
Children, Youth, Families and Schools
Scharmann, Lawrence . . . Teaching, Learning and Teacher Education/
Nebraska Center for Research on
Children, Youth, Families and Schools
Smith, Wendy Center for Science, Mathematics and
Computer Education/
Nebraska Center for Research on
Children, Youth, Families and Schools

Soh, Leen-Kiat Computer Science and Engineering/
Nebraska Center for Research on
Children, Youth, Families and Schools
Thomas, Julie Teaching, Learning and Teacher Education/
Nebraska Center for Research on
Children, Youth, Families and Schools
Trainin, Guy Teaching, Learning and Teacher Education/
Nebraska Center for Research on
Children, Youth, Families and Schools
Wei, Sally College of Engineering/
Nebraska Center for Research on
Children, Youth, Families and Schools

Thomas, Anne **Special Education and Communication Disorders**
*Mid-Plains Professional Upgrade Partnership: Interdisciplinary
Preparation in Deaf Education and Speech-Language Pathology
\$1,052,376 ED
Weissling, Kristy . . . Special Education and Communication Disorders

Thompson, Laura **Eastern Nebraska Research and Extension Center**
*Promoting Adoption of Innovative Precision Ag Nitrogen
Management Technologies Through the Nebraska On-Farm
Research Network for Improved Conservation Stewardship
\$1,267,747 USDA-NRCS
DeBoer, Karen Panhandle Research and Extension Center
Glewen, Keith Southeast Extension District
Krienke, Brian Agronomy and Horticulture
Lesoin, Gary Southeast Extension District
Luck, Joe Biological Systems Engineering
Maharjan, Bijesh Panhandle Research and Extension Center
Mamo, Mitiku Northeast Extension District
Mieno, Taro Agricultural Economics
Milander, Jeremy Northeast Extension District
Mueller, Nathan Metro Extension District
Nygren, Aaron Northeast Extension District
Puntel, Laila Agronomy and Horticulture
Rees, Jennifer Southeast Extension District
Sindelar, Michael Southeast Extension District
Sivits, Sarah West Central Research and Extension Center
Thomas, John Panhandle Research and Extension Center
Whitney, Todd West Central Research and Extension Center

Torkelson-Trout, Alexandra **Special Education and Communication Disorders/ Academy for Child and Family Wellbeing**

*Fostering Educational Success:
Reconnecting Families, Empowering Youth
\$3,994,908ED
Duppong Hurley, Kristin Special Education and Communication Disorders/ Academy for Child and Family Wellbeing
Huscroft-D'Angelo, Jacqueline Special Education and Communication Disorders/ Academy for Child and Family Wellbeing

A Missing Link to a Better Tomorrow:
Developing Health Literacy in Transition-Age Youth with High Incidence Disabilities
\$1,499,994ED
Duppong Hurley, Kristin Special Education and Communication Disorders/ Academy for Child and Family Wellbeing
Lambert, Matthew Special Education and Communication Disorders/ Academy for Child and Family Wellbeing

Twidwell, Dirac Jr. **Agronomy and Horticulture**

*RII Track-2 FEC: Resilience Informatics for the Convergence of Critical Capacities to Address Regional-Scale Environmental Change
\$3,953,265 NSF-EPSCoR
Allen, Craig Natural Resources
Banerjee, Simanti Agricultural Economics
Uden, Daniel Agronomy and Horticulture

Umstadter, Donald **Physics and Astronomy**

LaserNetUS
\$1,000,000 DOE
Relativistic Optics: Interactions of Electrons with Laser Light at Highly Relativistic Intensities
\$1,499,867 DoD-AFOSR
Banerjee, Sudeep Physics and Astronomy
Chen, Shouyuan Physics and Astronomy
Fuchs, Matthias Physics and Astronomy
Shadwick, Bradley Physics and Astronomy
Starace, Anthony Physics and Astronomy
Laser Produced Coherent X-Ray Sources
\$1,994,997 DOE

Van Etten, James **Plant Pathology/ Nebraska Center for Virology**

RII Track-2 FEC: G2P in VOM:
An Experimental and Analytical Framework for Genome to Phenome Connections in Viruses of Microbes
\$1,192,224 NSF through University of Delaware
DeLong, John Biological Sciences/ Nebraska Center for Virology
Dunigan, David. Plant Pathology/ Nebraska Center for Virology

Viesca, Kara **Teaching, Learning and Teacher Education**

International Consortium for Multilingual Excellence in Education
\$2,739,661ED
Gatti, Lauren Teaching, Learning and Teacher Education
Johnson, Aaron Teaching, Learning and Teacher Education
Kiramba, Lydiah Teaching, Learning and Teacher Education

Walters, Cory **Agricultural Economics**

Northern Plains Regional Farm Business Management and Benchmarking Partnership
\$1,322,060 USDA-NIFA
Banerjee, Simanti Agricultural Economics

Weaver, Eric **Biological Sciences/Nebraska Center for Virology**

*Rapid Manufacturing of a Universal Flu Vaccine Using TMV-Conjugated Centralized Antigens
\$3,229,833 NIH-NIAID

West, John **Nebraska Center for Virology**

KSHV, HIV and the Kaposi's Sarcoma Tumor Niche
\$2,893,129 NIH-NCI
Wood, Charles Biological Sciences/Biochemistry/ Nebraska Center for Virology

Whitbeck, Les **Sociology**

A RCT of a Family-Centered Ojibwe Substance Abuse Prevention
\$3,560,784 NIH-NIDA
Crawford, Devan Sociology

Wiebe, Matthew **Veterinary Medicine and Biomedical Sciences**

Mechanism of the Antiviral Activity of BAF against Poxvirus and HSV-1 Infection
\$1,838,387 NIH-NIAID

Williams, Robert **Mechanical & Materials Engineering**
 Nebraska Industrial Assessment Center (NIAC)
 \$1,439,589 DOE
 Dvorak, Bruce Civil and Environmental Engineering

Witte, Amanda **Nebraska Center for Research on
 Children, Youth, Families and Schools**
 Nebraska Multi-Tiered System of
 Support Implementation Support Team
 \$1,032,646 ED through Nebraska Department of Education

Wood, Charles **Biological Sciences/Biochemistry/
 Nebraska Center for Virology**
 Biomarkers for Dysbiosis-Related HIV-Associated Cognitive
 Disorders among Persons Who Inject Drugs in Puerto Rico
 \$3,029,162 NIH-NIDA
 Chiou, Kathy Psychology/Nebraska Center for Virology
 Dombrowski, Kirk Sociology/Nebraska Center for Virology
 Fernando, Samodha Animal Science/Nebraska Center for Virology
 Khan, Bilal Sociology/Nebraska Center for Virology
 West, John Biochemistry/Nebraska Center for Virology

Models of KHSV Transmission and Its Inhibition
 \$2,192,835 NIH-NCI
 Li, Qingsheng Biological Sciences/Nebraska Center for Virology
 West, John Biochemistry/Nebraska Center for Virology

Zambia AIDS Malignancies Diagnosis and Pathogenesis Program
 \$3,842,954 NIH-NCI
 Angeletti, Peter Biological Sciences/
 Nebraska Center for Virology
 West, John Nebraska Center for Virology

The Impact of Cannabis on Inflammation
 and HIV-1 Reservoirs in Zambia
 \$3,745,393 NIH-NIDA
 Li, Qingsheng Biological Sciences/
 Nebraska Center for Virology
 West, John Nebraska Center for Virology

AIDS Malignancies Training and Research
 International Program (AMTRIP)
 \$1,482,515 NIH-FIC

Cancer Research International Training
 and Intervention Consortium (CRITIC)
 \$4,277,974 NIH-NCI
 Angeletti, Peter Biological Sciences
 West, John Nebraska Center for Virology

Yu, Bin **Biological Sciences/
 Center for Plant Science Innovation**
 Understand the Function of the MOS4-Associated Complex
 in MicroRNA Biogenesis
 \$1,570,405 NIH-NIGMS

Zempleni, Janos **Nutrition and Health Sciences/
 Nebraska Center for the Prevention of
 Obesity Diseases through Dietary Molecules**
 Molecular Signatures of New Bioactive Compounds in Humans:
 Cows Milk MicroRNAs
 \$1,785,715 USDA-NIFA
 Adamec, Jiri Biochemistry/
 Nebraska Center for the Prevention of
 Obesity Diseases through Dietary Molecules
 Cui, Juan Computer Science and Engineering/
 Nebraska Center for the Prevention of
 Obesity Diseases through Dietary Molecules

Zeng, Xiao **Chemistry**
 RII Track-2 FEC: Low-Cost, Efficient Next-Generation Solar Cells
 for the Coming Clean Energy Revolution
 \$1,288,002 NSF through Brown University
 Hong, Xia Physics and Astronomy

Awards of \$250,000 to \$999,999

Active awards, July 1, 2019–June 30, 2020

* Indicates new in 2019–2020

Abadie, Roberto **Sociology**

Assessing the Effects of Hurricane Maria on Opioid Agonist
Treatment Access among PWID in Rural Puerto Rico
\$412,763 NIH-NIDA
Habecker, Patrick Sociology

Adamowicz, Michael **College of Agricultural Sciences and Natural Resources**

*Application of the Human Virome to
Touched Objects and Hair Shafts
\$443,931 DOJ-NIJ
Clarke, Jennifer Food Science and Technology
Fernando, Samodha Animal Science
Herr, Joshua Plant Pathology

The Human Virome as Trace Evidence in Forensic Investigation
\$698,382 DOJ-NIJ
Clarke, Jennifer Food Science and Technology/Statistics
Fernando, Samodha Animal Science
Herr, Joshua Plant Pathology

Adenwalla, Shireen **Physics and Astronomy/ Nebraska Center for Materials and Nanoscience**

Strain Driven Dynamics of Phase Transitions
in Oxide Antiferromagnets
\$550,000 NSF
Binek, Christian Physics and Astronomy
Hong, Xia Physics and Astronomy

Alexander, Dennis **Electrical and Computer Engineering**

Quarter Scale Critical Heat Exchanger
for International Space Station
\$350,000 NASA-Johnson Space Center
Zuhlke, Craig Electrical and Computer Engineering

Instrumentation for Understanding and Controlling Surface
Chemistry during Femtosecond Laser Surface Processing
\$961,830 DoD-ONR-DURIP
Ianno, Natale Electrical and Computer Engineering
Zuhlke, Craig Electrical and Computer Engineering

Alexandrov, Vitali **Chemical and Biomolecular Engineering**

*Corrosion and Passivation Mechanisms of Li-Ion Battery
Cathodes from Ab Initio Interfacial Reaction Dynamics
\$302,291 NSF

Allen, Craig **Natural Resources**

Global Change, Vulnerability and Resilience:
Management Options for an Uncertain Future
\$771,345 DoD-SERDP
Twidwell, Dirac Jr. Agronomy and Horticulture

Alsaleem, Fadi **Durham School of Architectural Engineering & Construction**

*Micro-Electro-Mechanical Neural Integrated Sensing and
Computing Units for Wearable Device Applications
\$391,532 NSF

Auchtung, Jennifer **Food Science and Technology**

Using Complimentary in Vitro and in Vivo Models of the
Human Microbiome to Study Antibiotic-Mediated Disruption
\$387,955 DHHS-CDC

Avalos, George **Mathematics**

Analysis and Control Theory for
Moving Boundary and Nonlinear Phenomena
in Interactive Partial Differential Equations
\$328,901 NSF
Guven Geredeli, Pelin Mathematics

Awada, Tala **Natural Resources/Agricultural Research Division**

*Agricultural Intensification in the Western Corn Belt
\$650,000 USDA-ARS
Giannakas, Konstantinos Agricultural Economics
Suyker, Andy Natural Resources

Carbon Flux from Great Plains Agroecosystems Associated
with the ARS LTAR Network

\$300,000 USDA-ARS
Erickson, Galen Animal Science
Suyker, Andy Natural Resources

Baenziger, P. Stephen **Agronomy and Horticulture**

*Plant Breeding Partnerships: Continuing to
Develop and Validate the Tools for Hybrid Wheat
\$650,000 USDA-NIFA
Belamkar, Vikas Agronomy and Horticulture
El Basyoni, Ibrahim Agronomy and Horticulture

Developing the Tools and Germplasm for Hybrid Wheat
\$975,000 USDA-NIFA

Balkir, Sina **Electrical and Computer Engineering**

Low-profile PMT Scintillator Read-out System
\$987,191 Do D-DTRA through Kansas State University
Hoffman, Michael Electrical and Computer Engineering

Banerjee, Simanti **Agricultural Economics**

The Impacts of Conservation Auction Design on
Auction Performance and Community Welfare:
Evidence from Lab and Artefactual Experiments
\$498,641 USDA-NIFA

Barletta, Raul **Veterinary Medicine and Biomedical Sciences**

*Development and Testing of *Mycobacterium avium* subsp.
paratuberculosis DIVA Vaccines in Ruminants
\$500,000 USDA-NIFA

Genome Wide Analysis of *M. Paratuberculosis* Pathogenesis
\$499,981 USDA-NIFA

Bartelt-Hunt, Shannon **Civil and Environmental Engineering**

Influence of Agrochemical Mixtures
on Treatment Wetland Ecosystems Services
\$499,999 USDA-NIFA
Messer, Tiffany Biological Systems Engineering
Snow, Daniel Nebraska Water Center

REU Site: Sustainability of Horizontal Civil Networks in Rural Areas
\$445,241 NSF
Eun, Jongwan Civil and Environmental Engineering
Jones, Elizabeth Nebraska Transportation Center
Kim, Seunghye Civil and Environmental Engineering
Li, Xu Civil and Environmental Engineering
Li, Yusong Civil and Environmental Engineering
Linzell, Daniel Civil and Environmental Engineering
Messer, Tiffany Biological Systems Engineering
Sim, Chungwook Civil and Environmental Engineering
Steelman, Joshua Nebraska Transportation Center
Wittich, Christine Civil and Environmental Engineering
Wood, Richard Civil and Environmental Engineering

WSC Category 1: Influence of Climate and Agricultural Clustering
on Groundwater Contamination by Trace Organics
\$599,663 USDA-NIFA
Gates, John Earth and Atmospheric Sciences
Li, Xu Civil and Environmental Engineering
Li, Yusong Civil and Environmental Engineering
Rosenbaum, David Economics
Snow, Daniel Nebraska Water Center
Tang, Zhenghong Community and Regional Planning Program
Thompson, Eric Bureau of Business Research

Basche, Andrea **Agronomy and Horticulture**

*Enhancing the Sustainability of U.S. Cropping Systems Through
Cover Crops and an Innovative Information and Technology Network
\$370,607 USDA-NIFA through
North Carolina State University
McMechan, Justin Entomology
Wortman, Samuel Agronomy and Horticulture

Bashford, Gregory **Biological Systems Engineering**

REU Site: Undergraduate Research Opportunities in
Biomedical Devices at the University of Nebraska–Lincoln
\$364,006 NSF
Nelson, Carl Mechanical & Materials Engineering

Batelaan, Herman **Physics and Astronomy**

Coherent Electron Control
\$475,161 NSF

Becker, Donald**Biochemistry/
Nebraska Center for Redox Biology/
Center for Plant Science Innovation**

REU Site: Training in Redox Biology

\$298,186 NSF
 Adamec, Jiri Biochemistry/Nebraska Center for Redox Biology/
 Center for Plant Science Innovation
 Du, Liangcheng Chemistry/Nebraska Center for Redox Biology/
 Center for Plant Science Innovation
 Franco Cruz, Rodrigo. . . Veterinary Medicine and Biomedical Sciences/
 Nebraska Center for Redox Biology/
 Center for Plant Science Innovation
 Khalimonchuk, Oleh. Biochemistry/
 Nebraska Center for Redox Biology/
 Center for Plant Science Innovation
 Lee, Jaekwon. Biochemistry/Nebraska Center for Redox Biology/
 Center for Plant Science Innovation
 Ro, Seung-Hyun . . . Biochemistry/Nebraska Center for Redox Biology/
 Center for Plant Science Innovation
 Stone, Julie Biochemistry/Nebraska Center for Redox Biology/
 Center for Plant Science Innovation
 Wilson, Mark. Biochemistry/Nebraska Center for Redox Biology/
 Center for Plant Science Innovation
 Zhang, Limei Biochemistry/
 Center for Plant Science Innovation/
 Nebraska Center for Redox Biology/

Belashchenko, Kirill**Physics and Astronomy/
Nebraska Center for Materials and Nanoscience**

*First-Principles Studies of Spin-Orbit Torque and
 Magnetoresistance in Magnetic Nanostructures

\$363,787 NSF

First-Principles Studies of Relativistic
 Spin Interactions and Torques

\$258,646 NSF

Benson, John**Natural Resources**

Reproductive Success, Survival, and Cause-specific
 Mortality of Bighorn Sheep in Nebraska

\$280,740 Nebraska Game and Parks Commission

Berkowitz, David**Chemistry**

Medical Countermeasure Drug Discovery and Development

\$939,645 DoD-Offutt Air Force Base-STRATCOM through
 National Strategic Research Institute

Dussault, Patrick Chemistry
 Helikar, Tomas Biochemistry
 Powers, Robert Chemistry

Bianchini Huebner, Andreia**Food Science and Technology**

Alliance for Food Security Through Reduction of
 Postharvest Loss and Food Waste

\$935,827 USAID through Kansas State University

Bielenberg, Robert**Midwest Roadside Safety Facility**

*Dynamic Testing and Evaluation of a Culvert-Mounted,
 Strong-Post MGS to TL-3 Guidelines of MASH 2016

\$275,995 DOT-WI DOT through
 Nebraska Department of Transportation

Faller, Ronald Midwest Roadside Safety Facility
 Reid, John Mechanical & Materials Engineering
 Rosenbaugh, Scott Midwest Roadside Safety Facility

Development of an Optimized MASH TL-4 Kansas Corral Rail
 (Kansas, Iowa, South Dakota and Virginia)

\$401,400 DOT-KS DOT through
 Nebraska Department of Transportation

Faller, Ronald Midwest Roadside Safety Facility
 Holloway, James Midwest Roadside Safety Facility
 Lechtenberg, Karla Midwest Roadside Safety Facility
 Rosenbaugh, Scott Midwest Roadside Safety Facility

Binek, Christian**Physics and Astronomy/Nebraska Center
for Materials and Nanoscience**

Magnetoelectrics and Spinorbitronics in
 Topological Heterostructures and Superlattices

\$600,851 DoD-ONR through
 University of California, Los Angeles

Black, Paul**Biochemistry**

Waste to Oil and High Value Bioproducts

\$734,608 Nebraska Department of Economic Development
 through Vestal W2O

Allen, James Biochemistry

Blanco, Humberto**Agronomy and Horticulture**

*Managing Cover Crops to Enhance Soil Ecosystem Services
in Soils Vulnerable to Environmental Pressures

\$500,000 USDA-NIFA
Parson, Jay Agricultural Economics
Proctor, Christopher Agronomy and Horticulture
Ruis, Sabrina Agronomy and Horticulture
Thompson, Laura .. Eastern Nebraska Research and Extension Center
Yang, Haishun Agronomy and Horticulture

*Enhancing the Health of Low C, Sandy and Sloping Soil
with Biochar and Cover Crops

\$499,999 USDA-NIFA
Creech, Cody Panhandle Research and Extension Center
Drijber, Rhae Agronomy and Horticulture
Easterly, Amanda Agronomy and Horticulture
Jasa, Paul Biological Systems Engineering
Ruis, Sabrina Agronomy and Horticulture

Enhancing Soil Ecosystem Services with Cover Crops

\$252,471 Nebraska Environmental Trust
Ferguson, Richard Agronomy and Horticulture
Jasa, Paul Biological Systems Engineering

Assessing Innovative Strategies to Maximize Cover Crop Yields
for Biofuel across Precipitation Gradient

\$500,000 USDA-NIFA
Creech, Cody Panhandle Research and Extension Center
Elmore, Roger Agronomy and Horticulture
Francis, Charles Agronomy and Horticulture
Koehler-Cole, Katja Agronomy and Horticulture
Parsons, Jay Agricultural Economics
Ruis, Sabrina Agronomy and Horticulture
Shaver, Tim West Central Research and Extension Center
Yang, Haishun Agronomy and Horticulture

Blum, Paul**Biological Sciences**

Chromatin Modification in Archaea and
Its Role in Gene Expression

\$379,675 NSF
Van Cott, Kevin Chemical and Biomolecular Engineering

REU Site: Integrated Development of Bioenergy Systems

\$416,464 NSF
Cerutti, Heriberto Biological Sciences/
Center for Plant Science Innovation

Bobaru, Florin**Mechanical & Materials Engineering**

*Corrosion-Induced Fracture and Failure: Transforming Computations
from Micrometers and Minutes to Meters and Years

\$748,375 NSF
Larios, Adam Mathematics

Bovaird, James**Educational Psychology/Nebraska Center for
Research on Children, Youth, Families and Schools**

Efficacy of the START-Play Program for
Infants with Neuromotor Disorders

\$499,088 ED-IES through Duquesne University
Sheridan, Susan Educational Psychology/Nebraska Center for
Research on Children, Youth, Families and Schools

Brennan, Marc**Special Education and Communication Disorders**

*Restoration of Spectral Resolution with Hearing-Aid Amplification
\$448,983 NIH-NIDCD

Brewer, Gary**Entomology**

A Multi-Tactic Push-Pull Strategy for Controlling Stable Flies
on Pasture Cattle in Nebraska and Florida

\$325,000 USDA-NIFA
Boxler, David West Central Research and Extension Center
Hanford, Kathryn Statistics
Stockton, Matt West Central Research and Extension Center

Brown, Carrie**Holland Computing Center**

CC Team: Great Plains Regional CyberTeam
\$269,874 NSF through University of Missouri-Columbia

Brown-Brandl, Tami**Biological Systems Engineering**

Assessing the Effects of Farrowing Crate Design and
Mothering Phenotype on Pre-Weaning Piglet Survival

\$439,110 National Pork Board
Keshwani, Deepak Biological Systems Engineering
Shi, Yeyin Biological Systems Engineering
Stowell, Rick Biological Systems Engineering

Buan, Nicole**Biochemistry**

*Identifying Coupled Metabolic Processes in Methanogenic Archaea
\$598,983 NSF

Bulling, Denise**Public Policy Center**

*An Evidence-Based Approach to Preventing Student Suicide
at the University of Nebraska-Lincoln

\$305,409 DHHS-SAMHSA
Boehm, Constance Student Affairs

Developing Nebraska's Homeland Security Planning Capacity
 \$250,000 DHS through Nebraska Military Department-NEMA
 DeKraai, MarkPsychology/Public Policy Center
 Speck, Kathryn Public Policy Center

Cahoon, Edgar **Biochemistry/
Center for Plant Science Innovation**

Dissecting the Sphingolipid Metabolic and Regulatory Network
 \$750,000NSF
 Markham, Jonathan Biochemistry/
 Center for Plant Science Innovation
 Saha, RajibChemical and Biomolecular Engineering/
 Center for Plant Science Innovation

Carroll, John **Natural Resources**
 Wildlife Management and Human Dimensions
 \$255,000DOI-FWS through
 Nebraska Game and Parks Commission

Centurion, Martin **Physics and Astronomy**
 *Capturing Ultrafast Electron-Driven
 Chemical Reactions in Molecules
 \$700,847 DOE

OP: Diffractive Imaging of Complex Isolated Molecules
 \$375,170 NSF

Cerutti, Heriberto **Biological Sciences/
Center for Plant Science Innovation**

Developing Genetic and Genomics Tools for *Tetraselmis* sp.
 \$689,033..... Gordon and Betty Moore Foundation
 Clemente, Thomas Agronomy and Horticulture/
 Center for Plant Science Innovation

Mechanisms of Small RNA-Mediated Translation Repression
 in *Chlamydomonas*
 \$560,000 NSF

Chaves Elizondo, Byron **Food Science and Technology**

*Improving the Development of Food Safety Plans Through
 the Advanced Preventive Controls School Initiative
 \$299,559 USDA-NIFA
 Baumert, Joseph Food Science and Technology
 Downs, Melanie Food Science and Technology
 Martinez, Bismarck Food Science and Technology
 Wang, Bing Food Science and Technology

Chizinski, Christopher **Natural Resources**

*Exploring Links Between Hunting and Conservation Organization
 Participation to Increase Effectiveness of R3 Programs
 \$315,809 Nebraska Game and Parks Commission

*Human Dimensions of Wildlife Survey Analysis
 \$281,510 DOI-FWS through
 Nebraska Game and Parks Commission

Comprehensive Evaluation of the Nebraska Outdoor Enthusiast
 \$288,371.....DOI-FWS through
 Nebraska Game and Parks Commission
 Fontaine, Joseph Natural Resources
 Pope, Kevin Natural Resources

Choi, Evan **Child, Youth and Family Studies/
Nebraska Center for Research on
Children, Youth, Families and Schools**

*Youth Civic Engagement: Using Simulations and Design Thinking
 \$647,000..... USDA-NIFA
 De Guzman, Maria Child, Youth and Family Studies/
 Nebraska Center for Research on
 Children, Youth, Families and Schools
 Jennings, Euwanda Metro Extension District/
 Nebraska Center for Research on
 Children, Youth, Families and Schools
 Kim, Surin Textiles, Merchandising and Fashion Design/
 Nebraska Center for Research on
 Children, Youth, Families and Schools
 Larson, Andy 4-H State Office/
 Nebraska Center for Research on
 Children, Youth, Families and Schools
 Parra, Gilbert Child, Youth and Family Studies/
 Nebraska Center for Research on
 Children, Youth, Families and Schools
 Sierra, LeoPanhandle Research and Extension Center/
 Nebraska Center for Research on
 Children, Youth, Families and Schools
 Valentine, Dagen 4-H State Office/
 Nebraska Center for Research on
 Children, Youth, Families and Schools

Choueiry, Berthe **Computer Science and Engineering**

RI: Small: Harnessing the Power of Constraint Propagation
 by Controlling Consistency Levels and Synthesizing Constraints
 \$486,000 NSF

Christensen, Alan Biological Sciences

*Double-Strand Break Repair in Plant Mitochondria:
Products and Proteins
\$820,000NSF

Novel Mechanisms of Plant Mitochondrial DNA Repair
\$660,788.....NSF

Giftci, Ozan Food Science and Technology

*An Innovative Approach to Increasing Bioavailability
of Curcumin Using Nanoporous Starch Bioaerogels
\$468,000 USDA-NIFA
Meneses Gonzalez, Yulie Food Science and Technology
Moreau, Regis Nutrition and Health Sciences
Rose, Devin Food Science and Technology

Development of an Integrated Green Process to Obtain
a High-value, Stable and Bioavailable Lycopene Product
from Tomato Processing Industry Waste
\$489,781..... USDA-NIFA
Demirel, Yasar Chemical and Biomolecular Engineering

Cioabanu, Daniel Animal Science

*Deconstructing the Role of SYNGR2 in
Viral Disease Susceptibility in Livestock
\$500,000 USDA-NIFA
Vu, Hiep Animal Science

Investigation of Host Genetic Role in PCV2 and PRRSV Susceptibility
\$459,200..... USDA-NIFA
Kachman, Stephen Statistics
Vu, Hiep Nebraska Center for Virology

Clemente, Thomas Agronomy and Horticulture/ Center for Plant Science Innovation/ Center for Biotechnology

EAGER: Non-integrative Transient Delivery of Reagents into
Plant Cells via the Type IV Secretion System of *A. tumefaciens*
\$299,006.....NSF

Novel Technologies to Solve the Water Use Problem of
High Yielding C4 Bioenergy and Bioproduct Feedstocks
\$477,321DOE through
University of Illinois at Urbana-Champaign

A Resource for Functional Genomics to
Support Soybean Genetics and Breeding
\$835,378..... NSF through University of Georgia

Corman, Jessica Natural Resources

*StreamNet: Building Capacity to Improve Water Quality
\$307,730 Nebraska Environmental Trust
Chizinski, Christopher Natural Resources
Thomas, Steven Natural Resources

Couch, Brian Biological Sciences/ Nebraska Center for Virology

Mapping Change in Higher Education Social Networks
and STEM Reforms
\$524,243.....NSF

Cultivating Active Learners by Enabling Instructors to
Monitor and Enhance Student Buy-in and Utilization of
Research-based Instructional Strategies
\$299,920.....NSF
Brassil, Chad Biological Sciences

Impact of the Summer Institution on Faculty Teaching
and Student Achievement
\$393,068..... NSF through University of Colorado

Nebraska Research Network in Functional Genomics
\$699,676NIH-NIGMS through UNMC
Wood, Charles Biological Sciences/Biochemistry/
Nebraska Center for Virology

Cressler, Clay Biological Sciences

*Habitat and Coinfection as Drivers of Heterogeneity in
Cross-Scale Wildlife Infectious Disease Processes
\$302,744..... NSF through University of Arkansas

Cui, Bai Mechanical & Materials Engineering

Understanding the Mechanisms of the Pulsed Electric Current
Process for Joining Oxide-Dispersion-Strengthened Alloys
\$307,825NSF
Zhou, Qin..... Mechanical & Materials Engineering

Mechanisms of Toughening Structural Ceramics by
Thermal Engineered Laser Shock Peening
\$348,336NSF
Lu, Yongfeng Electrical and Computer Engineering

Dauer, Jenny **Natural Resources**

*Bridging Science Education and Psychology Perspectives to Support Science Literacy Theory and Instruction
\$349,836NSF

Making Decisions about Socioscientific Issues in Multidisciplinary Postsecondary Learning Environments
\$303,419NSF

DeLong, John **Biological Sciences**

Understanding the Consequences of Body Size Evolution in Ecological Communities
\$450,000 James S. McDonnell Foundation

Detweiler, Carrick **Computer Science and Engineering**

*NRI: INT: Raining Drones: Mid-Air Release and Recovery of Atmospheric Sensing Systems
\$643,600NSF
Houston, Adam Earth and Atmospheric Sciences

Fixed Wing VTOL Sensor Emplacement
\$740,798 DoD-Offutt Air Force Base-STRATCOM through National Strategic Research Institute
Bradley, Justin Computer Science and Engineering
Duncan, Brittany Computer Science and Engineering

COTS Autonomous Tracking and Indicating Prototype
\$677,489 DoD-Offutt Air Force Base-STRATCOM through National Strategic Research Institute
Bradley, Justin Computer Science and Engineering
Duncan, Brittany Computer Science and Engineering

Detection of Nuclear Threats Using Deployable Sensors
\$469,293 DoD-Offutt Air Force Base-STRATCOM through National Strategic Research Institute
Bradley, Justin Computer Science and Engineering
Duncan, Brittany Computer Science and Engineering

At the Water's Edge:
Installation and Optimization of Robotic Sensing Systems
\$949,716 USDA-NIFA
Bradley, Justin Computer Science and Engineering

DiLillo, David **Psychology**

*Promoting Prosocial Bystander Behavior in Intoxicated Men: Evaluation of RealConsent2.0
\$256,500 NIH-NIAAA through Georgia State University
Gervais, Sarah Psychology

Intervention to Promote Pro-social Bystander Behaviors
\$402,117 NIH-NICHD
Brock, Becca Psychology
Gervais, Sarah Psychology

Dodds, Eric **Chemistry**

Gas-Phase Structural Analysis of Metal Cationized Carbohydrates
\$360,000 NSF

Doht, Mitchell **Extension/
Nebraska Local Technical Assistance Program**

Nebraska Local Technical Assistance Program
\$855,974 DOT-FHWA through Nebraska Department of Transportation

Douglass, Matthew **Natural Resources**

*Long-Term Perspectives on Water Security, Food Security, and Land Management Among Daasanach Pastoralists of East Turkana, Northern Kenya
\$748,870 NSF
Powell, Larkin Natural Resources
Qj, Yi Natural Resources

Dowben, Peter **Physics and Astronomy/
Nebraska Center for Materials and Nanoscience**

*Heteromolecular Interface Design for Better Multiferroic Molecular Spintronics
\$486,234 NSF

Controlling Structural, Electronic, and Energy Flow Dynamics of Catalytic Processes Through Tailored Nanostructures
\$340,001 University of Central Florida

Spin and Dipole Ordering at Molecular Film Interfaces
\$442,944 NSF

Duncan, Brittany **Computer Science and Engineering**
 *NRI: INT: Leveraging Environmental Monitoring UAS in Rainforests
 \$722,804NSF
 Detweiler, CarrickComputer Science and Engineering

REU Site: Undergraduate Research Opportunities in
 Unmanned Systems Foundations and Applications
 \$360,649.....NSF
 Bradley, Justin.....Computer Science and Engineering
 Detweiler, CarrickComputer Science and Engineering

Duncan, Daniel **Nebraska Innovation Campus**
 Biotech Connector
 \$750,000 DOC-EDA

Duppong Hurley, Kristin **Special Education and
 Communication Disorders/
 Academy for Child and Family Wellbeing**
 Parental Involvement in Education: Comparing Academic
 Outcomes for High School Students in the General Population
 and those at Risk of Emotional and Behavioral Issues
 \$599,680 ED-IES
 Huscroft-D'Angelo, Jacqueline Special Education and
 Communication Disorders/
 Academy for Child and Family Wellbeing
 Lambert, Matthew Special Education and
 Communication Disorders/
 Academy for Child and Family Wellbeing
 Torkelson-Trout, Alexandra Special Education and
 Communication Disorders/
 Academy for Child and Family Wellbeing

Randomized Clinical Trial of the Boys Town In-Home Program
 \$803,256 Father Flanagan's Boys' Home

Dussault, Patrick **Chemistry**
 A New Paradigm for Ether Synthesis
 \$390,000NSF

Dzenis, Yuris **Mechanical & Materials Engineering**
 *STTR: Corrosion Resistant Missile Cell Hatch Cover
 \$500,047 DoD-NAVSEA through Pacific Engineering Inc.
 *Ultratough Lightweight High-Temperature
 Nanofibers for Aerospace Composites
 \$599,374DoD-AFOSR

Biomimetic Nanostructured Materials
 Based on Synthetic Spider Silk
 \$300,000NSF
 GOALI: Nanomanufacturing of Ultrahigh-Performance Continuous
 Carbon Nanofibers and Assemblies
 \$299,947NSF
 Papkov, Dimitry Mechanical & Materials Engineering

Edwards, Katie **Educational Psychology/
 Nebraska Center for Research on
 Children, Youth, Families and Schools**
 *Evaluating Practice-Based Sexual Violence Primary
 Prevention Approaches from CDC's Rape Prevention
 \$743,021 DHHS-CDC
 *The Role of Stigma in Partner Violence
 \$413,900NSF

Elkins, Lynne **Earth and Atmospheric Sciences**
 Testing Extrusion Tectonics, Rifting, and
 Lithosphere-Asthenosphere Coupling Models for the
 Central Highlands Diffuse Igneous Province, Vietnam
 \$413,437NSF
 Burberry, Cara Earth and Atmospheric Sciences
 Assessing Segment-scale Compositional Control over
 Slow-spreading Ridge Morphology
 \$259,150NSF

Erixson, John **Nebraska State Forest Service**
 Genomic Tools, Genetic Resources, and Outreach to
 Expand Commercial U.S. Hazelnut Production
 \$685,869..... USDA-NIFA through Oregon State University
 Clare, Aaron Nebraska State Forest Service
 Community Adjacent Fuels Award
 \$572,654 USDA-FS

Protecting, Rehabilitating and Restoring
 Nebraska's Pine Forest Ecosystems
 \$989,667 Nebraska Environmental Trust
 Hazardous Mitigation Treatments on Non-Federal Lands
 \$431,970 USDA-FS

Eskridge, Kent **Statistics**

GAANN Fellowship Program for Statistics

\$887,202ED

Everhart, Sydney **Plant Pathology**

*Improved White Mold Resistance in Dry and

Snap Beans Through Multi-Site Screening and Pathogen

Characterization Throughout Major Production Areas

\$276,002USDA-ARS

Fabrikant, Ilya **Physics and Astronomy**

*Electron and Positronium Collisions with Molecules

\$270,000NSF

Inelastic Electron Collisions with Molecules and Clusters

\$269,465NSF

Faller, Ronald **Midwest Roadside Safety Facility**

Crash Testing of Various Bridge Guardrails and Transitions

\$799,563DOT-FHWA through

Hawaii Department of Transportation

Bielenberg, RobertMidwest Roadside Safety Facility

Holloway, JamesMidwest Roadside Safety Facility

Lechtenberg, KarlaMidwest Roadside Safety Facility

Ranjha, SagheerMidwest Roadside Safety Facility

Rasmussen, JenniferMidwest Roadside Safety Facility

Reid, JohnMechanical & Materials Engineering

Rosenbaugh, ScottMidwest Roadside Safety Facility

Song, ChungCivil and Environmental Engineering

Steelman, JoshuaCivil and Environmental Engineering

Stolle, CodyMidwest Roadside Safety Facility

MnDOT Barriers 157 and 158 MASH 2016 Testing,

Level 3 and Level 4 Evaluations

\$560,286DOT-MN DOT through

Nebraska Department of Transportation

Bielenberg, RobertMidwest Roadside Safety Facility

Holloway, JamesMidwest Roadside Safety Facility

Rasmussen, JenniferMidwest Roadside Safety Facility

Rosenbaugh, ScottMidwest Roadside Safety Facility

Steelman, JoshuaCivil and Environmental Engineering

Crash Testing of a Precast Concrete Barrier

\$414,128Iowa Department of Transportation

Bielenberg, RobertMidwest Roadside Safety Facility

Rasmussen, JenniferMidwest Roadside Safety Facility

Rosenbaugh, ScottMidwest Roadside Safety Facility

MASH TL-4 Steel-tube Bridge Rail and Guardrail Transition

\$926,851DOT-IL DOT/OH DOT through

Nebraska Department of Transportation

Bielenberg, RobertMidwest Roadside Safety Facility

Rasmussen, JenniferMidwest Roadside Safety Facility

Rosenbaugh, ScottMidwest Roadside Safety Facility

Dynamic Testing and Evaluation of a New York DOT

Prototype Box Beam Guardrail End Terminal System

under AASHTO MASH 2016 TL-3 Guidelines

\$265,250New York State Department of Transportation

through Nebraska Department of Transportation

Lechtenberg, KarlaMidwest Roadside Safety Facility

Rasmussen, JenniferMidwest Roadside Safety Facility

Reid, JohnMechanical & Materials Engineering

Evaluation of New Jersey TCB Performance under MASH TL-3

\$702,369DOT-FHWA through

Nebraska Department of Transportation

Bielenberg, RobertMidwest Roadside Safety Facility

Lechtenberg, KarlaMidwest Roadside Safety Facility

Reid, JohnMechanical & Materials Engineering

Rosenbaugh, ScottMidwest Roadside Safety Facility

Iowa DOT Combination Bridge Separation

Barrier with Bicycle Railing

\$254,445DOT-FHWA through

Nebraska Department of Transportation

Bielenberg, RobertMidwest Roadside Safety Facility

Reid, JohnMechanical & Materials Engineering

Rosenbaugh, ScottMidwest Roadside Safety Facility

Phase II Conceptual Development of an Impact

Attenuation System for Intersecting Roadways

\$256,184DOT-FHWA through

Nebraska Department of Transportation

Bielenberg, RobertMidwest Roadside Safety Facility

Reid, JohnMechanical & Materials Engineering

Fernandez-Ballester, Lucia **Mechanical & Materials Engineering**

Nucleation Control of Conjugated Polymers Through

Melt-crystallization and Self-seeding

\$345,000NSF

Fernando, Samodha**Animal Science**

*Improving Water Quality and Fish Health
in the Platte River and Tributaries

\$360,828 Nebraska Environmental Trust
Pegg, Mark Natural Resources

Investigating Mobile Genetic Elements and Resistance Gene
Reservoirs towards Understanding the Emergence and Ecology
of Antimicrobial Resistance in Beef Cattle Production Systems
\$830,751 USDA-NIFA
Bartelt-Hunt, Shannon Civil and Environmental Engineering
Loy, Dustin Veterinary Medicine and Biomedical Sciences
Messer, Tiffany Biological Systems Engineering
Schmidt, Amy Animal Science/Biological Systems Engineering
Snow, Daniel Nebraska Water Center
Stowell, Rick Biological Systems Engineering

Moving Beyond Rumen Microbiota Composition to
Identify Interactions between Host Genotype and Rumen
Function towards Identifying Genetic Markers and
Microbial Functions that Influence Feed Efficiency
\$500,000 USDA-NIFA
Morota, Gota Animal Science
Spangler, Matthew Animal Science

Fielding, Christopher**Earth and Atmospheric Sciences**

ELT Collaborative Research:

Causes and Effects of the Permian-Triassic Biotic Crisis
Inferred from Continental Margin Sections and Modeling
\$400,157 NSF
Frank, Tracy Earth and Atmospheric Sciences

Forbes, Cory**Natural Resources/****Robert B. Daugherty Water for Food Institute**

*INFEWS/T3 RCN: Cultivating a National Collaborative for
Research on Food, Energy, and Water Education (NC-FEW)
\$749,964 NSF

*Supporting Undergraduate Teaching and Learning
about Socio-Hydrological Challenges Through
Data-Driven Modeling in the FANH Sciences
\$299,997 USDA-NIFA

IUSE: Fostering Undergraduate Students'
Disciplinary Learning and Water Literacy
\$299,018 NSF
Brozovic, Nicholas Agricultural Economics/
Robert B. Daugherty Water for Food Institute
Franz, Trenton Natural Resources/
Robert B. Daugherty Water for Food Institute

Franz, Trenton**Natural Resources**

*CPS: Medium: A Scalable Real-Time Sensing and Decision-Making
System for Field-Level Row-Crop Irrigation Management
\$319,994 USDA-NIFA through
University of Illinois-Urbana/Champaign
Heeren, Derek Biological Systems Engineering
Rudnick, Daran West Central Research and Extension Center

Fritz, Sherilyn**Earth and Atmospheric Sciences/
Biological Sciences**

FESD Type 1: The Dynamics of Mountains, Landscapes,
and Climate in the Distribution and Generation of
Biodiversity of the Amazon/Andean Forest
\$378,847 NSF through Duke University

Fuchs, Brian**Natural Resources**

Drought Information Services and Research for Agriculture
across the United States
\$833,384 USDA-OCE
Svoboda, Mark Natural Resources

Fuchs, Matthias**Physics and Astronomy**

Phase-Space Investigation of Laser-driven
Weakly Relativistic Electron Beams
\$420,000 NSF
Centurion, Martin Physics and Astronomy
Shadwick, Bradley Physics and Astronomy
Nonlinear X-Ray Optics
\$594,760 DOE

Gamon, John**Natural Resources**

Dimensions NASA: Linking Remotely Sensed Optical Diversity
to Genetic, Phylogenetic and Functional Diversity
to Predict Ecosystem Processes
\$716,893 NSF
Evaluating Growing Season Length and Productivity across the
ABoVE Domain Using Novel Satellite Indices and a Ground Sensor
\$665,893 NASA
Billesbach, David Biological Systems Engineering

Gardner, Scott **University of Nebraska State Museum/
Biological Sciences**

*Digitization TCN: Digitizing Collections to Trace Parasite-Host
Associations and Predict the Spread of Vector-Borne Disease
\$426,149 NSF

CSBR: Natural History: Digitizing and Conserving Specimens
in the Manter Laboratory of Parasitology
\$499,988 NSF
Diamond, Judy University of Nebraska State Museum

CSBR: Natural History: Securing and Digitizing Data for
Parasite Biodiversity Specimens in the Manter Laboratory
\$499,991 NSF

Gay, Timothy **Physics and Astronomy**

Accurate Electron Spin Optical Polarimetry (AESOP)
\$565,000 NSF

Polarized Electron Physics
\$570,000 NSF

Ge, Yufeng **Biological Systems Engineering**

CPS: 3D Dynamic Soil Information System Enabled
by UAV and Proximal Depth Sensing
\$717,698 USDA-NIFA
Shi, Yeyin Biological Systems Engineering
Yu, Hongfeng Computer Science and Engineering
Zhou, Yuzhen Statistics

VisNIR-Based Multi-sensing Penetrometer for
in situ High-resolution Depth Sensing of Soils
\$499,896 USDA-NIFA

PAPM EAGER: Transitioning to the Next-generation
Plant Phenotyping Robots
\$285,000 USDA-NIFA
Pitla, Santosh Biological Systems Engineering
Schnable, James Biological Systems Engineering

IDBR: Type A: Multispectral Laser 3D Ranging and
Imaging System for Plant Phenotyping
\$534,194 NSF
Walia, Harkamal Agronomy and Horticulture
Yu, Hongfeng Computer Science and Engineering

Gilmore, Troy **Natural Resources**

Evaluation of Watershed-scale Groundwater Transit Time
Distributions from Field Sampling and Numerical Modeling
\$387,030 NSF
Mittelstet, Aaron Biological Systems Engineering
Zlotnik, Vitaly Earth and Atmospheric Sciences

Golick, Douglas **Entomology**

Building Undergraduate Research and Science
Communication Skills Through Beneficial Insects Protection
Research and Extension Experiences (FACT)
\$344,767 USDA-NIFA
Anderson, Troy Entomology
Brewer, Gary Entomology
Dauer, Jenny Natural Resources
Louis, Joe Entomology
McMechan, Justin Entomology
Peterson, Julie West Central Research and Extension Center
Velez Arango, Ana Maria Entomology
Weissling, Tom Entomology
Wu-Smart, Judy Entomology

Community as Habitat: Nebraska Communities Supporting
Pollinators and Landscape Diversity Through
Native Waterwise Plant Habitats
\$364,520 Nebraska Environmental Trust
Evertson, Justin Nebraska State Forest Service

Graef, George **Agronomy and Horticulture**

*Increasing Soybean Genetic Gain for Yield by
Developing Tools, Know-How and Community
Among Public Breeders in the North Central U.S.
\$267,966 North Central Soybean Research Program through
Ohio State University
Hyten, David Jr. Agronomy and Horticulture

Utilizing Unique Genetic Diversity to Combine
Elevated Protein Concentration with High Yield
in New Varieties and Experimental Lines
\$524,867 United Soybean Board/Smith/Bucklin
Hyten, David Jr. Agronomy and Horticulture

Increasing the Rate of Genetic Gain for
Yield in Soybean Breeding Programs
\$282,668 North Central Soybean Research Program through
Ohio State University
Ge, Yufeng Biological Systems Engineering
Hyten, David Jr. Agronomy and Horticulture

Soybean Breeding and Genetic Studies for Nebraska
\$293,416 Nebraska Soybean Board

Grassini, Patricio **Agronomy and Horticulture**
Developing a Platform to Monitor N Footprint in Agro-Ecosystems
\$431,000 USDA-NIFA
Brozovic, Nicholas Agricultural Economics/
Robert B. Daugherty Water for Food Institute
Gibson, Kate Robert B. Daugherty Water for Food Institute
Rattalino Edreira, Juan Ignacio Agronomy and Horticulture

Griep, Mark **Chemistry**
Framing the Chemistry Curriculum
\$749,285 NSF

REU Site: Research Experiences for Undergraduates
in Chemical Assembly at the University of Nebraska
\$339,683 NSF

Gruverman, Alexei **Physics and Astronomy/
Nebraska Center for Materials and Nanoscience**
Domain Wall Engineering for Novel Nanoelectronics
\$338,422 NSF

Guretzky, John **Agronomy and Horticulture**
Developing Research and Extension Skills of
Students in Integrated Agronomic Systems
\$275,667 USDA-NIFA
Blanco, Humberto Agronomy and Horticulture
Elmore, Roger Agronomy and Horticulture
Howell Smith, Michelle Nebraska Center for Research on
Children, Youth, Families and Schools
Redfearn, Daren Agronomy and Horticulture

Hage, David **Chemistry**
New Approaches to Catalyst Screening and Development
\$522,208 NSF
Berkowitz, David Chemistry

Harwood, David **Earth and Atmospheric Sciences/
Antarctic Drilling Program**
Subglacial Antarctic Lakes Scientific Access (SALSA):
Integrated Study of Carbon Cycling in
Hydrologically Active Subglacial Environments
\$349,956 NSF through Montana State University
McManis, James Engineering/Antarctic Drilling Program

Heaton, Ruth **Teaching, Learning and Teacher Education/
Nebraska Center for Research on
Children, Youth, Families and Schools/
Center for Science, Mathematics
and Computer Education**
Math Early On II
\$662,227 Buffett Early Childhood Fund
Leeper Miller, Jennifer Child, Youth and Family Studies
Molfese, Victoria Child, Youth and Family Studies/
Nebraska Center for Research on
Children, Youth, Families and Schools/
Center for Science, Mathematics
and Computer Education

Hebets, Eileen **Biological Sciences**
A Comparative Systems Approach to Complex Animal Signaling
\$702,502 NSF

Navigation and the Neural Integration of
Multimodal Sensory Information in the Brain of an Arthropod
\$285,215 NSF

Hong, Xia **Physics and Astronomy/
Nebraska Center for Materials and Nanoscience**
*Complex Oxide Heterostructure-Based
Negative Capacitance Mott FETs
\$264,000 Semiconductor Research Corp

Exploring Spin-Orbit Coupling and Correlated Phenomena
in Iridate-based Ferroelectric Transistors and Tunnel Junctions
\$499,012 NSF

Nanoscale Ferroelectric Control of Novel Electronic States in Layered
Two-dimensional Materials
\$750,262 DOE

Houston, Adam **Earth and Atmospheric Sciences**
 Targeted Observation by Radars
 and UAS of Supercells (TORUS)
 \$725,926NSF

Investigating Soil Moisture-Convective Precipitation Feedbacks
 with Soil Moisture Active Passive
 \$402,364 NASA through The Ohio State University

Hughes, Michelle **Special Education and Communication Disorders**
 Telepractice for Cochlear Implants
 \$319,682NIH-NIDCD
 Wheeler, Lorey Nebraska Center for Research on
 Children, Youth, Families and Schools

Physiology as a Potential Predictor
 of Perception in Cochlear Implants
 \$291,566NIH-NIDCD
 Wheeler, Lorey Nebraska Center for Research on
 Children, Youth, Families and Schools

Hunt, Thomas **Entomology**
 Evaluating the Efficacy of Insect Resistance Management Plans for
 Delaying the Onset of *Bacillus Thuringiensis* Toxin Resistance
 in Western Bean Cutworm Populations
 \$492,497 USDA-NIFA
 Peterson, Julie West Central Research and Extension Center

Hutkins, Robert **Food Science and Technology**
 Digestive Tract Microbiome in Healthy Term Infants Receiving
 Mothers-own Breast Milk or Cows Milk-based Infant Formulas
 \$295,749 Mead Johnson Nutrition
 Izard, Jacques..... Food Science and Technology

Irmak, Suat **Biological Systems Engineering**
 *Water Use and Soil-Water Storage Effect of Individual and
 Mixed Cover Species and Impacts on Soil Quality Variables
 \$303,872 Nebraska Environmental Trust

Izard, Jacques **Food Science and Technology**
 *Dietary Sulfur, the Gut Microbiome and Colorectal Cancer
 \$389,051 NIH-NCI through Massachusetts General Hospital

Johnson, Mary Ann **Nutrition and Health Sciences/
 Nebraska Center for the Prevention of
 Obesity Diseases through Dietary Molecules**
 Bioavailability and Distribution of Bovine Milk Exosomes
 and their RNA, Lipid and Protein Cargos in Mice
 \$347,185 PureTech Health
 Housh, Terry Nutrition and Health Sciences/
 Nebraska Center for the Prevention of
 Obesity Diseases through Dietary Molecules
 Zempleni, Janos Nutrition and Health Sciences/
 Nebraska Center for the Prevention of
 Obesity Diseases through Dietary Molecules

Johnson, Phillip **Food Science and Technology**
 Robust Methods for Food Allergen Detection
 and Quantitative Risk Assessment
 \$424,742 USDA-NIFA
 Baumert, Joseph Food Science and Technology
 Downs, Melanie Food Science and Technology
 Marsh, Justin Food Science and Technology

Johnson, Scott **Biological Process Development Facility**
 *Developing MG53 as a Novel Protein Therapeutic
 for Acute Lung Injury
 \$439,999DoD-Army Medical Research through
 Ohio State University

Kazyak, Emily **Sociology/Women's and Gender Studies**
 *Religious Exemption Laws and the Rights
 of Sexual and Gender Minorities
 \$324,228NSF
 Burke, Kelsy Sociology

Keshwani, Deepak **Biological Systems Engineering**
 Immersive Educational Game Simulations to Enhance
 Understanding of Corn-Water Ethanol-Beef System Nexus
 \$999,644NSF
 Chen, Jiajia Food Science and Technology
 Keshwani, Jenny Biological Systems Engineering
 Koelsch, Richard Biological Systems Engineering
 Rosenbaum, David Bureau of Business Research
 Thompson, Eric Bureau of Business Research

Khan, Bilal **Sociology**
 *Promoting Community Conversations About Research
 to End Native Youth Suicide in Rural Alaska
 \$310,778 DHHS-NIH through University of Michigan

Kim, Panya **Center for Plant Science Innovation**
 *IOS: The Microtubule Network and Plant Immunity
 \$600,000 NSF
 Van Dijk, Karin Biochemistry/Center for Plant Science Innovation

Kim, Surin **Textiles, Merchandising and Fashion Design**
 Leveraging Community Connections, Local Issues,
 and Youth High Tech Entrepreneurship Education
 to Nurture Rural Economic Opportunities
 \$493,560 USDA-NIFA
 De Guzman, Maria Child, Youth and Family Studies
 Guru, Ashu 4-H State Office
 Nicholas, Claire Textiles, Merchandising and Fashion Design

Knoche, Lisa **Nebraska Center for Research on
Children, Youth, Families and Schools**
 Getting Ready Preschool Development Grant PDG
 \$318,116 DHHS-ACF-Nebraska Department of
 Health and Human Services through
 Nebraska Children and Families Foundation

Korus, Jesse **Natural Resources**
 *Aquifer Recharge and Sustainability in the Republican Basin
 \$269,008 Nebraska Natural Resources Commission through
 Middle Republican NRD
 Nebraska GeoCloud: An Integrated Bedrock Mapping and
 Hydrogeologic Framework Database and Map Viewer
 \$264,014 Nebraska Department of Natural Resources through
 Lower Platte South NRD
 Cameron, Kathleen Natural Resources
 Joeckel, Matt Natural Resources

Kovalev, Alexey **Physics and Astronomy**
 *Non-Collinear Magnetism and Dynamic Effects
 in Dzyaloshinskii-Moriya Magnets
 \$750,000 DOE

Krehbiel, Michelle **Extension**
 Nebraska CYFAR Sustainable Community Project
 \$648,750 USDA-NIFA
 Chai, Weiwen Nutrition and Health Sciences
 Fischer, Jean Nutrition and Health Sciences
 Franzen-Castle, Lisa Nutrition and Health Sciences
 Jones, Georgia Nutrition and Health Sciences

Krull, Dean **Agronomy and Horticulture**
 *Managing Irrigation Systems Today
 \$555,982 Central Platte NRD

Lackey, Susan **Natural Resources**
 Developing Hydrogeologic Databases to Assist
 in Water Resources Management
 \$654,700 Lower Elkhorn NRD

Lawrence, Nevin **Panhandle Research and Extension Center**
 BARRAL - Bioenergy, Advanced Biofuel
 and Rubber Research Agricultural Linkages
 \$500,001 USDA-NIFA through Ohio State University
 Maharjan, Bijesh Panhandle Research and Extension Center
 Qiao, Xin Panhandle Research and Extension Center

Lechtenberg, Karla **Midwest Roadside Safety Facility**
 Crash Testing MoDOT Devices
 \$376,367 Missouri Department of Transportation through
 Nebraska Department of Roads
 Faller, Ronald Midwest Roadside Safety Facility
 Holloway, Jim Midwest Roadside Safety Facility
 Rasmussen, Jennifer Midwest Roadside Safety Facility

Lewis, Elizabeth **Teaching, Learning and Teacher Education**
 Longitudinal Evaluation of Noyce Science Teachers
 to Determine Sources of Effective Teaching
 \$799,890 NSF
 Claes, Daniel Physics and Astronomy
 Harwood, David Earth and Atmospheric Sciences
 Heng-Moss, Tiffany College of Agricultural Sciences
 and Natural Resources

Lewis, Ronald **Animal Science**
 Understanding Parasite Resistance in Organic Livestock
 and Using a Systems Approach for Control
 \$291,478 USDA-ARS

Li, Qingsheng **Biological Sciences/
Nebraska Center for Virology**
 *Impact of the Gut Microbiome on HIV-1 Rectal Transmission
 and Immunopathogenesis During ART
 \$416,659 NIH-NIAID
 *Preclinical Development of Ingenol and HDACi
 Toward HIV Eradication
 \$303,578 NIH-NIAID through University of Utah

*Beat-HIV: Delaney Collaborative to
Cure HIV-1 Infection by Immunotherapy
\$286,156 NIH-NIAID through Wistar Institute

Impact of Fc N-glycan Structure on HIV-specific Antibody Functions
\$586,217 NIH-NIAID through University of Wyoming

Long-acting Antiretroviral Nanoparticles for HIV Prophylaxis
\$259,125 NIH-NIAID through Creighton University

Li, Xu Civil and Environmental Engineering

Antibiotic Resistance Genes in the Soil-Plant Ecosystem
\$330,000 NSF
Snow, Daniel Nebraska Water Center
Walia, Harkamal Agronomy and Horticulture

Lindquist, John Agronomy and Horticulture

A Risk-assessment Model and Population Genomics Tools for
Monitoring Herbicide-resistance Evolution in Weedy Sorghum
\$499,998 USDA-NIFA
Jhala, Amit Agronomy and Horticulture
Sigmon, Brandi Agronomy and Horticulture
Tenhumberg, Brigitte Mathematics/Biological Sciences

Lodl, Kathleen Extension

*EAGER: Building an Ecosystem for Broadening Participation
for Computing: 4-H and the Land-Grant University System
\$297,313 NSF
Frerichs, Sandra Extension
Guru, Ashu Extension
O'Connor, Ann Extension
Wheeler, Lorey Nebraska Center for Research on
Children, Youth, Families and Schools

EAGER: Empowering Out-of-School-Time Educators
and Students through 4-H and the Land-Grant System
\$299,950 NSF
Frerichs, Sandra Extension
Guru, Ashu Extension
Wheeler, Lorey Nebraska Center for Research on
Children, Youth, Families and Schools

Louis, Joe Entomology/Biochemistry

*Characterizing the Interplay Between Sorghum and Fall Armyworm
\$429,248 USDA-NIFA

Lu, Yongfeng Electrical and Computer Engineering

*Femto Second Laser Machining of Various Materials
\$570,000 Honeywell FM & T

Fabrication and Verification of Fuel Targets
for Laser Fusion Research
\$725,377 DOE through University of Rochester

Radar 2021
\$905,025 Honeywell FM & T

Vertically Aligned Carbon-Nanotubes Embedded
in Ceramic Matrices for Hot Electrode Applications
\$400,000 DOE-NETL

Luck, Joe Biological Systems Engineering

Using Precision Technology in On-farm Field Trials
to Enable Data-intensive Fertilizer Management
\$513,798 USDA-NIFA through
University of Illinois at Urbana-Champaign
Ferguson, Richard Agronomy and Horticulture
Glewen, Keith Agronomy and Horticulture
Mieno, Taro Agricultural Economics
Thompson, Laura Agronomy and Horticulture

Next-generation Spray Drift Mitigation via
Field-deployable, Real-time Weather Monitoring and
Novel Spray Nozzle Control Technologies
\$499,916 USDA-NIFA
Kruger, Greg West Central Research and Extension Center
Pitla, Santosh Biological Systems Engineering

Mahmood, Rezaul Natural Resources

*The Great Plains Irrigation Experiment (GRAINEX) for
Understanding the Influence of Irrigation on the
Planetary Boundary Layer and Weather Events
\$287,636 NSF

Males, Lorraine Teaching, Learning and Teacher Education

Examining the Impact of the CPM Implementation
in an Urban District
\$384,753 College Preparatory Mathematics (CPM)
Educational Program

Mamo, Martha **Agronomy and Horticulture**

Fostering the Next Generation of Agricultural and
Natural Resources Professionals Through Experiential Learning
in Research, Education and Extension

\$281,475 USDA-NIFA
Keshwani, Jennifer Biological Systems Engineering
Lambe, David Agronomy and Horticulture
Lee, Donald Agronomy and Horticulture
Matkin, Gina Agricultural Leadership,
Education and Communication
Sandall, Leah Agronomy and Horticulture
Schacht, Walter Agronomy and Horticulture
Speth, Carol Agronomy and Horticulture

Markham, Jonathan **Biochemistry**

Plant Sphingolipids: New Targets for
Engineering Cold-Tolerance in Crops

\$408,000 USDA-NIFA
Cahoon, Edgar Biochemistry

McMechan, Justin **Entomology**

*Soybean Gall Midge: Surveying the North Central Region,
Adult Monitoring and Host Plant Resistance

\$307,953 North Central Soybean Research Program
Graef, George Agronomy and Horticulture
Hunt, Thomas Entomology
Wright, Robert Entomology

Messer, Tiffany **Biological Systems Engineering**

Photodegradation of Insecticides in Rivers Adjacent to Agricultural
Intensive Regions: A Novel Water Quality Monitoring Approach

\$498,500 USDA-NIFA
Snow, Daniel Nebraska Water Center

Montooth, Kristi **Biological Sciences**

RoL: FELS: EAGER: A Predictive Framework of Metabolism
as an Engine of Functional Environmental Responses
across Levels of Biological Organization

\$299,999 NSF
DeLong, John Biological Sciences

Moon, Alena **Chemistry**

*Developing Educational Measurement Competency to
Support Investigations of Students' Conceptions of Light

\$300,112 NSF

Moreau, Regis **Nutrition and Health Sciences**

Bioactivity of Curcumin and Gut Inflammation

\$480,214 USDA-NIFA
Hage, David Chemistry

Mulliniks, Travis **West Central Research and Extension Center**

*Impact of Milk Production on Cow-Calf Productivity,
Grazing Behavior, and Profitability

\$299,999 USDA-NIFA
Fernando, Samodha Animal Science
Stephenson, Mitchell Panhandle Research and Extension Center

Munoz-Arriola, Francisco **Biological Systems Engineering**

From Gene to Global Hydroclimatic Controls
on Hybrid Performance Predictability

\$490,000 USDA-NIFA
Hernandez Jarquin, Juan Diego Agronomy and Horticulture

Neale, Christopher **Biological Systems Engineering/
Robert B. Daugherty Water for Food Institute**

*Irrigation Innovation Consortium-Base Funding

\$263,000 Foundation for Food and Agriculture Research through
Colorado State University
Rudnick, Daran Robert B. Daugherty Water for Food Institute
Safa, Babak Robert B. Daugherty Water for Food Institute
Zution Goncalves, Ivo .. Robert B. Daugherty Water for Food Institute

Improving Variable Rate Irrigation Efficiency using
a Real-time Soil Water Adaptive Control Model

Informed by Sensors Deployed on Unmanned Aircraft Systems

\$499,978 USDA-NIFA
Ge, Yufeng Biological Systems Engineering
Heeren, Derek Biological Systems Engineering
Luck, Joe Biological Systems Engineering
Meyer, George Biological Systems Engineering
Woldt, Wayne Biological Systems Engineering

Reconfiguring Farmers' Behavior to Reduce Irrigation
Water Use Through Water Measurements and Social Norms
Interventions: A Case Study in the Republican River Basin

\$453,539 USDA-NIFA
Olson, Kristen Sociology

Pitla, Santosh **Biological Systems Engineering**

In-field Tractor Operational Load Profile Generation in
Support of Advanced Tractor Testing in Mixed-mode Power States
\$472,887 USDA-NIFA
Hoy, Roger Biological Systems Engineering
Luck, Joe Biological Systems Engineering
Rohrer, Rodney Biological Systems Engineering

Pope, Kevin **Natural Resources**

*Monitoring, Mapping, Risk Assessment and
Management of Invasive Species in Nebraska
\$453,662 Nebraska Game and Parks Commission
Zach, Allison Natural Resources

Powell, Larkin **Natural Resources**

Management of Private Grazing Lands in Nebraska:
Do Differences in Ranch Management and Landowner
Characteristics Affect Conservation Impacts
\$344,521 Nebraska Game and Parks Commission
Schacht, Walter Agronomy and Horticulture

Persistent Effects of Wind-Power Development
on Prairie Grouse in Nebraska
\$717,487 Nebraska Game and Parks Commission
Fontaine, Joseph Natural Resources

Powers, Robert **Chemistry**

ABI Innovation: A Metabolomics Toolkit
for NMR and Mass Spectrometry
\$695,000 NSF

Proctor, Christopher **Agronomy and Horticulture**

Optimizing Cropping Systems for Resilience to Stress:
The Role of Maturity Group Selection and Cover Crops
on Yield, Weeds, Insects and Microbes
\$461,187 USDA-NIFA
Drewnoski, Mary Animal Science
Everhart, Sydney Plant Pathology
McMechan, Justin Entomology
Parsons, Jay Agricultural Economics
Redfearn, Daren Agronomy and Horticulture

Qian, Yi **Electrical and Computer Engineering**

Spectrum and Energy Efficient Radio Resource Access in
Wireless Networks with Densely Deployed Underlay Devices
\$300,000 NSF
Sharif-Kashani, Hamid Electrical and Computer Engineering

Qiao, Wei **Electrical and Computer Engineering**

Online Nonintrusive Identification and Monitoring of Internal Weak
Points of Electro-energy Devices Using Package Surface Temperature
\$337,897 NSF

Qiao, Xin **Panhandle Research and Extension Center**

*Beneficial Impact of Injected Air Into a Subsurface
Drip Irrigation System on Plant Growth and Uptake of
Emerging Antibiotics Using Runoff From a Feedlot
\$287,605 Nebraska Environmental Trust
Biswas, Saptashati Nebraska Water Center
D'Alessio, Matteo Nebraska Water Center
Ray, Chittaranjan Civil and Environmental Engineering/
Nebraska Water Center

SCC: An Integrated and Smart System
for Irrigation Management in Rural Communities
\$541,048 USDA-NIFA through University of Iowa
Rudnick, Daran West Central Research and Extension Center
Yang, Haishun Agronomy and Horticulture

Radu, Petronela **Mathematics**

Higher Order Nonlocal Models in Continuum Mechanics
\$354,089 NSF
Foss, Mikil Mathematics

Raikes, Helen **Child, Youth and Family Studies**

Evaluation of Early Steps to School Success
\$734,694 Save the Children

Rajca, Andrzej **Chemistry**

Organic Nanoparticles for Dual MRI-Guided Therapeutic Selection
and Ovarian Cancer Drug Delivery
\$316,735 NIH-NCI through
Massachusetts Institute of Technology

Nitrogen-Centered Radicals
\$510,000 NSF

Ramamurthy, Byravamurthy **Computer Science and Engineering**

NeTS: Small: Intelligent Optical Networks
using Virtualization and Software-Defined Control
\$466,000 NSF

Ramer-Tait, Amanda **Food Science and Technology/
Nebraska Center for the Prevention of
Obesity Diseases through Dietary Molecules**

Epigenetic Regulation of Obesity and Metainflammation by
Red Raspberry Ellagic Acid and its Microbiota-derived Metabolites,
the Urolithins
\$469,949 USDA-NIFA

Rasby, Rick **Extension**

Nebraska Extension Implementation Program
\$627,447 USDA-NIFA
Bradshaw, Jeffrey Panhandle Research and Extension Center
Glewen, Keith Southeast Research and Extension Center
Green, Jody Southeast Research and Extension Center
Jackson-Ziems, Tamra Plant Pathology
Jhala, Amitkumar Agronomy and Horticulture
Larson, Jonathan Southeast Research and Extension Center
Ogg, Clyde Agronomy and Horticulture
Wright, Robert Entomology
Wu-Smart, Judy Entomology

Rasmussen, Jennifer **Midwest Roadside Safety Facility**

Determination of Zone of Intrusion Envelopes
Under MASH Impact Conditions for Rigid Barrier
\$400,000 National Academy of Sciences-NCHRP
Bielenberg, Robert Midwest Roadside Safety Facility
Faller, Ronald Midwest Roadside Safety Facility
Stolle, Cody Midwest Roadside Safety Facility

Ray, Chittaranjan **Nebraska Water Center/
Civil and Environmental Engineering/
Robert B. Daugherty Water for Food Institute**

*Development of Data Bases for Model Development and
Field Testing of Crop Models in Midwest Farms
\$250,000 USDA-ARS

Sustaining Agriculture Through Adaptive Management Resilient to
a Declining Ogallala Aquifer and Changing Climate
\$933,791 USDA-NIFA through Colorado State University
Haacker, Erin Earth and Atmospheric Sciences/
Robert B. Daugherty Water for Food Institute
Rudnick, Daran West Central Research and Extension Center/
Robert B. Daugherty Water for Food Institute
Schoengold, Karina Agricultural Economics/Robert B. Daugherty
Water for Food Institute
Shaver, Tim West Central Research and Extension Center/
Robert B. Daugherty Water for Food Institute

Integrating the Vadose Zone for Improved Management
of Nebraska Ground Water Quality
\$384,227 Nebraska Environmental Trust
Snow, Daniel Nebraska Water Center/
Robert B. Daugherty Water for Food Institute

Reddy, N.R. Jayagopala **Veterinary Medicine
and Biomedical Sciences**

*TCR Transgenic Models for Dilated Cardiomyopathy
\$402,906 NIH-NIAID
Kidambi, Srivatsan Chemical and Biomolecular Engineering
Kievit, Forrest Biological Systems Engineering
Steffen, David Veterinary Medicine and Biomedical Sciences

Prevention of Viral Cardiomyopathy and Insulinitis by Vaccination
\$300,000 American Heart Association
Kidambi, Srivatsan Chemical and Biomolecular Engineering
Steffen, David Veterinary Medicine and Biomedical Sciences

Riekhof, Wayne **Biological Sciences**

The Life History and Systems Biology of Fungal-Algal Mutualisms
\$639,910 NASA
Harris, Steven Plant Pathology
Herr, Joshua Plant Pathology

Rilett, Laurence **Civil and Environmental Engineering/
Nebraska Transportation Center**

Research and Equipment Enhancement
\$336,544 DOT-FHWA through
Nebraska Department of Transportation
Faller, Ronald Midwest Roadside Safety Facility/
Nebraska Transportation Center

Rosenbaugh, Scott **Midwest Roadside Safety Facility**

*31-in. Midwest Guardrail System (MGS) and
Curb Combination Guidelines for MASH TL-3
\$600,000 DOT-FHWA through
National Academy of Sciences-NCHRP-TRB
Bielenberg, Robert Midwest Roadside Safety Facility
Faller, Ronald Midwest Roadside Safety Facility
Lechtenberg, Karla Midwest Roadside Safety Facility
Linzell, Daniel Civil and Environmental Engineering
Rasmussen, Jennifer Midwest Roadside Safety Facility
Song, Chung Civil and Environmental Engineering
Steelman, Joshua Civil and Environmental Engineering
Stolle, Cody Midwest Roadside Safety Facility

Cost-efficient, TL-2 Bridge Rail for Low-volume Roads
 \$309,141 DOT-FHWA through
 Nebraska Department of Transportation
 Bielenberg, Robert Midwest Roadside Safety Facility
 Faller, Ronald Midwest Roadside Safety Facility

Rudnick, Daran **West Central Research and Extension Center**

*Accelerating Adoption of Water Conservation
 Technologies and Management Practices Through
 Innovative Engagement Programming
 \$850,000 USDA-NRCS
 Burr, Chuck West Central Research and Extension Center
 Caswell, Katherine West Central Research and Extension Center
 Ingram, Troy Northeast Research and Extension Center
 Ray, Chittaranjan Civil and Environmental Engineering/
 Nebraska Water Center
 Rees, Jennifer Southeast Extension Center
 Stockton, Matt West Central Research and Extension Center
 Tigner, Robert West Central Research and Extension Center
 Whitney, Todd West Central Research and Extension Center

Samal, Ashok **Computer Science and Engineering**

*Know Your Well:
 A Program for Agricultural Education and FFA Students
 \$398,880 Nebraska Environmental Trust
 Kriefels, Matt Agricultural Leadership,
 Education and Communication
 Ray, Chittaranjan Civil and Environmental Engineering/
 Nebraska Water Center
 Snow, Daniel Nebraska Water Center

Saraf, Ravi **Chemical and Biomolecular Engineering**

High Specificity MicroRNA Microarray Analysis without
 PCR for Cancer Screening and Research
 \$490,048 NIH-NCI

Schachtman, Daniel **Agronomy and Horticulture/
 Center for Biotechnology/
 Center for Plant Science Innovation**

*The Role of Plant Root Exudates in Shaping
 Soil Microbial Community Composition and the Influence
 that has on Nutrient Cycling and Nitrogen Use
 \$749,812 USDA-NIFA

*Genomics and Phenomics to Identify Yield and Drought Tolerance
 Alleles for Improvement of Camelina as a Biofuel Crop
 \$281,968 USDA-ARS
 Ge, Yufeng Biological Systems Engineering/
 Center for Biotechnology

Schmidt, Tyler **Animal Science**

Utilization of an Advanced Computer Vision Platform
 to Identify Changes in the Physiological and Behavioral Changes
 Associated with Illness and Aggressive/Damaging Behavior
 During the Nursery and Finisher Phase
 \$301,793 Foundation for Food and Agriculture Research through
 National Pork Board
 Mote, Benny Animal Science
 Pérez, Lance Electrical and Computer Engineering
 Psota, Eric Electrical and Computer Engineering

Schnable, James **Agronomy and Horticulture/
 Center for Plant Science Innovation**

RoI: FELS: EAGER: Genetic Constraints on the Increase
 of Organismal Complexity Over Time
 \$299,801 NSF
 High-throughput, High-resolution Phenotyping of Nitrogen Use
 Efficiency Using Coupled In-plant and In-soil Sensors
 \$334,169 DOE-ARPA-E through Iowa State University
 Identifying Mechanisms Conferring Low Temperature Tolerance
 in Maize, Sorghum, and Frost-tolerant Relatives
 \$455,000 USDA-NIFA
 Roston, Rebecca Biochemistry/
 Center for Plant Science Innovation

Schubert, Mathias **Electrical and Computer Engineering**

The Influence of Doping and Annealing onto the Lattice Dynamics,
 Band Structure and Free Charge Carrier Properties in
 Monoclinic Gallium Aluminum Oxide Semiconductor Alloys
 \$430,052 NSF
 Korlacki, Rafal Electrical and Computer Engineering
 The Strain-Stress Relationships for Band Gap, Phonon and
 Plasmon Energies in Monoclinic Ga2O3 and Related Materials
 \$323,393 DoD-AFOSR

Searls, Mindi **Earth and Atmospheric Sciences/
Center for Science, Mathematics and
Computer Education**

GP-IMPACT: Building a Comprehensive
Geoscience Learning Experience

\$400,075NSF
Bathke, DeborahEarth and Atmospheric Sciences
Harwood, DavidEarth and Atmospheric Sciences

Sellmyer, David **Physics and Astronomy/
Nebraska Center for Materials and Nanoscience**

MRI: Acquisition of a Low-temperature High-magnetic-field
Multifunctional Scanning Probe Microscopy System

\$330,530NSF
Xu, XiaoshanPhysics and Astronomy/
Nebraska Center for Materials and Nanoscience

DMREF: Design and Synthesis of Novel Magnetic Materials

\$684,086NSF
Xu, XiaoshanPhysics and Astronomy

Shadwick, Bradley **Physics and Astronomy**

Generation and Control of Self-organized Nonlinear Kinetic
Structures in High-energy Density Plasmas in the Presence of
Intense Magnetic Fields and Ultrashort Laser Pulses

\$632,020DOE

High Fidelity Modeling of Laser-Plasma Accelerators

\$524,991NSF
Kalmykov, SergePhysics and Astronomy

Sharif-Kashani, Hamid **Electrical and Computer Engineering**

*CYVET: A Cyber-Physical Security Assurance Framework
Based on a Semi-Supervised Vetting Approach

\$806,529DOE-NETL through UT-Battelle LLC-Oak Ridge
Alahmad, MoeDurham School of Architectural
Engineering & Construction
Hempel, MichaelElectrical and Computer Engineering
Peng, DongmingElectrical and Computer Engineering

Shen, Zhigang **Durham School of Architectural
Engineering & Construction**

A Fast and Low-cost Method to Automate Detecting,
Locating and Mapping Internal Gas Pipeline Corrosion
Using Pig-mounted Thermal and Stereo Cameras

\$299,980DOT-PHMSA

Shield, Jeffrey **Mechanical & Materials Engineering/
Nebraska Center for Materials and Nanoscience**

Faculty Development Program in Nuclear Engineering
at University of Nebraska-Lincoln

\$450,000U.S. Nuclear Regulatory Commission
Cui, BaiMechanical & Materials Engineering

Grain and Interface Engineering for
High-efficiency Hybrid Perovskite Solar Cells

\$450,000DoD-AFOSR

Sim, Chungwook **Civil and Environmental Engineering**

*Spokes: MEDIUM: MIDWEST: Smart Big Data Pipeline for
Aging Rural Bridge Transportation Infrastructure (SMARTI)

\$476,933NSF through University of Nebraska at Omaha
Faller, RonaldMidwest Roadside Safety Facility
Linzell, DanielCivil and Environmental Engineering
Rilett, LaurenceCivil and Environmental Engineering
Sharif-Kashani, HamidElectrical and Computer Engineering
Song, ChungCivil and Environmental Engineering
Wittich, ChristineCivil and Environmental Engineering
Woldt, WayneBiological Systems Engineering
Wood, RichardCivil and Environmental Engineering
Zhu, JinyingCivil and Environmental Engineering

Sinititskii, Alexander **Chemistry**

Extended Atomically Precise Graphene Nanoribbons and
Nanostructures with Improved Electrical Conductivity

\$768,496DoD-ONR

Smith, Wendy **Mathematics/Center for Science,
Mathematics and Computer Education**

Persistence, Effectiveness and Retention Studies in STEM Teaching

\$392,264NSF
Augustyn, LindsayCenter for Science, Mathematics
and Computer Education
Funk, RachelCenter for Science, Mathematics
and Computer Education

Teacher Leadership (T-LEAD): Investigating the Persistence and
Trajectories of Noyce Master Teaching Fellows

\$701,004NSF

Student Engagement in Mathematics Through
an Institutional Network for Active Learning

\$398,904NSF
Donsig, AllanMathematics
Wakefield, NathanMathematics

NebraskaNOYCE Phase II:

Investigating the Impact in High-Need Districts

\$349,864	NSF
Lai, Yuan-Juang	Mathematics/Center for Science, Mathematics and Computer Education
Lewis, Jim	Mathematics/Center for Science, Mathematics and Computer Education
Males, Lorraine	Teaching, Learning and Teacher Education

Smyth, Jolene

Sociology/ Survey Research and Methodology

Using Statistical and Survey Methodology Research to Improve or Redesign Surveys Related to Science and Engineering	
\$460,000	USDA-NASS
Olson, Kristen	Sociology/Survey Research and Methodology

Snow, Daniel

Nebraska Water Center/ Robert B. Daugherty Water for Food Institute

Vadose Zone Nitrate Study for the City of Hastings, NE: 2015	
\$299,982	City of Hastings, NE
Ray, Chittaranjan	Nebraska Water Center/ Robert B. Daugherty Water for Food Institute

Soh, Leen-Kiat

Computer Science and Engineering

*Anticipating Social Unrest Using Integrated Model- and Data-Driven Approaches: The Impact of Socio-Demographic and Environmental Factors in Post-Colonial Nations	
\$521,451	DoD-National Geospatial Intelligence Agency through Citadel University
Hayes, Michael	Natural Resources
Samal, Ashok	Computer Science and Engineering
Werum, Regina	Sociology
Computational Creativity to Improve Computer Science Education for CS and non-CS Undergraduates	
\$873,250	NSF
Ingraham, Elizabeth	Art, Art History and Design
Moore, Brian	Music
Ramsay, Stephen	English
Shell, Duane	Educational Psychology

Spangler, Matthew

Animal Science

Beef Cattle Production System Decision Support Tools to Enable Improved Genetic, Environmental, and Economic Resource Management	
\$299,312	USDA-NIFA

Steelman, Joshua

Civil and Environmental Engineering

*MASH Testing of Single Sign Supports (Florida)	
\$750,000	DOT-FL DOT through Nebraska Department of Transportation
Bielenberg, Robert	Midwest Roadside Safety Facility
Faller, Ronald	Midwest Roadside Safety Facility
Lechtenberg, Karla	Midwest Roadside Safety Facility
Rasmussen, Jennifer	Midwest Roadside Safety Facility

Stephenson, Mitchell

Panhandle Research and Extension Center

Grazing Land Monitoring Cooperative for Adaptive Management	
\$250,000	USDA-NRCS
Volesky, Jerry	West Central Research and Extension Center

Stevens, Jeffrey

Psychology/ Center for Brain, Biology and Behavior

Similarity as a Process Model of Intertemporal Choice	
\$655,576	NSF
Soh, Leen-Kiat	Computer Science and Engineering/ Center for Brain, Biology and Behavior

Stowell, Rick

Biological Systems Engineering

Water and Nutrient Recycling: A Decision Tool and Synergistic Innovative Technology	
\$496,646	USDA-NIFA through University of Arkansas
Heemstra, Jill	Northeast Research and Extension District
Schmidt, Amy	Biological Systems Engineering

Sutter, Eli

Mechanical & Materials Engineering

In-situ Electron Microscopy of DNA-guided Self-assembly and Reconfiguration of 3D Nanocrystal Superlattices	
\$534,231	DoD-ARO
Sutter, Peter	Electrical and Computer Engineering
Hybrid Materials by Integration of Semiconductor Nanowires and Layered Crystals: Chemical Transformations and Functional Properties	
\$500,000 NSF	
Sutter, Peter	Electrical and Computer Engineering

Sutter, Peter

Electrical and Computer Engineering

*Nanowires from Layered van der Waals Crystals: Opportunities for Tuning Structure and Function in 1D-2D Hybrid Nanostructures	
\$520,000	NSF
Sutter, Eli	Mechanical & Materials Engineering

*Riemann Surfaces in Layered Van der Waals Nanowires:
Precision Twist Moires, Nanoscale Solenoids,
and Screw Dislocation Spin Orbit Coupling
\$496,037 DoD-ONR
Sutter, Eli Mechanical & Materials Engineering

Svoboda, Mark **Natural Resources**

MENAdrought Empowering and Enhancing Drought Management
Systems in the Middle East-North Africa (MENA) Region
\$362,226 USAID through
International Water Management Institute
Bathke, Deborah Natural Resources
Brozovic, Nicholas Robert B. Daugherty Water for Food Institute
Hayes, Michael Natural Resources
Jedd, Theresa Natural Resources
Knutson, Cody Natural Resources
Neale, Christopher Robert B. Daugherty Water for Food Institute

Terry, Benjamin **Mechanical & Materials Engineering**

*Fielding Proof of Concept: En Route Care Acute Respiratory Distress
System (ARDS) Mitigation Using Oxygenated Microbubbles (OMB)
\$772,639 DoD-Offutt Air Force Base-STRATCOM through
National Strategic Research Institute

*Peritoneal Oxygen Delivery for Treatment of
Acute Respiratory Distress Syndrome
\$441,472 NIH-NHLBI through University of Colorado

Development of a Gastrointestinal Tissue Attachment Mechanism
\$619,776 Progenity, Inc.

Tsymbal, Evgeny **Physics and Astronomy/
Nebraska Center for Materials and Nanoscience**

Partnership for Research and Education in Multiferroic
Polymer Nanocomposites between Tuskegee University
and University of Nebraska-Lincoln
\$627,217 NSF through Tuskegee University
Dowben, Peter Physics and Astronomy/
Nebraska Center for Materials and Nanoscience
Ducharme, Stephen Physics and Astronomy/
Nebraska Center for Materials and Nanoscience
Shield, Jeffrey Mechanical & Materials Engineering/
Nebraska Center for Materials and Nanoscience

Turner, Joseph **Mechanical & Materials Engineering**

*MRI: Acquisition of an X-Ray Computed Tomography System at
the University of Nebraska-Lincoln for Advancing Multidisciplinary
Research and Education in the Great Plains Region
\$562,803 NSF
Lu, Yongfeng Electrical and Computer Engineering
Rao, Prahalada Mechanical & Materials Engineering
Shield, Jeffrey Mechanical & Materials Engineering
Zhu, Jinying Civil and Environmental Engineering

*Integrated Analysis of the Cell Biological, Biomechanical, and
Physiological Dynamics of Stomatal Guard Cells in Plants
\$301,395 NSF

*STTR: Ultrasonic Method to Quantify Ablative Material Liners
\$300,000 DoD-NAVSEA through Intelligent Automation, Inc.

PCC-3: Non-Destructive Testing (NDT) Microstructural
Response Characterization and Impact
\$500,000 DoD-Air Force Research Lab through
Rolls Royce Corporation

An Integrated Experimental and Computational Approach
to Discover Biomechanical Mechanisms
of Leaf Epidermal Morphogenesis
\$385,927 NSF

Twidwell, Dirac Jr. **Agronomy and Horticulture**

*Enhancing Livestock Production from Rangelands in the Great Plains
\$745,202 USDA-NIFA through
Texas A & M Univ-Texas AgriLife
Keshwani, Jenny Biological Systems Engineering

Juniper Invasions and Landscape Intervention Potential:
A Statewide Assessment
\$967,451 DOI-FWS through
Nebraska Game and Parks Commission
Allen, Craig Natural Resources

Umstadter, Donald Physics and Astronomy

*Controlled Release of Energy from
Nuclear Isomers by Laser-Driven X-Rays
\$486,275 DoD-ARO
Banerjee, Sudeep Physics and Astronomy
Golovin, Grigory Physics and Astronomy

Ultra-low Emittance Electron Beams
from Laser-Plasma Photo-cathodes
\$374,844 NSF
Banerjee, Sudeep Physics and Astronomy
Chen, Shouyuan Physics and Astronomy

Van Den Broeke, Matthew Earth and Atmospheric Sciences

Aeroecology as a Test-Bed for Interdisciplinary STEM Training
\$391,463 NSF through University of Oklahoma

van Dijk, Karin Biochemistry

Engaging the Next Generation of Biochemists
\$599,096 NSF
Couch, Brian Biological Sciences
Helikar, Tomas Biochemistry
Roston, Rebecca Biochemistry

Vu, Hiep Animal Science/Nebraska Center for Virology

*Development of a Broadly Protective Vaccine
Against Swine Influenza Virus
\$500,000 USDA-NIFA

Development of a Broadly Protective Diva Marker Vaccine
against Porcine Reproductive and Respiratory Syndrome Virus
\$489,934 USDA-NIFA
Osorio, Fernando Veterinary Medicine and Biomedical Sciences/
Nebraska Center for Virology

Determine the Correlates of Protection against Porcine Reproductive
and Respiratory Syndrome Viruses Infection
\$477,635 USDA-NIFA
Ma, Fangrui Center for Biotechnology/
Nebraska Center for Virology
Osorio, Fernando Veterinary Medicine and Biomedical Sciences/
Nebraska Center for Virology

Vuran, Can Computer Science and Engineering

NeTS: Small: Connected Barriers: Vehicle-to-barrier Communication
and Networking for Single-vehicle Crash Safety Facility
\$319,513 NSF
Faller, Ronald Midwest Roadside Safety Facility
Stolle, Cody Midwest Roadside Safety Facility

SpecEES: CoSeC-RAN: Cognitive Secure Cloud RAN
for Efficient Spectrum Sharing
\$435,399 NSF
Batur, Demet. Supply Chain Management and Analytics
Ryan, Jennifer Supply Chain Management and Analytics
Yan, Qiben Computer Science and Engineering

NeTS: Small: 2G for UG: High Data-rate and Long-range
Communication Techniques for Wireless Underground Networks
\$450,000 NSF
Irmak, Suat Biological Systems Engineering

Wagner, William Biological Sciences

The Consistency of Behavioral Plasticity
Across Different Selective Contexts
\$512,998 NSF

Walia, Harkamal Agronomy and Horticulture

UNL-VBC Collaboration: Using Plant Phenomics
to Capture Dynamic Growth Responses in Maize
\$521,500 Valent USA

ABI Innovation: A Computational Framework for Integrating Image
Informatics with Transcriptomics for Discovering Spatiotemporally
Resolved Regulatory Gene Networks in Plants
\$563,801 NSF
Yu, Hongfeng Computer Science and Engineering
Zhang, Chi Biological Sciences
Zhang, Qi Statistics

Walker, Judy Mathematics/Center for Science, Mathematics and Computer Education

NSF INCLUDES: WATCH US –
Women Achieving Through Community Hubs in the United States
\$299,024 NSF

Walker, Mark Mathematics

Free Resolutions, K-Theory and dg-Categories
\$257,571 NSF

Walters, Cory **Agricultural Economics**
 *Northern Plains Regional Farm Business
 Management and Benchmarking Partnership
 \$398,255 USDA-NIFA
 Banerjee, Simanti Agricultural Economics

Wang, Jian **Mechanical & Materials Engineering**
 Bridging Microscale to Macroscale Mechanical Property
 Measurements and Predication of Performance Limitation
 for FeCrAl Alloys under Extreme Reactor Applications
 \$799,270 DOE

Computational and Experimental Characterization
 of Twin-Twin Interactions in Hexagonal Metals
 \$388,037 NSF

Plasticity of High-strength Multiphase Metallic Composites
 \$341,116 DOE through University of Michigan

Wang, Lily **Durham School of Architectural
 Engineering & Construction**
 Evidence-Based Interactions Between Indoor Environmental Factors
 and Their Effects on K-12 Student Achievement
 \$998,433 EPA
 Bovaird, James Educational Psychology
 Lau, Josephine Durham School of Architectural
 Engineering & Construction
 Waters, Clarence Durham School of Architectural
 Engineering & Construction

Wang, Yingying **Special Education and Communication Disorders/
 Center for Brain, Biology and Behavior/
 Nebraska Center for Research on
 Children, Youth, Families and Schools**
 *Neural Predictors of Speech Perception Outcomes
 in Adults with Cochlear Implants
 \$460,356 NIH-NIDCD
 Hughes, Michelle Special Education and
 Communication Disorders/
 Center for Brain, Biology and Behavior/
 Nebraska Center for Research on
 Children, Youth, Families and Schools

Weller, Curtis **Food Science and Technology**
 Enhancing Low-moisture Food Safety by Improving Development
 and Implementation of Pasteurization Technologies
 \$943,617 USDA-NIFA through Michigan State University

White, Brett **Animal Science**
 Role of GnRH-II and Its Receptor in Testicular Function of Swine
 \$480,000 USDA-NIFA

Wilson, Mark **Biochemistry**
 *Engineering Enzymes for New Stereoselective and Stereodynamic
 Processes: An Integrated Chemistry -Bioengineering- X-Ray
 Crystallography Molecular Dynamics Approach
 \$603,881 NSF
 Berkowitz, David Chemistry
 Niu, Wei Chemical and Biomolecular Engineering

Wilson, Richard **Plant Pathology**
 Molecular Mechanisms Integrating Fungal Growth
 with Plant Innate Immunity Suppression
 \$599,999 NSF
 IOS: Molecular Mechanisms Connecting Plant Defense Suppression
 with *Magnaporthe oryzae* Growth in Rice Cells
 \$570,000 NSF

Witt-Swanson, Lindsey **Sociology/
 Bureau of Sociological Research**
 Behavioral Risk Factor Surveillance Survey and Adult Tobacco Survey
 \$780,240 DHHS-CDC through
 Nebraska Department of Health and Human Services
 Gohring, Nicole Bureau of Sociological Research
 2018-2019 Student Health
 and Risk Prevention Surveillance System
 \$281,322 DHHS-CDC through
 Nebraska Department of Health and Human Services

Wolf, Marilyn **Computer Science and Engineering**
 *SHF: Small: System-Level Design
 of Attack-Resistant Safety-Critical Systems
 \$343,061 NSF

Wood, Charles **Biological Sciences/Biochemistry/
 Nebraska Center for Virology**
 Comparative Virology Research Training Program
 \$843,579 NIH-NIAID
 Van Etten, James Plant Pathology

Wortman, Samuel **Agronomy and Horticulture**
Leveraging Management to Speed Degradation
of Bio-based Mulches in Soil
\$499,718 USDA-NIFA
Drijber, Rhae Agronomy and Horticulture

Wragge, Annette **Special Education and
Communication Disorders**
Nebraska Autism Spectrum Disorders Network,
State Coordinator Project
\$357,995 ED through Nebraska Department of Education

Wu-Smart, Judy **Entomology**
Great Plains Regional Training for Beginning Beekeeping Farmers
\$393,332 USDA-NIFA

Xiang, Shi-Hua **Veterinary Medicine and Biomedical Sciences/
Nebraska Center for Virology**
Mucosal Delivery and Retention of
Ebola Inhibitor Scytovirin Using *Lactobacillus*
\$452,514 NIH-NIAID

Xu, Changmou **Food Science and Technology**
Improving Aronia Berry Sustainability and Fruit Quality
\$461,983 USDA-AMS through
Nebraska Department of Agriculture
Xu, Zheng Statistics
Zhang, Yue Food Science and Technology

Xu, Lisong **Computer Science and Engineering**
NeTS: Small: Exploring the Design Space of Bandwidth
Estimation Methods Using Packet Sequence Information
\$498,878 NSF
NeTS: Small: Systematically and Scalably Testing
Network Programs under Packet Dynamics
\$499,810 NSF

Xu, Xiaoshan **Physics and Astronomy/
Nebraska Center for Materials and Nanoscience**
*Non-Volatile Active Control of Spin Transport
Using Interfaces with Molecular Ferroelectrics
\$750,000 DOE

Microstructure and Strain Effects on Ferroelectric
and Transport Properties of HfO₂-based Thin Films
\$519,740 NSF
Gruverman, Alexei Physics and Astronomy/
Nebraska Center for Materials and Nanoscience
Tsymbal, Evgeny Physics and Astronomy/
Nebraska Center for Materials and Nanoscience

Yan, Qiben **Computer Science and Engineering**
SaTC: CORE: Small: URadio: Towards Secure Smart Home
IoT Communication Using Hybrid Ultrasonic-RF Radio
\$499,999 NSF
Zhou, Qin Mechanical & Materials Engineering

Yang, Jinliang **Agronomy and Horticulture**
Rescuing the Fixed Deleterious Alleles for Genome-Enabled
Micronutrients Improvement in Maize
\$500,000 USDA-NIFA
Waters, Brian Agronomy and Horticulture

Yang, Ruiguo **Mechanical & Materials Engineering**
Cell-Cell Adhesion Mechanics and Mechanotransduction
at the Single Cell Level
\$439,584 NSF
Lim, Jung Yul Mechanical & Materials Engineering

Yang, Yiqi **Textiles, Merchandising and Fashion Design/
Biological Systems Engineering**
*Protein Fibers from Chicken Feathers for Textile Applications
via Engineered Pilot-Scale Production
\$464,434 USDA-NIFA

Yates, Dustin **Animal Science**
*Abatement of Inflammation as a Means
to Combat Heat Stress in Finishing Livestock
\$500,000 USDA-NIFA
Petersen, Jessica Animal Science
Schmidt, Ty Animal Science

Recovering Performance and Quality
in IUGR-born Low-birthweight Livestock
\$500,000 USDA-NIFA
Petersen, Jessica Animal Science

Yoder, Aaron	Biological Systems Engineering
Nebraska AgrAbility	
\$540,000	USDA-NIFA
Frecks, Nancy	West Central Research and Extension Center
Harris-Broomfield, Susan	West Central Research and Extension Center
Riley, Mark	Biological Systems Engineering
Yu, Bin	Biological Sciences/Center for Plant Science Innovation
Understand the Functional Mechanism of the DSP1 Complex in the 3' Maturation of Plant Small Nuclear RNAs	
\$682,608	NSF
Zhang, Chi	Biological Sciences/Center for Plant Science Innovation
Yu, Hongfeng	Computer Science and Engineering
EarthCube IA: Optimal Data Layout for Scalable Geophysical Analysis in a Data-Intensive Environment	
\$332,941	NSF
CGV: Small: A Scalable Visual Analytics Framework for Exascale Scientific Simulations	
\$405,378	NSF
Yuen, Gary	Plant Pathology
Genetics and Genomics of Pathogen Resistance in Switchgrass	
\$297,152	USDA-ARS through DOE
Yuill, David	Durham School of Architectural Engineering & Construction
A Field Study to Characterize Fault Prevalence in Residential Comfort Systems	
\$749,792	DOE
Zempleni, Janos	Nutrition and Health Sciences/Nebraska Center for the Prevention of Obesity Diseases through Dietary Molecules
*Milk Exosome-Driven Evolution of Antibiotic-Resistant Gut Pathogens	
\$500,000	USDA-NIFA
Auchtung, Jennifer	Food Science and Technology/Nebraska Center for the Prevention of Obesity Diseases through Dietary Molecules
*Development of an Exosome and Cargo Tracking Mouse	
\$408,375	DHHS-NIH

Nutritive Value and Potential Health Benefits of LOL-Exosomes	
\$257,886	Purina Mills
Adamec, Jiri	Biochemistry/Nebraska Center for the Prevention of Obesity Diseases through Dietary Molecules
Cui, Juan	Computer Science and Engineering/Nebraska Center for the Prevention of Obesity Diseases through Dietary Molecules
Zeng, Lirong	Plant Pathology
Role of Organelle-localized Lys63-linked Ubiquitination in Plant Immunity	
\$685,000	NSF
Zeng, Xiao	Chemistry
Exploration of Low-Dimensional Gas Clathrate Hydrates	
\$256,188	NSF
Cheung, Chin Li (Barry)	Chemistry
Zhu, Jinying	Civil and Environmental Engineering
Online Monitoring System for Concrete Structures Affected by Alkali-Silica Reaction (ASR)	
\$800,000	DOE
Zink, Robert	Natural Resources/Biological Sciences/University of Nebraska State Museum
*Genetic Structure and Function of Nebraska Wildlife	
\$257,421	Nebraska Game and Parks Commission
Zuhlke, Craig	Electrical and Computer Engineering
*Femtosecond Streak Camera for Studying the Role of Laser-Induced Plasmas in Ultrafast Light-Matter Interactions	
\$385,240	DoD-ONR-DURIP
Alexander, Dennis	Electrical and Computer Engineering
Argyropoulos, Christos	Electrical and Computer Engineering
Gogos, George	Mechanical & Materials Engineering
Ianno, Natale	Electrical and Computer Engineering
Shield, Jeffrey	Mechanical & Materials Engineering
Fundamental Studies on Functionalizing Metallic Surfaces using Femtosecond Lasers with Applications to Enhanced Heat Transfer; Novel Power	
\$811,826	DoD-ONR
Alexander, Dennis	Electrical and Computer Engineering
Gogos, George	Mechanical & Materials Engineering
Ianno, Natale	Electrical and Computer Engineering
Shield, Jeffrey	Mechanical & Materials Engineering

Early Career Awards

Active awards, July 1, 2019–June 30, 2020

* Indicates new in 2019–2020

NSF CAREER Grants

National Science Foundation CAREER grants are awarded only to untenured junior faculty. These grants recognize research and education “of the highest quality and in the broadest sense.” CAREER grants are unique in requiring a four- to five-year plan for the scientist’s development as both a researcher and an educator.



Alexandrov, Vitali

Chemical and Biomolecular Engineering
*CAREER: Advancing Mechanistic Understanding
of Nanocrystal Dissolution in Aqueous
Environments
\$520,244NSF



Dishari, Shudipto

Chemical and Biomolecular Engineering
CAREER: Confined Ionometric Systems
and Imaging of Ionic Distribution
\$591,000NSF



Duncan, Brittany

Computer Science and Engineering
CAREER: Drones in Public:
Foundational Interaction Research
\$549,951NSF



Guo, Jiantao

Chemistry
CAREER: Quadruplet Codon Decoding:
Mechanistic Studies and Application in
Cellular Genetic Code Expansion
\$634,205NSF



Li, Xu

Civil and Environmental Engineering
CAREER: Effects of Nutrients on
Antimicrobial Resistance and Subsistence
\$400,000NSF



Libault, Marc

Agronomy and Horticulture/Center for Plant
Science Innovation
CAREER: Exploring the Transcriptional Regulatory
Networks Controlling the Early Stages of Legume
Nodulation
\$573,573NSF



Louis, Joe

Entomology
CAREER: Deciphering Sorghum Resistance
Mechanisms to Phloem-Feeding Aphids
\$1,513,415NSF



Males, Lorraine

Teaching, Learning and Teacher Education
CAREER: Examining Prospective Secondary
Mathematics Teachers Learning to Use Curriculum
Materials to Plan and Enact Instruction
\$628,995NSF



Morin, Stephen

Chemistry/Nebraska Center for
Materials and Nanoscience
CAREER: Morphological Control of Crystalline
Materials Using Deformations of Elastomeric
Substrates and Fluid Flow for the Bottom-up
Fabrication of Hybrid Materials
\$649,474NSF



Neta, Mital

Psychology
CAREER: Functional Brain Networks
Mediating Positivity Bias in Healthy Aging
\$756,711NSF

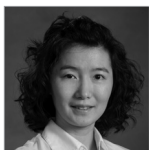


Obata, Toshihiro

Biochemistry/Center for Plant Science Innovation
CAREER: Establishing the Roles of Multi-Enzyme
Complexes in Metabolic Network Regulation
\$746,955NSF

**Pedrigi, Ryan**

Mechanical & Materials Engineering
 *CAREER: Characterizing the Mechanobiological
 Response of Endothelial Cells to Ultrasound
 \$543,020NSF

**Qu, Liyan**

Electrical and Computer Engineering
 CAREER: Adjustable-Voltage-Ratio
 Magnetoelectric Transformer: A New Voltage
 Conversion and Control Device for Smart Grids
 \$500,000NSF

**Rao, Prahalada**

Mechanical & Materials Engineering
 CAREER: Smart Additive Manufacturing
 \$649,731NSF

**Roston, Rebecca**

Biochemistry/Center for Plant Science Innovation
 CAREER: How SFR2 Allows Chloroplast Envelope
 Membranes to Survive Freezing, from Initial Signal
 to Molecular Mechanism
 \$846,076.00NSF

**Saha, Rajib**

Chemical and Biomolecular Engineering
 *CAREER: Dissecting a Metabolically Versatile
 Non-Model Bacterium's Lignin-Derived Compound
 Catabolism
 \$747,855NSF

**Sealy, Michael**

Mechanical & Materials Engineering
 CAREER: Hierarchical Structure Integrity of
 Magnesium Alloys via Asynchronous Laser and
 Additive Processing
 \$500,000NSF

**Shizuka, Dai**

Biological Sciences
 CAREER: Structure and Resilience of
 Social Networks under Population Turnover
 \$681,870NSF

**Sinitskii, Alexander**

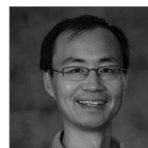
Chemistry
 CAREER: Narrow Graphene Nanoribbons with
 Tunable Electronic Properties
 \$538,477NSF

**Wachs, Rebecca**

Biological Systems Engineering
 CAREER: Alternative Non-Opioid Therapies for
 Low Back Pain
 \$510,389NSF

**Wei, Sheng**

Computer Science and Engineering
 CAREER: Towards the Security of
 Heterogeneous CPU-FPGA Systems
 \$496,940NSF

**Xu, Xiaoshan**

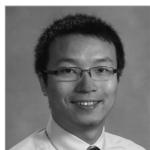
Physics and Astronomy
 CAREER: Hexagonal Ferrite Thin Films for the High-
 Temperature Magnetoelectric Memory Effect
 \$591,256NSF

**Yin, Yanbin**

Nebraska Food for Health Center
 CAREER: Evolutionary Genomics of Enzymes for
 Complex Carbohydrate Metabolism
 \$353,179NSF

**Yu, Hongfeng**

Computer Science and Engineering
 CAREER: Scalable Techniques for Visualizing
 Very Large Graphs
 \$476,951NSF

**Zhang, Jian**

Chemistry
 CAREER: Tuning Photoredox Properties of
 Carbazolic Porous Organic Frameworks for
 Visible-Light-Mediated Catalysis
 \$527,154NSF

**Zhang, Limei**

Biochemistry/Nebraska Center for Redox Biology/
 Nebraska Center for Integrated Biomolecular
 Communication
 CAREER: Structural and Mechanistic Studies on an
 Iron-Sulfur Cluster-based Nitric Oxide Sensor
 \$600,000NSF

Department of Energy Early Career Research Program

DOE's Early Career Research Program supports the development of individual research programs of outstanding scientists early in their careers and stimulates research careers in the disciplines supported by the DOE Office of Science.

**Dishari, Shudipto**

Chemical and Biomolecular Engineering
 *EARLY CAREER: Porin Inspired Ionomers with Sub-
 NM Gated Ion Channels for High Ion Conductivity
 and Selectivity
 \$750,000DOE

**Kovalev, Alexey**

Physics and Astronomy
 Non-Collinear Magnetism and Dynamic Effects
 in Dzyaloshinskii-Moriya Magnets
 \$750,000DOE

Office of Naval Research Young Investigator Program

The Office of Naval Research Young Investigator Program supports academic scientists and engineers who are in their first or second full-time tenure-track academic appointment and who show exceptional promise for doing creative research.

**Argyropoulos, Christos**

Electrical and Computer Engineering
 YIP: Theoretically Modeling the High Thermal
 Emission/Formation Dynamics of Femtosecond
 Laser Functionalized Surfaces to Optimize Surfaces
 \$749,910DoD-ONR

Arts and Humanities Awards \$250,000 or More

Active awards, July 1, 2019–June 30, 2020

* Indicates new in 2019–2020

Cohen, Matt

English/Center for Digital Research in the Humanities

*Walt Whitman Archive Infrastructure Revitalization

\$349,856 NEH
6/1/20 – 5/31/23

Barney, Brett University Libraries/Center for Digital
Research in the Humanities
Dalziel, Karin Center for Digital Research in the Humanities
Price, Kenneth English/Center for Digital
Research in the Humanities



With a nearly \$350,000 grant from the National Endowment for the Humanities, Matt Cohen, professor of English, and Kenneth Price, Hillegass University Professor of American literature, are rebuilding the Walt Whitman Archive website, implementing a modern framework and repackaging site content for easier reuse. The long-term goal is

to enhance the archive's accessibility and sustainability by making it easier for users to search and organize materials on the site, which, at nearly 25 years old, is the leading resource for Walt Whitman scholars. The team is improving the website's digital architecture by changing the programming framework; developing a machine-readable interface for the website's code, images and metadata; revising files to improve the metadata; and strengthening existing metadata through a new search engine. The archive is published by the Center for Digital Research in the Humanities.

Charles Chesnutt: A Digital Archive

\$292,627 NEH
5/1/19 – 4/30/21
Price, Kenneth English/Center for Digital
Research in the Humanities

Through a grant from the National Endowment for the Humanities, the existing Charles Chesnutt Digital Archive will be redesigned, and more works by the African-American author will be added. The project, a collaboration between Nebraska and The New School in New York City, is directed at Nebraska by Matt Cohen, professor of English, and Kenneth Price, Hillegass University Professor of American literature and co-director of CDRH. The project is edited by Stephanie Browner of The New School. Chesnutt is a major figure in American literary studies and was a profound thinker about race and justice in the United States. He wrote six book-length works, more than 80 stories, and many essays and speeches during his career.

Jacobs, Margaret

History/Center for Digital Research in the Humanities

Genoa Indian School Digital Reconciliation Project

\$349,899 NEH
6/1/19 – 5/30/22

Lorang, Elizabeth University Libraries/Center for Digital
Research in the Humanities

Genoa Indian School Digital Reconciliation Project

\$290,123 Council on Library and Information Resources
6/1/18 – 5/31/21

Lorang, Elizabeth Center for Digital Research in the Humanities



With funding from the National Endowment for the Humanities and the Council on Library and Information Resources, Margaret Jacobs, professor of history and director of the Women's and Gender Studies program, and Elizabeth Lorang, associate professor of University Libraries, are compiling, digitizing and making accessible records and other

materials from the Genoa Indian Industrial School in Nebraska, one of more than 150 boarding schools designed to assimilate indigenous American people into Euro-American culture near the end of the 19th century. They are working closely with Nancy Carlson and the Genoa U.S. Indian School Foundation in Genoa. The university's Center for Digital Research in the Humanities hosts the Genoa Indian School Digital Reconciliation Project. In order to move the project forward with sensitivity and respect, Jacobs and Lorang are working with an advisory council that includes representatives from the Ponca, Pawnee, Omaha and Winnebago nations and UNITE, the university's Native American student group.

Jagodinsky, Katrina

History/Center for Digital Research in the Humanities

*Petitioning for Freedom:
Habeas Corpus and Liberty in the American West
\$460,410 NSF
6/1/20 – 5/31/23



With a grant from the National Science Foundation, historian Katrina Jagodinsky is exploring how various marginalized groups – immigrants, women, and indigenous and enslaved people, for example – used habeas corpus, a longstanding legal principle enabling prisoners to challenge the legality of their detentions, to claim freedom and establish their rights between 1812 and 1924. In collaboration with the Center for Digital Research in the Humanities, Jagodinsky, the Susan J. Rosowski Associate Professor of History, is developing a first-of-its-kind digital database archiving roughly 6,000 previously unpublished habeas petitions, which will be searchable by demographic

Jewell, Andrew Center for Digital Research in the Humanities
Complete Letters of Willa Cather: Stage 2

\$278,000 NEH
1/1/19 – 12/31/21
Homestead, Melissa English/Center for Digital Research in the Humanities



The National Endowment for the Humanities is supporting the work of Andrew Jewell, professor of University Libraries in the Center for Digital Research in the Humanities, to digitally publish the complete correspondence of Willa Cather on the open-access Willa Cather Archive (cather.unl.edu). Publication on the archive will allow interoperation of the edition with other Cather documents (photographs, texts, published scholarship and archival materials) and wide accessibility as data for humanities scholars doing various kinds of research. When finished, *The Complete Letters of Willa Cather* will bring unprecedented access to the revealing personal voice of one of the most important figures in American literary history and will dramatically expand the body of Cather materials available to scholars, teachers, students and general readers.

Kooser, Ted

English

American Life in Poetry Project
\$575,739 Poetry Foundation
1/1/05 – 12/31/20



The Poetry Foundation, in partnership with the Library of Congress, supports the American Life in Poetry Project, an initiative of Ted Kooser, the 2004-2006 Poet Laureate Consultant in Poetry to the Library of Congress. American Life in Poetry is a free weekly column for newspapers and online publications featuring a poem written by a contemporary American poet, chosen by Kooser, with a brief introduction written by Kooser. The sole mission of this project is to promote poetry. The Poetry Foundation funds the project, with administrative support provided by the English department, where the project office is located.

Lorang, Elizabeth Center for Digital Research in the Humanities
Extending Image Analysis for Archival Discovery (Aida)

\$462,317 IMLS
12/1/16 – 11/30/20
Soh, Leen-Kiat Computer Science and Engineering



The Image Analysis for Archival Discovery (Aida) research team investigates the use of image analysis to identify, describe and retrieve information from digital libraries and other digitized collections. Using machine learning, Elizabeth Lorang, associate professor of University Libraries, and colleagues in the Center for Digital Research in the Humanities are building an intelligent computational system that can recognize visual cues in digital images and identify similar content in new images. Digital images created by libraries, archives, museums and other groups represent a largely underutilized digitized cultural record – particularly digital images of textual materials. One goal of the project is to develop a new digital collection using the extracted content.

Price, Kenneth

English/Center for Digital Research in the Humanities

Unearthing the “Buried Masterpiece” of American Literature:
A Digital Variorum of the 1855 *Leaves of Grass*
\$300,000 NEH
7/1/17 – 6/30/20



Kenneth Price, Hillegass University Professor of American literature and co-director of the Center for Digital Research in the Humanities, directs the Walt Whitman Archive, a digital archive that makes Whitman’s vast work easily and conveniently accessible to scholars, students, and general readers alike. With support from the National Endowment for the

Humanities, the first edition of *Leaves of Grass*, along with the constellation of draft documents that contributed to it, has been developed into a digital variorum from manuscript and notebook beginnings through its many variations in print. The goal of the project is to advance understanding of this paradigm-shifting book and to enable future scholarship by drawing on some of the opportunities for representation unique to digital editing.

Shear, Donna

University of Nebraska Press

Recovering Languages and Literacies of the Americas:
A Collaborative Initiative
\$781,900 Andrew W. Mellon Foundation
1/3/11 – 12/31/21



This \$781,900 grant from the Andrew W. Mellon Foundation gives the University of Nebraska Press, along with the University of Oklahoma Press and the University of Texas Press, resources to help linguistic scholars publish indigenous language grammars and dictionaries, literacy studies, ethnographies and other linguistic monographs. Twenty-seven

books – nine from each press – will be published on the grammar and literacy of endangered languages. The initiative also aims to generate broader interest in linguistic monographs and to find more efficient, cost-effective ways to produce monographs. These publications are important resources for academics in the fields of linguistics, indigenous studies and social sciences, and to communities wishing to preserve their language and culture, said Donna Shear, University of Nebraska Press director, who is leading this collaboration.

Walter, Katherine

University Libraries/Center for Digital Research in the Humanities

National Digital Newspaper Program: Nebraska
\$981,012 NEH
9/1/07 – 12/31/20
Mering, Margaret University Libraries



The Nebraska Digital Newspaper Project selects, digitizes and provides access to historically significant Nebraska newspapers, as well as ethnic titles, representing geographic, political, and social breadth. These titles will be accessible through Chronicling America at the Library of Congress and through Nebraska Newspapers, our state newspaper site.

Arts and Humanities Awards \$50,000 to \$249,999

Active awards, July 1, 2019–June 30, 2020

* Indicates new in 2019–2020

Cohen, Matt English/Center for Digital Research in the Humanities

Walt Whitman's Annotations
\$125,961 NEH
Gray, Nicole English/Center for Digital Research in the Humanities

Dawes, Kwame English

African Poetry Digital Project
\$150,000 Ford Foundation
Dawes, Lorna University Libraries

Eckstrom, Mikal Brotnov Center for Great Plains Studies

*Staking Their Claim: Great Plains Black Homesteaders
\$75,000 NEH
Edwards, Richard Center for Great Plains Studies

Edwards, Richard Center for Great Plains Studies

African American Homesteaders Historic Resource Study
\$198,986 DOI-NPS

Hoff, Michael Art, Art History and Design

Antiochia ad Cragum Excavations: 2019 Season
\$90,045 Merops Foundation

Homestead, Melissa English

The Creative Partnership of Willa Cather and Edith Lewis
\$50,400 NEH

Jockers, Matthew English/Center for Digital Research in the Humanities

Text Mining the Novel:
Establishing the Foundations of a New Discipline
\$88,233 Government of Canada-SSHRC through McGill University

Jones, Jeannette Institute for Ethnic Studies/History/Center for Digital Research in the Humanities

To Enter Africa from America:
The United States, Africa and the New Imperialism, 1862-1919
\$216,106 NEH

Krehbiel, Michelle Extension

Library Innovation Studios: Transforming Rural Communities
\$236,771 IMLS through Nebraska Library Commission
Barker, Bradley Extension
Farritor, Shane Mechanical & Materials Engineering

Price, Kenneth English/Center for Digital Research in the Humanities

Fame and Infamy: Walt Whitman's Old-Age Correspondence
\$59,561 National Historical Publications and Records Commission through University of Iowa
McMullen, Kevin English/Center for Digital Research in the Humanities

Richards-Rissetto, Heather Anthropology/Center for Digital Research in the Humanities

*Revitalizing and Enhancing the Open Source
3D WebGIS of the MayaArch3D Project
\$50,000 NEH
Dalziel, Karin Center for Digital Research in the Humanities
Tunink, Greg Center for Digital Research in the Humanities

Thomas, William History/Center for Digital Research in the Humanities

*The Bell Affair: A Film Reframing American Slavery and Freedom
\$200,000 NEH
Burton, Michael Textiles, Merchandising and Fashion Design/
Center for Digital Research in the Humanities
Dreher, Kwakiutl English/Institute for Ethnic Studies/
Center for Digital Research in the Humanities

Walter, Katherine Center for Digital Research in the Humanities

From Prairie to Palace: Buffalo Bill's Wild West in Europe
\$52,711 NEH through Buffalo Bill Center of the West

Arts and Humanities Awards \$5,000 to \$49,999

Active awards, July 1, 2019–June 30, 2020

* Indicates new in 2019–2020

Aguilar, Dee **Education and Human Sciences**
*Celebrating the 19th Amendment:
Women's Rights Here and Abroad
\$7,750 Humanities Nebraska

DeLaPort, Dijon **Center for Great Plains Studies**
*Climate Change and Culture in the Great Plains
\$5,800 Humanities Nebraska

Eckstrom, Mikal Brotnov **Center for Great Plains Studies**
*400 Years of African American History:
Black Homesteading in the Great Plains
\$20,000 National Alliance of Faith and Justice

Engen-Wedin, Nancy **Lied Center for Performing Arts**
*LPS Arts for ALL
\$25,000 Woods Charitable Fund
*Inclusion through Movement:
Bill T. Jones and Nebraska's Global Community
\$15,000 NEA

*Lincoln Youth Symphony Learning with St. Louis Symphony Orchestra
\$5,000 NEA through Mid-America Arts Alliance

Jacobs, Margaret **History**
*Return of the Pawnees
\$9,698 Humanities Nebraska

Jones, Patrick **History**
The Classroom and the Future of the Historical Record: Humanities
Education in a Changing Climate for Knowledge Production
\$41,906 Andrew W. Mellon Foundation through
University of Illinois
Johnson, Aaron Teaching, Learning and Teacher Education
Thomas, William History

Nicholas, Claire **Textiles, Merchandising and Fashion Design**
Crafting Culture in the Middle of Everywhere: An Arts-Based
Project on Intercultural Empathy Building and Entrepreneurship
\$9,561 Pearle Francis Finigan Foundation
Kim, Surin Textiles, Merchandising and Fashion Design

Ramsay, Stephen **English/Center for Digital Research in the Humanities**
*Digital Notation Across the Movement-Based Arts
\$15,800 NEH
Pytlík Zillig, Brian Center for Digital Research in the Humanities

Riehle, Catherine **University Libraries**
*Academic Librarian Curriculum Developers: Building Capacity to
Integrate Information Literacy Across the University (ALCD)
\$33,480 Institute of Museum and Library Services through
Purdue University

Shank, Nancy **Public Policy Center**
Lincoln Reads Aloud: A Collective Impact Model
\$15,666 Institute of Museum and Library Services through
Lincoln Community Foundation

Shear, Donna **University of Nebraska Press**
Early American Regions
\$30,100 University of Georgia

Thomas, William **History/Center for Digital Research in the Humanities**
*The Bell Affair: A Film Reframing American Slavery and Freedom
\$8,399 Maryland Humanities
Burton, Michael Textiles, Merchandising and Fashion Design/
Center for Digital Research in the Humanities
Dreher, Kwakiutl Institute for Ethnic Studies/
Center for Digital Research in the Humanities

Yang, Shuling **Teaching, Learning and Teacher Education**
Coaching Preschool Teachers to Ask
Higher-Level Questions in Dialogic Reading
\$5,000 International Literacy Association

Zeleny, Michael **Chancellor's Office**
*NE 150 to N 150
\$15,000 Humanities Nebraska
Jewell, Andrew Center for Digital Research in the Humanities
Lauerman, Meg Chancellor's Office
Walter, Katherine University Libraries



Pioneering Partnerships for Innovation

NUtech Ventures' mission is to facilitate the commercialization and practical use of innovations generated through the research activities at the University of Nebraska-Lincoln. We do this by identifying, evaluating, protecting, marketing and licensing the university's intellectual property to promote economic development and improve the quality of life.

Patents Issued in 2019-2020

Recognition for faculty and other university personnel
who received patents for their inventions
July 1, 2019–June 30, 2020

Thomas E. Clemente, Aleel K. Grennan, Donald Ort, Stephen Patrick Moose, Damla D. Bilgin, Fredy Altpeter, Stephen P. Long

Agronomy and Horticulture

Title: Plants Having Increased Biomass and Methods for Making the Same

Date: 3/3/2020

Number: 10577617

Country: United States

Stephen G. DiMagno, Bao Hu

Chemistry

Title: Radioiodinated Compounds

Date: 8/2/2019

Number: 6563401

Country: Japan

Date: 9/19/2019

Number: 2015237282

Country: Australia

Concetta C. DiRusso, Nishikant Wase

Biochemistry

Title: Compounds for Increasing Lipid Synthesis and Storage

Date: 7/16/2019

Number: 10351883

Country: United States

Peter A. Dowben, Xia Hong, Jonathan P. Bird, Christian Binek, Dmitri E. Nikonov, Kang L. Wang

Physics and Astronomy

Title: Magneto-Electric Logic Devices Using Semiconductor Channel with Large Spin-Orbit Coupling

Date: 7/23/2019

Number: 10361292

Country: United States

Patrick H. Dussault, Wantanee Sittiwong, Robert Powers, Raul Barletta

Chemistry, Veterinary Medicine and Biomedical Sciences

Title: Amphiphilic Cyclobutenes and Cyclobutanes

Date: 1/21/2020

Number: 10538475

Country: United States

Shane M. Farritor, Thomas Frederick, Joe Bartels

Mechanical & Materials Engineering

Title: Methods, Systems and Devices Relating to Surgical End Effectors

Date: 7/16/2019

Number: 10350000

Country: United States

Shane M. Farritor, Amy Catherine Lehman, Mark Rentschler, Nathan Wood, Jason James Dumpert, Dmitry Oleynikov

Mechanical & Materials Engineering

Title: Multifunctional Operational Component for Robotic Devices

Date: 8/13/2019

Number: 10376323

Country: United States

**Shane M. Farritor, Thomas Frederick, Joe Bartels,
Jack Mondry, Eric Markvicka**

Mechanical & Materials Engineering

Title: Methods, Systems, and Devices Related to Robotic Surgical Devices, End Effectors and Controllers

Date: 3/31/2020

Number: 10603121

Country: United States

**Shane M. Farritor, Jason James Dumpert, Yutaka Tsutano,
Erik Mumm, Philip Chu, Nishant Kumar**

Mechanical & Materials Engineering, Computer Science

Title: Robotic Devices with On-Board Control and Related Systems and Devices

Date: 4/21/2020

Number: 10624704

Country: United States

**Thomas Frederick, Shane M. Farritor, Eric Markvicka,
Dmitry Oleynikov**

Mechanical & Materials Engineering

Title: Robotic Device with Compact Joint Design and Related Systems and Methods

Date: 8/13/2019

Number: 10376322

Country: United States

Ming Han, Matthew Reinke

Electrical and Computer Engineering

Title: Fiber Optic Bolometer

Date: 7/23/2019

Number: 10359316

Country: United States

Ming Han, Weilin Hou, Guigen Liu, Qiwen Sheng

Electrical and Computer Engineering

Title: Fiber-Optic Temperature and Flow Sensor System and Methods

Date: 12/31/2019

Number: 10520355

Country: United States

Edward N. Harris, Jian Liu, Robert J. Linhardt, Yongmei Xu

Biochemistry

Title: Reversible Heparin Molecules and Methods of Making and Using the Same

Date: 3/3/2020

Number: 6670235

Country: Japan

Mark Alan Helle, Chin Li “Barry” Cheung

Chemistry

Title: Methods of Making and Using Lignin Derivatives

Date: 1/14/2020

Number: 10533031

Country: United States

Jinsong Huang, Yanjun Fang

Mechanical & Materials Engineering

Title: Narrow Band Perovskite Single Crystal Photodetectors with Tunable Spectral Response

Date: 4/14/2020

Number: 10622161

Country: United States

Jinsong Huang, Liang Shen, Fawen Guo

Mechanical & Materials Engineering

Title: Narrowband Nanocomposite Photodetector

Date: 5/12/2020

Number: 10651409

Country: United States

Jinsong Huang, Baodong Mao, Christopher L. Exstrom

Mechanical & Materials Engineering, Chemistry (UNK)

Title: Iron Pyrite Nanocrystals

Date: 6/9/2020

Number: 10680125

Country: United States

Sally Mackenzie, Roberto De la Rosa Santamaria

Agronomy and Horticulture, Center for Plant Science Innovation

Title: Plants with Useful Traits and Related Methods

Date: 7/9/2019

Number: 10344340

Country: United States

Date: 4/7/2020

Number: BR1120130283068

Country: Brazil

Sally Mackenzie, Kamaldeep S. Virdi

Agronomy and Horticulture, Center for Plant Science Innovation

Title: Methods and Compositions for Obtaining Useful Plant Traits

Date: 7/30/2019

Number: 10364438

Country: United States

**Eric Markvicka, Thomas Frederick, Shane M. Farritor,
Jack Mondry, Joe Bartels**

Mechanical & Materials Engineering

Title: Local Control Robotic Surgical Devices and Related Methods

Date: 11/12/2019

Number: 10470828

Country: United States

**Dimitrios Miserlis, Suzanne Higgins, Abby Kelly,
Max Hopkins Twedt, Kim Cluff**

Biological Systems Engineering

Title: System and Method for Monitoring Pleural Fluid

Date: 10/29/2019

Number: 10456063

Country: United States

George Morcous, Raed Tawadrous

Architectural Engineering, Construction Management

Title: Mechanical Connection for Concrete Structures

Date: 12/17/2019

Number: 10508434

Country: United States

Nicole Buan Murphy, Karrie A. Weber, Jared T. Aldridge, Sean R. Carr

Biochemistry, Biological Sciences

Title: Production of Isoprene by Methane-Producing Archaea

Date: 1/14/2020

Number: 10533192

Country: United States

**Carl A. Nelson, Dmitry Oleynikov, Benjamin S. Terry, Hossein
Dehghani, Prithviraj (Raj) Dasgupta, Abolfazl (Sina) Pourghodrat**

Mechanical & Materials Engineering

Title: Disposable Fluidic Self-Propelling Robot for Traversing a Tubular Passage

Date: 9/24/2019

Number: 10420916

Country: United States

**Carl A. Nelson, Judith M. Burnfield, Peter Shu,
Thad Buster, Adam Taylor**

Mechanical & Materials Engineering

Title: ICARE: Intelligently Controlled Assistive Rehabilitation Elliptical Machine

Date: 1/14/2020

Number: BR112012008610

Country: Brazil

Benjamin J. Pavlik, Paul Blum, Kevin Van Cott

Chemical and Biomolecular Engineering, Biological Sciences

Title: Engineered Clostridium Botulinum Toxin Adapted to Deliver Molecules into Selected Cells

Date: 4/28/2020

Number: 10633643

Country: United States

Wei Qiao, Xiang Gong

Electrical and Computer Engineering

Title: Detecting Faults in Turbine Generators

Date: 7/23/2019

Number: 10359473

Country: United States

Date: 3/17/2020

Number: 10591519

Country: United States

Wei Qiao, Yue Zhao, Long Wu,

Electrical and Computer Engineering

Title: Drive Systems Including Sliding Mode Observers and Methods of Controlling the Same

Date: 7/24/2019

Number: GB2512001

Country: United Kingdom

Date: 7/30/2019

Number: GB2512002

Country: United Kingdom

Wei Qiao, Liyan Qu, Fa Chen

Electrical and Computer Engineering

Title: Scalable Universal Space Vector Pulse Width Modulation Scheme for Multilevel Inverters

Date: 2/25/2020

Number: 10574154

Country: United States

Mark Rentschler, Shane M. Farritor

Mechanical & Materials Engineering

Title: Medical Inflation, Attachment and Delivery Devices and Related Methods

Date: 7/2/2019

Number: 10335024

Country: United States

Patricia Jane Sollars, Ekaterina Heldwein,

Gregory Allan Smith, Gary Edward Pickard

Veterinary Medicine and Biomedical Sciences

Title: Non-Neuroinvasive Viruses and Uses Thereof

Date: 5/12/2020

Number: 10647964

Country: United States

Chao Tai, Deepak Keshwani

Biological Systems Engineering

Title: System for Optimizing Fed-Batch Hydrolysis of Biomass

Date: 12/10/2019

Number: 10501766

Country: United States

Christopher Y. Tuan, Lim Nguyen

Civil and Environmental Engineering,

Electrical and Computer Engineering

Title: Systems and Methods for Construction of Electrically Conductive Concrete Slab with Protection from Current Leakage

Date: 8/20/2019

Number: 10385519

Country: United States

2019-2020 License Agreements

Recognition for faculty whose technologies formed the basis of licensing agreements with industry partners
July 1, 2019–June 30, 2020

David Andrews

Agronomy and Horticulture

Technology: Food Colorant

Atorod Azizinamini

Civil and Environmental Engineering

Technology: Short Span Bridge Construction

P. Stephen Baenziger, Mitchell Montgomery, Greg Dorn

Agronomy and Horticulture

Technology: Barley

Steven Barlow, Chunxiao Liao

Special Education and Communication Disorders, Computer Science and Engineering

Technology: NICU Software

Robert Bielenberg, Ronald Faller, Scott K. Rosenbaugh, Jennifer D. Rasmussen (Schmidt)

Midwest Roadside Safety Facility

Technology: Barrier System

Paul Black, James Allen, Timothy Nicodemus

Biochemistry

Technology: Ground Water Remediation

Paul Blum

Biological Sciences

Technology: Cellulosic Biomass Technology

Stephen DiMagno, Haorun Sun, Bao Hu

Chemistry

Technology: Radiopharmaceutical Method and Agents

Concetta DiRusso, Nishikant Wase

Nutrition and Health Sciences, Biochemistry

Technology: Lipid Synthesis and Storage

Concetta DiRusso, Paul Black, Angel Sandoval-Alvarez

Nutrition and Health Sciences, Biochemistry

Technology: Fatty Acid Uptake

Achim Dobermann, Tri Setiyono, James Specht, Kenneth Cassman, Albert Weiss

Agronomy and Horticulture, College of Agricultural Sciences and Natural Resources

Technology: SoySim Software

George Graef

Agronomy and Horticulture

Technology: Soybean Varieties

Technology: Soybean

Technology: Soybean

Technology: Soybean

Technology: Soybean

George Graef, Leslie Korte, Orlando Zapata, Rebecca Ott, Shawn Jenkins, Tyler Frederick, Aaron Hoagland

Agronomy and Horticulture

Technology: Soybean

Technology: Soybean

David Hage

Chemistry

Technology: Covid-19 Antibody Technology

Jinsong Huang

Mechanical & Materials Engineering

Technology: Solar Panel Technology

Technology: Solar Cell Technology

Robert Hutkins

Food Science and Technology

Technology: Prebiotics

Sibel Irmak

Biological Systems Engineering

Technology: Edible Bale Wrap

Yongfeng Lu, Leimin Deng, Chenfei Zhand, Shiding Sun, Lei Liu

Electrical and Computer Engineering

Technology: Laser Technology

Lim Nguyen

Electrical and Computer Engineering

Technology: Conductive Concrete

Carlos Urrea

Panhandle Research and Extension Center

Technology: Garbanzo Bean

Technology: “Coyne” Great Northern Bean

Hiep Vu

Veterinary Medicine and Biomedical Sciences

Technology: Pig Vaccine

Yiqi Yang, Narendra Reddy

Textiles, Merchandising and Fashion Design

Technology: Fabric Manufacturing

Technology: Fabric Manufacturing

Creative Activity

Faculty who created, performed or produced works in the fine and performing arts and architecture, television and film, or digital/software design, nationally or internationally
July 1, 2019–June 30, 2020

Submitted by faculty, chairs/heads or deans

Byron J. Anway

Art, Art History and Design

Artist. Painting and drawing exhibition. “Gatherings.” Viterbo University Gallery, Lacrosse, Wisconsin.

Diane Barger

Glenn Korff School of Music

Artist. Clarinet, CD recording. “Play Pretty.” Amicitia Duo, published by Potenza Music, Anniston, Alabama.

Performer. Clarinet. “Etudes Concertantes by Alexis Ciesla for E-flat and B-flat clarinets.” Amicitia Duo featured recital, International Clarinet Association ClarinetFest®, Knoxville, Tennessee.

Paul Barnes

Glenn Korff School of Music

Artist. Piano. “Piano Quintet ‘Annunciation’ by Philip Glass; ‘Pendulum’ for Piano and Violin by Philip Glass.” World premiere recording with Brooklyn Rider; produced by Orange Mountain Music, Oktaven Audio, Mt. Vernon, New York.

Christopher Bilder

Statistics

App developer, with McMahan, C., and Tebbs, J. “A Shiny App for Pooled Testing.” (From April 12 to the end of June, this app, which helps laboratories increase their testing capacity for SARS-CoV-2, the virus that leads to COVID-19, had been used in at least 69 countries and 41 states in the U.S.)

App developer, with Hitt, B., Schaarschmidt, F., Biggerstaff, B., McMahan, C., and Tebbs, J. “binGroup2: Identification and estimation for group testing.” R package version 1.0.

Dana Fritz

Art, Art History and Design

Artist. Photography exhibition. Work from “Terraria Gigantica.” Terraria Gigantica: The World under Glass, Bradley University, Peoria, Illinois.

Artist. Photography exhibition. “Exterior Maintenance, Eden Project.” Over the Structures, CICA Museum, Gyeonggi-do, South Korea.

Marques L.A. Garrett

Glenn Korff School of Music

Conductor. Group choir performance. Montana Men’s Vocal Festival, University of Montana, Bozeman, Montana.

Conductor. Group choir performance. Georgia Music Educators Association District IV Honor Chorus, Avondale Estates, Georgia.

Composer. Choir performance. “Sing Out, My Soul.” Eastern Region American Choral Directors Association Junior High Honor Choir, Rochester, New York.

Nathan Koch

Glenn Korff School of Music

Performer. Bassoon solo performance. “The Music of Henri Busser.” The University of South Florida, Tampa, Florida.

Katie Kremarik

Advertising

Artist. Installation. “A Space of Their Own: A Monument to Women in Design.” Goodall Gallery, Columbia, South Carolina.

Tom Larson

Glenn Korff School of Music

Composer. Documentary feature film. “The Art of Dissent.” Co-production between Czech TV in Prague and NUtech Ventures at UNL. Debuts at Middlebury New Filmmakers Festival, Middlebury, Vermont, and Newburyport Documentary Film Festival, Newburyport, Massachusetts.

James D. Le Sueur

History

Director. Documentary feature film. “The Art of Dissent.” Co-production between Czech TV in Prague and NUtech Ventures at UNL. Debuts at Middlebury New Filmmakers Festival, Middlebury, Vermont, and Newburyport Documentary Film Festival, Newburyport, Massachusetts.

Christopher Marks

Glenn Korff School of Music

Performer. Organ, CD recording. “Two American Organ Symphonies, One American Classic Organ.” Produced by the Roy Perry American Classic Organ Foundation in conjunction with the Leo Sowerby Foundation. Recorded at St. Mark’s Cathedral, Shreveport, Louisiana.

Bernard R. McCoy

Broadcast Journalism

Director. Television broadcast. “Nebraska Stories: D-Day And The Oldfield Effect.” Nebraska Educational Telecommunications, Lincoln, Nebraska.

Francisco Souto**Art, Art History and Design**

Artist. Drawing exhibition. "Diaspora." Kiechel Fine Arts, Lincoln, Nebraska.

Artist. Drawing exhibition. "State of the Art 2020: Discovering American Art Now." Crystal Bridges Museum of American Art, Lincoln, Nebraska.

Hendrik Viljoen**Chemical Engineering**

Designer. Philisa thermal cyclor. In partnership with Streck, Omaha, Nebraska.

Yujia Wang**Landscape Architecture**

Designer. "Portal: An Exploration of Mind-Reality-Space." 2019 Bi-City Biennale of Urbanism/Architecture, Shenzhen Museum of Contemporary Arts, Shenzhen, China.

Tyler G. White**Glenn Korff School of Music**

Composer. "The Gambler's Son: An Opera." World premiere, Kimball Recital Hall, Lincoln, Nebraska; Cozad High School, Cozad, Nebraska.

Sandra Williams**Art, Art History and Design**

Artist. Cut paper exhibition. International artist residency, the Studios of Key West, Key West, Florida.

Artist. Cut paper exhibition. Artist residency, Arquetopia, Puebla, Mexico.

Artist. Cut paper exhibition. Anthropocene Blues, the Museum of Nebraska Art, Kearney, Nebraska.

Published Books

Faculty who wrote or edited books published July 1, 2019–June 30, 2020

UNL co-authors/editors (identified by those who submitted items for inclusion) designated in red
Submitted by faculty, chairs/heads or deans

John R. Bender Journalism/Broadcasting

Author, with Lucinda Davenport and Michael Drager. *Writing & Reporting for the Media*. New York, NY: Oxford University Press.

Author. *Law for Media Professionals*. Dubuque, IA: Great River Learning.

Christopher A. Bohn Computer Science and Engineering

Author. *Programming at the Hardware/Software Interface*. Dubuque, IA: Great River Learning.

Tim Borstelmann History

Author. *Just Like Us: The American Struggle to Understand Foreigners*. New York, NY: Columbia University Press.

Sruti Das Choudhury Natural Resources/ Computer Science and Engineering

Editor, with Ashok Samal. *Intelligent Image Analysis for Plant Phenotyping*. Boca Raton, FL: CRC Press, Taylor and Francis Group.

Matt Cohen English

Editor. *The New Walt Whitman Studies*. New York, NY: Cambridge University Press.

Rochelle L. Dalla Child, Youth and Family Studies

Editor, with Donna Sabella. *Routledge International Handbook of Human Trafficking: A Multi-Disciplinary and Applied Approach*. New York, NY: Routledge/Taylor & Francis.

Judy Diamond University Libraries/ University of Nebraska State Museum

Author, with Alan B. Bond. *Thinking Like a Parrot: Perspectives from the Wild*. Chicago, IL: University of Chicago Press.

Editor, with Hooley McLaughlin. *Science Museums in Transition: Unheard Voices*. Oxford, UK: Routledge.

William Grange Johnny Carson School of Theatre and Film

Author. *The Business of American Theatre*. Oxford, UK: Routledge.

Chris Harding Thornton English

Author. *Pickard County Atlas*. New York, NY: MCD/Farrar, Straus & Giroux.

Wendy J. Katz Art, Art History and Design

Author. *Humbig: The Politics of Art Criticism in New York's Penny Press*. New York, NY: Fordham University Press.

Kenneth A. Kiewra Educational Psychology

Author. *SOAR to College Success and Beyond*. San Diego, CA: Cognella.

Suping Lu University Libraries

Editor. *A Dark Page in History: The Nanjing Massacre and Post-Massacre Social Conditions Recorded in British Diplomatic Dispatches, Admiralty Documents, and U.S. Naval Intelligence Reports (updated edition)*. Lanham, MD: Hamilton Books.

Kate Lyons Biological Sciences

Editor, with Anna K. Behrensmeyer and Peter J. Wagner. *Foundations of Paleocology*. Chicago, IL: University of Chicago Press.

Maria B. Marron Journalism

Editor. *Misogyny and Media in the Age of Trump*. Lanham, MD: Lexington Books.

David L. Olson Supply Chain Management and Analytics

Author, with Desheng Wu. *Enterprise Risk Management Models, 3rd edition*. Berlin, Germany: Springer.

Author, with Desheng Wu. *Predictive Data Mining Models, 2nd edition*. Berlin, Germany: Springer.

Author. *Core Concepts in Project Management*. New York, NY: Business Expert Press.

Author. *Quantitative Tools of Project Management*. New York, NY: Business Expert Press.

Kristen Olson Sociology

Editor, with Jolene D. Smyth, Jennifer Dykema, Allyson L. Holbrook, Frauke Kreuter and Brady T. West. *Interviewer Effects from a Total Survey Error Perspective*. Boca Raton, FL: Chapman and Hall/CRC Press.

Larkin A. Powell **Natural Resources**
Author. *Great Plains Birds*. Lincoln, NE: University of Nebraska Press.
Author. *Principles for Management of Fisheries and Wildlife: The Manager as Decision-maker*. San Diego, CA: Cognella.

Guy Reynolds **English/Cather Project**
General Editor. *Cather Studies, Volume 12: Willa Cather and the Arts*. Lincoln, NE: University of Nebraska Press.

Luis Othoniel Rosa **Modern Languages and Literatures/
Center for Ethnic Studies**
Author. *Comienzos Para Una Estética Anarquista: Borges con Macedonio, 2nd edition*. Buenos Aires, Argentina: Editorial Corregidor.
Author. *Down with Gargamel!* Translated by Noel Black. USA: Argos Books.

Rachael Shah **English**
Author. *Rewriting Partnerships: Community Perspectives on Community-Based Learning*. Louisville, CO: University Press of Colorado.

Susan M. Sheridan **Nebraska Center for Research on
Children, Youth, Families and Schools/
Educational Psychology**
Editor, with McWayne, C.M., and Doucet, F. *Understanding Ethnocultural Diversity and the Home-To-School Link (Vol. 4)*. New York, NY: Springer.

Daniel D. Snow **Nebraska Water Center/Natural Resources**
Editor, with Ryo Honda and Manish Kumar. *Emerging Issues in the Water Environment During Anthropocene: A South East Asian Perspective*. Singapore: Springer.
Editor, with Manish Kumar, Ryo Honda and Santanu Mukherjee. *Contaminants in Drinking and Wastewater Sources*. Singapore: Springer.

Jordan Soliz **Communication Studies**
Editor, with Colleen Warner Colaner. *Navigating Relationships in the Modern Family: Communication, Identity, and Difference*. New York, NY: Peter Lang.

Shari J. Stenberg **English/Women's and Gender Studies**
Editor, with Charlotte Hogg. *Persuasive Acts: Women's Rhetorics in the Twenty-first Century*. Pittsburgh, PA: University of Pittsburgh Press.

Roland Végső **English**
Author. *Worldlessness After Heidegger: Phenomenology, Psychoanalysis, Deconstruction*. Edinburgh, Scotland: Edinburgh University Press.
Editor, with Zoltán Kulcsár-Szabó, Tamás Lénárt and Attila Simon. *Life After Literature: Perspectives on Biopoetics in Literature and Theory*. Cham, Switzerland: Springer.

Robert H. Woody **Glenn Korff School of Music**
Author. *Becoming a Real Musician: Inspiration and Guidance for Teachers and Parents of Musical Kids*. Lanham, MD: Rowman & Littlefield.

Recognitions and Honors

Faculty who have been elected to honor academies or who have received national or international honors or awards

July 1, 2019–June 30, 2020

Submitted by faculty, chairs/heads or deans

Donald Cox **Electrical and Computer Engineering**
National Academy of Sciences

Raymond Hames **Anthropology**
National Academy of Sciences

James Van Etten **Plant Pathology**
National Academy of Sciences

Katherine Ankerson **Architecture**
Educator of the Year, International Interior Design Association
Fellow, International Interior Design Association

Christos Argyropoulos **Electrical and Computer Engineering**
HOT Article Collection, *Nanoscale*
Article featured in Spotlight on Optics, Optical Society of America

Wayne Babchuk **Educational Psychology**
2020 McGraw Hill Distinguished Scholar Award, Ethnographic and Qualitative Research Conference

Andrew Benson **Food Science and Technology**
Fellow, American Academy of Microbiology

Robert W. Bielenberg **Midwest Roadside Safety Facility**
Best Paper Award, Transportation Research Board AFB20 Committee

Christopher Bilder **Statistics**
Statistical Significance Poster Award, Scientific and Public Affairs
Advisory Committee for the American Statistical Association

Paul Black **Biochemistry**
Award for Exemplary Contributions to Education, American Society for Biochemistry and Molecular Biology

Erin Blankenship **Statistics**
Best Contributed Presentation Award, American Statistical Association Section on Teaching Statistics in the Health Sciences

Jocelyn Bosley **Materials Research Science and Engineering Center**
IF/THEN Ambassador, American Association for the Advancement of Science

Dawn O. Braithwaite **Communication Studies**
B. Aubrey Fisher Article of the Year Award, *Western Journal of Communication* (with Bergquist, G., Soliz, J., Everhart, K., and Kreimer, L.), Western States Communication Association
Inaugural Award for Communication Administrator Excellence, Association for Communication Administration

Eve Brank **Center on Children, Families and the Law/ Psychology**
Fellow, American Psychological Association

Amy Nelson Burnett **History**
John Simon Guggenheim Fellowship, John Simon Guggenheim Memorial Foundation
Solmsen Fellowship, Institute for Research in the Humanities, University of Wisconsin-Madison

Edgar Cahoon **Biochemistry**
Fellow, American Association for the Advancement of Science

Chris Calkins **Animal Science**
Meat Industry Hall of Fame – 2019 Class, Meat Industry Hall of Fame Board of Trustees

Jennine Capó Crucet **English/Ethnic Studies**
Longlisted for the PEN/Open Book Award for *My Time Among the Whites*

Bertrand Clarke **Statistics**
Top Ten Most Downloaded Papers (with Amiri, S. and Clarke, J.) Since 1992, *Journal of Computational and Graphical Statistics*

Thomas Clemente **Agronomy and Horticulture**
Fellow, American Association for the Advancement of Science

Brian Couch **Biological Sciences**
Four-Year College and University Research in Biology Education
Award, National Association of Biology Teachers

Cody Creech **Panhandle Research and Extension Center**
Early Career Award, Crop Science Society of America

Maria de Guzman **Child, Youth and Family Studies**
Ursula Gielen Global Psychology Award, American Psychological
Association

Dipti A. Dev **Child, Youth and Family Studies**
Early Childhood Child Care Training Award, National Extension
Association for Family and Consumer Sciences

Judy Diamond **University Libraries/
University of Nebraska State Museum**
Outstanding Administrative Support Award, National Science
Education Leadership Association

Kate Engel **Nebraska Innovation Campus**
Rising Star Award, Association of University Research Parks

Ronald K. Faller **Civil and Environmental Engineering/
Midwest Roadside Safety Facility**
Best Paper Award, Transportation Research Board AFB20 Committee
Kenneth A. Stonex Roadside Safety Award, Transportation Research
Board

Christopher R. Fielding **Earth and Atmospheric Sciences**
International Distinguished Lecturer, International Association
of Sedimentologists

Jean Ann Fischer **Nutrition and Health Sciences**
Excellence in Expanded Food and Nutrition Education Program,
National Institutes of Food and Agriculture

Lisa Franzen-Castle **Nutrition and Health Sciences**
Early Professional Achievement Award, Society for Nutrition
Education and Behavior

Sherilyn Fritz **Earth and Atmospheric Sciences/
Biological Sciences**
Fellow, Geological Society of America

Marc Garcia **Sociology/Institute for Ethnic Studies**
Emerging Scholar in Interdisciplinary Aging Research to Address
Health Disparities in Alzheimer's Disease and Related Dementias,
National Institute on Aging
Butler-Williams Scholars Program, National Institute on Aging
Program Scholar, New Connections: Increasing Diversity, Robert
Wood Johnson Foundation

Keith Glewen **Eastern Nebraska Research and Extension Center**
Digital Communications Award (with **Steve Melvin**, **Nathan Mueller**,
Tyler Williams, **Ashley Mueller** and **Ron Seymour**), American Society of
Agronomy Education Community

Patricio Grassini **Agronomy and Horticulture**
Highly Cited Researcher of 2019, Web of Science Group

Mark Griep **Chemistry**
Champion of History Award, History Nebraska

Jason Griffiths **Architecture**
Design-Build Award, Association of Collegiate Schools of Architecture

Edmund 'Ted' Hamann **Teaching, Learning and Teacher Education**
Fellow, American Educational Research Association
Fulbright Garcia-Robles U.S. Scholar Award, Fulbright Program
David G. Imig Distinguished Service Award, Carnegie Project on the
Education Doctorate

Bob Harveson **Panhandle Research and Extension Center**
Distinguished Service Award, American Phytopathological Society,
North Central Division

Cody Hollist **Child, Youth and Family Studies**
Fulbright Scholar Award, Brazil, Council for International Exchange of
Scholars

Soo-Young Hong **Child, Youth and Family Studies**
2020 Faculty Excellence Award, Great Plains Interactive Distance
Education Alliance

Terry J. Housh **Nutrition and Health Sciences**
Lifetime Achievement Award, National Strength and Conditioning Association

Nicholas Husbye **Teaching, Learning, and Teacher Education**
Elizabeth G. Sturtevant Exemplary Article Award, Association of Literacy Educators and Researchers

Suat Irmak **Biological Systems Engineering**
Standard Development Award, American Society of Agricultural and Biological Engineers
Award of Excellence for Extension Education Materials In Extension Education Community, American Society of Agronomy
Education and Public Service Award, Universities Council on Water Resources

Amit Jhala **Agronomy and Horticulture/Extension**
Early Career Outstanding Extension Leadership Award, Nebraska's Alpha Upsilon Chapter of Epsilon Sigma Phi

Sherri Jones **Education and Human Sciences**
Honors of the Association, American Speech-Language-Hearing Association

Jennifer Johnson Jorgensen **Textiles, Merchandising and Fashion Design**
Influential article of 2019, American Academy of Advertising Journals

Casey Kelly **Communication Studies**
Outstanding Article of the Year Award, National Communication Association Visual Communication Division

Deepak Keshwani **Biological Systems Engineering**
A.W. Farrell Young Educator Award, American Society of Agricultural and Biological Engineers

Kenneth Kiewra **Educational Psychology**
Chess Educator of the Year, University of Texas at Dallas Chess Program

Lydiah Kiramba **Teaching, Learning and Teacher Education**
Carlos J. Vallejo Memorial Award for Emerging Scholarship, American Educational Research Association

Paul Kononoff **Animal Science**
Applied Dairy Nutrition Award, American Dairy Science Association

Marjorie Kostelnik **Child, Youth and Family Studies**
Distinguished Achievement in Agriculture, Gamma Sigma Delta

Natalie A. Koziol **Nebraska Center for Research on Children, Youth, Families and Schools**
Gayle G. Arnold Award for the Best Scientific Paper (with Regina Harbourne, **James A. Bovaird**, **Susan Sheridan** et al.), American Academy for Cerebral Palsy and Developmental Medicine

Alok Kumar **Marketing**
Top 50 Most Productive Authors (2014-2019), American Marketing Association

Brian Larkins **Emeritus Associate Vice Chancellor for Life Sciences/ Agronomy and Horticulture**
Charles Reid Barnes Life Membership Award, American Society of Plant Biologists

Richard Leiter **Schmid Law Library**
Frederick Charles Hicks Award for Outstanding Contributions to Academic Law Librarianship, American Association of Law Libraries Special Interest Section

Joe Louis **Entomology**
Early Career Innovation Award, Entomological Society of America
Scientist to Watch, *The Scientist* magazine

John Dustin Loy **Veterinary Medicine and Biomedical Sciences**
Award for Excellence in Diagnostic Microbiology, American Association of Veterinary Laboratory Diagnosticians

Joe D. Luck **Biological Systems Engineering**
Superior Paper Award, American Society of Agricultural and Biological Engineers

Kurt Mantonya **Eastern Nebraska Research and Extension Center**
Innovative Program Award (with **Jenny Nixon**), Community Development Society

Greg McKee **Agricultural Economics**
Distinguished Extension/Outreach Program Award, Agricultural and Applied Economics Association

Justin McMechan **Entomology**
Abbey-Young Alumni Award, University of Minnesota-Crookston
New Investigator Award, FMC Corporation

Amanda Morales **Teaching, Learning and Teacher Education**
Early Career Scholar Award, American Educational Research Association's Latina/o/x Research Issues Special Interest Group

Rodney Moxley **Veterinary Medicine and Biomedical Sciences**
Award for Best JVDI Manuscript (with **David Steffen**), American Association of Veterinary Laboratory Diagnosticians

Elizabeth Niehaus **Educational Administration**
Fellowship, University of California National Center for Free Speech and Civic Engagement

Kristen Olson **Sociology**
Editor-in-Chief (survey methodology side), *Journal of Survey Statistics and Methodology*

Kendra L. Ordia **Interior Design**
Ones to Watch Award Scholar, American Society of Interior Designers

Morgan E. Palmer **Classics and Religious Studies/
Women's and Gender Studies**
Residency for the Study of Classical Antiquity, Vandœuvre, Switzerland, The Hardt Foundation for the Study of Classical Antiquity

Lance C. Pérez **Electrical and Computer Engineering**
Distinguished Member Award, Education Society of the Institute of Electrical and Electronics Engineers

Kevin Pope **Natural Resources**
Award of Excellence, Fisheries Management Section, American Fisheries Society

Larkin A. Powell **Natural Resources**
Excellence in Wildlife Education Award, The Wildlife Society

Shelia Purdum **Animal Science**
American Egg Board Research Award, Poultry Science Association
Award for Excellence in Multistate Research, Northeastern Regional Association of State Agricultural Experiment Station Directors

Wei Qiao **Electrical and Computer Engineering**
Fellow, Institute of Electrical and Electronics Engineers

Jennifer D. Rasmussen **Civil and Environmental Engineering/
Midwest Roadside Safety Facility**
Best Paper Award, Transportation Research Board AFB20 Committee

Brett Ratcliffe **University of Nebraska State Museum**
J.O. Westwood Medal for Excellence in Insect Taxonomy, Royal Entomological Society of the United Kingdom

Laurence R. Rilett **Civil and Environmental Engineering/
Nebraska Transportation Center**
Arthur M. Wellington Prize for Best Transportation Paper in an ASCE Journal, American Society of Civil Engineering
Best Paper Award (with Ernest Tufuor), Transportation Research Board Committee on Highway Capacity and Quality of Service
Workforce Development and Technology Transfer Leadership Award (accepted by Dr. Rilett on behalf of all the MATC staff, faculty and students from UNL and consortium partners), Council of University Transportation Centers

Scott K. Rosenbaugh **Midwest Roadside Safety Facility**
Best Paper Award, Transportation Research Board AFB20 Committee

James C. Schnable **Agronomy and Horticulture/
Center for Plant Science Innovation**
Outstanding Scientific Article (Asia), International Crops Research Institute for the Semi-Arid Tropics
Early Career Award, American Society of Plant Biologists
Early Career Award, North American Plant Phenotyping Network

Michael Sealy **Mechanical & Materials Engineering**
2020 Outstanding Young Manufacturing Engineer Award, Society of Manufacturing Engineers

Charles Shapiro **Agronomy and Horticulture** (*emeritus*)
Fellow, Soil Science Society of America

Susan M. Sheridan **Nebraska Center for Research on
Children, Youth, Families and Schools/
Educational Psychology**

Gayle G. Arnold Award for the Best Scientific Paper (with Regina Harbourne, **James A. Bovaird** and **Natalie A. Koziol** et al.), American Academy for Cerebral Palsy and Developmental Medicine

Jolene D. Smyth **Sociology**
John M. Kennedy Achievement Award, Association of Academic Survey Research Organizations

Francisco Souto **Art, Art History and Design**
Lorenzo il Magnifico Award for Works on Paper, Florence Biennale International Contemporary Art Exhibition

Joshua S. Steelman **Civil and Environmental Engineering/
Midwest Roadside Safety Facility**
Best Paper Award, Transportation Research Board AFB20 Committee

David Steffen **Veterinary Medicine and Biomedical Sciences**
E. P. Pope Award, American Association of Veterinary Laboratory Diagnosticians

Richard K. Sutton **Agronomy and Horticulture** (*emeritus*)
Career Research Award in Green Roof Research, Green Roofs for Healthy Cities Research Committee

Zhenghong Tang **Community and Regional Planning Program/
Natural Resources**
Chester Rapkin Award, Association of Collegiate Schools of Planning

Laura Thompson **Eastern Nebraska Research and Extension Center**
Excellent Audiovisual for Digital Ag Online Course: "Yield Data Post Processing," Agronomy Society of America Extension Education Community
Excellent Digital Communication for Nebraska On-Farm Research Website, Agronomy Society of America Extension Education Community

Isabel Velázquez **Modern Languages and Literatures**
Fulbright Scholar Award, Brazil, Council for International Exchange of Scholars

Kara Viesca **Teaching, Learning and Teacher Education**
Outstanding Leadership Certificate, American Educational Research Association's Bilingual Education Research Special Interest Group

Hope Wabuke **English**
National Library of Scotland Scholar Award, Fulbright Residency, SPACE at Ryder Farm
Fellow, Poetry Foundation's Poetry Incubator for Community Engaged Poets

Mark Walker **Mathematics**
Fellow, American Mathematical Society

Tyler G. White **Glenn Korff School of Music**
First Place, Orchestral Composition, The American Prize

Jack Whittier **Panhandle Research and Extension Center**
Fellow, American Society of Animal Science

Cynthia Willis-Esqueda **Psychology/Institute for Ethnic Studies**
Certificate of Appreciation, United States Air Force
Fellow, Society of Personality and Social Psychology, Division 8, American Psychological Association

Robert Wright **Entomology**
C.V. Riley Award, North Central Branch of the Entomological Society of America

Judy Wu-Smart **Entomology**
Patriot Award, Nebraska National Guard

Yan Xia **Child, Youth and Family Studies**
2018-2019 Fulbright Distinguished Chair in Social Sciences, China, Bureau of Educational and Cultural Affairs, U.S. State Department and Fulbright Scholarship Board

David P. Yuill

**Durham School of Architectural
Engineering & Construction**

Science and Technology for the Built Environment Best Paper Award,
American Society of Heating, Refrigerating and Air-Conditioning
Engineers

Janos Zempleni

Nutrition and Health Sciences

Osborne and Mendel Award, American Society for Nutrition

Xiao Cheng Zeng

Chemistry

Highly Cited Researcher of 2019, Web of Science Group

Ruizhi Zhang

Statistics

Pritsker Doctoral Dissertation Award, Institute of Industrial and
Systems Engineers

Publications in Scholarly Journals

Faculty who have published in peer-reviewed scholarly journals
July 1, 2019–June 30, 2020

UNL co-authors (identified by those who
submitted articles for inclusion) designated in red
Submitted by faculty, chairs/heads or deans

Mirzokhidjon Abdurakhmonov

Management

With J. Ridge, A. Ingram and D. Hasija. Market reactions to non-market strategy: Congressional testimony as an indicator of firm political influence. *Strategic Management Journal*.

Herita Akamah

Accountancy

Severance and bad news disclosures. *Journal of Accounting, Auditing and Finance*.

Arthur C. Allen

Accountancy

With Brian McAllister. How financial information is used by private foundations to make capital campaign grants. *Journal of Governmental and Nonprofit Accounting*.

Sam A. Allgood

Economics

Age discrimination and academic labor markets. *Journal of Economic Behavior and Organization*.

With Georg Schaur. 50 years of research in the Journal of Economic Ed. *The Journal of Economic Education*.

With KimMarie McGoldrick. Setting an agenda for the future. *The Journal of Economic Education*.

Katie Anania

Art, Art History and Design

Walk with me: William Anastasi's stenography of the street. *Panorama: Journal of the Association of Historians of American Art*.

John E. Anderson

Economics

Real estate ownership and life satisfaction in transition countries. *Journal of European Real Estate Research*.

With Wenjing Li and James R. Schmidt. The effect of deed taxes on real estate prices in China. *Asia-Pacific Journal of Regional Science*.

With Junpyo Park and Eric C. Thompson. Land use, crop choice, and proximity to ethanol plants. *Land*.

Trey Andrews

Psychology/Institute for Ethnic Studies

With Acosta, L.M., Acosta Cancchila, M.N., Estrada, S.E., and Ramos, A. Testing machismo and the gender role strain theory with Latino migrant farmworkers. *Hispanic Journal of Behavioral Sciences*.

With Haws, J.K., Acosta, L.M., Acosta Cancchila, M.N., et al. Combinatorial effects of discrimination, legal status fears, adverse childhood experiences, and harsh working conditions among Latino migrant farmworkers: Testing learned helplessness hypotheses. *Journal of Latinx Psychology*.

With Vásquez, D., Ponte, L., et al. Más allá de las barreras: Competency and practice considerations in language, cultural, and social issues when delivering group CPT to Hispanic immigrants. *International Journal of Group Psychotherapy*.

With López, C.M., Snyder, A., et al. Polyvictimization, related symptoms, and familial and neighborhood contexts as longitudinal mediators of racial/ethnic disparities in violence exposure across adolescence. *Journal of Immigrant and Minority Health*.

Troy D. Anderson

Entomology

With J.R. Williams and D.R. Swale. Comparative effects of technical and formulated chlorantraniliprole to survivorship and locomotor activity of the honey bee (*Apis mellifera* L.). *Pest Management Science*.

Özgür Araz

Supply Chain Management and Analytics

Community supported agriculture: Systems thinking in action. *American Journal of Public Health*.

With N.A. Ramirez and J.W. Fowler. Decision assessment algorithms for location and capacity optimization under resource shortages. *Decision Sciences*.

With Tsan-Ming Choi, David Olson and Sibel Salman. Role of analytics for operational risk management in the era of big data. *Decision Sciences*.

With Tsan-Ming Choi, David Olson and Sibel Salman. Data analytics for operational risk management. *Decision Sciences*.

With Adrian Ramirez-Nafaratte, Megan Jehn and Fernando Wilson. The importance of widespread testing for COVID-19 pandemic: Systems thinking for drive-through testing sites. *Health Systems*.

With M. Yardim, H. Ozcebe and S. Uner. Alarming prevalence of childhood obesity and related parental factors across three socioeconomic strata in Ankara, Turkey. *Eastern Mediterranean Health Journal*.

With L. Frerichs, L. Calancie and T.T.K. Huang. Dynamic empirically-based model for understanding future trends in U.S. obesity prevalence in the context of social influences. *Obesity*.

With S. Haley, S. Li, M. Yardim and S. Uner. Perceptions of obesity prevention policies: Socioeconomic assessment in the Turkish capital. *Journal of Pediatric Nursing*.

With D. Olson and N.A Ramirez. Predictive analytics for hospital admissions from the emergency department using triage information. *International Journal of Production Economics*.

With L. Baccaglini, M. Beachy and M. Ash. Predictive factors associated with in-hospital mortality for patients across the sepsis spectrum. *Infectious Diseases in Clinical Practice*.

Christos Argyropoulos **Electrical and Computer Engineering**

With B. Jin. Self-Induced passive nonreciprocal transmission by nonlinear bifacial dielectric metasurfaces. *Physical Review Applied*.

With D.S. Khatri, Y. Li et al. Plasmonic random laser on an optical fiber tip. *Optics Express*.

With B. Jin. Nonreciprocal transmission in nonlinear PT-symmetric metamaterials using Epsilon-near-zero media doped with defects. *Advanced Optical Materials*.

With T. Guo. Tunable and broadband coherent perfect absorption by ultrathin black phosphorus metasurfaces. *Journal of the Optical Society of America*.

With Y. Li and A. Nemilentsau. Resonance energy transfer and quantum entanglement mediated by Epsilon-near-zero and other plasmonic waveguide systems. *Nanoscale*.

With N. Charchi, Y. Li et al. Small mode volume plasmoci film-coupled nanostar resonators. *Nanoscale Advances*.

Jena Asgarpoor **Master of Engineering Management Program**

An integrated platform of active learning techniques in a supply chain management program. *Proceedings of the American Society for Engineering Education*.

Asynchronous course design 101. *Proceedings of the American Society for Engineering Management International Annual Conference*.

With **Majid Nabavi**, Julia Cronin-Gilmore and Diana Maguire. Building a woman's brand through serving on nonprofit boards. *Journal of Brand Strategy*.

With Yuting Chen, **Shannon Bartelt-Hunt** et al. Managing dual academic careers. *Proceedings of the American Society for Engineering Education*.

Steven M. Barlow **Special Education and Communication Disorders/ Biological Systems Engineering/ Center for Brain, Biology and Behavior**

With Shinying Chu, Jaehoon Lee and Jingyan Wang. Effects of utterance rate and length on the spatiotemporal index in Parkinson's disease. *International Journal of Speech-Language Pathology*.

With Rebecca Custead, Jaehoon Lee et al. Wireless sensing of lower lip and thumb-index finger 'ramp-and-hold' isometric force dynamics in a small cohort of unilateral MCA stroke. *Sensors*.

Matthew A. Barlow **Management**

With J. Cameron Verhaal and Ryan W. Angus. Optimal distinctiveness, strategic categorization, and product market entry on the Google Play app platform. *Strategic Management Journal*.

Demet Batur **Supply Chain Management and Analytics**

With F. Choobineh. Selecting the best alternative based on its quantile. *INFORMS Journal on Computing*.

With Jennifer Ryan, Z. Zhao and M.C. Vuran. Dynamic pricing for wireless internet based on changing capacity and usage. *Manufacturing and Service Operations Management*.

Stephen Behrendt **English**

This is not an improvisation: Letitia Landon and the slipperiness of taxonomy. *The European Legacy: Toward New Paradigms*.

Andreia Bianchini **Food Science and Technology**

With K.C. Massarolo, C.F.J. Ferreira et al. Resistant starch and hydrothermal treatment of cornmeal: Factors in aflatoxins and fumonisin B1 reduction and bioaccessibility. *Food Control*.

With E. Valverde-Bogantes, **J. Herr** et al. Recent population changes of *fusarium* head blight pathogens: Drivers and implications. *Canadian Journal of Plant Pathology*.

Nathan Bicak **Interior Design**

Affordable access: The economic impacts of makerspaces. *Magazine on Urbanism #32: Affordable Urbanism (MONU)*.

Christopher Bilder**Statistics**

With B. Abdalhamid, E. McCutchen et al. Assessment of specimen pooling to conserve SARS CoV-2 testing resources. *American Journal of Clinical Pathology*.

With P. Iwen, B. Abdalhamid et al. Tests in short supply? Try group testing. *Significance*.

With B. Hitt, J. Tebbs and C. McMahan. The objective function controversy for group testing: Much ado about nothing? *Statistics in Medicine*.

With P. Hou, J. Tebbs et al. Array testing with multiplex assays. *Biostatistics*.

Dirk Black**Accountancy**

With T.E. Christensen and J.T. Ciesielski. Non-GAAP earnings: A consistency and comparability crisis? *Contemporary Accounting Research*.

CEO risk-taking incentives and relative performance evaluation. *Accounting & Finance*.

Jeff Bradshaw**Entomology**

With G.W. Hergert, R. Wilson, R. Harveson, R. Nielsen et al. Agronomic utilization of precipitated calcium carbonate — effect of PCC on sugar beet root aphid control and herbicide dose response of kochia grown on PCC piles. *Agronomy*.

Dawn O. Braithwaite**Communication Studies**

With Bergquist, G., Soliz, J., Everhart, K.L., and Kreimer, L. Investigating layers of identity and identity gaps in refugee resettlement experiences in the Midwestern United States. *Western Journal of Communication*.

Anita Breckbill**University Libraries**

With Hannah Jo Smith. Follow the baton: The story of the Wagner Siegfried Idyll baton. *Fontes Artis Musicae*.

Gary J. Brewer**Entomology**

With Florez-Cuadros, M., Berkebile, D., and Taylor, D. Effects of diet quality and temperature on stable fly (Diptera: Muscidae) development. *Insects*.

Tami M. Brown-Brandl**Biological Systems Engineering**

Development and application of an image acquisition system for characterizing sow behaviors in farrowing stalls. *Computers and Electronics in Agriculture*.

With Leonard, S.M., H. Xin H., and B.C. Ramirez. Development and application of an image acquisition system for characterizing sow behaviors in farrowing stalls. *Computers and Electronics in Agriculture*.

With Leonard, S.M., Xin, H., et al. Effects of farrowing stall layout and number of heat lamps on sow and piglet production performance. *Animals*.

With Morris, D., Hales, K., et al. The effects of isoenergetic high-starch or high-fat diets on energy and nitrogen partitioning and utilization in lactating Jersey cows. *Journal of Dairy Science*.

With Condotta, I.C.F.S., Piltz, S.K., et al. Evaluation of low-cost depth cameras for agricultural applications. *Computers and Electronics in Agriculture*.

With Cross, A.J., Keel, B.N., et al. Feeding behavior of grow-finish swine and the impacts of heat stress. *Translational Animal Science*.

With Baber, J.R., Wickersham, T.A., et al. Effects of diet type on nutrient utilization and energy balance in drylot heifers. *Journal of Animal Science*.

With Adrion, F., Maselyne, J., et al. A review of passive radio frequency identification systems for animal monitoring in livestock facilities. *Applied Engineering in Agriculture*.

Kelsy Burke**Sociology**

With Amy McDowell. White women who lead: God, girlfriends, and diversity projects in a national evangelical ministry. *Sociology of Race and Ethnicity*.

With Trenton Haltom. Created by God and wired to porn: Redemptive masculinity and gender beliefs in narratives of religious men's pornography addiction recovery. *Gender & Society*.

With Alice MillerMacPhee. Constructing pornography addiction's harms in science, news media, and politics. *Social Forces*.

Anthony J. Bushard**Glenn Korff School of Music**

(Backstage) Preservation (At Kimball) Hall. *Material Reflections at Documenting Jazz: A Collection of Short Reflections on Jazz as Material Culture*.

"What to do over the week-end": Towards an understanding of distraction, advertising and newspaper coverage of the Kansas City jazz scene in the 1930s. *Jazz Research Journal*.

Robert J. Campbell **Management**

Born to take risk? The effect of CEO birth order on strategic risk taking. *Academy of Management Journal*.

Janet F. Carlson **Buros Center for Testing/Educational Psychology**

Context and regulation of homeschooling: Issues, evidence, and assessment practices. *School Psychology*.

Les Carlson **Marketing**

With J. Zeiss and D. Walker. Reassessing the influence of parents and advertising on children's BMI. *Journal of Current Issues & Research in Advertising*.

With J. Skiba and R. Petty. Beyond deception: Potential unfair consumer injury from various types of covert marketing. *Journal of Consumer Affairs*.

Theresa Catalano **Teaching, Learning, and Teacher Education**

The visual representation of dual language education. *Visual Communication*.

With L.K. Kiramba and K. Viesca. Transformative interviewing and the experiences of multilingual learners not labeled ELL in U.S. schools. *Bilingual Research Journal*.

With Ari Kohen. Googly eyes and yard signs: Deconstructing one professor's successful rebuffing of a right-wing attack on an academic institution. *Discourse & Society*.

With Fucci, T. Missing the (turning) point: The erosion of democracy at an American university. *Journal of Language and Politics*.

With Traore Moundiba, H.C. and Pir, H. "I felt valued": Multilingual microteachings and the development of teacher agency in a teacher education classroom. *Critical Multilingualism Studies*.

With Musolff, A. "Taking the shackles off": Metaphor and metonymy of migrant children and border officials in the U.S. *Metaphorik.de*.

Heng Chen **Supply Chain Management and Analytics**

With Senay Solak. Lower cost departures for airlines: Optimal policies under departure metering. *Transportation Research Part C: Emerging Technologies*.

Alan C. Christensen **Biological Sciences**

With Alexander Kozik, Beth A. Rowan et al. The alternative reality of plant mitochondrial DNA: One ring does not rule them all. *PLOS Genetics*.

Bertrand Clarke **Statistics**

With T. Le. In praise of partially interpretable predictors. *Journal of Statistical Analysis and Data Mining*.

With S. Amiri, J. Clarke and H. Koepke. A stabilized hybrid clustering strategy. *Journal of Computational and Graphical Statistics*.

Jennifer Clarke **Statistics**

With J. Ortuzar, O. Dogan et al. Quantitative assessment of microbial quality and safety risk: A preliminary case study of strengthening raspberry supply system in Chile. *Food Control*.

With K. Min, A. Galvis et al. Association between baseline abundance of *Peptoniphilus*, a Gram-positive anaerobic coccus, and wound healing outcomes of DFUs. *PLOS ONE*.

With A. Petrosyan, C. Frisbie et al. Post-ER stress biogenesis of Golgi is governed by giantin. *Cells*.

With M. Adamowicz, T. Rambo et al. Validation of MaSTR Software: Extensive study of fully-continuous probabilistic mixture analysis using PowerPlex Fusion 2-5 contributor mixtures. *Forensic Science International: Genetics Supplement Series*.

With M. Rezapour, M.A. Quintero et al. Reclassifying pseudopolyps in inflammatory bowel disease: Histologic and endoscopic description in the new era of mucosal healing. *Crohn's and Colitis*.

With E. Dutta, K. Shao et al. Dose-response assessment between folate exposure and risk of cognitive impairment: Synthesizing data from documented studies. *Risk Analysis*.

With O. Dogan, F. Mattos and B. Wang. A quantitative microbial risk assessment model of *Campylobacter* in broiler chickens: Evaluating processing interventions. *Food Control*.

With C. Penas, M. Maloof et al. Time series modeling of cell cycle exit identifies Brd4-dependent regulation of cerebellar neurogenesis. *Nature Communications*.

Matt Cohen **English**

Time and the bibliographer: A meditation on the spirit of book studies. *Textual Cultures*.

Andrea S. Cupp

Animal Science

With M.R. Plewes, J.R. Wood et al. Luteinizing hormone regulates the phosphorylation and localization of the mitochondrial effector dynamin-related protein-1 (DRP1) and steroidogenesis in the bovine corpus luteum. *Federation of American Societies for Experimental Biology Journal*.

With M.A. Abedal-Majed, J.R. Wood et al. Vascular endothelial growth factor A isoforms modulate follicle fate independent of diet through diverse signal transduction pathways. *Biology of Reproduction*.

With M.R. Plewes, J.R. Wood et al. Yes-associated protein (YAP) is required for proliferation and function of bovine granulosa cells. *Biology of Reproduction*.

Rochelle Dalla

Child, Youth and Family Studies

With T. Jhaveri Panchal, S. Erwin et al. Structural vulnerabilities, personal agency, and caste: Child sex trafficking in rural India. *Violence and Victims*.

With S. Erwin and L. Kreimer. Children of Mumbai's brothels: Investigating developmental prospects, primary relationships, and service provision. *Family Relations: Interdisciplinary Journal of Applied Family Science*.

Lory J. Dance

Sociology/Institute for Ethnic Studies

With L.A. Johnson. Ideal dialogues with immigrants of color in Sweden and the United States: A participatory-ethnographic approach. *Journal of Ethnographic and Qualitative Research*.

Dipti A. Dev

Child, Youth, and Family Studies

With Kailey Snyder, Zainab Rida et al. Exploring rural and urban Go NAP SACC trained child care providers' perceptions and needs regarding the promotion of physical activity and healthy eating. *Cogent Social Sciences*.

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With Srivastava, D., De Guzman, M. and Dev, D. Parental ethnotheories about healthy eating: Exploring the developmental niche of preschoolers. *American Journal of Health Promotion*.

With Tuyen Huynh. Examining connection to nature and mindfulness at promoting psychological well-being. *Journal of Environmental Psychology*.

With Holly E. Brophy-Herb, Amy C. Williamson et al. Preservice students' dispositional mindfulness and developmentally supportive practices with infants and toddlers. *Mindfulness*.

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Silvana Trimi Supply Chain Management and Analytics

With Sang M. Lee. Convergence innovation in the digital age and in the COVID-19 pandemic crisis. *Journal of Business Research*.

With Dong W. Kim, Soon G. Hong and Seongbae Lim. Effects of co-creation on organizational performance of small and medium manufacturers. *Journal of Business Research*.

With F. Palma and S.G. Hong. Motivation triggers for customer participation in value co-creation. *Service Business: An International Journal*.

Kimberly A. Tyler Sociology

With Rachel M. Schmitz. Childhood disadvantage, social and psychological stress, and substance use among homeless youth: A life stress framework. *Youth & Society*.

With Colleen M. Ray. Risk and protective factors for substance use among youth experiencing homelessness. *Children and Youth Services Review*.

With Kristen Olson and Colleen M. Ray. Understanding daily depression, drinking, and marijuana use among homeless youth using short message service surveying. *Journal of Child & Adolescent Substance Abuse*.

With Kristen Olson. A comparison of frequency of alcohol and marijuana use using short message service surveying and survey questionnaires among homeless youth. *American Journal of Drug and Alcohol Abuse*.

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Emre Unlu Finance/Economics

With Xiaoyan Bao, Matthew Billett and David B. Smith. Does other comprehensive income volatility influence credit risk and the cost of debt? *Contemporary Accounting Research*.

Matthew Van Den Broeke Earth and Atmospheric Sciences

A preliminary polarimetric radar comparison of pretornadic and nontornadic supercell storms. *Monthly Weather Review*.

With B.R. Elbing and C.E. Petrin. Measurement and characterization of infrasound from a tornado producing storm. *The Journal of the Acoustical Society of America*.

Susan VanderPlas Statistics

With Dianne Cook and Heike Hofmann. Testing statistical charts: What makes a good graph? *Annual Review of Statistics and Its Application*.

With Melissa Nally, Tylor Klep et al. Comparison of three similarity scores for bullet LEA matching. *Forensic Science International*.

Shari R. Veil Advertising and Public Relations

With Chelsea L. Woods. Balancing transparency and privacy in a university sexual misconduct case: A legal public relations case study. *Journal of International Crisis and Risk Communication*.

Ana María Vélez Entomology

With Roberts A., Boeckman C.J., et al. Sublethal endpoints in non-target organism testing for insect active crops. *Frontiers in Plant Science*.

With Christiaens, O., Whyard, S., et al. Double-stranded RNA technology to control insect pests: Current status and challenges. *Frontiers in Plant Science*.

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Kara Viesca Teaching, Learning and Teacher Education

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With Barnatt, J., D'Souza, L., et al. Intercultural competence in pre-service teacher candidates. *International Journal of Educational Reform*.

William B. Walstad**Economics**

With William Bosshardt. The undergraduate economics coursework of elementary and secondary school teachers. *The Journal of Economic Education*.

Lily M. Wang**Durham School of Architectural Engineering & Construction**

With Joonhee Lee. Investigating multidimensional characteristics of noise signals with tones from building mechanical systems and their effects on annoyance. *The Journal of the Acoustical Society of America*.

Liying Wang**Finance**

With Stanislava Nikolova. Institutional allocations in the primary market for corporate bonds. *Journal of Financial Economics*.

Yingying Wang**Special Education and Communication Disorders/ Center for Brain, Biology and Behavior**

With A. Mathur and D. Schultz. Neural bases of phonological and semantic processing in early childhood. *Brain Connectivity*.

With J. Zuk, J. Dunstan et al. Multifactorial pathways facilitate resilience among kindergarteners at risk for dyslexia: A longitudinal behavioral and neuroimaging study. *Developmental Science*.

With F. Sibaii, R. Custead, H. Oh and S.M. Barlow. Functional connectivity evoked by orofacial tactile perception of velocity. *Frontiers in Neuroscience*.

Stephen N. Wegulo**Plant Pathology**

With Carlos Bolanos-Carriel, P. Stephen Baenziger, Deanna Funnell-Harris, Heather E. Hallen-Adams and Kent M. Eskridge. Effects of fungicide chemical class, fungicide application timing, and environment on *Fusarium* head blight in winter wheat. *European Journal of Plant Pathology*.

With Esteban Valverde-Bogantes, Carlos Bolanos-Carriel, Heather E. Hallen-Adams et al. Aggressiveness and deoxynivalenol production of Nebraska isolates of *Fusarium boothii* and *F. graminearum*. *Plant Health Progress*.

Regina E. Werum**Sociology**

With S. Harcey, A. MillerMacPhee et al. Soldiers to scientists: Gender, military service, and STEM degree earning. *Socius*.

With L. Raenzulli and A. Kronberg. Contested terrain? Homeschooling laws and court cases in the era of school choice, 1972-2009. *Sociological Forum*.

With H.L. Scheuerman, A. Faupel and C. Parris. What do social movements have to do with it? Reporting anti-gay hate crime in the United States. *Law and Policy*.

With C. Steidl. If all you have is a hammer, everything looks like a nail: A cautionary tale about operationalization. *Sociology Compass*.

Lorey A. Wheeler**Nebraska Center for Research on Children, Youth, Families and Schools**

With B.A. Gurney, M. German et al. Increasing behavioral health appointment attendance using warm handoffs in an integrated primary care setting. *The Behavior Therapist*.

With A.J. Yeo, M. German et al. Self-harm and self-regulation in urban ethnic minority youth: A pilot application of dialectical behavior therapy for adolescents. *Child and Adolescent Mental Health*.

With P.G. Arora and M.Y. Delgado. The distal role of adolescents' awareness of and perceived discrimination on young adults' socioeconomic attainment among Mexican-origin immigrant families. *Journal of Youth and Adolescence*.

Cynthia Willis-Esqueda**Psychology/Institute for Ethnic Studies**

With Palmer Bacon, J., and Spaulding, W. Stress, trauma, racial/ethnic group membership, and HPA function: Utility of hair cortisol. *American Journal of Orthopsychiatry*.

With Shepherd, S.M., Newton, D., et al. The challenge of cultural competence in the workplace: Perspectives of healthcare providers. *BMC Health Services Research*.

With Cantone, J. A., and Martinez, L. N. Sounding guilty: How accent bias affects juror judgments of culpability. *Journal of Ethnicity in Criminal Justice*.

Richard Wilson**Plant Pathology**

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With Gang Li, Xiaobo Qi et al. Terminating rice innate immunity induction requires a network of antagonistic and redox-responsive E3 ubiquitin ligases targeting a fungal sirtuin. *New Phytologist*.

Charles Wortmann**Agronomy and Horticulture**

With A. Assefa, Y. Dessalegn et al. Maize-lupine intercrop response to applied nitrogen and phosphorus in northwestern Ethiopia. *African Journal of Agricultural Research*.

With F.M. Liben, A. Tigist et al. Maize and sorghum nutrient response functions for Ethiopia. *Nutrient Cycling in Agroecosystems*.

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Brenda G. Wristen**Glenn Korff School of Music**

Let them eat cake! Teaching piano using stacked engagement layers. *The Piano Magazine*.

Julie Wu**Finance**

With Ekkehart Boehmer and Kingsley Fong. Algorithmic trading and market quality: International evidence. *Journal of Financial and Quantitative Analysis*.

With Stanislava Nikolova and Liying Wang. Institutional allocations in the primary market for corporate bonds. *Journal of Financial Economics*.

With E. Boehmer, C. Jones and X. Zhang. What do short sellers know? *Review of Finance*.

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Judy Wu-Smart**Entomology**

With Olgun, T., Everhart, S., and Anderson, T.D. Comparative analysis of viruses in four bee species collected from agricultural, urban, and natural landscapes. *PLOS ONE*.

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Tadeusz A. Wysocki**Electrical and Computer Engineering**

With Denis Shitov, Elena Pirogova and Margaret Lech. Learning acoustic word embeddings with dynamic time warping triplet networks. *IEEE Access*.

With E.J. Clement, T.T. Schulze et al. Stochastic simulation of cellular metabolism. *IEEE Access*.

Cindy Xu**Finance**

With David Landriault and B. Li, T. Shi. On the distribution of classic and some exotic ruin times. *Insurance Mathematics and Economics*.

Liang Xu**Supply Chain Management and Analytics**

With Hui Zhao and Nicholas C Petrucci. Inducing compliance with post-market studies for drugs under FDA's accelerated approval pathway. *Manufacturing & Service Operations Management*.

With Hui Zhao and Enno Siemsen. Inventory sharing and demand-side underweighting. *Manufacturing & Service Operations Management*.

Yiqi Yang**Textiles, Merchandising and Fashion Design**

With Mi, X., Chang, Y., and Xu, H.L. Valorization of keratin from food wastes via crosslinking using non-toxic oligosaccharide derivatives. *Food Chemistry*.

With Liu, L.Y., Mu, B.N., and Li, W. Cost-effective reactive dyeing using spent cooking oil for minimal discharge of dyes and salts. *Journal of Cleaner Production*.

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With Chang, Y., Chen, Z.Z., and Pan, G.W. Enhancing the recrystallization ability of bio-based polylactide stereocomplex by in situ construction of multi-block branched conformation. *Journal of Materials Science*.

Jiujie Yu **Nutrition and Health Sciences**

With J. Zemleni, S.D. Kachman, S.K. Natarajan et al. Protective role of shiitake mushroom-derived exosome-like nanoparticles in D-galactosamine and lipopolysaccharide-induced acute liver injury in mice. *Nutrients*.

David P. Yuill **Durham School of Architectural Engineering & Construction**

With A. Ebrahimifakhar. Inverse estimation of thermophysical properties and initial moisture content of cereal grains during deep-bed grain drying. *Biosystems Engineering*.

With Mehdi Mehrabi. A laboratory test method to realistically simulate air side fouling of condensers (RP-1705). *Science and Technology for the Built Environment*.

With Alireza Behfar and Yuebin Yu. Automated fault detection and diagnosis for supermarkets' method selection, replication, and applicability. *Energy and Buildings*.

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Janos Zemleni **Nutrition and Health Sciences**

With M. Sandri, J. Shu, S. Kachman and J. Cui. Milk exosomes and microRNAs cross the placenta and promote embryo survival in mice. *Reproduction*.

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With S. Sukreet, F. Zhou, D. Wu and E. Mutai. Milk-derived exosomes and metabolic regulation. *Annual Review of Animal Biosciences*.

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With A. Leiferman, J. Shu, B. Upadhyaya and J. Cui. Storage of extracellular vesicles in human milk, and microRNA profiles in human milk exosomes and infant formulas. *Journal of Pediatric Gastroenterology and Nutrition*.

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Yuzhen Zhou **Statistics**

With Ronghao Wang, Yumou Qiu et al. A high-throughput phenotyping pipeline for image processing and functional growth curve analysis. *Plant Phenomics*.

Shengchao Zhuang**Finance**

With K.S. Tan, P.Y. Wei and W. Wei. Optimal dynamic reinsurance policies under a generalized Denneberg's absolute deviation principle. *European Journal of Operational Research*.

Ruizhi Zhang**Statistics**

With S. Li, L. Wang et al. Temporal logic point processes. *Proceedings of the International Conference on Machine Learning*.

With Zou, S. A game-theoretic approach to sequential detection in adversarial environments. *Proceedings of the IEEE International Symposium on Information Theory*.

With Suh, N., and Mei, Y. Adaptive online monitoring of the Ising model. *Proceedings of the 57th Annual Allerton Conference on Communication, Control, and Computing*.

Sarah J. Zuckerman**Educational Administration**

The role of rural school leaders in a school-community partnership. *Theory and Practice in Rural Education*.

Why can't this work here? Social innovation and collective impact in a micropolitan community. *Community Development*.

With Amanda L. Garrett, Susan Sarver and Catherine Huddleston-Casas. Playing well with others: A case study of collective impact in the early care and education policy arena. *International Journal of Childcare and Education Policy*.

CMS Collaboration: Ken Bloom, Dan Claes, Frank Golf, Ilya Kravchenko, Greg Snow et al. Physics and Astronomy

The CMS Collaboration comprises more than 4,000 particle physicists, engineers, computer scientists, technicians and students from around 200 institutes and universities from more than 40 countries.

The collaboration operates and collects data from the Compact Muon Solenoid, one of the general-purpose particle detectors at CERN's Large Hadron Collider in Geneva, Switzerland.

In keeping with CERN's commitment to open access for high-energy physics, the scientific results from CMS are shared openly with the world. A number of faculty members in UNL's Department of Physics and Astronomy are part of the CMS Collaboration and have contributed to an impressive body of literature over the past year.

Measurement of the top quark polarization and $t\bar{t}$ spin correlations using dilepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Physical Review D*. Oct. 8, 2019.

Search for dark photons in decays of Higgs bosons produced in association with Z bosons in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. Oct. 10, 2019.

Measurement of the top quark Yukawa coupling from $t\bar{t}$ kinematic distributions in the lepton+jets final state in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Physical Review D*. Oct. 17, 2019.

Search for supersymmetry in proton-proton collisions at 13 TeV in final states with jets and missing transverse momentum. *Journal of High Energy Physics*. Oct. 25, 2019.

Measurement of the average very forward energy as a function of the track multiplicity at central pseudorapidities in proton-proton collisions at $\sqrt{s} = 13$ TeV. *The European Physical Journal C*. Nov. 5, 2019.

Search for MSSM Higgs bosons decaying to $\mu\mu$ in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Physics Letter B*. Nov. 10, 2019.

Measurements of triple-differential cross sections for inclusive isolated-photon+jet events in pp collisions at $\sqrt{s} = 8$ TeV. *The European Physical Journal C*. Nov. 25, 2019.

Search for supersymmetry using Higgs boson to diphoton decays at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. Dec. 4, 2019.

Search for anomalous triple gauge couplings in WW and WZ production in lepton + jet events in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. Dec. 9, 2019.

Measurements of differential Z boson production cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. Dec. 9, 2019.

Search for long-lived particles using delayed photons in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Physical Review D*. Dec. 9, 2019.

Search for physics beyond the standard model in events with overlapping photons and jets. *Physical Review Letters*. Dec. 11, 2019.

Study of the $B^+ \rightarrow J/\psi^- \Lambda p$ decay in proton-proton collisions at $\sqrt{s} = 8$ TeV. *Journal of High Energy Physics*. Dec. 12, 2019.

Search for low mass vector resonances decaying into quark-antiquark pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Physical Review D*. Dec. 20, 2019.

Searches for physics beyond the standard model with the MT2 variable in hadronic final states with and without disappearing tracks in proton-proton collisions at $\sqrt{s} = 13$ TeV. *The European Physical Journal C*. Jan. 3, 2020.

Search for electroweak production of a vector-like T quark using fully hadronic final states. *Journal of High Energy Physics*. Jan. 8, 2020.

Search for light pseudoscalar boson pairs produced from decays of the 125 GeV Higgs boson in final states with two muons and two nearby tracks in pp collisions at $\sqrt{s} = 13$ TeV. *Physics Letter B*. Jan. 10, 2020.

Search for a charged Higgs boson decaying into top and bottom quarks in events with electrons or muons in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. Jan. 16, 2020.

Evidence for WW production from double-parton interactions in proton-proton collisions at $\sqrt{s} = 13$ TeV. *The European Physical Journal C*. Jan. 17, 2020.

Search for supersymmetry with a compressed mass spectrum in events with a soft τ lepton, a highly energetic jet, and large missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Physical Review Letters*. Jan. 29, 2020.

Search for production of four top quarks in final states with same-sign or multiple leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV. *The European Physical Journal C*. Jan. 31, 2020.

Search for top squark pair production in a final state with two tau leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. Feb. 3, 2020.

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Measurement of the top quark pair production cross section in dilepton final states containing one τ lepton in pp collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. Feb. 28, 2020.

Performance of the reconstruction and identification of high-momentum muons in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of Instrumentation*. Feb. 28, 2020.

Search for direct pair production of supersymmetric partners to the τ lepton in proton-proton collisions at $\sqrt{s} = 13$ TeV. *The European Physical Journal C*. March 3, 2020.

Bose-Einstein correlations of charged hadrons in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. March 3, 2020.

Search for dark matter particles produced in association with a Higgs boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. March 4, 2020.

Search for a heavy Higgs boson decaying to a pair of W bosons in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. March 6, 2020.

Measurement of top quark pair production in association with a Z boson in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. March 10, 2020.

Search for new neutral Higgs bosons through the $H \rightarrow ZA \rightarrow l+l-b\bar{b}$ process in pp collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. March 10, 2020.

Observation of the $\Lambda_0 b \rightarrow J/\psi \Lambda \phi$ decay in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Physics Letter B*. March 10, 2020.

Search for physics beyond the standard model in multilepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. March 10, 2020.

Search for a heavy pseudoscalar Higgs boson decaying into a 125 GeV Higgs boson and a Z boson in final states with two tau and two light leptons at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. March 11, 2020.

Search for lepton flavour violating decays of a neutral heavy Higgs boson to $\mu\tau$ and $e\tau$ in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. March 18, 2020.

A search for the standard model Higgs boson decaying to charm quarks. *Journal of High Energy Physics*. March 24, 2020.

Search for supersymmetry in pp collisions at $\sqrt{s} = 13$ TeV with 137 fb $^{-1}$ in final states with a single lepton using the sum of masses of large-radius jets. *Physical Review D*. March 25, 2020.

Search for a narrow resonance lighter than 200 GeV decaying to a pair of muons in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Physical Review Letters*. April 3, 2020.

Measurement of the $t\bar{t}b\bar{b}$ production cross section in the all-jet final state in pp collisions at $\sqrt{s} = 13$ TeV. *Physics Letter B*. April 10, 2020.

Running of the top quark mass from proton-proton collisions at $\sqrt{s} = 13$ TeV. *Physics Letter B*. April 10, 2020.

Study of excited $\Lambda_0 b$ states decaying to $\Lambda_0 b\pi^+\pi^-$ in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Physics Letter B*. April 10, 2020.

Constraints on the χ_{c1} versus χ_{c2} polarizations in proton-proton collisions at $\sqrt{s} = 8$ TeV. *Physical Review Letters*. April 24, 2020.

Experimental study of different silicon sensor options for the upgrade of the CMS Outer Tracker. *Journal of Instrumentation*. April 24, 2020.

Search for heavy Higgs bosons decaying to a top quark pair in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. April 27, 2020.

Measurement of properties of B_0 s $\rightarrow \mu^+\mu^-$ decays and search for $B_0 \rightarrow \mu^+\mu^-$ with the CMS experiment. *Journal of High Energy Physics*. April 28, 2020.

Calibration of the CMS hadron calorimeters using proton-proton collision data at $\sqrt{s} = 13$ TeV. *Journal of Instrumentation*. May 5, 2020.

Measurement of differential cross sections and charge ratios for t-channel single top quark production in proton-proton collisions at $\sqrt{s} = 13$ TeV. *The European Physical Journal C*. May 6, 2020.

Search for high mass dijet resonances with a new background prediction method in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. May 8, 2020.

Search for direct top squark pair production in events with one lepton, jets, and missing transverse momentum at 13 TeV with the CMS experiment. *Journal of High Energy Physics*. May 8, 2020.

Study of J/ψ meson production inside jets in pp collisions at $\sqrt{s} = 8$ TeV. *Physics Letter B*. May 10, 2020.

Search for an excited lepton that decays via a contact interaction to a lepton and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. May 12, 2020.

Measurement of the jet mass distribution and top quark mass in hadronic decays of boosted top quarks in pp collisions at $\sqrt{s} = 13$ TeV. *Physical Review Letters*. May 21, 2020.

Determination of the strong coupling constant $\alpha_S(m_Z)$ from measurements of inclusive W^\pm and Z boson production cross sections in proton-proton collisions at $\sqrt{s} = 7$ and 8 TeV. *Journal of High Energy Physics*. June 1, 2020.

Identification of heavy, energetic, hadronically decaying particles using machine-learning techniques. *Journal of Instrumentation*. June 3, 2020.

Measurements with silicon photomultipliers of dose-rate effects in the radiation damage of plastic scintillator tiles in the CMS hadron endcap calorimeter. *Journal of Instrumentation*. June 8, 2020.

Search for dijet resonances using events with three jets in proton-proton collisions at $\sqrt{s} = 13$ TeV. *Physics Letter B*. June 10, 2020.

A measurement of the Higgs boson mass in the diphoton decay channel. *Physics Letter B*. June 10, 2020.

Measurement of the cross section for electroweak production of a Z boson, a photon and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV and constraints on anomalous quartic couplings. *Journal of High Energy Physics*. June 10, 2020.

Mixed higher-order anisotropic flow and nonlinear response coefficients of charged particles in PbPb collisions at $\sqrt{s_{NN}} = 2.76$ and 5.02 TeV. *The European Physical Journal C*. June 13, 2020.

Strange hadron production in pp and pPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV. *Physical Review C*. June 22, 2020.

Measurement of the top quark forward-backward production asymmetry and the anomalous chromoelectric and chromomagnetic moments in pp collisions at $\sqrt{s} = 13$ TeV. *Journal of High Energy Physics*. June 24, 2020.

Presentations at Professional Conferences

Faculty who have presented at professional conferences
July 1, 2019–June 30, 2020

*UNL co-presenters (identified by those who
submitted items for inclusion) designated in red*

Submitted by faculty, chairs/heads or deans

Troy D. Anderson

Entomology

Presenter/speaker. Impacts of in-hive pesticides on bee health.
Entomological Society of America Annual Meeting. Nov. 17-20, 2019.

Presenter/speaker. Sub-lethal impacts of pesticides on bees. Fourth
International Conference on Pollinator Biology, Health and Policy, UC
Davis Honey and Pollination Center. July 19, 2019.

Trey Andrews

Psychology/Center for Ethnic Studies

Presenter/speaker, with Reyes, S., and Ramos, A.K. Stress predictors
for avoidance of care in migrant farm workers. 41st Annual Meeting
and Scientific Sessions of the Society of Behavioral Medicine. April
1-4, 2020.

Presenter/speaker, with Acosta, L.M., Haws, J.K., and Acosta
Canchila, M.N. Extending written exposure therapy to Spanish-
speaking immigrants: Treatment perceptions and open pilot trial
outcomes for overcoming PTSD. Annual Conference of the National
Latinx Psychological Association. Oct. 2019.

Poster presenter, with Acosta, L.M., Acosta Cancchila, M.N., and
Haws, J.K. Barriers and facilitators of treatment completion among
Spanish-speaking immigrants receiving a novel PTSD treatment.
Annual Conference of the National Latinx Psychological Association.
Oct. 2019.

Poster presenter, with Acosta Cancchila, M.N., Acosta, L.M., and
Haws, J.K. Perceived barriers to written exposure therapy and mental
health treatments: Differences across treatment providers and users.
Annual Conference of the National Latinx Psychology Association.
Oct. 2019.

Christos Argyropoulos

Electrical and Computer Engineering

Presenter/speaker, with B. Jin. Robust self-induced nonreciprocal
transmission in nonlinear pt-symmetric epsilon-near-zero
metamaterials. Conference on Lasers and Electro-Optics Technical
Conference. May 10-15, 2020.

Presenter/speaker, with D.S. Khatri, Y. Li, J. Chen, E.A. Kwizera, X.
Huang and T.B. Hoang. Plasmon-assisted coherent random lasing.
American Physical Society March Meeting. March 2-6, 2020.

Presenter/speaker, with Y. Li. Epsilon-near-zero plasmonic
nanowaveguides to achieve efficient resonance energy transfer and
quantum entanglement. American Physical Society March Meeting.
March 2-6, 2020.

Presenter/speaker, with B. Jin. Strong nonreciprocal transmission self-
induced by nonlinear PT-symmetric metamaterials. American Physical
Society March Meeting. March 2-6, 2020.

Presenter/speaker, with T. Guo, B. Jin, L. Zhu and P. Y. Chen. Tunable
THz generation and enhanced nonlinear effects with active and
passive graphene hyperbolic metamaterials. International Society for
Optics and Photonics (SPIE) West. Feb. 1-6, 2020.

Presenter/speaker, with B. Jin. Strong self-induced nonreciprocal
transmission by using nonlinear PT-symmetric epsilon-near-zero
metamaterials. SPIE Photonics West. Feb. 1-6, 2020.

Presenter/speaker, with Y. Li. Active epsilon-near-zero plasmonic
waveguides to achieve exceptional points and light amplification at
the nanoscale. SPIE Photonics West. Aug. 11-15, 2019.

Presenter/speaker, with E. O'Leary. Time and frequency domain
modeling of thermo-plasmonic effects. National Nanotechnology
Coordinated Infrastructure Research Experience for Undergraduates
Convocation, hosted by Cornell Nanoscale Facility. Aug. 10-13, 2019.

Presenter/speaker, with T. Guo. Polarization-independent and
broadband THz coherent perfect absorber based on black
phosphorus bifacial metasurfaces. Institute of Electrical and
Electronics Engineers International Symposium on Antennas and
Propagation and North American Radio Science Meeting. July 7-12,
2019.

Presenter/speaker, with Y. Li. Slow light at the nanoscale based on
active epsilon-near-zero plasmonic waveguides, Institute of Electrical
and Electronics Engineers International Symposium on Antennas and
Propagation and North American Radio Science Meeting. July 7-12,
2019.

Jena Asgarpour

Master of Engineering Management Program

Presenter/speaker, with Majid Nabavi. Online versus residential
exam and course average performance: A comparative assessment.
Innovation in Pedagogy and Technology Symposium. May 12, 2020.

Presenter/speaker, with Yaoling Wang. Program management
strategies and student success practices for a fully asynchronous
online professional master's program. Innovation in Pedagogy and
Technology Symposium. May 12, 2020.

Rachel Azima**English**

Presenter/speaker, with Kelsey Hixson-Bowles and Neil Simpkins. Crafting our conferences: The racial climate survey for writing center professional gatherings. International Writing Center Association Conference. Oct. 16-19, 2019.

Diane Barger**Glenn Korff School of Music**

Panel discussion participant, with Sarah Watts, Elizabeth Crawford et al. Auxiliary clarinets. The ICA Plays On, International Clarinet Association. June 27, 2020.

Panel discussion participant, with Denise Gainey. Interview with the Amicitia Duo: Commissioning, recording, and friendship. Clarinet Connections, Clarinet Mentors. May 11, 2020.

Steven M. Barlow **Special Education and Communication Disorders/
Biological Systems Engineering/
Center for Brain, Biology and Behavior**

Presenter/speaker, with Jaehoon Lee, Rebecca Custead et al. Orofacial and digit force dynamics in chronic MCA ischemic stroke. International Motor Speech Conference. Feb. 2020.

Nathan Bicak**Interior Design**

Presenter/speaker, with **Steven Hardy**. Participatory processes in a collaborative design studio. EDRA 51 - Transform: Socially Embedded Collaboration, Environmental Design Research Conference. April 5, 2020.

Christopher Bilder**Statistics**

Presenter/speaker, with Mokalled, S., McMahan, C., et al. Acknowledging the dilution effect in group testing regression: A new approach. Eastern North American Region of the International Biostatistics Society Meeting. March 24, 2020.

Presenter/speaker, with McMahan, C., Tebbs, J., and Joyner, C. From mixed-effects modeling to spike and slab variable selection: A Bayesian regression model for group testing data. International Conference of the European Research Consortium for Informatics and Mathematics Working Group on Computational and Methodological Statistics. Dec. 14, 2019.

Presenter/speaker. In or out? The new flagstick dilemma for putting in golf. Midwest Sports Analytics Meeting. Nov. 23, 2019.

Presenter/speaker, with McMahan, C., Liu, Y., and Tebbs, J. An additive regression model for group testing data. Institute for Operations Research and the Management Sciences Annual Meeting. Oct. 20, 2019.

Presenter/speaker. In or out? The new flagstick dilemma for putting in golf. New England Symposium on Statistics in Sports. Sept. 28, 2019.

Presenter/speaker, with Tebbs, J., and McMahan, C. Strategies for pooling in array testing configurations with multiplex assays. Joint Statistical Meetings. July 30, 2019.

Erin Blankenship**Statistics**

Presenter/speaker. Lessons learned: Revising an online introductory course. Joint Statistics Meetings. Aug. 2019.

Presenter/speaker. Lessons learned: Revising an online introductory course. Invited webinar sponsored by the American Statistical Association Section on Teaching Statistics in the Health Sciences. Nov. 2019.

Kenneth Bloom**Physics and Astronomy**

Presenter/speaker (for the CMS Collaboration). Search for associated production of a Higgs boson and a single top quark in proton-proton collisions at $\sqrt{s} = 13$ TeV. Meeting of the Division of Particles and Fields of the American Physical Society. July 29-Aug. 2, 2019.

Presenter/speaker (for the D0 Collaboration). Measurement of the W pT distribution in proton-antiproton collisions at D0. Meeting of the Division of Particles and Fields of the American Physical Society. July 29-Aug. 2, 2019.

David J. Boxler**Entomology**

Presenter/speaker, with **G. Brewer**. Nebraska research report. S-1076 Committee Annual Meeting. Jan. 15-17, 2020.

Jeff D. Bradshaw**Entomology**

Presenter/speaker, with **Peterson J., Wright R., Hunt, T., and McMechan, A.J.** Improving IPM adoption through clientele collaboration in applied ecology. Entomological Society of America Annual Meeting. Nov. 20, 2019.

Anita Breckbill**University Libraries**

Presenter/speaker. Dvořák and the birds of Spillville, Iowa. Mountain-Plains Music Library Association Annual Meeting. May 15, 2020.

Tami Brown-Brandl**Biological Systems Engineering**

Presenter/speaker. Using data streams to create management information. American Society of Swine Veterinarians. March 2020.

Presenter/speaker. Precision animal management: The future of animal ag? American Dairy Science Association/American Society of Animal Science Midwest Meeting. March 2020.

Presenter/speaker. Bringing technology to animal production facilities. University of Nebraska at Omaha Seminar Series. Department of Biomechanics and the Center for Research in Human Movement Variability. Oct. 2019.

Presenter/speaker. Monitoring animal health and welfare with data streams. International Symposium on Precision Systems and Data Analysis in Animal Agriculture. Sept. 2019.

Stephen M. Buhler

English

Presenter/speaker. The politics of necromancy, opening remarks for seminar on the supernatural and transcendent in Shakespeare on screen. Shakespeare Association of America Annual Meeting. April 15-18, 2020.

Presenter/speaker. The dramaturg's progress: A question of audiences. Blackfriars Conference, American Shakespeare Center. Oct. 22-27, 2019.

Anthony J. Bushard

Glenn Korff School of Music

Presenter/speaker. "What to do over the week-end": Towards an understanding of distraction, advertising and newspaper coverage of the Kansas City jazz scene in the 1930s. Documenting Jazz 2020, Birmingham City University, UK. Jan. 16-18, 2020.

Presenter/speaker. Creating interactive content for the 21st Century music student: Reinvigorating text development in the foundational course and beyond. National Meeting of the American Musicological Society. Oct. 31-Nov. 3, 2019.

Les Carlson

Marketing

Presenter/speaker, with Robert L. Harrison and Ben Blackford. Consumer responses to sexual humor advertisements. Association for Consumer Research Science 50th Annual Conference, Become Wise: The Golden Anniversary of ACR. Oct. 17-20, 2019.

Presenter/speaker, with Jie G. Fowler. An examination of consumers' perceptions of cosmeceutical advertising claims. World Marketing Congress, Academy of Marketing Science. July 1, 2019.

Theresa Catalano

Teaching, Learning and Teacher Education

Keynote speaker. Social action, social change and social justice: The link to critical discourse analysis/studies. XXV Symposium on Research in Applied Linguistics and VII International Symposium on Literacies and Discourse Studies. Nov. 6-7, 2019.

Presenter/speaker. Interdisciplinary approaches: Critical discourse analysis/studies and (language) education. XXV Symposium on Research in Applied Linguistics and VII International Symposium on Literacies and Discourse Studies. Nov. 6, 2019.

Presenter/speaker, with Castillo, M. Who are dual language programs for? De-mystifying ideas about who can benefit from bilingual education. Mid-America Teachers of English to Speakers of Other Languages Annual Conference. Sept. 27-28, 2019.

Jennifer Clarke

Statistics/Food Science and Technology

Presenter/speaker, with **Wilhelm, B.** Training for cross-disciplinary research and science as a team sport. Summer 2019 Conference of the Merrill Advanced Studies Center. July 11-12, 2019.

Panel discussion participant. Science on screen. Midwest Theatre, UNL Panhandle Research and Extension Center. Oct. 2019.

Matt Cohen

English

Keynote speaker, with **Nicole H. Gray.** Walt Whitman's Leaves. Textual Studies and the Nonhuman Turn: A Symposium. Nov. 21, 2020.

Rochelle L. Dalla

Child, Youth and Family Studies

Presenter/speaker, with **Kaitlin Roselius, Sarah Erwin, Jessie Peter and Alexis Thrasher.** A matter of money: Economics and family dynamics among the Bedia. National Council on Family Relations Conference. Nov. 20-23, 2019.

Presenter/speaker, with **Sarah Erwin and Lee Kreimer.** Children of Mumbai's brothels: Investigating developmental prospects, primary relationships, and service provision. Society for the Scientific Study of Sexuality Annual Meeting. Nov. 7-10, 2019.

Presenter/speaker, with **Kaitlin Roselius, Sarah Erwin, Jessie Peter and Alexis Thrasher.** Family-sanctioned sex trafficking: Studying risk and male partner relational dynamics among the Bedia of India. Society for the Scientific Study of Sexuality Annual Meeting. Nov. 7-10, 2019.

Presenter/speaker, with **Jessie Peter and Cody Hollist.** Intergenerational parenting values and its impact on child rearing practices among survivors of sex trafficking (SST) across four cities in India. International Human Trafficking and Social Justice Conference. Sept. 19-20, 2019.

Presenter/speaker, with **Sarah Erwin and Jessie Peter.** First responders' ability to identify victims and address survivors' needs. International Human Trafficking and Social Justice Conference. Sept. 19-20, 2019.

Lory J. Dance

Sociology/Institute for Ethnic Studies

Presenter/speaker. Newspaper discourses, theatrical estrangement, and at-risk students in Sweden and the U.S. Young People and Difference Symposium. Dec. 5-6, 2019.

Panel discussion participant, with Torun Elsrud. Difference in global perspectives. Young People and Difference Symposium. Dec. 5-6, 2019.

Presenter/speaker. "Move [snitch]. Get out da way!": Challenging IRB and mainstream researcher arrogance about under-represented populations. American Indigenous Research Association Meeting. Oct. 10-12, 2019.

Presenter/speaker. Forcibly removed: Homeland detachments of international and indigenous refugees. The Society for the Study of Social Problems 69th Annual Meeting. Aug. 9-11, 2019.

Jennifer Davidson

Economics

Presenter/speaker. Lasting effects from participation in an elementary grades savings program. 58th Annual Financial Literacy and Economic Education Conference. Oct. 4, 2019.

Stuart Dearden

Accountancy

Presenter/speaker, with Cory Cassell, David Rosser and Jonathan Shipman. The effect of confirmation bias on auditors' risk assessments: Archival evidence. American Accounting Association Auditing Midyear Meeting. Jan. 16-18, 2020.

Presenter/speaker, with Jodi Henley and Quinn Swanquist. Do audit characteristics affect provisional-tax-estimate accuracy when regulatory risk is low? Brigham Young University Accounting Research Symposium. Sept. 2019.

Kiyomi D. Deards

University Libraries

Presenter/speaker, with Mark Puente. Moving from talk to action: What does successful institutional change related to equity, diversity, and inclusion (EDI) look like? IDEAL '19: Advancing Inclusion, Diversity, Equity, and Accessibility in Libraries & Archives. Aug. 7, 2020.

Presenter/speaker, with Mark Puente. Moving from talk to action: What does successful institutional change related to equity, diversity, and inclusion (EDI) look like? IDEAL '19: Advancing Inclusion, Diversity, Equity, and Accessibility in Libraries & Archives. Aug. 7, 2019.

Dipti A. Dev

Child, Youth, and Family Studies

Presenter/speaker, with **Evan Choi**, **Donnia Behrends** et al. Differential effectiveness of Go NAP SACC in urban and rural childcare centers. Society for Nutrition Education and Behavior Annual Conference. July 27, 2019.

Presenter/speaker, with **Jasmin Smith**, **Evan Choi**, **Lisa Franzen-Castle**, **Donnia Behrends**, **Vanessa Wielenga** et al. Implementation of and barriers to nutrition best practices in urban and rural Nebraska child care settings. Society for Nutrition Education and Behavior Annual Conference. July 27, 2019.

Presenter/speaker, with Deepa Srivastava. Examining nutrition practices across early childhood education programs in two rural counties of California. Society for Nutrition Education and Behavior Annual Conference. July 27, 2019.

Presenter/speaker, with **Saima Hasnin**, **Holly Hatton-Bowers**, **Lisa Franzen-Castle** et al. EAT family-style dining intervention improves child care providers' responsive feeding practices and children's dietary intake. Society for Nutrition Education and Behavior Annual Conference. July 27, 2019.

Presenter/speaker, with **Saima Hasnin** and Alison Tovar. Participation in the food program ensures availability of nutritious foods but not intake in children attending childcare. Society for Nutrition Education and Behavior Annual Conference. July 27, 2019.

Presenter/speaker, with Maha Elrakaby and **Saima Hasnin**. Feasibility, acceptability and effectiveness of "read for nutrition" program in childcare settings. Society for Nutrition Education and Behavior Annual Conference. July 27, 2019.

Angela M. Dietsch **Special Education and Communication Disorders**

Presenter/speaker, with Ross Westemeyer and **Douglas H. Schultz**. Brain activity and swallowing biomechanics associated with taste stimulation and genetics. Annual Meeting of the Dysphagia Research Society. March 17-20, 2020.

Shudipto K. Dishari

Chemical and Biomolecular Engineering

Presenter/speaker. Nature-inspired ion conducting polymers for energy conversion and storage devices, 2020 North American Membrane Society Conference. May 18-21, 2020.

Presenter/speaker, with **Seefat Farzin**. Exploring zone-specific proton transport of ionomers under confinement via confocal laser scanning microscopy. American Institute of Chemical Engineers Annual Meeting. Nov. 10-15, 2019.

Presenter/speaker, with **Seefat Farzin**. Lignin-based ion conducting polymers with controlled ion exchange capacities (IECs) for energy conversion and storage device. American Institute of Chemical Engineers Annual Meeting. Nov. 10-15, 2019.

Presenter/speaker, with **Ehsan Zaman**. Antimicrobial activity of cationic conjugated oligo/polyelectrolytes against wild-type and antibiotic-resistant bacteria. American Institute of Chemical Engineers Annual Meeting. Nov. 10-15, 2019.

Thomas Dotzel

Marketing

Presenter/speaker, with Venkatesh Shankar. The effects of new goods, new services, and new software on firm value and risk. Mays Innovation Research Center, Texas A&M University. June 1, 2020.

Katie Edwards

Nebraska Center for Research on Children, Youth, Families and Schools

Presenter/speaker, with Banyard, V. Strengths in understanding well-being of adolescent survivors of interpersonal violence: Buffering or direct effects? Society for Social Work and Research. Jan. 15-19, 2020.

Presenter/speaker, with Banyard, V. Youth actionists to prevent disparities caused by peer violence. Society for Social Work and Research. Jan. 15-19, 2020.

Presenter/speaker, with Dardis, C., DePrince, A., et al. Outcomes of a transitional living program for women with histories of substance use and victimization. Annual meeting of the American Psychological Association. April 25-29, 2020.

Presenter/speaker, with Siller, L., Murphy, S., et al. Reactions to participating in trauma and addiction research among women in a sober living home. Association for Women in Psychology. March 5-8, 2020.

Presenter/speaker, with Siller, L., **Wheeler, L.**, et al. Effectiveness of a sexual assault self-defense program for American Indian youth. Society for Prevention Research 28th Annual Meeting. May 26-29, 2020.

Presenter/speaker, with Waterman, E.A., Ullman, S.E., et al. Predictors of disclosure recipients' social reactions to disclosures of dating and sexual violence. Annual meeting of the American Psychological Association. Aug. 6-9, 2020.

Presenter/speaker, with Sall, K., Lim, S., et al. Assessing campus community readiness to address IPV among LGBTQ+ Students. Annual meeting of the American Psychological Association. Aug. 6-9, 2020.

Presenter/speaker, with Siller, L., Callery, M., et al. A promising approach to transitional housing: A study of a substance use and victimization recovery housing program. International Family Violence and Child Victimization Research Conference. July 12-14, 2020.

Presenter/speaker, with Waterman, E.A., Hutchison, C., et al. Implementation of a community-wide, youth-led sexual violence prevention initiative: A qualitative examination. Society for Prevention Research. May 26-29, 2020.

Invited presenter, with Herrington, R. Preventing sexual violence at all levels of the social ecological model: Creative strategies and COVID-19 considerations. Sexual Violence Prevention Planning Committee Meeting. May 19, 2020.

Invited presenter, with Banyard, V. The evolution of a logic model to evaluate a youth-led sexual violence prevention initiative. United States Department of Defense Sexual Assault Prevention and Response. March 17, 2020.

Poster presenter, with Banyard, V. Youth actionists to prevent disparities caused by peer violence. Annual Meeting of the Society for Social Work and Research. Jan. 15-19, 2020.

Camp, E.E., Banyard, V.L., et al. Lessons learned: Conducting sexual violence research with Native American youth populations. Annual Convention of the American Psychological Association. Aug. 6-9, 2020.

Banyard, V. L., Mitchell, K., and Jones, L. Youth actionists to prevent disparities caused by peer violence. Society for Social Work Research. Jan. 15-19, 2020.

Poster presenter, with Wormwood, J., Banyard, V., et al. Alcohol use and unwanted sexual experience among graduate students. Annual Meeting of the American Psychological Association. May 21-24, 2020.

Lynne Elkins

Earth and Atmospheric Sciences

Keynote speaker. A review of magma generation beneath North Atlantic mid-ocean ridges. American Geophysical Union 2019 Chapman Conference on Large-Scale Volcanism in the Arctic. Oct. 2019.

Presenter/speaker, with M. Spiegelman. Development of U-series disequilibrium melting and transport models using Jupyter and Python. Goldschmidt Conference, the Geochemical Society. Aug. 2019.

Presenter/speaker, with Meyzen, C.M., Callegaro, S., Marzoli, A. Melting of subduction modified mantle and continental crustal assimilation recorded by end-Triassic tholeiites from southern Eastern North America. American Geophysical Union Fall Meeting. Dec. 2019.

Presenter/speaker. Vertical streamline integration of U-series disequilibria in basalts. Goldschmidt Conference (virtual), the Geochemical Society. June 2020.

Ilya Fabrikant**Physics and Astronomy**

Presenter/speaker. Recent advances in the theory of dissociative electron attachment. XXI International Symposium on Electron-Molecule Collisions and Swarms. July 18-21, 2019.

Presenter/speaker. Recent advances in the theory of electron attachment to molecules and clusters. The Ninth International Symposium: Atomic Cluster Collisions. July 31-Aug. 3, 2019.

Presenter/speaker. Electron attachment to molecules in condensed-matter and cluster environments. Second ELENA (Low energy ELEctron driven chemistry for the advantage of emerging NANO-fabrication methods) Conference, Marie Skłodowska-Curie Innovative Training Network. Sept. 4-6, 2019.

Presenter/speaker. Dissociative electron attachment at ultra-low energies. International Workshop on Dynamical Methods for Cold Molecular collisions – DYMCOM. Nov. 25-29, 2019.

Charles A. Francis**Agromony and Horticulture**

Presenter/speaker, with Geir Lieblein, Tor Arvid Breland and Anne Marie Nicolaysen. Becoming an effective catalyst for learning: How teachers transform themselves. European Network of Agroecology and Agroecology Teachers Annual Conference. Sept. 26-27, 2019.

Presenter/speaker, with **David Lambe**. Entrepreneurship learning for organic marketing. European Network of Organic Agriculture and Agroecology Teachers. Sept. 27-28, 2019.

Amanda Ganshert**Bureau of Sociological Research**

Presenter/speaker, with **Jolene Smyth**, **Shanshan Deng** and **Lindsey Witt-Swanson**. Visual design experiments on income questions. American Association for Public Opinion Research. June 2020.

Marc Garcia**Sociology/Center for Ethnic Studies**

Presenter/speaker, with Adriana M. Reyes, Catherine García et al. Demographic heterogeneity in life expectancies with functional limitations among older Hispanics in the United States. Population Association of America Annual Meeting. April 22-25, 2020.

Poster presenter, with Kasim Ortiz, Sandra Arevalo et al. Age of migration and cognitive functioning among older Latinos in the United States. Population Association of America Annual Meeting. April 22-25, 2020.

Presenter/speaker, with **Catherine Garcia** and David Warner. Socio-cultural variability in self-reported cognitive impairment among older Latino subgroups in the United States. Gerontological Society of America Annual Meeting. Nov. 3-17, 2019.

Presenter/speaker, with Kasim Ortiz, Sandra Arevalo et al. Age of migration and cognitive functioning among older Latinos in the United States. International Conference on Aging in the Americas. Sept. 30-Oct. 2, 2019.

Presenter/speaker, with Adriana M. Reyes. Racial/ethnic and nativity differentials in cognitive trajectories. American Sociological Association 114th Annual Meeting. Aug. 10-13, 2019.

Roundtable discussion participant, with **Catherine Garcia**, Adriana M. Reyes, and Chi-Tsun Chiu. Variations in functional life expectancies among older Hispanics in the United States by nativity and country of origin. American Sociological Association 114th Annual Meeting. Aug. 10-13, 2019.

Sue Ann Gardner**University Libraries**

Presenter/speaker, with **Paul Royster**. Small but mighty: How a team of four administers a robust library publishing program. International Federation of Library Associations Special Interest Group on Library Publishing. March 5-6, 2020.

Presenter/speaker, with **Andrew Cano** and **Paul Royster**. Global reach: Use of the Nebraska Digital Commons in 3 LMI countries. CERN-UNIGE Workshop on Innovations in Scholarly Communication. June 19-21, 2019.

Presenter/speaker. Open access textbook project. CERN-UNIGE Workshop on Innovations in Scholarly Communication. June 19-21, 2019.

Panel discussion moderator, with Ruth Okediji, Stephen LaPorte and Dinusha Mendis. Copyright. CERN-UNIGE Workshop on Innovations in Scholarly Communication. June 19-21, 2019.

Marques L.A. Garrett**Glenn Korff School of Music**

Presenter/speaker. The music and legacy of R. Nathaniel Dett. National Association of Negro Musicians 100th Anniversary Convention. July 14-17, 2019.

Presenter/speaker. Beyond Elijah Rock: The non-idiomatic choral music of Black composers. National Collegiate Choral Organization Biennial Conference. Nov. 7-9, 2019.

Souparno Ghosh**Statistics**

Presenter/speaker. Coherent multivariate feature selection and inference across multiple databases. International Conference on Statistical Distribution and Application. Oct. 11-12, 2019.

Danni Gilbert**Glenn Korff School of Music**

Presenter/speaker. An examination and comparison of the perceived levels of anxiety and depression of university music majors and non-music majors. 11th Annual International Conference on Visual and Performing Arts, Athens Institute for Education and Research. June 7-10, 2020.

Presenter/speaker. An examination and comparison of the perceived levels of anxiety and depression of university music majors and non-music majors. Florida Music Educators Association Conference. Jan. 10, 2020.

Presenter/speaker. So you want to be a music education major? Here's what you need to know. Nebraska Music Educators Association Conference. Nov. 21-23, 2019.

Presenter/speaker. An examination and comparison of the perceived levels of anxiety and depression of university music majors and non-music majors. Gordon Institute for Music Learning International Conference. July 31, 2019.

Iker González-Allende**Modern Languages and Literatures**

Presenter/speaker. Basque exiled women in the United States: Gender and national identity in *Basque Girl* (1940), by Mirim Isasi. Keeping Spain's Exile in the Americas and Maryland Alive In Our Hearts (1939-1989-2019). Oct. 23-24, 2019.

Presenter/speaker. Literatura juvenil vasca en Estados Unidos: Género e identidad nacional en el exilio en *White Stars of Freedom* (1942), de Mirim Isasi y Melcena Burns Denny. XXIX Congreso Internacional de la Asociación de Estudios de Género y Sexualidades: CreadorAS en la Educación Literaria e Intercultural. July 18-20, 2019.

Tricia Gray**Teaching, Learning and Teacher Education**

Panel discussion participant, with Phillips, A. Collaborative agency in constrained spaces. Annual meeting of the American Anthropological Association. Nov. 2019.

Mark Griep**Chemistry**

Keynote speaker. Everything I know about chemistry, I learned at the movies. Southeastern Undergraduate Research Conference, University of Alabama. Jan. 24, 2020.

Keynote speaker. A periodic table of chemistry in the movies. Conference for Undergraduate Women in Physical Sciences, Nebraska Materials Research Science and Engineering Center. Nov. 6-10, 2019.

Yawen Guan**Statistics**

Presenter/speaker, with H. Wang and B. Reich. Nearest-neighbor neural networks for geostatistics. International Conference on Data Mining Workshops. Nov. 8-11, 2019.

Presenter/speaker. Spatiotemporal air pollution analysis using mobile monitors on Google Street View vehicles. Joint Statistical Meeting. Aug. 2019.

Presenter/speaker. A comparison of statistical and machine learning methods for creating national daily maps of ambient PM2.5 concentration. U.S. Environmental Protection Agency. Feb. 2020.

Presenter/speaker. Multivariate spectral downscaling for multiple air pollutants. ENAR Spring Meeting. March 2020.

Shivam Gupta**Supply Chain Management and Analytics**

Presenter/speaker. Analyzing the impact of one-Europe policy on agribusiness markets. Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting. Oct. 20-23, 2019.

Presenter/speaker. Procurement with cost and non-cost attributes: Cost-sharing mechanisms. INFORMS Annual Meeting. Oct. 20-23, 2019.

Rumiko Handa**Architecture**

Presenter/speaker. Time and imperfection. Conserving Active Matter: Philosophy—Degradation as an Aesthetic Value, Bard Graduate Center in New York, supported by the Andrew W. Mellon Foundation. Nov. 2019.

Presenter/speaker. Urban aesthetics: Positive imperfection in contemporary architecture. Aesthetics and Ethics of Imperfection, Kansai University, Osaka, Japan. Feb. 2020.

Michael Hoff**Art, Art History and Design**

Presenter/speaker. Antiochia ad Cragum in Rough Cilicia 2019. AKMED Arkeolojik Kazilar Webinari, Suna and Inan Kiraç Research Center for Mediterranean Civilizations, Koç University, Antalya, Turkey. June 10, 2020.

Soo-Young Hong**Child, Youth and Family Studies**

Presenter/speaker. Early childhood science teaching and learning. University of Sao Paulo Early Childhood Workshop. Nov. 2020.

Terry J. Housh**Nutrition and Health Sciences**

Presenter/speaker, with J.P.V. Anders, J.L. Keller, C.M. Smith, E.C. Hill, T.J. Neltner, R.J. Schmidt and G.O. Johnson. Performance fatigability and the bilateral deficit during maximal, isokinetic leg extensions in men and women. National Strength and Conditioning Association Annual Meeting. July 2020.

Presenter/speaker, with T.J. Neltner, J.P.V. Anders, J.L. Keller, K. Hergenrader, R.J. Schmidt and G.O. Johnson. The relative contributions of muscle cross-sectional area, muscle quality, and sex to the prediction of maximal isometric leg extension force. National Strength and Conditioning Association Annual Meeting. July 2020.

Presenter/speaker, with J.L. Keller, J.P.V. Anders, T.J. Neltner, R.J. Schmidt and G.O. Johnson. Sex-specific muscle activation during fatiguing tasks anchored to low and high perceptual based loads. National Strength and Conditioning Association Annual Meeting. July 2020.

Presenter/speaker, with J.L. Keller, J.P.V. Anders, T.J. Neltner, K.J. Hergenrader, R.J. Schmidt and G.O. Johnson. Relative contributions of muscular strength, muscle size, and tissue oxygenation to isometric performance fatigability. Medicine and Science in Sports and Exercise, American College of Sports Medicine Annual Meeting. May 2020.

Presenter/speaker, with T.J. Neltner, J.P.V. Anders, C.M. Smith, J.L. Keller, E.C. Hill, R.J. Schmidt and G.O. Johnson. Fatigue-induced changes in neuromuscular responses during maximal bilateral leg extensions. American College of Sports Medicine Annual Meeting. May 2020.

Presenter/speaker, with J.P.V. Anders, J.L. Keller, C.M. Smith, E.C. Hill, T.J. Neltner, R.J. Schmidt and G.O. Johnson. Performance fatigability and neuromuscular patterns of responses for bilateral versus unilateral leg extensions in men. American College of Sports Medicine Annual Meeting. May 2020.

Reka Howard**Statistics**

Presenter/speaker. Response surface analysis of genomic prediction accuracy values using quality control covariates in soybean. INFORMS. Oct. 22, 2019.

Presenter/speaker. Response surface analysis of genomic prediction accuracy values using quality control covariates in soybean. 12th International Conference of the ERCIM WG on Computational and Methodological Statistics. Dec. 16, 2019.

Qing Hui**Electrical and Computer Engineering**

Presenter/speaker, with Haopeng Zhang. A coupled spring forced bat searching algorithm: Design, analysis and evaluation. 2020 American Control Conference. June 2020.

Thomas E. Hunt**Entomology**

Presenter/speaker, with Heng-Moss, T. Soybean tolerance to the soybean aphid, *Aphis glycines*. XIX International Association of Plant Protection Sciences Congress. Nov. 12, 2019.

Jamie Hyodo**Marketing**

Presenter/speaker, with Matthew Hall. I should have tried that: The risks of serving growth-minded consumers in an increasingly DIY marketplace. American Marketing Association Winter Marketing Educators' Conference. Feb. 22-24, 2020.

Presenter/speaker, with Matthew Hall and Alix Barasch. When likes lead to liking: How post-consumption attention enhances experience satisfaction. American Marketing Association Winter Marketing Educators' Conference. Feb. 22-24, 2020.

Presenter/speaker, with Lisa E. Bolton. How does religion affect consumer response to failure and recovery by firms? American Marketing Association Consumer Behavior Special Interest Group. July 5-7, 2019.

Presenter/speaker, with Matthew Hall. The risks of serving growth-minded consumers in an increasingly DIY marketplace. American Marketing Association Consumer Behavior Special Interest Group. July 5-7, 2019.

Aaron Johnson**Teaching, Learning and Teacher Education**

Presenter/speaker, with Scribner, G. Exploring one enslaved woman's power through scaffolded digital storytelling. National Council for History Education Annual Conference. March 19-21, 2020.

Presenter/speaker, with Yoder, P. "I'm bored?" Promoting agency among English learners through authentic inquiry. National Council for the Social Studies Annual Conference. Nov. 22-24, 2019.

Jennifer Johnson Jorgensen**Textiles, Merchandising and Fashion Design**

Presenter/speaker. Owner and community involvement and business success in small family-owned businesses. United States Association of Small Business and Entrepreneurship Annual Conference. Jan. 3-7, 2020.

Presenter/speaker. The influence of social networking websites on the socialization of the baby boomer generation. International Textile and Apparel Association Annual Conference. Nov. 18-20, 2019.

Steve Kachman**Statistics**

Presenter/speaker. Design and interpretation. Nebraska Microbiome Research Interest Group Symposium, University of Nebraska Medical Center. May 28, 2020.

Alice Kang**Political Science/Institute for Ethnic Studies**

Presenter/speaker. Who represents the poor in Burkina Faso's national assembly? African Studies Association. Nov. 2019.

Presenter/speaker with Nam Kyu Kim. External security threats and attitudes toward male and female leaders. American Political Science Association. Sept. 2019.

Presenter/speaker with Maria Escobar-Lemmon, Valerie Hoekstra and Miki Kittilson. Breaking the judicial glass ceiling. European Conference on Politics and Gender. July 2019.

Brian M. Kelly**Architecture**

Presenter/speaker. Photogrammetry and social media in the development of virtual space. Connections: Exploring Heritage, Architecture, Cities, Art Media. Architecture, Media, Politics, Society. June 29, 2020.

Taeyeon Kim**Educational Administration**

Presenter/speaker. School leaders' perceptions of and responses to accountability: Multiple meanings and ethical dilemmas. University Council for Educational Administration Convention. Nov. 2019.

Presenter/speaker, with Charles Lowery. Who should get "ineffective"? Ethical dilemmas in leadership decisions. University Council for Educational Administration Convention. Nov. 2019.

Lisa Knoche**Nebraska Center for Research on Children, Youth, Families and Schools**

Presenter/speaker, with Amy Bunnell and Sarah Carter. Family partnerships in early intervention: Two states' collaborations with higher education. Office of Special Education Programs Leadership Conference, U.S. Department of Education. July 2019.

Natalie A. Koziol**Nebraska Center for Research on Children, Youth, Families and Schools**

Presenter/speaker. An investigation of sample weighted multilevel propensity score analysis. American Psychological Association Convention. Aug. 2019.

Presenter/speaker, with J. Marc Goodrich and HyeonJin Yoon. Differential functioning of English and Spanish-adapted kindergarten mathematics achievement items: A regression discontinuity design application. American Educational Research Association Annual Meeting. April 2020.

Patty Kuo**Child, Youth and Family Studies**

Presenter/speaker, with Sonny Bechayda, Abet Bas and Lee Gettler. Parents' gender dynamics in childhood predict men's later marital quality: Evidence from Cebu, Philippines. National Council on Family Relations 81st Annual Conference. Nov. 2019.

Yingchao Lan**Supply Chain Management and Analytics**

Presenter/speaker. Cost implication of freelancer physicians. 2019 INFORMS Healthcare Conference, INFORMS. July 2019.

Panel discussion participant. Designing Interactive Systems doctoral consortium. Decision Science Institute Annual Conference. Nov. 2019.

Elizabeth Lewis**Teaching, Learning and Teacher Education**

Presenter/speaker, with Lucas, L., Tankersley, A., Hasseler, E., et al. Predictors of inquiry-based science teaching. European Science Education Research Association. Aug. 2019.

Presenter/speaker, with Rivero, A. Reflection and inquiry-based teaching: Exploring reflective practices in beginning secondary science teachers. European Science Education Research Association. Aug. 2019.

Joe Louis**Entomology**

Keynote speaker. Conventional and omic approaches to integrate host plant resistance in IPM. XIX International Association of Plant Protection Sciences Congress. Nov. 2019.

Andre Maciel**Marketing**

Presenter/speaker, with Eileen Fischer. Collaborative market driving: Conceptualizing collective action in market orientation strategies. Association for Consumer Research North American Conference. Oct. 17-20, 2019.

Presenter/speaker, with Michelle Weinberger. The logic and practices of consumers who fund businesses: A study of crowdfunding. Consumer Culture Theory Conference. July 17-19, 2019.

Lorraine Males**Teaching, Learning and Teacher Education**

Presenter/speaker, with Block, S. Examining equitable participation in a professional learning community using the EQUIP tool. Mathematics Teacher Education-Partnership. June 2020.

Presenter/speaker, with Smith, W.M. Transforming secondary mathematics teacher preparation across a state: Promises and challenges. Mathematics Teacher Education-Partnership. Aug. 2019.

Presenter/speaker, with Buchbinder, O. Learning to plan instructional units: Re-examining the grain-size in teacher preparation. Association of Mathematics Teacher Educators. Feb. 2020.

Presenter/speaker, with Raygoza, M.C., Lischka, A.E., et al. Humanizing approaches to grading with mathematics pre-service teachers: Navigating and pushing beyond systems. Association of Mathematics Teacher Educators. Feb. 2020.

Presenter/speaker, with Quigley, K., Block, S., and Setniker, A. Using curricular noticing to examine teachers' use of curriculum materials to plan and enact instruction. North American Chapter of the International Group for the Psychology of Mathematics Education. Nov. 2019.

Bernard R. McCoy **Broadcast Journalism**

Presenter/speaker. Gen Z and digital distractions in the classroom: Student classroom use of digital devices for non-class related purposes. #BEAVirtualVegas, virtual convention, Broadcast Education Association. April 17-24, 2020.

Justin McMechan **Entomology**

Presenter/speaker, with T. Hunt, R. Wright et al. Soybean gall midge: Observations on an emerging pest of soybean. Entomological Society of America Annual Meeting. Nov. 20, 2019.

Kim Meiergerd **Bureau of Sociological Research**

Presenter/speaker, with Amanda Ganshert, Lindsey Witt-Swanson and Jolene Smyth. An experimental study on the effects of sponsor emphasis and incentive packaging on response. Midwest Association for Public Opinion Research. Nov. 22, 2019.

Presenter/speaker, with Amanda Ganshert, Lindsey Witt-Swanson and Jolene Smyth. An experimental study on the effects of sponsor emphasis and incentive packaging on response. American Association for Public Opinion Research. June 2020.

Deepika Menon **Teaching, Learning and Teacher Education**

Presenter/speaker, with Shaw, K., Overduin, J., and Lowing, T. Steam power as a teaching tool in introductory physics. American Physical Society April Virtual Meeting. April 2020.

Jake Messersmith **Management**

Presenter/speaker. Perceived HRM systems, well-being, and organizational performance: A two-wave longitudinal study. Academy of Management Annual Conference. Aug. 2019.

Claire Nicholas **Textiles, Merchandising and Fashion Design**

Presenter/speaker, with Mary Alice Casto, Katie Francisco, and Alyssa Smith. No place like home? Shifting design ideals for eldercare facilities. Fashion and Active Aging Symposium, College of Design, University of Minnesota. Sept. 26-28, 2019.

Elizabeth Niehaus **Educational Administration**

Panel discussion participant, with Cole, E., Friedman, J., et al. The professor in polarized times: Challenges of free speech and inclusion on campus and in the classroom. Annual Meeting of the American Historical Association. Jan. 2020.

Glenn E. Nierman **Glenn Korff School of Music**

Presenter/speaker. Assessing beyond presenting a polished performance. National Association for Music Education National Inservice Conference. Nov. 9, 2019.

Keynote speaker. Music for a lifetime: Inquire. Inspire. Invest. Kansas Consortium of Music Teacher Education Professors and Students Annual Conference, Kansas Music Educators Association. Sept. 29, 2019.

Presenter/speaker. Assessment in a revised standards environment: An introduction to NAFME's 2016 workbooks for building and evaluating effective music education. Kansas-Consortium of Music Teacher Education Professors and Students Annual Conference, Kansas Music Educators Association. Sept. 30, 2019.

Kendra L. Ordia **Interior Design**

Presenter/speaker. Spatial narrative in biophilic interior design. 2020 Interior Design Educators Council Annual Conference. March 4-7, 2020.

Hasan H. Otu **Electrical and Computer Engineering**

Presenter/speaker, with Vasunilashorn, S.M., Ngo, L.H., et al. An inflammatory signature of postoperative delirium. Gerontological Society of America Annual Scientific Meeting. Nov. 13-17, 2019.

Presenter/speaker, with Vasunilashorn, S.M., Ngo, L.H., et al. Inflammation as a potential shared mechanism for postoperative delirium and long-term cognitive decline in older adults undergoing major surgery. Alzheimer's Association International Conference. July 14-18, 2019.

Presenter/speaker, with Tripp, B.A., Dillon, S.T., et al. Metabolomics of delirium: A case-control study. Gerontological Society of America Annual Scientific Meeting. Nov. 13-17, 2019.

Morgan E. Palmer **Classics and Religious Studies/ Women's and Gender Studies**

Presenter/speaker. The fictores on inscriptions from the Atrium Vestae. Third North American Congress of Greek and Latin Epigraphy. Jan. 6, 2020.

Presenter/speaker. Always advanced by her recommendations: The Vestal Virgins and women's mentoring. Society for Classical Studies Annual Meeting, Women's Classical Caucus Panel. Jan. 5, 2020.

Presenter/speaker. The Vestal Virgins and conflict resolution across genres: Livy and Valerius Maximus. Classics and Conflict Resolution in Ancient and Modern Contexts II: Theory and Genre, Arts and Humanities Research Council, King's College, London. July 1-3, 2019.

Daniel Piatkowski **Community and Regional Planning**

Presenter/speaker, with **Justin McCully** and Melissa Piatkowski. Towards a rural vision zero: A qualitative exploration of vulnerable road user fatalities in rural areas. Bridging Transport Researchers, Texas A&M. Aug. 11-12, 2019.

Keynote speaker. Acceptable losses? Understanding vulnerable road user (VRU) fatalities in rural Nebraska. Nebraska Bike/Walk Summit, Bike/Walk Nebraska. Oct. 17, 2019.

Presenter/speaker. Smart cities for the rest of us? Nebraska Department of Transportation's Future of Transportation Forum. Virtual, NDOT. June 25, 2020.

Presenter/speaker, with **Justin McCully** and Melissa Piatkowski. Acceptable losses? Specifying fault in bicycle and pedestrian traffic deaths. Active Living Research Conference. Feb. 2-5, 2020.

Presenter/speaker, with **David Newton** and Wesley Marshall. Bird's eye view of health outcomes: Using deep learning to estimate health measures from satellite images. Active Living Research Conference. Feb. 2-5, 2020.

Presenter/speaker. The "Family CAB": Addressing family chauffeur-associated-burdens (CABs). Annual Meeting of the Transportation Research Board. Jan. 12-16, 2020.

Presenter/speaker with Wesley Marshall. When driving is no longer an option: Perceptions and plans for coping with age-related driving cessation. Association of Collegiate Schools of Planning. Oct. 13-15, 2019.

Zachary T. Porter **Architecture**

Presenter/speaker. Groundforms: Architectural constructions of ground (after the digital). Schools of Thought: Rethinking Architectural Pedagogy, University of Oklahoma. March 5-7, 2020.

Robert Powers **Chemistry**

Keynote speaker. Further developments in the application of metabolomics for drug discovery and disease diagnosis. Arizona State University-MAYO Metabolomics and Cardiac Regeneration Symposium. Feb. 28, 2020.

Presenter/speaker. A combined NMR and MS metabolomics approach to study neurodegenerative diseases. Great Plains Regional Annual Symposium on Protein and Biomolecular NMR. Nov. 22-23, 2019.

Presenter/speaker. A combined NMR and MS metabolomics approach to study neurodegenerative diseases. Chicago Area NMR Discussion Group. Nov. 2, 2019.

Laurence R. Rilett **Civil and Environmental Engineering/ Nebraska Transportation Center**

Keynote speaker. Sustainability, reliability, and resiliency in transportation engineering. Conférence Internationale de Géotechniques, Ouvrages et Structures. Oct. 31-Nov. 1, 2019.

Keynote speaker. Simulation-based reliability and resiliency metrics. Fifth International Conference on Transportation Information and Safety. July 14-17, 2019.

Paul Royster **University Libraries**

Presenter/speaker. IRs in America: Land of the free or free online access. International Association of Technological University Libraries Seminar. Dec. 10, 2019.

Blake Runnalls **Marketing**

Presenter/speaker, with **Carissa Harris**, Nikos Dimotakis and **Pinar Kekec**. How leader-member exchange (LMX) agreement impacts salesperson turnover. American Marketing Association Winter Marketing Educators' Conference. Feb. 22-24, 2020.

Presenter/speaker, with **Ravi Agarwal**, Nikos Dimotakis and **Pinar Kekec**. The effect of team intelligence configuration on role overload and salesperson turnover. American Marketing Association Winter Marketing Educators' Conference. Feb. 22-24, 2020.

Sajeesh Sajeesh **Marketing**

Presenter/speaker, with Ashutosh Singh and Pradeep Bhardwaj. Whitelisting versus sophisticated ad recovery: Effective strategies to overcome ad blocking. American Marketing Association Winter Marketing Educators' Conference. Feb. 22-24, 2020.

Loukia Sarroub **Teaching, Learning and Teacher Education**

Presenter/speaker. The telling case of middle and high school readers as spatial. Ethnographic and Qualitative Research Conference. Feb. 25, 2020.

Lawrence Scharmann **Teaching, Learning and Teacher Education**

Presenter/speaker. Evolution and nature of science: An account of changes in evolution instruction. National Science Teaching Association Annual Conference. April 5, 2020.

James C. Schnable

Agronomy and Horticulture/ Center for Plant Science Innovation

Presenter/speaker. Genes and gene-like sequences in maize, sorghum and arabidopsis. Plant and Animal Genome, Scherago. Jan. 11-15, 2020.

Presenter/speaker. Mapping recombination breakpoints in sorghum using highly multiplexed whole genome shotgun sequencing. Plant and Animal Genome, Scherago. Jan. 11-15, 2020.

Presenter/speaker. Climbing the phenotyper's pyramid. Guelph Plant Sciences Symposium, University of Guelph/Corteva. Nov. 20, 2020.

Panel discussion participant. The future of machine learning in agricultural systems. Machine Learning for Cyber-Agricultural Systems, USDA and Japanese Science and Technology Agency. Sept. 11-12, 2019.

Keynote speaker. Separating genes from gene-like sequences in maize and sorghum. Brewbaker Endowed Lecture, University of Hawaii. Oct. 11, 2019.

Susan M. Sheridan

Nebraska Center for Research on Children, Youth, Families and Schools/ Educational Psychology

Presenter/speaker, with Brown, K. E., Eastberg, S. A., Chen, D., Abrica, B., Wheeler, L. A., and Derr, K.I. Assessing Latinx parent-teacher relationships: Considering language and school content. Annual Convention of the National Association of School Psychologists. Feb. 18-21, 2020.

Presenter/speaker, with Gomes, R.T.M., and Smith, T.E. Promoting social-emotional functioning through conjoint behavioral consultation. Annual Convention of the National Association of School Psychologists, National Association of School Psychologists. Feb. 18-21, 2020.

Presenter/speaker, with Kerby, H. M., Schumacher, R. E., Choi, D., Koziol, N. A., Witte, A. L., Prokasky, A. et al. Student-teacher relationships and classroom quality: Implications for children of color. Annual Convention of the National Association of School Psychologists. Feb. 18-21, 2020.

Presenter/speaker, with Derr, K.I., and McClure, D. Promoting student success through parent-teacher collaboration. Annual Conference of the Colorado Association of School Boards. Dec. 3-6, 2019.

Presenter/speaker, with Harbourne, R.T., Koziol, N.A., Bovaird, J.A. et al. Efficacy of the START-Play Program for Infants with Neuromotor Disorders: Cognitive outcomes. Annual Meeting of the American Academy for Cerebral Palsy and Developmental Medicine and International Alliance of Academies of Childhood Disability. Sept. 18-21, 2019.

Presenter/speaker, with Bass, H.P., Gomes, R., Racine, B., Bovaird, J.A., and Gormley, M.J. Conjoint behavioral consultation: Who benefits most? Annual Convention of American Psychological Association. Aug. 8-11, 2019.

Presenter/speaker, with Brown, K.E., Eastberg, S.R.A., and Smith, T.E. Family-school interventions and ELL students: A meta-analysis of literacy outcomes. Annual Convention of American Psychological Association. Aug. 8-11, 2019.

Presenter/speaker, with Kerby, H.M., Schumacher, R.E., Koziol, N., Racine, B.C., Overfield, R.A., and Spradlin, C.A. Neighborhood characteristics and geographic contexts: Impacts on children's social-emotional skills. Annual Convention of American Psychological Association. Aug. 8-11, 2019.

Sunil Singh

Marketing

Presenter/speaker, with Blake Runnalls, Mohsen Pourmasoudi and Bitty Balducci. Emerging trends in sales and service. Organizational Frontline Research Symposium. Feb. 13-14, 2020.

Jolene D. Smyth

Sociology

Presenter/speaker, with Kristen Olson. Do interviewers accurately field code answers? An experiment on the effect of number of response categories. Midwest Association for Public Opinion Research Conference. Nov. 22-23, 2019.

Presenter/speaker, with Kristen Olson. Do interviewers accurately code answers for field code items? An experiment on the effect of number of response categories. European Survey Research Association Conference. July 15-19, 2019.

Ravipreet Sohi

Marketing

Presenter/speaker, with Ravi Agarwal. Building customer relationships: Why does the most recent history matter in B2B exchange relations? American Marketing Association Winter Marketing Educators' Conference. Feb. 22-24, 2020.

Presenter/speaker, with Shilpa Somraj. Using salesforce intelligence to extract social media intelligence. American Marketing Association Winter Marketing Educators' Conference. Feb. 22-24, 2020.

Hyun-Seob Song**Biological Systems Engineering/
Food Science and Technology**

Presenter/speaker. Multiomics-based metabolic network reconstruction and pathway analysis for predictive biogeochemical modeling. Metabolic Pathway Analysis 2019, European Union. Aug. 12-16, 2019.

Presenter/speaker. Substrate-explicit modeling. SFA Community Watershed Workshop, Pacific Northwest National Laboratory. Sept. 11-12, 2019.

Presenter/speaker. Modeling of environment-dependent microbial interactions and dynamics. American Institute of Chemical Engineers Annual Meeting. Nov. 10-15, 2019.

Presenter/speaker. Multiomics integration for substrate-explicit biogeochemical modeling and more. American Geophysical Union Fall Meeting. Dec. 9-13, 2019.

Presenter/speaker. The regulation of microbial nitrogen-transforming pathways: An enzyme-explicit modeling approach. American Geophysical Union Fall Meeting. Dec. 9-13, 2019.

Erkut Sonmez**Supply Chain Management and Analytics**

Presenter/speaker. Dynamic irrigation management under temporal and spatial variability. INFORMS Annual Meeting. Oct. 20-23, 2019.

Julie Thomas**Teaching, Learning and Teacher Education**

Presenter/speaker, with J. Thomas, T. Mittlestet and E. Ingram. Exploring BBC micro:bits as a tool for improving elementary pre-service teacher STEM preparation and science teaching self-efficacy. Annual Conference of the Association for Science Teacher Education. Jan. 9-11, 2020.

Varkey K. Titus**Management**

Presenter/speaker, with Owen Parker and Cole Short. Your horses: Negative anticipatory impression management, and when and why managers engage in it. Strategic Management Society Conference. Oct. 19-22, 2019.

Susan VanderPlas**Statistics**

Presenter/speaker. Big data, big experiments, and big problems. Plant and Animal Genome. Jan. 2020.

Presenter/speaker. One of these things is not like the others: Visual statistics and testing in statistical graphics. Data Science Symposium, South Dakota State University. Feb. 2020.

Lily M. Wang**Durham School of Architectural
Engineering & Construction**

Presenter/speaker, with Kieren H. Smith. Acoustic conditions in occupied classrooms. 26th International Congress on Sound and Vibration, International Institute of Acoustics and Vibration. July 7-11, 2019.

Presenter/speaker, with Kieren H. Smith. Exploring the effect of ventilation type on the acoustics of primary and secondary school classrooms. International Congress on Acoustics 2019, International Commission for Acoustics. Sept. 9-13, 2019.

Presenter/speaker, with Kieren H. Smith and Victoria R. Anderson. Design features and room characteristics contributing to noise levels in restaurants. International Symposium on Room Acoustics 2019, International Commission for Acoustics. Sept. 15-17, 2019.

Presenter/speaker, with Jared Paine and Joshua Palakapilly. Variations in restaurant soundscapes. 178th Meeting of the Acoustical Society of America. Dec. 2-7, 2019.

Yujia Wang**Landscape Architecture**

Keynote speaker. Hybrid pedagogy: Transfer of knowledge to teach landscape vision planning and design in studio. Environmental Design Research Association Conference EDRA 51. April 4-7, 2020.

Lorey A. Wheeler**Nebraska Center for Research on
Children, Youth, Families and Schools**

Presenter/speaker, with Fabianne Gondim, Donna Chen, Cindy Miller and Martin Reisslein. Latina/o parents' role in youth's STEM identity, self-efficacy, and adjustment. Annual Meeting of the National Council on Family Relations. Nov. 20-23, 2019.

Cynthia Willis-Esqueda**Psychology/Institute for Ethnic Studies**

Presenter/speaker, with Gilbert, K. The taint of criminality for exonerees and their children. American Psychology-Law Society Meeting. March 6, 2020.

Amanda L. Witte**Nebraska Center for Research on
Children, Youth, Families and Schools**

Presenter/speaker, with Kristen Derr and Susan M. Sheridan. Better behavior through family engagement: Tailoring behavior interventions for individual students and families. Nebraska MTSS Summit, Nebraska Department of Education. Sept. 2019.

Presenter/speaker, with Kristen Derr and Susan M. Sheridan. Teachers and parents as partners: Partnering for the future. Family-School-Community Alliance Annual Meeting. Sept. 2019.

Biyu Wu**Accountancy**

Presenter/speaker, with Xiaotao Kelvin Liu. Do IPO firms misclassify expenses? Implications for IPO price formation and post-IPO stock performance. American Accounting Association Annual Meeting. Aug. 9-14, 2019.

Shi-Hua Xiang**Veterinary Medicine and Biomedical Sciences/
Nebraska Center for Virology**

Presenter/speaker, with Leslie Estrada, Joshua Wiggins and Leah Liu Wang. Structure based design of peptide inhibitors targeting Ebola endosomal receptor NPC1 binding site. ASV Filoviruses I & II, American Society for Virology. June 18, 2020.

Liang Xu**Supply Chain Management and Analytics**

Presenter/speaker, with Hongmin Li and Hui Zhao. Outcome-based reimbursement: The solution to high drug spending? INFORMS Annual Conference. Oct. 20-23, 2019.

Presenter/speaker, with Hui Zhao. How does medication-assist treatment help in combating the opioid epidemic? INFORMS Annual Conference. Oct. 20-23, 2019.

Yiqi Yang**Textiles, Merchandising and Fashion Design**

Keynote speaker, with B.N. Mu, F. Hassan and L. Xu. Pure keratin fibers from poultry feathers. Ninth International Conference on Advanced Fibers and Polymer Materials. Nov. 19-23, 2019.

Presenter/speaker, with B.N. Mu and F. Hassan. Continuous wet spun keratin fibers from chicken feathers. Fourth International Symposium on Materials from Renewables. Oct. 9-10, 2019.

Presenter/speaker, with B.N. Mu, L.Y. Liu and W. Li. An environmentally responsible dyeing technology. 2019 International Conference on Eco-Textiles. Aug. 4-6, 2019.

HyeonJin Yoon**Nebraska Center for Research on
Children, Youth, Families and Schools/
Nebraska Academy for Methodology,
Analytics and Psychometrics**

Presenter/speaker, with Keith Zvoch, Keith Smolkowski and Ben Clarke. Evaluation of the validity and precision of the multiple-cutoff regression discontinuity designs: A within-study comparison. Annual Meeting of American Educational Research Association. April 17-21, 2020.

Panel discussion participant, with Chris Ives and Gina Biancarosa. Identifying first grade reading profiles with latent profile analysis. Annual Convention of the National Association of School Psychologists. Feb. 18-21, 2020.

David P. Yuill**Durham School of Architectural
Engineering & Construction**

Presenter/speaker. The surprising effects of outdoor coil fouling on heat transfer and frost formation rate. American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Winter Conference. Feb. 1-5, 2020.

Presenter/speaker. A method for simulating real air side fouling based on field sample analysis. ASHRAE Winter Conference. Feb. 1-5, 2020.

Janos Zempleni**Nutrition and Health Sciences**

Presenter/speaker, with M. Sadri and F. Zhou. Knockout of maternal Tsg101 and Dicer impair gut health in suckling wild-type pups. American Society for Exosomes and Microvesicles (ASEMV) Annual Meeting. Oct. 6-10, 2019.

Poster presenter, with M. Sadri and F. Zhou. Knockout of maternal Tsg101 and Dicer impair gut health in suckling wild-type pups (poster). ASEMV Annual Meeting. Oct. 6-10, 2019.

Keynote speaker. Milk exosomes. Seventh International Conference on Food Factors. Dec. 1-5, 2019.

Keynote speaker. Concluding remarks for session on exosomes and microRNA. Seventh International Conference on Food Factors. Dec. 1-5, 2019.

Invited speaker. Biological activities of milk exosomes and their RNA cargos within and across species boundaries. Laureate Institute for Brain Research. Jan. 22, 2020.

Ruizhi Zhang**Statistics**

Presenter/speaker. A game-theoretic approach to sequential detection in adversarial environments. IEEE International Symposium on Information Theory. June 2020.

Invited speaker. Adaptive online monitoring of the Ising model. 57th Annual Allerton Conference. Sept. 2019.

Yuzhen Zhou**Statistics**

Invited speaker. Tail asymptotics for the extremes of bivariate Gaussian random fields. Analysis and Data Science Seminar, University of Albany. Oct. 7, 2019.

Mentorship: UCARE and FYRE Programs

The Undergraduate Creative Activities and Research Experience program and the First Year Research Experience program enable Husker undergraduate students to work one-on-one with a faculty member on a research or creative project in the mentor's field of scholarship. The following faculty members mentored students – whose names, majors and project titles are also listed – during the summer of 2019 and/or the 2019-2020 academic year.

Compiled by the Office of Undergraduate Research and the Office of Graduate Studies

Peter Angeletti **Biological Sciences**

Patience Gihozo, integrated science. Characterization of Ocular Surface Squamous Neoplasia (OSSN) Among HIV+ and HIV-Zambians

Salan Preet Kaur, biological sciences. Does HIV Promote HPV-Related Eye Tumors?

Effie Athanassopoulos **Anthropology/ Classics and Religious Studies**

Alexander Kuehler, anthropology/classics and religious studies. The Origins and History of the Perry-Campbell Coin Collection

William Roe, anthropology. The Perry-Campbell Coin Collection at the Nebraska State Museum: Documenting the Coin Collection

Audrey Atkin **Biological Sciences**

Anna Barent, biological sciences. Use of pmirGLO to Detect Bovine miRNA Effects on Human Gene Expression

Jennifer Auchtung **Food Science and Technology**

Keegan Schuchart, biochemistry. Effects of Microbiota Accessible Carbohydrates on *Clostridioides difficile* Infection

Raul Barletta **Veterinary Medicine and Biomedical Sciences**

Tim Kaftan, biological sciences. Targeting the Biosynthesis of Mycobacterial Peptidoglycan Precursors in Search of Novel Targets for Drug Development and Vaccines

Greg Bashford **Biological Systems Engineering**

Juliana Rodriguez, biological systems engineering. Artificial Emboli Verification and Discrimination in Cerebral Circulation: Increasing Sensitivity and Specificity of Embolic Detection Via Transcranial Doppler Ultrasound

Donald Becker **Biochemistry**

Trinh Huong, biochemistry. Impact of Substrate Channeling in Proline Metabolism on Cell Growth

David Berkowitz **Chemistry**

Jonathan Askey, French. Synthesis of Chiral Phosphonates (Phosphate Mimics) Through Enzymatic Dynamic Reductive Kinetic Resolution

Nate Bicak **Architecture**

Annie Mimick, architecture. Material Assemblies Research and Prototyping for Interior Design + Build

Paul Blum **Biological Sciences/Biological Systems Engineering**

Stephan Sutter, biological systems engineering/biochemistry. Developing Targeted ChIP Methods in *Sulfolobus solfataricus* to Identify Proteins Involved in Epigenetically Controlled Expression

Justin Bradley **Computer Science and Engineering/ Mechanical & Materials Engineering**

David Besonen, computer science. The Harmonizer Project: A Commercially Available Evolution in Music Creation

Liam Kruse, mechanical engineering. Towards the Development of On-the-Fly Markov Decision Process Updating

Eve Brank **Psychology**

Kaitlyn Wilson, psychology. The Effects of Social Support on Consent to Search Decisions

Chad Brassil **Biological Sciences**

Miranda Martin, biological sciences. The Influence of Temperature and Density on the Induction of Winged Aphids

Anita Breckbill **Glenn Korff School of Music**

James Heisner, anthropology/women's and gender studies. Lincoln's Culture: Preservation of Classical Music Printed Programs

Rebecca Brock **Psychology**

Olivia Maras, psychology. Influence of Parental Eating Pathology on Child Obesity Risk at Two Years of Age/Role of Parental Eating Pathology on Child Outcomes and Parenting Practices

David Cahan **History**

Hannah Oh, graphic design/computer engineering/mathematics. The Nobel Prizes in the Natural Sciences as Proxy for National Scientific Strength: A Databased Approach

Matthew Carlson **Center on Children, Families and the Law**
Chelsey Wisehart, psychology/communication studies. Case Closure Among the Lancaster County's Family Treatment Drug Court: The Role of Personal Relationships and Service Engagement

Weiwen Chai **Nutrition and Health Sciences**
Carly Selleck, nutritional science/dietetics. Diet Quality and Race-Ethnic Disparities in Prediabetes and Type 2 Diabetes

Barry Cheung **Chemistry**
Ema Shaker, chemistry. Analyzing the Uptake of Minerals by Microgreens of Brassicaceae

Kathy Chiou **Psychology**
Megan Jones, psychology. Comparing Positive and Negative Emotion Recognition in Individuals After Traumatic Brain Injury

Berthe Choueiry **Computer Science and Engineering**
Tomo Bessho, mathematics/computer science. Controlling Search Algorithms Via Visualizations

Denis Komissarov, software engineering. Studying Different Algorithms for Generating All Connected Subgraphs with k Vertices

Khang Phan, computer science. Studying Different Algorithms for Generating All Connected Subgraph with k Vertices

Zachary Scott, electrical and computer engineering. Cross-Fertilization of SAT and CP Solvers

Serigne Toure, computer engineering. Cross-Fertilization of SAT and CP Solvers

Alan Christensen **Biological Sciences**
Nathan Andrews, microbiology. Where Does all the Junk DNA in Plant Mitochondria Come From?

David Campbell, biochemistry. A Search for Genes Required for DNA Repair in Plant Mitochondria

Jaqueline Korth, biological sciences. Inducing Mutations in Mitochondria and Chloroplast DNA

Soonkyu Chung **Nutrition and Health Sciences**
Darius Fox, nutritional sciences and dietetics. Urolithin A, a Gut Metabolite, and Its Effects on an *in vitro* Parkinson's Disease Model

Duncan Works, biochemistry. The Effects of Urolithin A, a Gut Metabolite, on the Brain NLRP3 Inflammasome

Song Ci **Electrical and Computer Engineering**
Andrew Butler, electrical engineering. Study of Battery Energy Consumption Behaviors of Cybersecurity Software of Embedded Computing Systems

Justina Clark **Undergraduate Education and Student Success**
Ryan Pawloski, sports media and communication/broadcasting. Impact of Campus Research

Matt Cohen **English**
Bianca Swift, English. Cross-Examining the Works and Letters of Charles Chesnutt

Steven Comfort **Natural Resources/Agronomy and Horticulture**
Amy Yanagida, sociology/environmental restoration science. Using Electrocoagulation and Electrochemically Activated Persulfate to Remove Per- and Polyfluoroalkyl Substances (PFAS) from Contaminated Water

Jessica Corman **Natural Resources**
Matthew Chen, environmental restoration sciences. Investigation of Nutrient Imbalances in the Niobrara River

Sydney Kinnach, fisheries and wildlife/pre-veterinary medicine. Effects and Implications of Nutrient Pollution on Algae Growth in the Niobrara River

Precious Nyabami, integrated science. Using Dissolved Oxygen to Predict Holmes Lake's Phytoplankton Community's Ability to Process Annual Nutrient Loads

Collin Podany, chemical engineering. Testing the Removal of Nutrients in Streams with Nebraska Buffers

Kayla Vondracek, environmental studies. Human Influence on the Biodiversity of Algae in the Niobrara River

Brian Couch **Biological Sciences**
Emily Bremers, microbiology. Validating an Assessment Instrument That Measures Students' Science Proficiencies

Joel Cramer **Nutrition and Health Sciences**
Nicholas Bohannon, nutritional sciences and dietetics. Effects of Eccentric Loading on Vertical Jump Performance in Youth Female Athletes

Sydney Gibson, nutritional sciences and dietetics. Blood Hemoglobin Concentrations and Tissue Oxygenation Relationships During Rest, Exercise and Recovery

Clay Cressler**Biological Sciences**

Freddy Gonzalez, microbiology. Isolating Novel Species Within the Microbiota of *Daphnia magna* to Understand Host-Microbe Interactions

Joseph Levey, biological sciences. Evolutionary and Ecological Determinism of Host Specificity in Arthropod Parasites

Bai Cui**Mechanical & Materials Engineering**

Kevin Zhao, mechanical engineering. Understanding the Mechanisms of the Pulsed Electric Current Process for Joining High-temperature Alloys

Nathan Snyder, mechanical engineering. Development of Novel Welding Process for High-Temperature Alloys

Juan Cui**Computer Science and Engineering/Biological Sciences**

Christian Dukunde, integrated science. Informatics-Guided Approach to Study miRNA Sorting Through Motif Finding

Jeffrey Day**Architecture**

Andrew Goldsmith, architectural studies. FACT_Book

Erica DeFrain**University Libraries**

Tiffany Schweer, architectural studies. A Comparative Case Study of Four Informal Learning Spaces on Campus

John DeLong**Biological Sciences**

Fiona Shogren, biological sciences. Predation Risk and Its Effect on Foraging Behavior in Slender Crab Spiders (*Tibellus oblongus*)

Sarah Deyong**Architecture**

Logan Altrichter, architectural studies. Teaching Pedagogy on Integrated Design in Architecture

Paige Haskett, architectural studies. Teaching Pedagogy on Integrated Design in Architecture

Angela Dietsch**Special Education and Communication Disorders**

Katrina German, communication sciences and disorders. The Co-occurrence of Dysphagia and Dysphonia Following Orotracheal Intubation

Madison Felix, Special Education and Communication Disorders. Retrospective Analysis of Respiratory Exercise and Swallowing Recovery

Shudipto Dishari**Chemical and Biomolecular Engineering**

Jackson Goddard, chemical engineering/mathematics. Effect of Ionomer Chemical Structure and Nature of Substrate on Morphology of Ionomer Thin Films

Isabelle Koehler, chemical engineering. Nanoscale Interrogation of Supported Ionomer Catalyst Layers for Hydrogen Fuel Cells

Michael Dodd**Psychology**

Payton Geschke, psychology/biological sciences. Eye Movements, Task-Switching, and Schizotypy

Logan Miller, psychology. An Examination of Pop-Out in Dynamic Visual Search

Eddie Dominguez**Art, Art History and Design**

Tea Ilic, graphic design. When Endangered Animals Become Extinct

Ellen Donnelly**Architecture**

Majdi Alkarute, architectural studies. Architectural Exhibitions: The Disciplinary Edge

Seyedeh Golsa Motevalli, architectural studies. Cultural Producers or Products of Culture: Subverting the Image Through Instagram

Paige Haskett, architectural studies. Cultural Producers or Products of Culture: Subverting the Image Through Instagram

Matthew Douglass**Agricultural Sciences and Natural Resources**

Connor McFayden, environmental studies. Changes in Land Use Along Kenya's Lake Turkana

Huijing Du**Mathematics**

Shannyn Bird, biochemistry and mathematics. Multi-population Compartment Models and Stochasticity Analysis for Cancer Stem Cells Proliferation and Differentiation

Mary Ellen Ducey**University Libraries**

Jake Borgmann, history/ethnic studies. Archiving Nebraska Native American History

Sam Guido, history. LGBTQA+ History at the University of Nebraska-Lincoln

Aaron Duncan **Communication Studies/Speech and Debate Program**

Jordan Wong, economics/political science. An Empirical Analysis of Competitive Speech and Debate

Bruce Dvorak**Civil and Environmental Engineering/
Mechanical & Materials Engineering**

Kimberly Law, chemical engineering. Evaluating the Embedded Environmental Impacts of the Sanitary System Using Life Cycle Assessment

Yuris Dzenis**Mechanical & Materials Engineering**

Abdelrahman Elsayed, mechanical engineering. Control of Electrospinning Jet Instabilities: In Pursuit of Perfect Continuous Nanofiber Alignment

Iakov Golman, mechanical engineering. Size Effects in Mechanical Properties of Advanced Continuous Nanofibers and Nanocomposites

Ece Erdogmus Skourup**Durham School of Architectural
Engineering & Construction**

Ethan Hall, civil engineering. Discrete Element Modeling of Compressed Stabilized Earth Blocks

Sydney Everhart**Plant Pathology**

Cristian Wulkop Gil, biochemistry. Fungicide Sensitivity of *Sclerotinia sclerotiorum* Isolates Selected from Five Different States That Use Different Fungicide Treatments

Lucia Fernandez Ballaster**Mechanical & Materials Engineering**

Tucker Loosbrock, mechanical engineering. Conductivity of Poly(3-hexylthiophene) Resulting from Formation Conditions

Samodha Fernando**Animal Science/Biological Sciences**

Audra Hessenflow, microbiology. A New Method for Treating Liver Abscesses by Identifying and Isolating Naturally Occurring Bacteriophages Against *F. necrophorum* Species from the Rumen of Cattle

Dennis Ferraro**Natural Resources**

Abigail Horner, veterinary science. Effect of Calcium Supplements on the Eyesight of Western Tiger Salamanders

Luke Micek, fisheries and wildlife. Determining How Nicotine from Cigarettes Affects Plains Leopard Frog Tadpole Development

Lexy Polivanov, biological sciences/fisheries and wildlife/environmental studies. The Effects of Monoammonium Phosphate Fertilizer on Western Barred Tiger Salamander Larvae (*Ambystoma mavortium*)

Irina Filina**Earth and Atmospheric Sciences**

Erik Jacobson, geology. Mapping a Recently Reactivated Fault System in Central Nebraska with a Drone-Based Magnetic Surveying System

Jenna Finch**Psychology**

Amyia Harris, psychology. Parental Support of Persistence and Challenge Preference During the Transition to Third Grade

Rachelle Johnson, psychology. Motivation in Third Grade Students with Learning Disabilities

Mikil Foss**Mathematics**

Stephen Yaghmour, chemical engineering. Theoretical and Numerical Investigations for Solutions to Nonlocal Systems with Applications in Peridynamics

Trenton Franz**Natural Resources**

Thierry Bienvenu, integrated science. Using Hydro-Geophysics and XRF to Produce a High Resolution 3-Dimensional Soil Cadmium Map for Evaluating Hybrid Wheat Trials

Julie Frengs**Modern Languages and Literatures**

Peyton Reynolds, French. Translating Culture: An International Colloquium on the Earth in French and French-Speaking Communities

Hernan Garcia-Ruiz**Plant Pathology**

Benjamin Downing, microbiology. Epitope Tagging Core Components of Gene Silencing by Gene Editing/Mutational Inactivation of *A. thaliana* RNA-Dependent RNA Polymerases by Gene Editing

Rebecca Leuschen, biochemistry. Epitope Tagging Core Components of Gene Silencing by Gene Editing/Mutational Inactivation of *A. thaliana* RNA-Dependent RNA Polymerases by Gene Editing

Rachel Stein, microbiology. Epitope Tagging Core Components of Gene Silencing by Gene Editing/Mutational Inactivation of *A. thaliana* RNA-Dependent RNA Polymerases by Gene Editing

Amanda Garrett**Educational Psychology**

Rose Wehrman, English. Typology of Gaps in the Education System

Sarah Gervais**Psychology/Public Policy Center**

Kyle Bizal, psychology. Predictors of Bystander Intervention to Reduce Sexual Assault

Taylor Brumbaugh, psychology. Predictors of Bystander Intervention to Reduce Sexual Assault

Haley Hansmeier, psychology. Predictors of Bystander Intervention to Reduce Sexual Assault

George Gogos **Mechanical & Materials Engineering**

Maureen Winter, mechanical engineering. Quantifying Wicking in Functionalized Surfaces

Ryan Regan, mechanical engineering. Micro-Droplet Production Using Femtosecond Laser Surface Processing

Frank Golf **Physics and Astronomy**

Mitchell Lange, computer engineering. Analyzing Muons and Other Particles from the Large Hadron Collider

Carter Walford, physics and mathematics. Development of Methods to Reject Cosmic Ray Muons as a Background to Searches for Fractionally Charged Particles at the Large Hadron Collider

Marc Goodrich **Special Education and Communication Disorders**

Joelly Anderson, communication sciences and disorders. Exploring the Relations Between Executive Function, Self-Efficacy and Reading Skills

Margarita Quintana, Spanish. Early Language and Literacy Skills of Spanish-Speaking Dual Language Learners

Alejandro Rodriguez, psychology. Early Language and Literacy Skills of Spanish-Speaking Dual Language Learners

Charlee Sindelar, elementary education. Influences of Executive Function on Self-Efficacy for Reading

Richard Graham **University Libraries**

Julien Hoffman, English/women's and gender studies. Illustrations of Femininity, Power and Magic: A Study of the Representations of Women and Girls as Witches in Comics Throughout History

Jiantao Guo **Chemistry**

Alexander Meyer, biochemistry. UNL International Genetically Engineered Machines (iGEM) Team

Roxanne Mpinganzima, integrated science. UNL International Genetically Engineered Machines (iGEM) Team

Dave Hall **Glenn Korff School of Music**

Christopher Goulet, music. An In-Depth Analysis of Peter Klatzow's Dances of Earth and Fire

David Hansen **Psychology/Public Policy Center**

Erika Boohar, psychology/Spanish. Mental Health Treatment for Sexually Abused Youth and Their Non-Offending Family Members: Evaluation of Project SAFE Services

Chelsey Wisehart, psychology/communication studies. Mental Health Treatment for Sexually Abused Youth and Their Non-Offending Family Members: Evaluation of Project SAFE Services

Edward Harris **Biochemistry**

Connor Clanton, biochemistry/agricultural education. Biophysical Characterization of Stabilin-2

Patrick Forbes, biochemistry. Biophysical Characterization of Stabilin-2

Amanda Lewis, biochemistry. Biophysical Characterization of Stabilin-2

Mohammad Hasan **Computer Science and Engineering**

Mohamed Aly, computer science. Software Application for Improving Performance in Large Undergraduate Classes

Vy Doan, computer science/philosophy. Algorithm for Social Good: A Solution for False and Misleading News on Social Media

Lindsay Hastings **Agricultural Leadership, Education and Communication**

Kaylee Robinson, psychology. Exploring Generativity Development Among Collegiate Student Leaders Who Mentor

Addison Sellon, psychology. Exploring Generativity Development Among Collegiate Student Leaders Who Mentor

Kyle Haws **Psychology**

Bailey Lytle, psychology. Moral Foundations Among UNL College Students and the Influence of Bystander Intervention Behaviors

Michael Hebert **Special Education and Communication Disorders**

Rachel Brush, elementary education. Examining Students' Writing Skills in the Context of Executive Function and Self-Efficacy

Wesley Deuel, speech-language pathology. Examining Students' Writing Skills in the Context of Executive Function and Self-Efficacy

Brittany Ringler, elementary education. Examining Students' Writing Skills in the Context of Executive Function and Self-Efficacy

Eileen Hebets **Biological Sciences**

Earl Agpawa, insect science. Exploring the Role of the Putative Antipredator Defenses in the Orb-Weaving Spider *Micrathena gracilis*

Nicholas Morgan, biological sciences. Investigating the Connection Between Sexual Cannibalism and Offspring Quality in the Dark Fishing Spider *Dolomedes tenebrosus*

Gary Hein **Entomology/Agronomy and Horticulture**
Pierce Leef, secondary education, science (7-12). Determining How Wheat Streak Mosaic Virus Spreads in Resistant and Susceptible Corn Varieties

Joshua Herr **Plant Pathology**
Seth Blakestad, microbiology. Degradation of Relic DNA in Soil

Courtney Hillebrecht **Political Science/
Human Rights and Humanitarian Affairs**
Cole Kovarik, global studies/Spanish/political science. A Comparative Case-Study Analysis: Backlash to the European Court of Human Rights

Emma Zoller, journalism/political science. Mapping Human Right Violation from Fast Data

Mark Hinchman **Architecture**
Caroline Goertz, architectural studies. Dale and Patricia Keller: Overlooked Designers of the 20th Century

Kathryn Holland **Psychology/Women's and Gender Studies**
Sage Volk, psychology. An Investigation and Development of a Comprehensive Self-Report Questionnaire of Gender Identity

Miyoung Hong **Architecture**
Ashlynn Engelhard, interior design. A Comparative Case Study of Four Informal Learning Spaces on Campus

Annie Mimick, interior design. A Comparative Case Study of Four Informal Learning Spaces on Campus

Terry Housh **Nutrition and Health Sciences**
Kipp Hergenrader, nutritional sciences and dietetics. Effects of Cross-Sectional Area on Performance Fatiguability in Both Men and Women

Robert Hutkins **Food Science and Technology/Biological Sciences**
Chloe Christensen, food science and technology. Do Lactic Acid Bacteria in Fermented Foods Persist in the Gastrointestinal Tract? An *in vitro* Investigation

Cheryl Immethun **Chemical and Biomolecular Engineering**
Cameron Gilley, chemical engineering. Inducing Increased Bioplastic Production in *R. palustris* CGA009
Dylan Hoppner, chemical engineering. Inducing Increased Bioplastic Production in *R. palustris* CGA009

Katrina Jagodinsky **History**
Zoe Battaglia, history/anthropology. Habeas Corpus and Legal Histories of the North American West

Cole Dunning-Ward, political science. Habeas Corpus and Legal Histories of the North American West

Ashley Morrison, history/Great Plains Studies Program/women's and gender studies. Habeas Corpus and Legal Histories of the North American West

Uchechukwu Jarrett **Economics**
Youngju Cho, management. Effect Analysis of Cryptocurrency Influences on International Trade

Tom Volkmer, economics/finance. The Effect of Mobile Payments in Developing Economies

Andrew Jewell **University Libraries/English**
Simone Droge, English. The Complete Letters of Willa Cather
Gayle Rocz, dance/English. The Complete Letters of Willa Cather

Matthew Johnson **Psychology**
Mei Grace Behrendt, psychology. Decoding the Contents of Visual Working Memory During Rehearsal Using EEG and Multivariate Pattern Analysis

Jeannette Jones **History/Ethnic Studies**
Chelsea Akyeampong, global studies/political science. To Enter Africa from America: U.S. Empire, Race, and the African Question, 1847-1919

Unyoh Mbilain, political science. To Enter Africa from America: U.S. Empire, Race, and the African Question, 1847-1919

C'jera Sherrod, child, youth and family studies. To Enter Africa from America: U.S. Empire, Race, and the African Question, 1847-1919

Michael Kaiser **Agronomy and Horticulture**
Ryley Thomas, environmental studies/agronomy. Effects of Biochar and Coffee Grounds on Lead Uptake in Lettuce Plants from Contaminated Urban Soil

David Karle **Architecture**
Morgan Davis, architectural studies. Design for Decline
Olena Yarmolyuk, architectural studies. Design for Decline

Sarah Karle**Architecture**

Margaret Gies, architectural studies. Nebraska Shelterbelt Archive

Jessica Schafer, landscape architecture. Nebraska Shelterbelt Archive

Meagan Willoughby, architectural studies. Nebraska Shelterbelt Archive

Oleh Khalimonchuk**Biochemistry**

Drew Harrahill, biochemistry. Analysis of ALS-Associated Mutation in the Mitochondrial Metalloprotease Oma1 in Yeast Genetic Model

Joeeun Song, biochemistry. The Role of Mitochondrial Inner Membrane Morphology on Heme Biosynthesis and Transport

Srivatsan Kidambi**Chemical and Biomolecular Engineering**

Noha Algahimi, chemical engineering. Biomimetic Brain Modeling for the Study of Neuron-Astrocyte Communication

Purnima Ghotikar, chemical engineering. Analysis of GBM Cell and Astrocyte Interactions Through the Glycolytic Pathway

Samantha Harvat, chemical engineering. Polymer-Based Patterned Co-Cultures of Breast Cancer and Stromal Cells Mimicking Tumor Microenvironment

Philamon Hemstreet, biochemistry/biological systems engineering. Engineering Lipid Nanoparticles for Targeted Delivery for Vitamin E to Treat Inflammation in Arterial Tissues

Roarick Schollmeyer, biochemistry/microbiology/biological sciences. Engineering Lipid Nanoparticles for Targeted Delivery for Vitamin E to Treat Inflammation in Arterial Tissues

Trenton Tulloss, chemical engineering. Effects of Hepatocyte Proliferation of Patterned Co-Culturing with Stellate Cells and Macrophages

Forrest Kievit**Biological Systems Engineering**

Brandon McDonald, biological systems engineering. Kinetics of Reactive Oxygen Species Generation After Traumatic Brain Injury/ Nanoparticle Treatment to Counter Reactive Oxygen Species After Traumatic Brain Injury

Megan Otte, biological systems engineering. Optimizing PLGA Nanoparticles and Drug Combinations to Induce Synthetic Lethality in Pediatric Brain Cancer

Megan Ruckman, biological systems engineering. Optimizing PLGA Nanoparticles and Drug Combinations to Induce Synthetic Lethality in Pediatric Brain Cells

Yong-Rak Kim**Civil and Environmental Engineering**

Murtaza Nalwala, civil engineering. Testing and Modelling of Polymeric Materials for Resilient Infrastructures

Lisa Knoche**Nebraska Center for Research on Children, Youth, Families and Schools**

Evelyn Estrada-Gonzalez, psychology. Parent Language Use and Parent/Educator Relationships in Early Childhood Development

Brenna Schulte, speech-language pathology. Parent Behaviors: Supporting Language Development for Infants/Toddlers

Iason Konstantzos**Durham School of Architectural Engineering & Construction**

Aaron Adams, architectural engineering. An Investigation of the Operational and Design Characteristics of Circadian Lighting Systems

Lisa Kort-Butler**Sociology**

Vanessa Woosley, sociology. Stress, Media Consumption and Depression in College Students

Ilya Kravchenko**Physics and Astronomy**

Jesse Osborn, physics/mathematics. Measurements of Radio Pulse Reception with Stations of the ARA Experiment Based on the SpiceCore Pulser Data Set/Discrimination Between Neutrino Signal and Noise in the ARA Experiment Using Multivariate Data Analysis

Karen Kunc**Art, Art History and Design**

Alyssa Kobza, art. Investigating the Sociological Imagination Through Lithography

Rebecca Lai**Chemistry**

Katharina Dvorak, biochemistry. Development of a Salivary Glucose Biosensor for Diabetes Management

Adam Larios**Mathematics**

Luke Galvan, mathematics/physics. A Computational Investigation of a Continuum Model for Flocking Dynamics

James Le Sueur**History**

John Grinvalds, journalism. A History of Anticolonial Struggle in Nebraska: Nebraskan History in Local and Regional Archives

Glenn Ledder**Mathematics**

Marc Wade, mathematics. Predator Survival in a Two Patch System

Kevin Lee **Physics and Astronomy/Center for Science,
Mathematics and Computer Education**

Brandon Harper, physics. Creation and Study of Astronomy Ranking Tasks

Devi Seshadri, graphic design. Introductory Astronomy Graphics Directory

Jaekwon Lee **Biochemistry**

Jacob Stewart, biochemistry. Copper-Dependent Activation of Cell Proliferation Signaling Pathways

Ming Li **Psychology**

Barbara Bueno, psychology/biological sciences. Behavioral and Neurobiological Models of Nicotine Withdrawal Syndrome in Mother Rats

Jung Yul Lim **Mechanical & Materials Engineering**

Shea Thompson, graphic design. Mechanobiology of Breast Cancer Cell Migration

Michael Lippman **Classics and Religious Studies**

Nichole Brady, classics and religious studies/classical languages. Didaskalia/An Interactive, Multimedia eBook on Ancient Drama

Ellie Churchill, history/classics and religious studies. Homerathon 2020

Ellen Kratzer, English/graphic design/classical languages. An Interactive, Multimedia eBook on Sophocles' *Antigone*/An Interactive, Multimedia eBook on Ancient Drama

Vanessa Larsen, classics and religious studies. An Interactive, Multimedia eBook on Sophocles' *Antigone*

Alexi Robertson, classics and religious studies/classical languages. An Interactive, Multimedia eBook on Sophocles' *Antigone*

Steven Winston, history/classics and religious studies. An Interactive, Multimedia eBook on Sophocles' *Antigone*

Matthew Loar **Classics and Religious Studies**

Ellie Churchill, history/classics and religious studies. An Interactive, Multimedia eBook on Ancient Drama

Vanessa Larsen, classics and religious studies. An Interactive, Multimedia eBook on Ancient Drama

Alexi Robertson, classics and religious studies/classical languages. An Interactive, Multimedia eBook on Ancient Drama

Joe Louis **Entomology**

Earl Agpawa, insect science. Understanding Sorghum Tolerance Against Phloem-Feeding Aphid, *Melanaphis sacchari*

John Dustin Loy **Veterinary Medicine and Biomedical Sciences**

Claudia Antonika, microbiology. Application and Evaluation of Fourier Transform-Infrared (FT-IR) Spectroscopy Method to Differentiate *Mycobacterium avium ssp paratuberculosis* (MAP) Strains Isolated from Various Hosts

Christopher Mann **Economics**

Mohammed Al Badaai, accounting. The Cooperation Council for the Arab States of the Gulf and Economic Growth in the Arabian Peninsula

Kaustav Majumder **Food Science and Technology**

Alexander Brady, biochemistry. Modulation of Vascular Calcium-sensing Receptors (CaSRs) by Nebraskan Great-Northern Bean-derived Gamma-Peptides for the Prevention and Management of Hypertension Associated Vascular Inflammation

Eric Markvicka **Mechanical & Materials Engineering**

Will Brovold, mechanical engineering. Wearable Technology - Electronic Bandages

Marco Fabietti, mechanical engineering. Soft Matter Actuators

Aaron Haake, mechanical engineering. 3D Printing Complex Microstructures of Liquid Metal in a Support Bath

Meredith Martin **Educational Psychology**

Christina Berger, psychology. Predictors of Adolescent Disclosure of Peer Victimization

Brandon Ee, psychology. Predictors of Adolescent Disclosure of Peer Victimization

Cara Jack, psychology. Predictors of Adolescent Disclosure of Peer Victimization

Chris Marvin **Special Education and Communication Disorders**

Rachel Beeney, speech-language pathology. The Getting Ready Intervention for Young Children at Developmental Risk: Impact on Children's Mean Length of Utterances

Sydney Harrington, speech-language pathology. Getting Ready 0-3

Morgan Padera, speech-language pathology. Getting Ready 0-3

Ana Perez-Senic, sociology/Spanish. The Getting Ready Project: Developmental Risk in Young Spanish Children: Impacts on Children's Mean Length of Utterances

Dennis McChargue **Psychology**

Gabrielle Krause, psychology. The Impact of Sexual Violence History on Substance Use and Dissociative Tendencies in College Women

Irenea Soetjoadi, psychology. Examining the Cross-Cultural Influence of Childhood Trauma on College Alcohol Use and Mental Health

Justin McMechan **Entomology**

Genereuse Turabawe, integrated science. Larval Movement and Infestation Potential

Tiffany Messer **Biological Systems Engineering**

Helen Little, biological systems engineering. Treating Non-Point Source Cocktails: Pesticide Removal Utilizing In-Stream Best Management Practices

Taro Mieno **Agricultural Economics**

Olivier Tuyizere, agricultural economics. The Impact of Saturated Thickness of Groundwater Aquifer on Farmers' Ability to Avoid Significant Economic Damage Under Severe Drought

Ali Moeller **Teaching, Learning and Teacher Education**

Anna Helzer, Spanish. History and Impact of Centennial College at UNL

Mohammad Rashedul Hasan **Computer Science and Engineering**

Brian Chong, computer science. Automatically Identifying, Counting, and Describing Wild Animals in Camera-Trap Images with Deep Learning

Kristi Montooth **Biological Sciences**

Alexus Hansen, biological sciences. Overwintering Physiology in Monarch Butterflies (*Danaus plexippus*)

Lauren Reiman, biological sciences. Infection-induced Anorexia in the Face of Energetic and Immune Deficiency

Jia Yin Sum, biological sciences. Uncoupling the Mitochondria as a Cellular Defense Mechanism

Alena Moon **Chemistry**

Shikshya Bhusal, biochemistry. Investigation of Students' Understanding of Light-Matter Interactions

Stephen Morin **Chemistry/Nebraska Center for Materials and Nanoscience**

Matthew Gromowsky, chemistry/biochemistry. Hybrid Droplet Shells with Programmed Magnetic Domains

Etsuko Moriyama **Biological Sciences/Center for Biotechnology**

Kushagra Kapil, computer science/mathematics. Development and Assessment of an Improved Next-Generation Transcriptome Assembler

Quinn Lanik, computer science. Development, Assessment and Application of Protein-Domain Classification Methods

Benny Mote **Animal Science**

Lindsay Peters, animal science. Examining Phenotypic Structural Traits as Indicators for Reproductive Longevity Success in Sows

Jessica Namkung **Special Education and Communication Disorders**

Janelle Bernaky, elementary education. Exploring the Relations Between Executive Function, Self-Efficacy and Mathematics Skills

Morgan Peatrowsky, elementary education. Exploring the Relations Between Executive Function, Self-Efficacy and Mathematics Skills

Sathish Natarajan **Nutrition and Health Sciences**

Madison Kraus, biological sciences. ZIKA-VIRUS Induces Apoptosis in Retinal and Retinal Glial Epithelial Cells

Jillian Power, microbiology. Maternal Obesity Induces Activation of FoxO Transcription Factors and MicroRNA 34a and Lipoapoptosis in Placental Trophoblast Cells

Siamak Nejati **Chemical and Biomolecular Engineering**

Andy Mason, chemical engineering and geology. Fabrication of Composite Membranes for Water Desalination

Carl Nelson **Mechanical & Materials Engineering**

Pin Hao Cheng, mechanical engineering and applied mechanics. Counterbalance System: Principles and Application for Transferring Bedridden Patient

Adonis Nesser, mechanical engineering. Soft Robotic Camera Manipulator for Use in Single-Port Laparoscopic Surgery

Wei Niu **Chemical and Biomolecular Engineering**

Noha Alghami, chemical engineering. UNL International Genetically Engineered Machines (iGEM) Team

Michael Banwo, chemical engineering. UNL International Genetically Engineered Machines (iGEM) Team

Logan Hauder, chemical engineering. UNL International Genetically Engineered Machines (iGEM) Team

Gwen Nugent **Nebraska Center for Research on Children, Youth, Families and Schools**

Zach Martin, social science. Sustainability of Inquiry-Based Teaching Guided by Instructional Coaches

McKenna Ryan, elementary education. Coaching Strategies: How Do They Differ?

Toshihiro Obata **Biochemistry**

Cristian Wulkop Gil, biochemistry. Correlation Between Maize Metabolite Levels and Phenotypic Traits

Lameck Odhiambo **Biological Systems Engineering**

Elizabeth Uwase, integrated science. Evapotranspiration Values and Their Significant Agronomic Importance in Rwandan Agriculture

Peter Olshavsky **Architecture**

Amy Koenig, architectural studies. The Examination and Reconstruction of Libeskind's "Three Lessons on Architecture"

Erin McNeil, architectural studies. Material Agency in Architecture

Kendra Ordia **Architecture**

Ashlynn Engelhard, interior design. Spatial Narrative in Biophilic Interior Design

Hasan Otu **Electrical and Computer Engineering**

Beibei Xiong, electrical engineering. Biomarker Discovery Using High-Throughput Biological Data

Angela Palmer-Wackerly **Communication Studies**

Carter Bracht, biochemistry. An Analysis of the Behaviors Utilized by Physicians and Medical Students to Cope With Stress

Jae Sung Park **Mechanical & Materials Engineering**

Kin Hoe Ang, mechanical engineering. Drag Reduction in Turbulent Flows for Energy Saving Engineering

Ryan Pedrigi **Mechanical & Materials Engineering**

Kurt Ameku, mechanical engineering. Disturbed Stress-Mediated Remodeling of the Lens Capsule After Cataract Surgery Determines Implanted Accommodative Intraocular Lens Efficacy

Ian McCue, biochemistry/microbiology. Laminar Blood Flow as a Mechanotherapy for Endothelial Cell Dysfunction and Atherosclerosis

Nora Peterson **Modern Languages and Literatures**

Rhiannon Cobb, political science/global studies. Refugee Integration in Paris, France, and Lincoln, Nebraska

Chase Pfeifer **Biomedical Engineering/Nebraska Athletic Performance Laboratory**

Connor Albin, biological systems engineering. Engineering Rehabilitation Devices for Integration in "GoBabyGo!" Cars

Kurt Piepenbrink **Food Science and Technology/Chemistry**

Josephine Liess, biological sciences. *Clostridium perfringens* Adhesion Through Type IV Pili

Alexander Meyer, biochemistry. *Clostridium perfringens* Adhesion Through Type IV Pili

Massimiliano Pierobon **Computer Science and Engineering**

Brandon Lassalle, biochemistry/microbiology/biological sciences. UNL International Genetically Engineered Machines (iGEM) Team

Rahul Prajapati, computer science. UNL International Genetically Engineered Machines (iGEM) Team

Anton Skretta, philosophy. Ethical Assurance Cases: An Adaptation of Software Engineering Safety Assurance Cases to Provide a Framework for Ethical Considerations Throughout the Development Process

Santosh Pitla **Biological Systems Engineering**

Victoria Nelson, mechanical engineering. Unmanned Ground Vehicle Autonomous Behavior in Agricultural Environment

Hessan Sedaghat, mechanical engineering. Development and Integration of a Robotic System to Simulate Autonomous Management in Plant Nursery

Zachary Tate Porter **Architecture**

Tara Grebe, architectural studies. Catalog of Speculative Suburban Futures

Scott Lafferty, architectural studies. Slabs, Piles and Rocks: Architecture's Emerging Typologies of Ground

Nicholas Olsen, architectural studies. Figure and Frame in the Architectural Imaginary

Patrick Pineda, architectural studies. Manual of Speculative Suburban Futures

Austin Riggins, architectural studies. Manual of Speculative Suburban Futures, Vol. II

Geneva Sinkula, architectural studies. Manual of Speculative Suburban Futures, Vol. II

Larkin Powell **Natural Resources/Biological Sciences**

Lindsey LaBrie, fisheries and wildlife/German. How German Prisoners of War and Germans Fleeing the Holocaust Changed Nebraska's Landscape

Erika Swenson, fisheries and wildlife. Effects of Transect Survey Methods on the Accuracy of Animal Densities in the NamibRand Nature Reserve

Robert Powers **Chemistry**

Paula Evans, child, youth and family studies. Investigating the Phosphorous Metabolome Using NMR Spectroscopy in Order to Understand Cellular Biochemistry

Zhenyu Feng, computer engineering. Creating a Graphical User Interface for MVAPACK

Petronela Radu **Mathematics**

Andrew Haar, mathematics. Analysis of Nonlocal Operators

Andrzej Rajca **Chemistry**

Alexander Batelaan, chemistry/mathematics. Designing a Diradical with High Thermal Stability

Pralhada Rao **Mechanical & Materials Engineering**

Benjamin Bevans, mechanical engineering. Additive Manufacturing: Sensor Monitoring in Laser Powder Bed Fusion

Joseph Broadway, mechanical engineering. Validation of a Mathematical Model for Predicting Heat Flux in 3D Printed Titanium Alloy Parts

Bethany Krull, computer engineering. Analyzing Quality of Printed Stellite Coating Using Sensing Data

Heather Richards-Rissetto **Anthropology/Natural Resources**

Riley Evers, anthropology/art history and criticism/classics and religious studies. Reconstructing the Temple of Inscriptions: Astronomical Relationships, Sociopolitical Shifts and the Landscape at Copan, Honduras

Wayne Riekhof **Biological Sciences**

Nancy Nguyen, biochemistry. Defining the Mechanism of Action of Plant Derived Polyacetylene Antifungal Compounds

Beverley Rilett **English**

Michaela Brown, art. Collaborative Digital Literacy Archive Development: The George Eliot Archive

Mackenzie Burch, English. The George Eliot Digital Archive Project/ Building the George Eliot Digital Archive, Phase 2

Shane Clegg, computer science. Building the George Eliot Digital Archive, Phase 2

Grace Erixon, software engineering. Building the George Eliot Digital Archive, Phase 2

John Harkendorff, computer engineering. The George Eliot Digital Archive Project

Seung-Hyun Ro **Biochemistry**

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Glossary of Federal Agency Abbreviations

DHS	Department of Homeland Security
DHHS	Department of Health and Human Services
ACF	Administration for Children and Families
CDC	Centers for Disease Control
SAMHSA	Substance Abuse and Mental Health Services Administration
DOC	Department of Commerce
EDA	Economic Development Administration
NIST	National Institute of Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
DoD	Department of Defense
AFOSR	Air Force Office of Scientific Research
ARO	Army Research Office
DTRA	Defense Threat Reduction Agency
DURIP	Defense University Research Instrumentation Program
MDA	Missile Defense Agency
MURI	Multidisciplinary University Research Initiatives
NAVSEA	Naval Sea Systems Command
ONR	Office of Naval Research
SERDP	Strategic Environmental Research and Development Program
STRATCOM	U.S. Strategic Command
DOE	Department of Energy
ARPA-E	Advanced Research Projects Agency-Energy
NETL	National Energy Technology Laboratory
DOI	Department of Interior
FWS	Fish and Wildlife Service
NPS	National Park Service
DOJ	Department of Justice
NIJ	National Institute of Justice
DOT	Department of Transportation
FHWA	Federal Highway Administration
PHMSA	Pipeline and Hazardous Materials Safety Administration
ED	Department of Education
IES	Institute of Education Sciences

EPA	Environmental Protection Agency
EPSCoR	Established Program to Stimulate Competitive Research
IMLS	Institute of Museum and Library Services
NASA	National Aeronautics and Space Administration
NCHRP	National Cooperative Highway Research Program
NEA	National Endowment for the Arts
NEH	National Endowment for the Humanities
NIH	National Institutes of Health
FIC	Fogarty International Center
NCI	National Cancer Institute
NHLBI	National Heart, Lung and Blood Institute
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIAID	National Institute on Allergy and Infectious Diseases
NIBIB	National Institute of Biomedical Imaging and Bioengineering
NICHD	National Institute of Child Health and Human Development
NIDA	National Institute on Drug Abuse
NIDCD	National Institute on Deafness and Communication Disorders
NIDDK	National Institute of Diabetes, Digestive and Kidney Disease
NIGMS	National Institute on General Medical Sciences
NIMH	National Institute of Mental Health
NINDS	National Institute of Neurological Disorders and Stroke
NSF	National Science Foundation
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
AFRI	Agriculture and Food Research Initiative
AMS	Agricultural Marketing Service
ARS	Agricultural Research Service
FNS	Food and Nutrition Service
FS	Forestry Service
NASS	National Agricultural Statistics Service
NIFA	National Institute for Food and Agriculture
NRCS	Natural Resources Conservation Service
OCE	Office of the Chief Economist

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