

Research and Creative Activity

July 1, 2014 – June 30, 2015

Major Sponsored Programs
and Faculty Awards
for Research and Creative Activity



3	Awards of \$5 Million or More
13	Awards of \$1 Million to \$4,999,999
29	Awards of \$250,000 to \$999,999
68	Early Career Awards
71	Arts and Humanities Awards of \$250,000 or More
75	Arts and Humanities Awards of \$50,000 to \$249,999
76	Arts and Humanities Awards of \$5,000 to \$49,999
78	Patents
80	License Agreements
82	Creative Activity
83	Books
88	Recognitions and Honors
93	Glossary

On the Cover: Advances fueled by nanoscience and materials research at UNL are helping lay the foundation for smaller, faster and more efficient electronics and computing technologies. The cover photo features a scanning probe microscope used by researchers in UNL's Materials Research Science and Engineering Center, a highly collaborative facility funded by the National Science Foundation since 2002. Using this microscope, researchers explore the atomistic origin of the physical properties of nano and hybrid structures.



Vice Chancellor Prem Paul and Chancellor Harvey Perlman

This “Major Sponsored Programs and Faculty Awards for Research and Creative Activity” booklet highlights the successes of the University of Nebraska–Lincoln faculty during the fiscal year July 1, 2014–June 30, 2015. It lists funding sources, projects and investigators on major grants and sponsored program 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 in which our faculty have engaged; and intellectual property licenses and patents issued for the products of UNL research.

At UNL we continue to grow our research enterprise, investing in big ideas, new faculty, new facilities and new opportunities. These investments of time, energy, creativity and dollars are paying off, and I am pleased to present evidence of our faculty’s accomplishments. Grants and contracts in a diverse range of fields—from nanomaterials to drought planning, from management and social and behavioral sciences to nutrition and health—and establishment of new facilities, such as the NSF-funded Central Plains Research Data Center and the Food Innovation Center and Greenhouse Innovation Center at Nebraska Innovation Campus, enable UNL’s faculty to address grand challenges. Our total research expenditures of \$278 million in fiscal year 2014 represent a record for UNL and, along with an impressive list of publications and awards, reflect our faculty’s achievements.

We’re building for the future with strategic investments in key areas of traditional and emerging research strengths. We are expanding our reach by defining our vision, seeking and supporting talented people with ambitious ideas, giving them the best facilities and the freedom to innovate and create; and pursuing partnerships necessary to tackle complex issues, solve global challenges, address national needs and enhance Nebraska’s economy.

I invite you to read about our faculty’s accomplishments in this booklet and envision the power of UNL’s innovative and collaborative research, scholarship and creative activity to solve problems and create opportunities for our state, our nation and our world.

Thank you for your interest in and support for research, scholarship and creative activity at UNL, a growing Big Ten research university!

A handwritten signature in black ink that reads "Prem". The signature is fluid and cursive, with a large loop at the end.

Prem S. Paul
Vice Chancellor for Research and Economic Development

Awards of \$5 Million or More

Active awards, July 1, 2014-June 30, 2015

* Indicates new in 2014-2015

Dickey, Elbert

eXtension Building Cooperative Extension's 21st Century Network
\$6,025,596
9/1/11 - 8/31/16

eXtension

USDA-NIFA

National eXtension Project
\$21,470,000
10/1/04 - 12/31/15

Association of Public
and Land-Grant Universities



The eXtension Initiative is an Internet-based Cooperative Extension Service education and information system. UNL leads this multi-year project, which partners with the University of Kentucky, North Carolina State University and Virginia Tech University. This collaborative effort of the nation's 107 land-grant universities and the U.S. Department of Agriculture's Cooperative State Research, Education and Extension Service develops content and technology for the eXtension project. eXtension is a virtual educational environment that provides science-based, objective information. Users may take advantage of learning opportunities and interact with the expertise available from the land-grant university system by visiting www.extension.org.

Dominguez, Aaron

\$11,479,310
6/15/14 - 5/31/19

Physics and Astronomy

U.S. CMS Phase-1 Upgrades

NSF



UNL physicist Aaron Dominguez leads a collaboration involving eight universities to upgrade the Compact Muon Solenoid particle detector, a key component of the world's largest physics experiment. With a five-year, nearly \$11.5 million grant from the National Science Foundation, the team is working to increase the effectiveness of a vital component of the Large Hadron Collider at CERN laboratory in Switzerland, the supercollider that made discovery of the Higgs boson possible. The UNL team was part of the multi-institutional collaboration that built the original CMS experiment, one of two large particle detector experiments at the Large Hadron Collider. With this new NSF grant, they now lead a large research partnership to upgrade the detector in stages through 2019. Their collaborators are at the University of Kansas, University of Illinois at Chicago, Rutgers University, Cornell University, SUNY Buffalo, Purdue University Calumet, Notre Dame University and Northeastern University.

Dussault, Patrick**Chemistry**

Building Infrastructure in Nanohybrid Materials and
Algal Biology Research

\$11,333,537

NSF-EPSCoR

10/01/10 - 09/30/16

Bailey, Cheryl

Biochemistry

Black, Paul

Biochemistry

Cahoon, Edgar

Biochemistry/

Center for Plant Science Innovation/

Biological Sciences/

Cerutti, Heriberto

Center for Plant Science Innovation

Clemente, Thomas

Agronomy and Horticulture/

Center for Plant Science Innovation

DiRusso, Concetta

Biochemistry/

Nutrition and Health Sciences

Hage, David

Chemistry

Han, Ming

Electrical and Computer Engineering

Hudgins, Jerry

Electrical and Computer Engineering

Ianno, Natale

Electrical and Computer Engineering

Lai, Rebecca

Chemistry

Lu, Yongfeng

Electrical and Computer Engineering

Morris, T. Jack

Biological Sciences

Schubert, Eva

Electrical and Computer Engineering

Schubert, Mathias

Electrical and Computer Engineering

Spreitzer, Robert

Biochemistry

Takacs, James

Chemistry

Van Etten, James

Plant Pathology

Weeks, Donald

Biochemistry



UNL's Center for Nanohybrid Functional Materials combines the efforts of chemists, engineers and biologists to develop fundamental new science related to sensing and separation of targets ranging from small molecules to toxins. The center is led by Patrick Dussault, Charles Bessey Professor of

Chemistry, and Mathias Schubert, associate professor of electrical and computer engineering. The center brings together investigators from two broad areas of science. One group has experience in creating highly ordered nanostructures, such as tiny silicon spirals that have unique characteristics in terms of how they appear under certain frequencies of light. Other center members are experts in using chemical and biochemical agents such as RNA or antibodies to bind a particular target such as a drug or a virus.



The Nebraska Coalition for Algal Biology and Biotechnology builds on UNL's innovation in research on algae and algal biotechnology, focusing on the production of renewable biofuels to replace gasoline and diesel. The project expands on UNL's research in developing algal compounds of high value to

society, such as specialty chemicals and drugs for humans or animals and is directed by Donald Weeks, Maxcy Professor of Agriculture and Natural Resources.

The funding award is the major part of a five-year, \$20 million Nebraska EPSCoR grant involving faculty from five universities: UNL, UNMC, UNK, Creighton and Doane College.

Ells, Mark**Center on Children, Families, and the Law**

Midwest Child Welfare

Technical Assistance Implementation Center

\$8,695,638

DHHS-ACF

9/1/08 – 9/29/14

Graef, Michelle

Center on Children, Families, and the Law



A five-year, \$8.7 million grant from the U.S. Department of Health and Human Services Children's Bureau has helped establish the Midwest Child Welfare Technical Assistance Implementation Center. The center provides long-term consultation and support to child service agencies and tribes in Nebraska, Iowa, Illinois, Indiana, Kansas, Michigan, Missouri, Minnesota, Ohio and Wisconsin. It partners with state and tribal child welfare agencies to assess their inner workings and identify broad changes that could help them operate more efficiently and effectively to serve families and children; identify obstacles to helping families; build the capacity of state and tribal child welfare systems; and work toward significant changes to improve outcomes for children and families involved with these systems. The ultimate goal is to ensure all children have safe, stable and permanent homes.

Harwood, David**Earth and Atmospheric Sciences**ANDRILL: Investigating Antarctica's Role
in Cenozoic Global Environmental Change

\$12,978,160

NSF

6/1/05 – 12/31/14

Levy, Richard

Earth and Atmospheric Sciences



David Harwood, professor of earth and atmospheric sciences, leads an international team of scientists drilling beneath the Antarctic ice pack to unearth geological strata that could hold ancient clues to contemporary global warming trends. The National Science Foundation awarded \$12.9 million to a consortium of five U.S. universities headed by UNL and Northern Illinois University. Dubbed ANDRILL (ANtartic geological DRILLing), the project is administered by the ANDRILL Science Management Office headquartered at UNL. ANDRILL is backed by more than \$30 million in funding, including \$9.7 million in previous and ongoing national agreements to support operations and nearly \$8 million from the other countries to support scientific research. Other members of the U.S. consortium making up the American portion of the ANDRILL program are Florida State University, The Ohio State University and the University of Massachusetts Amherst. The project also includes scientists from Germany, Italy and New Zealand.

Lewis, Jim

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

NebraskaMATH: Strengthening the OPS-UNL Partnership
\$5,455,811 The Sherwood Foundation®/Lozier Foundation
5/1/13 – 8/31/16
Heaton, Ruth Teaching, Learning and Teacher Education/
Center for Science, Mathematics
and Computer Education

Smith, Wendy Center for Science, Mathematics
and Computer Education



A grant from The Sherwood Foundation® and the Lozier Foundation supports a three-year partnership between Omaha Public Schools and UNL’s Center for Science, Mathematics and Computer Education to fund the NebraskaMATH Omaha Public Schools Teacher Leader Academy. Led by

Jim Lewis, Douglas Professor of Mathematics, the program gives a community of OPS mathematics teachers from grades K-12 access to continuing education and graduate coursework centered on math education. The goals of the OPS initiative are to strengthen mathematics learning in Omaha classrooms, narrow student achievement gaps between different populations and conduct research that continues to inform school improvement efforts.

NebraskaMATH

\$9,235,407 NSF
1/1/09 – 12/31/15
Edwards, Carolyn Psychology/Child, Youth and Family Studies
Heaton, Ruth Teaching, Learning and Teacher Education/
Center for Science, Mathematics and
Computer Education

Jacobson, Barbara Lincoln Public Schools
McGowan, Thomas Teaching, Learning and Teacher Education
Papick, Ira Mathematics/Center for Science,
Mathematics and Computer Education

Stroup, Walter Statistics

NebraskaMATH is a statewide program aimed at improving mathematics achievement for all students and narrowing the achievement gap for at-risk students in kindergarten through third grade. The program is supported by a \$9.2 million grant from the National Science Foundation. NebraskaMATH is a partnership of UNL, public school districts in Omaha, Lincoln, Grand Island, and Papillion-La Vista and Nebraska’s Educational Service Units. It builds on the success of UNL’s Math in the Middle Institute by initiating new programs that focus on enhancing teachers’ knowledge of mathematics and teaching methods.

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

\$24,804,902

USDA-AFRI

1/1/12 - 12/31/15

Thippareddi, Harshavardhan

Food Science and Technology



UNL veterinary scientist Rodney Moxley 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.

Paul, Prem

Research and Economic Development

Nebraska Center for Energy Sciences Research

\$5,000,000

Nebraska Public Power District

11/24/09 - 3/31/16

The Nebraska Center for Energy Sciences Research is a collaboration between UNL and the Nebraska Public Power District. The center was established in April 2006 to support energy research that produces new technologies, processes and systems that provide new or significantly enhanced renewable energy sources, improves the quality of life and boosts economic opportunity. The center fosters interdisciplinary collaboration among UNL faculty and with other research institutions, public-sector agencies and private sector companies with similar interests. The center supports both basic and applied research and has a broad mandate to explore a range of renewable energy opportunities (including biofuels, wind and solar energy), as well as opportunities for energy conservation.

Rilett, Laurence

**Civil Engineering/
Nebraska Transportation Center**

Region 7 University Transportation Center

\$6,897,600

DOT-RITA

1/1/12 - 1/31/17



The U.S. Department of Transportation’s Research and Innovative Technology Administration has designated UNL’s Mid-America Transportation Center (MATC) as a regional university transportation center. Led by Laurence Rilett, Keith W. Klaasmeyer Chair in the Department of Civil

Engineering and director of the Nebraska Transportation Center, MATC is a consortium with UNL as the lead institution with regional partners Kansas State University, University of Kansas, University of Missouri-Rolla and Lincoln University of Missouri. The Nebraska Department of Roads and the Kansas and Missouri Departments of Transportation also are key partners. The center’s focus is “improving safety and minimizing risk associated with increasing multi-modal freight movement on the U.S. surface transportation system.” MATC focuses on safety research related to rural transportation. Key safety research areas include traffic control, animal crashes, safer at-grade railway crossings and work zones, and the development of more effective and economical roadside crash barriers. The university transportation center program supports transportation research, education and technology transfer that promote scientific innovations in a variety of transportation modes and disciplines. Region 7 serves Iowa, Kansas, Missouri and Nebraska. It is one of 10 regional university transportation centers in the nation.

Sellmyer, David

**Physics and Astronomy/Nebraska
Center for Materials and Nanoscience**

Research and Develop Nanoscale Magneto-electronic,
Sensor and Energy Materials and Devices

\$5,864,300

DoD-ARO

9/24/10 - 3/23/16

Cheung, Chin Li

Chemistry

Liou, Sy-Hwang

Physics and Astronomy

Shield, Jeffrey

Mechanical & Materials Engineering

Skomski, Ralph

Physics and Astronomy

Zeng, Xiao Cheng

Chemistry/Physics and Astronomy



David Sellmyer, George Holmes University Professor of Physics, and colleagues in the Nebraska Center for Materials and Nanoscience, have received funding from the Army Research Office to support several efforts of high current interest in nanoscience and nanotechnology: 1) magneto-electronic and sensor materials and devices, 2) nanomaterials for energy applications, and 3) development of a nanofabrication and characterization facility to support related research. Goals of the first project are to develop a high-sensitivity magnetoresistive sensor for both DC and high-frequency-band EMI magnetic field mapping; investigate new magnetic semiconductor systems for

room-temperature spintronic applications; and research the fabrication of nanodot arrays for magnetic logic and information-processing operations. Research on nanomaterials for energy systems will involve fabrication of new nanomagnets for applications in motors and hybrid vehicles, as well as research on nanoparticles and nanoclusters on oxide structures likely to have applications in energy production and environmental science. The third general area of this project involves the purchase and installation of a variety of state-of-the-art nanofabrication and characterization tools to be housed in the new NIST ARRA-supported Nanoscience Metrology Facility.

Sheridan, Susan

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

Nebraska Center for Research on Rural Education (R2Ed)	
\$9,997,852	ED-IES
7/1/09 – 6/30/15	
Bovaird, James	Educational Psychology/ Nebraska Center for Research on Children, Youth, Families and Schools
Glover, Todd	Nebraska Center for Research on Children, Youth, Families and Schools
Kunz, Gina	Nebraska Center for Research on Children, Youth, Families and Schools
Nugent, Gwen	Nebraska Center for Research on Children, Youth, Families and Schools
Steckelberg, Allen	Teaching, Learning and Teacher Education
Trainin, Guy	Teaching, Learning and Teacher Education



Susan Sheridan, George Holmes University Professor of Educational Psychology, heads the National Center for Research on Rural Education, the only one of its kind in the U.S., funded by a five-year grant from the U.S. Department Education’s Institute of Education Sciences. The center conducts

cutting-edge rural education research to improve student learning in reading, science and math. Researchers identify how to best provide professional development for teachers to infuse state-of-the-art instructional strategies in their classrooms and enhance student learning. Research on rural education is limited and the center will provide the infrastructure, leadership and expertise to focus on unique rural needs.

Tsymbal, Evgeny

**Physics and Astronomy/Nebraska
Center for Materials and Nanoscience**

Center for NanoFerroic Devices

\$7,125,000

DOC-NIST through
Semiconductor Research Corp.-
Nanoelectronics Research Corp.

4/1/13 - 12/31/17



UNL leads a new \$7.125 million research collaboration involving six universities and an industry consortium to develop a new generation of electronic devices.

Semiconductor Research Corp. and the National Institute of Standards and Technology have awarded a UNL physics

team a five-year contract to lead a new Center for NanoFerroic Devices as part of the Nanoelectronics Research Initiative. The center will harness the significant advances UNL and its Materials Research Science and Engineering Center (MRSEC) have made in exploring nanomaterials with unique properties that may prove the key to surpassing the limitations of current technology. Evgeny Tsymbal, George Holmes University Professor of Physics and MRSEC director, co-directs the Center for NanoFerroic Devices with UNL physicist Peter Dowben. UNL is partnering with researchers at the University of California, Irvine, University of Wisconsin-Madison, University at Buffalo, SUNY, University of Delaware and Oakland University. This joint research will help transform basic university discoveries and knowledge into actual devices, in collaboration with industry.

Materials Research Science & Engineering Center:
Polarization and Spin

\$9,600,000

NSF

11/1/14 - 10/31/20

Gruverman, Alexei

Physics and Astronomy

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 and 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.

Wood, Charles

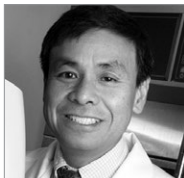
**Biological Sciences/
Nebraska Center for Virology**

Nebraska Center for Virology

\$5,499,715

NIH-NIGMS

9/16/10 – 7/31/16



Charles Wood, Lewis Lehr/3M University Professor of Biological Sciences, is the director of the Nebraska Center for Virology. The center, funded by the National Institutes of Health, combines the expertise and facilities of Nebraska's leading biomedical research institutions: UNL, the University of

Nebraska Medical Center and Creighton University. Center research addresses pathogenic and therapeutic aspects of some of the most devastating viral and neuroimmune disorders facing the global community, including AIDS, HIV-associated cancers, Alzheimer's disease and chronic infections caused by herpes viruses and a new class of infectious agents called prions.

Kaposi's Sarcoma & Human Herpesvirus in Africa

\$5,794,724

NIH-NCI

7/16/10 – 4/30/16

West, John

Nebraska Center for Virology

Since the onset of the AIDS epidemic, Kaposi's sarcoma has become the most frequently diagnosed pediatric cancer in sub-Saharan Africa. It is associated with Human Herpesvirus 8 (HHV-8) and Kaposi's Sarcoma Herpesvirus. The project seeks to understand how these viruses are transmitted to children by studying children in Lusaka, Zambia. The goal is to establish the rates of transmission and to identify virologic, immunologic and ethnographic risk factors that predispose children to HHV-8 infection. It is anticipated that the information could be used to develop intervention strategies.

Zempleni, Janos

Nutrition and Health Sciences

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

\$11,306,520

NIH-NIGMS

8/5/14 - 5/31/19

Chung, Soonkyu

Nutrition and Health Sciences

Cui, Juan

Computer Science and Engineering

Fomenko, Dmitri

Biochemistry

Ramer-Tait, Amanda

Food Science and Technology

Su, Qiaozhu

Nutrition and Health Sciences



With the support of an \$11.3 million grant from the National Institutes of Health's Center of Biomedical Research Excellence (COBRE) program, UNL 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.

Benson, Andrew**Food Science and Technology**

Composition of the GI Microbiota and Predisposition
to Enterohemorrhagic *Escherichia coli* (EHEC) Colonization
as Complex Polygenic Traits in Beef Cattle

\$2,354,004

USDA-NIFA

Kachman, Stephen

Statistics

Moriyama, Etsuko

Biological Sciences/

Center for Plant Science Innovation

Determination of the Importance of Colonization History
in the Assembly of the Gastrointestinal Microbiota

\$1,194,259

NIH-NIGMS

Peterson, Daniel

Food Science and Technology

Bevins, Rick**Psychology**

Pharmacological Interventions
to Diminish Nicotine-Associated Responding

\$1,437,004

NIH-NIDA

Bloom, Kenneth**Physics and Astronomy**

Experimental Particle Physics at the Energy and Cosmic Frontiers

\$2,055,000

NSF

Claes, Daniel

Physics and Astronomy

Dominguez, Aaron

Physics and Astronomy

Kravchenko, Ilya

Physics and Astronomy

Snow, Gregory

Physics and Astronomy

Transatlantic Networking

\$2,917,300

DOE-Fermi National Laboratory

U.S. CMS Operations at the LHC

\$3,142,986

NSF through Princeton University

Dominguez, Aaron

Physics and Astronomy

Swanson, David

Computer Science and Engineering

Searching for and Discovering New Physics
at the Large Hadron Collider, the Tevatron, and in Cosmic Ray

\$1,960,000

NSF

Claes, Daniel

Physics and Astronomy

Dominguez, Aaron

Physics and Astronomy

Kravchenko, Ilya

Physics and Astronomy

Snow, Gregory

Physics and Astronomy

Blum, Paul**Biological Sciences**

Value-Added Products from Renewable Biofuels

\$1,968,000

DOE

Cassman, Kenneth

Agronomy and Horticulture

Bobaru, Florin**Mechanical & Materials Engineering**

* MURI Center for Material Failure

Prediction through Peridynamics

\$1,003,134

DoD-AFOSR

through University of Arizona

Bockelman, Brian**Computer Science and Engineering**

* S12-SSI Data Intensive Analysis for
High Energy Physics (DIANA/HEP)

\$1,001,324

NSF

Boeckner, Linda **Extension**
 Innovation and Collaboration: Creating a Transdisciplinary
 Childhood Obesity Prevention Graduate Program
 \$1,450,389 USDA-NIFA through
 South Dakota State University
 Statistics
 Child, Youth and Family Studies
 Nutrition and Health Sciences
 Nutrition and Health Sciences
 Anderson-Knott, Mindy
 De Guzman, Maria
 Fischer, Jean
 Takahashi, Shinya

Buchholz, Wallace **Biological Process Development Facility**
 * Tech Transfer, Scale Up, and GMP Production of XTEN
 \$2,413,917 Amunix Operating Inc.
 Biological Process Development Facility
 Johnson, Scott

Therapeutic Countermeasures against the Botulinum Neurotoxin
 in Support of USAMRIID Botulinum Therapeutic Program
 \$3,875,001 DoD-DTRA

Cahoon, Edgar **Biochemistry/
 Center for Plant Science Innovation**
 Center for Metabolic Channeling
 for Enhanced Biofuel Systems
 \$1,412,772 DOE through Donald Danforth Plant Science Center

Cassman, Kenneth **Agronomy and Horticulture**
 Global Yield Gap and Water Productivity Atlas
 \$1,255,923 Bill & Melinda Gates Foundation
 Agronomy and Horticulture
 Agronomy and Horticulture
 Grassini, Patricio
 Yang, Haishun

Ciobanu, Daniel **Animal Science**
 Translational Genomics for Improving
 Sow Reproductive Longevity
 \$1,166,650 USDA-AFRI
 Statistics
 Biotechnology
 Animal Science
 Kachman, Stephen
 Riethoven, Jean-Jack
 Spangler, Matthew

Diamond, Judy **University of Nebraska State Museum**
 Biology of Human: Understanding Ourselves
 through the Lens of Current Biomedical Research
 \$1,386,925 NIH-NCRR
 Biological Sciences
 Biochemistry
 Sociology
 Biological Sciences/
 Nebraska Center for Virology
 Angeletti, Anisa
 Bailey, Cheryl
 McQuillan, Julia
 Wood, Charles

Dickey, Elbert **eXtension**
 Supporting Military Families and Youth Partnership
 \$2,500,000 USDA-NIFA
 eXtension Military Families Learning Network
 \$2,240,454 USDA-NIFA

DiLillo, David

Sexual Revictimization: Emotional and Psychosocial Mechanisms

\$3,229,123

Hoffman, Lesa

Psychology

NIH-NICHD

Psychology

DiMagno, Stephen

Synthesis of Radiofluorinated PET Imaging Agents

\$1,170,560

Chemistry

NIH-NIBIB

DiRusso, Concetta**Biochemistry/
Nutrition and Health Sciences**

High Throughput Screens for Fatty Acid Uptake Inhibitors

\$1,259,580

Black, Paul

NIH-NIDDK

Biochemistry

Doll, Elizabeth**Educational Psychology**

NU Data: Using Data and Technology to Foster Achievement

\$1,496,461

Horn, Christy

Shope, Ronald

ED

Educational Psychology

Educational Psychology

Dombrowski, Kirk**Sociology**

* Injection Risk Networks in Rural Puerto Rico

\$2,936,639

Welch-Lazoritz, Melissa

Bureau of Sociological Research/
Sociology

NIH-NIDA

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

Epstein, Michael

Torkelson-Trout, Alexandra

ED-IES

Special Education and
Communication DisordersSpecial Education and
Communication DisordersSpecial Education and
Communication Disorders**Dzenis, Yuris****Mechanical & Materials Engineering**

* Optimal Stent Selection for the Femoropopliteal Artery

\$1,028,824

Desyatova, Anastasia

Mechanical & Materials Engineering

NIH-NHLBI through UNMC

Eccarius, Malinda**Special Education and
Communication Disorders**

Mountain Prairie Upgrade Partnership-Itinerant

\$1,199,400

Bovaird, James

Welch, Greg

ED

Nebraska Center for Research on
Children, Youth, Families and SchoolsNebraska Center for Research on
Children, Youth, Families and SchoolsNebraska Center for Research on
Children, Youth, Families and Schools**Engen-Wedin, Nancy****Teaching, Learning and
Teacher Education**

Indigenous Roots Teacher Education Program

\$1,078,185

McGowan, Thomas

Teaching, Learning and Teacher Education

ED

Espy, Kimberly AndrewsPrenatal Smoking and the Substrates
of Disruptive Behavior in Early Life\$2,320,241
Garza, John**Psychology**NIH-NIDA
PsychologyExecutive Function Development in Preschool Children
\$3,258,301Sheridan, Susan Educational Psychology/Nebraska Center for
Research on Children, Youth, Families and Schools
Carlo, Gustavo Psychology
Schutte, Anne Psychology**Farritor, Shane****Mechanical & Materials Engineering**

Supporting Surgical Options in Space

\$1,350,000

Goddard, Stephen
Nelson, Carl
Pérez, LanceNASA through UNMC
Computer Science and Engineering
Mechanical & Materials Engineering
Electrical and Computer Engineering**Feng, Ruqiang****Mechanical & Materials Engineering**Effect of Protective Devices on Brain Trauma Mechanics
under Idealized Shock Wave Loading

\$2,678,119

Gu, Linxia
Lim, Jung Yul
Negahban, Mehrdad
Nelson, Carl
Turner, JosephDoD-ARO
Mechanical & Materials Engineering
Mechanical & Materials Engineering
Mechanical & Materials Engineering
Mechanical & Materials Engineering
Mechanical & Materials Engineering**Fischer, Jean****Nutrition and Health Sciences**

Supplemental Nutrition Assistance Program (SNAP-ED)

\$1,623,210

Boeckner, Linda
Carr, TimothyUSDA-FNS through Nebraska Department of
Health and Human Services
Extension
Nutrition and Health Sciences**Fontaine, Joseph****Natural Resources**

Use and Satisfaction of Public Hunting Opportunities

\$1,240,600

Martin, Dustin

DOI-GS through Nebraska
Game and Parks Commission
Natural Resources**Frankl, Nicole****Nebraska LTAP**

Nebraska Local Technical Assistance Program FY 2016

\$1,118,919

DOT-FHWA through Nebraska Department of Roads

Gruverman, Alexei**Physics and Astronomy**Nanoscale Resistive Switching Behavior
of Ferroelectric and Multiferroic Tunnel Junctions

\$1,500,000

Tsymbal, Evgeny

DOE
Physics and Astronomy

Guo, Jiantao**Chemistry**

Improve the Safety of an Efficacious Live-Attenuated
HIV-1 Vaccine through Unnatural Amino Acid-Mediated
Suppression of Blank Codon

\$1,919,552

NIH-NIAID

Niu, Wei

Chemistry

Li, Qingsheng

Biological Sciences

Guretzky, John**Agronomy and Horticulture**

Agro-Ecosystem Approach to Sustainable Biofuels Production

\$1,916,143

USDA-NIFA through Iowa State University

Baxendale, Fred

Entomology

Cassman, Kenneth

Agronomy and Horticulture

Glewen, Keith

Southeast Research and Extension Center

Hay, Francis

Biological Systems Engineering

Heng-Moss, Tiffany

Entomology

James, Theresa

Agronomy and Horticulture

Namuth Covert, Deana

Agronomy and Horticulture

Perrin, Richard

Agricultural Economics

Waters, Brian

Agronomy and Horticulture

Wegulo, Stephen

Plant Pathology

Yuen, Gary

Plant Pathology

Hage, David**Chemistry**

* Chromatographic Studies of Functional Proteomics

\$1,075,264

NIH-NIDDK

Hancock, Connie**Panhandle Research
and Extension Center**

Nebraska Broadband Planning

\$2,472,652

Nebraska Public Service Commission

Narjes, Charlotte

Center for Applied Rural Innovation

Terry, Roger

Agricultural Leadership,

Education and Communication

Hayes, Michael**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

Svoboda, Mark

Natural Resources

Tadesse, Tsegaye

Natural Resources

Hein, Gary**Doctor of Plant Health Program**

A Predictive Model to Increase Adoption of IPM
of a Mite-Virus Disease Complex in Wheat

\$3,375,000

USDA-AFRI

Bradshaw, Jeffrey

Panhandle Research and Extension Center

Golick, Douglas

Entomology

Lyon, Drew

Panhandle Research and Extension Center

Namuth Covert, Deana

Agronomy and Horticulture

Wegulo, Stephen

Plant Pathology

Zygielbaum, Arthur

School of Natural Resources

Helikar, Tomas**Biochemistry**

* An Innovative Computational Modeling Intervention
to Facilitate Learning of Biology Using
Simulation and Dynamical Systems Approaches

\$2,321,012

NSF

Brassil, Chad

Biological Sciences

Dauer, Joseph

Natural Resources

Harris, Steven

Plant Pathology

Hogan, Tiffany**Special Education and
Communication Disorders**

Language Bases of Skilled Reading Comprehension

\$4,385,043

ED-IES through MGH Institute
of Health Professionals

Bovaird, James

Educational Psychology/
Nebraska Center for Research on

Children, Youth, Families and Schools

Huang, Jinsong**Mechanical & Materials Engineering**

* Developing Efficient Perovskite/Silicon Tandem Devices

\$1,211,076

DOE

High-efficiency Low-cost Nanocomposite for Radiation Detection

Enabled by Charge Triggered Secondary Charge Injection

\$1,050,000

DoD-DTRA

Hudgins, Jerry**Electrical and Computer Engineering**

A Roadway Wind/Solar Hybrid Power

Generation and Distribution System:

Towards Energy-Plus Roadways

\$1,118,179

DOT-FHWA

Jones, Elizabeth

Civil Engineering

Qiao, Wei

Electrical and Computer Engineering

Rilett, Laurence

Civil Engineering/
Nebraska Transportation Center

Sharma, Anuj

Civil Engineering

Irmak, Suat**Biological Systems Engineering**

Measurement of Growing Season Actual Crop

Evapotranspiration and Crop Coefficients, and Dormant

Season Evaporative Losses for Key Vegetation Surfaces

in the Central Platte Natural Resources District

\$1,066,416

Central Platte NRD

Kilic, Ayse

Civil Engineering/Natural Resources

Martin, Derrel

Biological Systems Engineering

van Donk, Simon

Biological Systems Engineering

Verma, Shashi

Natural Resources

Johnson, Scott**Biological Process Development Facility**

Process Research, Development and

Manufacturing of 5P12 RANTES

\$4,177,746

Mintaka Foundation for Medical Research

Buchholz, Wallace

Biological Process Development Facility

Josiah, Scott**Nebraska State Forest Service**

Cooperative Forestry Program

\$1,879,765

USDA-FS

Khalimonchuk, Oleh

* Mechanisms of Mitochondrial Quality Control and Protection
\$1,365,945

Biochemistry

NIH-NIGMS

Lee, Jaekwon

Mechanistic Insights into Cellular Metal Detoxification
\$1,408,563

Biochemistry

NIH-NIEHS

Lewis, Elizabeth

Teaching, Learning and Teacher Education
UNL Science Scholars Program

\$1,194,387

NSF

Bonnstetter, Ron

Teaching, Learning and Teacher Education

Claes, Daniel

Physics and Astronomy

Gosselin, David

Natural Resources

Heng-Moss, Tiffany

Entomology

Pedersen, Jon

Teaching, Learning and Teacher Education/
Center for Science, Mathematics
and Computer Engineering

Swidler, Stephen

Teaching, Learning and Teacher Education

Li, Ming

Serotonin, Maternal Behavior and Postpartum Depression
\$1,497,476

Psychology

NIH-NIMH

Behavioral Mechanisms of Antipsychotic Action

\$1,424,409

NIH-NIMH

Li, Qingsheng

The Early Events Determining SIV Rectal Transmission
\$1,357,811

Biological Sciences

NIH-NIDDK

Lodi, Kathleen

Child Care and Youth Training and Technical Assistance Project
\$3,390,000

USDA-NIFA

Durden, Tonia

Child, Youth and Family Studies

Click2SciencePD Prototype

\$1,634,212

Noyce Foundation

Ulferts, David

Extension

Lu, Yongfeng

* Portable Fiber Laser System and Method to Remove Pits
and Cracks on Sensitized Surfaces of Aluminum Alloys
\$1,025,000

Electrical and Computer Engineering

DoD-ONR

Multi-Energy Processing for Novel Coating Technologies

\$4,138,000

DoD-ONR

Lubben, Bradley

North Central Risk Management Education Center
\$3,362,959

Agricultural Economics

USDA-NIFA

Mackenzie, Sally

Epigenetic Breeding in Crops
\$2,996,073

**Agronomy and Horticulture/
Biological Sciences**

Bill & Melinda Gates Foundation

Marley, Tom	EMSW21-MCTP: Nebraska Mentoring through Critical Transition Points	Mathematics
\$2,225,689		NSF
Donsig, Allan		Mathematics
Walker, Judy		Mathematics
Mendoza-Gorham, Joan	Lincoln Upward Bound	Student Affairs
\$1,298,771		ED
	Upward Bound Math/Science Program	
\$1,298,771		ED
Molfese, Victoria	Child, Youth and Family Studies Development Implications of Early Childhood Sleep	
\$1,393,519	NIH-NICHD through Indiana University	
Molfese, Dennis		Psychology
Rudasill, Kathleen		Educational Psychology
Olson, Kristin	Sociology/ Gallup Research Center Reducing Error in Computer Survey Data Collection	
\$2,967,347		NSF
Belli, Robert	Psychology/Gallup Research Center	
Smyth, Jolene	Sociology/Gallup Research Center	
Soh, Leen-Kiat	Computer Science and Engineering	
Patent-Nygren, Megan	4-H State Office Nebraska Rural Transit NU Development and Support	
\$2,090,048	DOT-FHWA through Nebraska Department of Roads	
Bivin, William	Nebraska Local Technical Assistance Program	
Pegg, Mark	Natural Resources Missouri River Sportfish Ecology and Management	
\$1,324,787	Nebraska Game and Parks Commission	
Hamel, Martin	Natural Resources	
Pérez, Lance	Academic Affairs WIDER: Adopting Research-Based Instructional Strategies for Enhancing STEM Education	
\$1,990,279		NSF
Arthurs, Leilani	Earth and Atmospheric Studies	
Couch, Brian	Biological Sciences	
Golick, Douglas	Entomology	
Heaton, Ruth	Teaching, Learning and Teacher Education	
Lee, Kevin	Center for Science, Mathematics and Computer Education/Physics and Astronomy	
Spiegel, Amy	Educational Psychology	
Stains, Marilyne	Chemistry	
Pickard, Gary	Veterinary Medicine and Biomedical Sciences Homeostatic Regulation of Peripheral Oscillators via Autonomic Circuitry	
\$1,726,322		NIH-NINDS
Sollars, Patricia	Veterinary Medicine and Biomedical Sciences	

Pope, Kevin**Natural Resources**

Human Dimensions of Nebraska's Fisheries

\$2,165,236

Nebraska Game and Parks Commission

Chizinski, Christopher

Natural Resources

Qiao, Wei**Electrical and Computer Engineering*** An Online Intelligent Prognostic Health
Monitoring System for Wind Turbines

\$1,499,981

DOE

Hudgins, Jerry

Electrical and Computer Engineering

Qu, Liyan

Electrical and Computer Engineering

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

Autoimmunity in the Mediation of Infectious Myocarditis

\$1,365,031

NIH-NHLBI

Elthon, Thomas

Biotechnology/Agronomy and Horticulture

Othman, Shadi

Biological Systems Engineering

Riethoven, Jean-Jack

Biotechnology

Steffen, David

Veterinary Medicine and Biomedical Sciences

Xu, Huihui

Biological Systems Engineering

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

Transportation Infrastructure - Visualizations & ITS Laboratory

\$3,171,651

DOT-FHWA through

Nebraska Department of Roads

Faller, Ronald

Civil Engineering/

Midwest Roadside Safety Facility

Robertson Jr., Vaughn**Student Affairs**

UNL Educational Talent Search

\$2,082,071

ED

Rothermel, Gregg**Computer Science and Engineering**

Safeguarding End-User Military Software

\$3,975,935

DoD-AFOSR

Cohen, Myra

Computer Science and Engineering

Dwyer, Matthew

Computer Science and Engineering

Elbaum, Sebastian

Computer Science and Engineering

Srisa-An, Witawas

Computer Science and Engineering

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

Studies of Artificially Structured Composite Magnets

\$1,408,001

DOE

Beyond Rare Earth Magnets

\$1,197,462

DOE-Ames Laboratory

Shield, Jeffrey

Mechanical & Materials Engineering

Skomski, Ralph

Physics and Astronomy

Shapiro, Charles**Northeast Research
and Extension Center**

Improving Organic Farming Systems and Assessing
Their Environmental Impacts across Agro-Ecoregions

\$1,419,710

USDA-CSREES

Bernards, Mark

Agronomy and Horticulture

Brandle, James

Natural Resources

Ferguson, Richard

Agronomy and Horticulture

Francis, Charles

Agronomy and Horticulture

Hergert, Gary

Panhandle Research and Extension Center

Knezevic, Stevan

Northeast Research and Extension Center

Schlegel, Vicki

Food Science and Technology

Quinn, John

Natural Resources

Wortmann, Charles

Agronomy and Horticulture

Wright, Robert

Entomology

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

Advanced Decentralized Water/Energy
Network Design for Sustainable Infrastructure

\$1,249,995

EPA

Alahmad, Mahmoud

Durham School of Architectural
Engineering and Construction

Lau, Siu Kit

Durham School of Architectural
Engineering and Construction

Li, Haorong

Durham School of Architectural
Engineering and Construction

Schwer, Avery

Durham School of Architectural
Engineering and Construction

Stansbury, John

Civil Engineering

Zhang, Tian

Civil Engineering

Sheridan, Susan**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

Kunz, Gina

Nebraska Center for Research on
Children, Youth, Families and Schools

Efficacy of the Getting Ready Intervention at
Supporting Parental Engagement and Positive Outcomes
for Preschool Children at Educational Risk

\$3,212,919

ED-IES

Bovaird, James

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

Clarke, Brandy

Nebraska Center for Research on
Children, Youth, Families and Schools

Edwards, Carolyn

Child, Youth and Family Studies/Psychology

Knoche, Lisa

Nebraska Center for Research on
Children, Youth, Families and Schools

Marvin, Christine

Special Education and
Communication Disorders

A Randomized Trial of Conjoint Behavioral Consultation (CBC)
in Rural Educational Settings:

Efficacy for Elementary Students with Disruptive Behaviors

\$2,999,994

ED-IES

Bovaird, James

Educational Psychology

Glover, Todd

Nebraska Center for Research on
Children, Youth, Families and Schools

Kunz, Gina

Nebraska Center for Research on
Children, Youth, Families and Schools

Shulski, Martha

Natural Resources

Regional Climate Services Support in the High Plains Region

\$1,431,128

DOC-NOAA

Simpson, Melanie

Biochemistry

* Molecular Mechanisms of Disease

\$1,066,289

NIH-NIGMS

Black, Paul

Biochemistry

Mechanisms of Hyaluronan Signaling and Turnover
in Prostate Cancer

\$1,554,267

NIH-NCI

Harris, Edward

Biochemistry

Smith, Wendy

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

Nebraska NOYCE: NSF Mathematics Teaching
and Master Teaching Fellows Program

\$3,000,000

NSF

Fowler, David

Teaching, Learning and Teacher Education

Kauffman, Douglas

Educational Psychology

Papick, Ira

Mathematics/Center for Science,

Mathematics and Computer Education

Swidler, Stephen

Teaching, Learning and Teacher Education

Somerville, Greg

**Veterinary Medicine and
Biomedical Sciences**

Citric Acid Cycle Regulation
of Exopolysaccharide Synthesis in Staphylococci

\$1,384,992

NIH-NIAID

Powers, Robert

Chemistry

Spreitzer, Robert

Biochemistry

Role of the Rubisco Small Subunit

\$1,496,500

DOE

Starace, Anthony**Physics and Astronomy**

* Imaging and Controlling Ultrafast Dynamics
of Atoms, Molecules, and Nanostructures

\$2,451,966

NSF-EPSCoR

Batelaan, Herman

Physics and Astronomy

Centurion, Martin

Physics and Astronomy

Fabrikant, Ilya

Physics and Astronomy

Fuchs, Matthias

Physics and Astronomy

Gay, Timothy

Physics and Astronomy

Hofmann, Tino

Electrical and Computer Engineering

Lu, Yongfeng

Electrical and Computer Engineering

Schubert, Eva

Electrical and Computer Engineering

Shadwick, Bradley

Physics and Astronomy

Swanson, David

Holland Computing Center

Uiterwaal, Cornelis

Physics and Astronomy

Umstadter, Donald

Physics and Astronomy

Dynamics of Few-Body Atomic Processes

\$2,180,804

DOE

Steadman, James**Plant Pathology**

Genetic Approaches to Reducing Fungal and Oomycete Soilborne
Problems of Common Bean in Eastern and Southern Africa

\$1,100,000

USDA-NIFA

Urrea Florez, Carlos

Panhandle Research and Extension Center

Storz, Jay**Biological Sciences**

* Mutational Pleiotropy, Epistasis, and the
Adaptive Evolution of Hemoglobin Function

\$1,386,044

NIH-NHLBI

Moriyama, Hideaki

Biological Sciences/
Center for Biotechnology

Mechanisms of Hemoglobin Adaptation
to Hypoxia in High-Altitude Rodents

\$1,411,572

NIH-NHLBI

Moriyama, Hideaki

Biological Sciences/
Center for Biotechnology**Stowell, Richard****Biological Systems Engineering**

National Facilitation of Extension Programming in Climate
Change Mitigation and Adaptation for Animal Agriculture

\$4,295,536

USDA-NIFA

Heemstra, Jill

Northeast Research and Extension Center

Koelsch, Richard

Extension

Stroup, Walter**Statistics/Center for Science,
Mathematics and Computer Education**

Data Connections: Developing a Coherent Picture
of Mathematics Teaching and Learning

\$1,213,475

NSF

Green, Jennifer

Statistics/Center for Science,
Mathematics and Computer Education

Smith, Wendy

Center for Science,
Mathematics and Computer Education

Torkelson-Trout, Alexandra**Special Education and
Communication Disorders**

Promoting Transition Outcomes in Youth with LD and EBD:
An Efficacy and Replication Study
of the On the Way Home Aftercare Intervention

\$3,487,223

ED-IES

Duppong Hurley, Kristin

Special Education and
Communication Disorders
Special Education and
Communication Disorders

Epstein, Michael

Umstadter, Donald**Physics and Astronomy**

* 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

Novel Narrowband, Tunable, Multi-MeVX-Ray Source

\$2,896,428

National Strategic Research Institute

Banerjee, Sudeep

Physics and Astronomy

Chen, Shouyuan

Physics and Astronomy

Propagation and Interactions of Ultrahigh Power Light:
Relativistic Nonlinear Optics

\$1,199,891

DoD-AFOSR

Banerjee, Sudeep

Physics and Astronomy

Kalmykov, Serguei

Physics and Astronomy

Shadwick, Bradley

Physics and Astronomy

Laser Produced Coherent X-Ray Sources

\$1,545,000

DOE

Banerjee, Sudeep

Physics and Astronomy

Velander, William**Chemical and Biomolecular Engineering**

Technologies for Hemostasis and Stabilization
of the Acute Traumatic Wound

\$1,783,613

DoD-USAMRAA through UNMC

Walia, Harkamal**Agronomy and Horticulture**

Physiological and Genetic Mechanisms Underlying Salt Tolerance
in Rice across Developmental Stages

\$2,035,509

NSF

3/1/13 - 2/29/16

Lorenz, Aaron

Agronomy and Horticulture

Samal, Ashok

Computer Science and Engineering

Wang, Dong

Computer Science and Engineering

Wardlow, Brian**Natural Resources**

The Quick Drought Response Index (QuickDRI):
An Integrated Approach to Maximizing the Use of NASA Data Sets
for Rapid Response Drought Monitoring

\$1,150,701

NASA

Fuchs, Brian

Natural Resources

Hayes, Michael

Natural Resources

Svoboda, Mark

Natural Resources

Tadesse, Tsegaye

Natural Resources

Weissinger, Ellen**Academic Affairs**

ADVANCE-Nebraska: An Institutional Approach to Hiring,
Retaining, and Promoting Women STEM Faculty
at the University of Nebraska-Lincoln

\$3,801,443

NSF

Holmes, Mary Anne

Earth and Atmospheric Sciences

McQuillan, Julia

Sociology

Wei, Timothy

Engineering

Yoder, Ron

Biological Systems Engineering

Great Plains National Security
Education Consortium (GP-NSEC)

\$3,210,000

DoD-NGIA

Adenwalla, Shireen

Physics and Astronomy

LeSueur, James

History

McMahon, Patrice

Political Science

Paul, Prem

Research and Economic Development

Wedeman, Andrew

Political Science

Wood, Simon

Classics and Religious Studies

Whitbeck, Les**Sociology**

* A RCT of a Family-Centered Ojibwe Substance Abuse Prevention

\$3,568,229

NIH-NIDA

Crawford, Devan

Sociology

Alcohol Abuse/Dependence and Its
Consequences for Indigenous Adolescents

\$1,358,156

NIH-NIAAA

Cheadle, Jacob

Sociology

Hoyt, Dan

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

Jones, Clinton

Veterinary Medicine and Biomedical Sciences

Wilson, Mark**Biochemistry/****Nebraska Center for Redox Biology**

Redox Regulation of DJ-1 Function

\$1,330,374

NIH-NIGMS

Witt-Swanson, Lindsey**Bureau of Sociological Research**

Behavioral Risk Factor Surveillance Survey 2012

\$1,775,457

DHHS-CDC through

Nebraska Department of
Health and Human Services

Wood, Charles**Biological Sciences/
Nebraska Center for Virology*** Cancer Research International Training
and Intervention Consortium (CRITIC)

\$3,732,995

NIH-NCI

Angeletti, Peter

Biological Sciences

Minhas, Veenu

Nebraska Center for Virology

West, John

Nebraska Center for Virology

Neuropathogenesis and Neuroinvasiveness
of Subtype C Human Immunodeficiency Virus-1

\$1,712,314

DHHS-NINDS

Programs in HIV & AIDS Assoc Diseases/Malignancies

\$2,659,284

NIH-FIC

Research Training in Comparative Viral Pathogenesis

\$1,316,330

NIH-NIAID

Yamamoto, Catherine**Student Affairs**

Student Support Services Program

\$2,470,445

ED

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

Active awards, July 1, 2014-June 30, 2015

* Indicates new in 2014-2015

Adamec, Jiri

Biochemistry

Genetic & Genomic Approaches to Understanding
Long-Distance Transport and Carbon Partitioning in Plants
\$399,249 NSF through University of Missouri

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

Magnetolectric Coupling in Ferroelectric/Ferromagnetic
Heterostructures: Beyond Volume Effects
\$395,020 NSF
Ducharme, Stephen Physics and Astronomy
Gruverman, Alexei Physics and Astronomy

Albrecht, Julie

Nutrition and Health Sciences

Growing Healthy Kids through Healthy Communities
\$947,093 USDA-AFRI
Bergman, Gary Southeast Research and Extension Center

Food Safety for Diverse Families with Young Children
\$554,302 USDA-NIFA

Alexander, Dennis

Electrical and Computer Engineering

* Functionalized Metallic Surfaces for Enhanced Heat Transfer,
Drag Reduction, and Novel Power Sources
\$279,998 National Strategic Research Institute
Anderson, Troy Electrical and Computer Engineering
Gogos, George Mechanical & Materials Engineering
Ianno, Natale Electrical and Computer Engineering
Ndao, Sidy Mechanical & Materials Engineering

Alfano, James

Plant Pathology

The *Pseudomonas Syringae* Type 3 Translocon
and the Injection of Bacterial Effectors
across the Plant Cell Wall and Plasma Membrane
\$499,778 USDA-NIFA

Allen, Craig**Natural Resources**

* Monitoring, Mapping, Risk Assessment and
Management of Invasive Species in Nebraska

\$350,000

DOI-FWS through Nebraska
Game and Parks Commission
Natural Resources

Zach, Allison

NGPC Coordination, Mapping, Monitoring, Risk Assessment and
Data Management of Wind Development in Nebraska

\$438,664

Nebraska Game and Parks Commission
Natural Resources

Fontaine, Joseph

Nebraska Wetland Conditions Assessment:

An Intensification Study in Support of the 2011 National Survey

\$338,250

Nebraska Game and Parks Commission

Missouri River Mitigation: Implementation of Amphibian
Monitoring and Adaptive Management
for Wetland Restoration Evaluation

\$601,886

DOI-GS

Amundsen, Keenan**Agronomy and Horticulture**

Buffalograss Breeding, Evaluation and
Management for Golf Course

\$390,000

U.S. Golf Association

Askren, Mark**Information Services**

CC-NIE Networking Infrastructure:
Accelerating Science for Nebraska

\$491,871

NSF

Bockelman, Brian

Computer Science and Engineering

Ramamurthy, Byravamurthy

Computer Science and Engineering

Swanson, David

Computer Science and Engineering

Atkin, Audrey**Biological Sciences**

Mechanisms that Protect Transcripts
from Nonsense-Mediate mRNA Decay

\$620,647

NSF

Avalos, George**Mathematics**

Analysis and Control of Evolutionary Plates and Elastic Structures

\$292,773

NSF

Toundykov, Daniel

Mathematics

Avramov, Luchezar**Mathematics**

Cohomology over Commutative Rings:
Structure and Applications

\$458,919

NSF

Avramova, Zoya**Biological Sciences**

Memory of a Drought:

Training Arabidopsis Plants to Withstand Dehydration Stress

\$711,000

NSF

Fromm, Michael

Center for Biotechnology/

Center for Plant Science Innovation

Riethoven, Jean-Jack

Center for Biotechnology

Barker, Bradley**4-H Youth Development**

* Nebraska Wearable Technologies

\$984,189

NSF

Keshwani, Jennifer

Biological Systems Engineering

Krehbiel, Michelle

4-H Youth Development

Nelson, Carl

Mechanical & Materials Engineering

Nugent Gwen

Nebraska Center for Research on

Children, Youth, Families and Schools

Weiss, Wendy

Textiles, Merchandising and Fashion Design

4-H Robotics: Engineering for Today and Tomorrow

\$647,162

USDA-CSREES-National 4-H Headquarters

Barletta, Raul**Veterinary Medicine and Biomedical Sciences**Genome Wide Analysis of *M. Paratuberculosis* Pathogenesis

\$499,981

USDA-NIFA

Bartelt-Hunt, Shannon**Civil 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 Engineering

Li, Yusong

Civil Engineering

Rosenbaum, David

Economics

Snow, Daniel

Water Center

Tang, Zhenghong

Community and Regional Planning Program

Thompson, Eric

Bureau of Business Research

Evaluating Air Emissions and Fuel Efficiency
of Solid Waste Collection Vehicles

\$262,602

Environmental Research & Education Foundation

Jones, Elizabeth

Civil Engineering

Bashford, Gregory**Biological Systems Engineering*** Neurological Consequences of Emboli Burden
during Cardiopulmonary Bypass

\$278,240

Gerber Foundation

Basolo, Alexandra**Biological Sciences**The Consistency of Behavioral Plasticity
Across Different Selective Contexts

\$512,998

NSF

Basset, Gilles**Agronomy and Horticulture/Biochemistry/
Center for Plant Science Innovation**Phylloquinone Biosynthesis in Plants:
Enzyme Discovery and Pathway Flux Control

\$440,356

NSF

Batelaan, Herman**Physics and Astronomy**

Coherent Electron Control

\$390,000

NSF

Baumert, Joseph **Food Science and Technology**

Comparison of Gnotobiotic and Conventional Mice
for Predicting the Allergenic Potential Proteins
Introduced into Genetically Engineered Plants

\$423,546 EPA
Goodman, Richard Food Science and Technology
Peterson, Daniel Food Science and Technology

Becker, Donald **Biochemistry**

REU Site: Training in Redox Biology

\$262,914 NSF
Stone, Julie Biochemistry/Center for Plant Science Innovation

Belli, Robert **Psychology/Gallup Research Center**

* Central Plains Census Research Data Center

\$300,000 NSF
Anderson, John Economics
Thompson, Eric Bureau of Business Research

Benson, Andrew **Food Science and Technology**

Microbiome Analysis of ConAgra Products

\$325,000 ConAgra

Beukelman, David **Special Education and
Communication Disorders**

Rehabilitation Engineering Research
Center on Communication Enhancement
ED through Duke University Medical Center

\$392,328

Billesbach, David **Biological Systems Engineering**

The AmeriFlux Network Management Project

\$333,254 DOE through
University of California-Berkeley National Lab

SGP-Carbon Project

\$400,006 University of California-Berkeley National Lab

Bloom, Kenneth **Physics and Astronomy**

Any Data, Anytime, Anywhere

\$710,336 NSF
Dominguez, Aaron Physics and Astronomy
Swanson, David Computer Science and Engineering

Blum, Paul **Biological Sciences**

REU Site: Bioenergy Systems

\$274,987 NSF
Cerutti, Heriberto Biological Sciences/
Center for Plant Science Innovation

Bobaru, Florin **Mechanical & Materials Engineering**

* Stress Corrosion Cracking: The Importance of
Damage Evolution in the Layer Affected by Corrosion

\$596,188 DoD-ONR
Tan, Li Mechanical & Materials Engineering

Predictive Models for Dynamic Brittle Fracture and Damage
at High-Velocity Impact in Multilayered Targets

\$369,945 DoD-ARO

- Bockelman, Brian** **Computer Science and Engineering**
 CC-NIE Integration: Bringing Distributed
 High Throughput Computing to the Network with Lark
 \$573,344 NSF
- Brown, Deborah** **Biological Sciences**
 Generation and Regulation of Anti-Viral CD4 T Cells
 with Cytolytic Potential
 \$351,312 NIH-NIAID
- Buan Murphy, Nicole** **Biochemistry**
 * EAGER: Coupling Electron Transport and
 Metabolism using Biological Routers
 \$299,615 NSF
- Buchholz, Wallace** **Biological Process Development Facility**
 Manufacture of Recombinant Vaccine
 for Phase Clinical Trial and Toxicity Testing
 \$832,185 National Strategic Research Institute
 Johnson, Scott Biological Process Development Facility
- Bulling, Denise** **Public Policy Center**
 Developing Nebraska's Homeland Security Planning Capacity
 \$357,019 DHS through Nebraska Military Department-NEMA
 Dekraai, Mark Psychology/Public Policy Center
 Speck, Kathryn Public Policy Center
- Burgin, Amy** **Natural Resources**
 Conversion of Farm Fields to Wetlands:
 How Do Created Wetlands Affect Global Warming Potential
 \$454,545 USDA-NIFA
- The Effects of Alum and Fish Restoration on Water Quality
 in the Fremont Lake, NE
 \$295,157 EPA through Nebraska Department
 of Environmental Quality
 Pegg, Mark Natural Resources
 Pope, Kevin Natural Resources
 Thomas, Steven Natural Resources
- Cahoon, Edgar** **Biochemistry/
 Center for Plant Science Innovation**
 * Biochemical Genomics:
 Deciphering the Chemical Factories of Oilseeds
 \$689,553 NSF through Washington State University
 Moriyama, Etsuko Biological Sciences/
 Center for Plant Science Innovation
- * Overcoming Metabolic Bottlenecks for
 Enhanced Vitamin E Production in Crop Plants
 \$490,000 USDA-NIFA
- * Sustainable Biofuel from the Great Plains to the Semi-Arid West:
 Improved Germplasm for Camelina Oilseed
 \$373,976 DOE through Colorado State University

Integrating the Regulatory Components
of Sphingolipid Biosynthesis in Arabidopsis
\$686,815 NSF
Stone, Julie Biochemistry

Center for Enhanced Camelina Oil (CECO)
\$901,129 DOE through Donald Danforth
Plant Science Center

Biochemical Genomics:
Quizzing the Chemical Factories of Oilseeds
\$979,028 NSF through Washington State University

BioCassava Plus
\$433,442 Bill & Melinda Gates Foundation through
Donald Danforth Plant Science Center

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

Outdoor U Program
\$262,381 Nebraska Game and Parks Commission

Centurion, Martin **Physics and Astronomy**
Ultrafast Imaging of Electronic Motion in Atoms and Molecules
\$737,778 DoD-AFOSR
Starace, Anthony Physics and Astronomy

Ultrafast Electron Diffraction from Aligned Molecules
\$750,000 DOE

Cerutti, Heriberto **Biological Sciences/
Center for Plant Science Innovation**
* Small RNA-Mediated Translation Repression in Chlamydomonas
\$566,910 NSF

Histone H3 Phosphorylation and Gene Silencing
in Chlamydomonas and Arabidopsis
\$591,661 NSF

Cheung, Chin Li **Chemistry**
* Defect Chemistry of Metal Oxides for
Catalytic Reactive Oxygen Species Generation
\$406,283 NSF

Choueiry, Berthe **Computer Science and Engineering**
RI: Small: Towards Practical Tractability in Constraint Processing
\$435,564 NSF

Christensen, Alan **Biological Sciences**
* Novel Mechanisms of Plant Mitochondrial DNA Repair
\$587,760 NSF

EAGER: Plant Mitochondrial Transformation
\$300,000 NSF

- Ciobanu, Daniel** **Animal Science**
Application of Genomics to Improving Swine Health and Welfare
\$243,065 University of Alberta, Canada
- Claes, Daniel** **Physics and Astronomy**
Strategies: Action at a Distance
\$550,000 NSF
Pedersen, Jon Teaching, Learning and Teacher Education/
Center for Science, Mathematics
and Computer Education
Snow, Gregory Physics and Astronomy
Welch, Greg Nebraska Center for Research on
Children, Youth, Families and Schools
- Clarke, Jennifer** **Food Science and Technology/Statistics**
ATD: Statistical Ensembles
for the Identification of Bacterial Genomes
\$495,318 NSF
Clarke, Bertrand Statistics
- Clemente, Thomas** **Agronomy and Horticulture/
Center for Plant Science Innovation/
Center for Biotechnology**
Testing Replacement of Fishmeal and Fish Oil
in *Seriola Rivoliana* (Kampachi) Diet
with Soy-Based Protein and Oil
\$364,209 United Soybean Board/Smith/Bucklin
- Engineering Hydrocarbon Biosynthesis and Storage Together with
Increased Photosynthetic Efficiency into the Saccharinase
\$727,694 DOE through University of Illinois
at Urbana-Champaign
- Necessary Resources to Aid in the Translation
of Genomics Information into Applied Technologies
\$630,982 NSF through University of Georgia
- Cohen, Myra** **Computer Science and Engineering**
* II-NEW: COMET: A Web Infrastructure for Research and
Experimentation in User Interactive Event Driven Testing
\$332,104 NSF
- SHF: Medium: Regression Testing Techniques
for Real-World Software Systems
\$324,883 NSF
- Couch, Brian** **Biological Sciences**
Impact of the Summer Institution on Faculty Teaching
and Student Achievement
\$393,068 NSF through University of Colorado
- Cress Nipper, Cynthia** **Special Education and
Communication Disorders**
STTR: Infant Assessment of Early Communication Risk Factors: The
ECBS
\$532,677 NIH-NIDCD through Brookes Publishing Company

Crockett, Lisa **Psychology**
 An Ecological Model of Latino Youth Development
 \$339,935 NSF
 Buhs, Eric Educational Psychology
 Carranza, Miguel Sociology/Institute for Ethnic Studies
 De Guzman, Maria Child, Youth and Family Studies

Cupp, Andrea **Animal Science**
 Causes and Consequences of Androgen Excess
 on Oocyte Quality
 \$499,994 USDA-NIFA
 Wood, Jennifer Animal Science

De Ayala, Rafael **Educational Psychology**
 GAANN Fellowship Program for Educational Psychology
 \$528,608 ED
 Ansorge, Charles Educational Psychology
 Bellows, Laurie Graduate Studies
 Bovaird, James Educational Psychology
 Geisinger, Kurt Educational Psychology

Detweiler, Carrick **Computer Science and Engineering**
 Co-Aerial-Ecologist:
 Robotic Water Sampling and Sensing in the Wild
 \$956,210 USDA-NIFA
 Burgin, Amy Natural Resources
 Elbaum, Sebastian Computer Science and Engineering
 Waite, Matthew Journalism and Mass Communications

CSR: Small: Adaptive and Autonomous Energy Management
 on a Sensor Network Using Aerial Robots
 \$390,000 NSF

DiMagno, Stephen **Chemistry**
 New Approaches to Catalyst Screening & Development
 \$465,000 NSF

DiRusso, Concetta **Biochemistry**
 Activators of Lipid Accumulation in Algae
 \$550,000 NSF
 Adamec, Jiri Biochemistry
 Cerny, Ronald Chemistry

Dodd, Michael **Psychology**
 * Task Switching and Visual Behavior
 \$584,545 NIH-NEI
 Hoffman, Lesa Psychology

Dombrowski, Kirk **Sociology**
 * REU Site: Social Network Analysis for
 Solving Minority Health Disparities
 \$349,996 NSF
 Anderson-Knott, Mindy Statistics

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

* Voltage-Controlled, Low-Power Nonvolatile Spintronic Memory
\$899,830 Semiconductor Research Corp.
through University of Minnesota
Binek, Christian Physics and Astronomy

Doped Boron Carbide Polymers: Fundamental Studies
of a Novel Class of Materials for Enhanced Radiation Detection
\$375,000 DoD-DTRA through University of North Texas

Du, Liangcheng **Chemistry**

Discovering New Anti-Infective Agents from Lysobacter
\$838,922 NIH-NIAID

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

University of Nebraska's Post-Doctoral Program
in Emotional Disturbance
\$643,776 ED
Torkelson-Trout, Alexandra Special Education and
Communication and Disorders

Randomized Clinical Trial of the Boys Town In-Home Program
\$621,989 Father Flanagan's Boys' Home

Dussault, Patrick **Chemistry**

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

Effect of Composition and Particle Size in Oxidation Catalysis
by Metal Oxide Solid Solution Nanoparticles
\$485,000 NSF

New Reactions of Organic Peroxides
\$420,000 NSF

Dvorak, Bruce **Civil Engineering**

* Water Innovation Network for
Sustainable Small Systems (WINSSS)
\$338,160 EPA through University of Massachusetts-Amherst
Lai, Rebecca Chemistry
Ray, Chittaranjan Civil Engineering

Dzenis, Yuris **Mechanical & Materials Engineering**

* Bulk Nanostructured Materials
for Navy Applications
\$702,271 DoD-ONR

* Biomimetic Nanostructured Materials
Based on Synthetic Spider Silk
\$300,000 NSF

* GOALI: Nanomanufacturing of Ultrahigh-Performance
Continuous Carbon Nanofibers and Assemblies
\$299,947 NSF
Papkov, Dimitry Mechanical & Materials Engineering

Advanced Single-Polymer Nanofiber-Reinforced Composite:
Towards Next Generation Ultralight
Superstrong/Tough Structural Material

\$893,269

DoD-AFOSR

MURI: Multiscale Design and Manufacturing
of Hybrid DWCNT-Polymer Fibers

\$815,077

DoD through Northwestern University

Elbaum, Sebastian

Computer Science and Engineering

SHF: Small: Solving the Search for Relevant Code
in Large Repositories with Lightweight Specifications

\$449,033

NSF

Enders, Axel

Physics and Astronomy

UNO-NASA Space Grant Consortium:

Neutron Voltatics for Deep Space Missions

\$546,569

NASA through UNO

Dowben, Peter

Physics and Astronomy/Nebraska

Center for Materials and Nanoscience

Ianno, Natale

Electrical and Computer Engineering

Erickson, Galen

Animal Science

Integrated Anaerobic Digestion with Algae

Bioenergy and Green Aquaculture

\$250,000

Nebraska Environmental Trust

Isom, Loren

Industrial Agricultural Products Center

Riley, Mark

Biological Systems Engineering

Schmidt, Amy

Animal Science/Biological Systems Engineering

Stowell, Richard

Biological Systems Engineering

Eskridge, Kent

Statistics

GAANN Fellowship Program for Statistics

\$396,456

ED

Batman, Renee

Graduate Studies

Bellows, Laurie

Graduate Studies

Bilder, Christopher

Statistics

Blankenship, Erin

Statistics

Parkhurst, Anne

Statistics

Stroup, Walter

Statistics

Weissinger, Ellen

Educational Psychology

Zhang, Shunpu

Statistics

Espy, Kimberly

Psychology

* Neurocognitive Mechanisms of Developing

Executive Control and Risk for ADHD in Preschool

\$415,250

NIH-NIMH

Garza, John

Research and Economic Development

James, Tiffany

Research and Economic Development

Molfese, Dennis

Psychology

Nelson, Jennifer

Research and Economic Development

Faller, Ronald**Midwest Roadside Safety Facility**

* Development of Concrete Bridge Rails, Median Barriers,
and Roadside Barriers for Test Level 5 of
AASHTO MASH in Manitoba, Canada

\$297,890

Government of Manitoba-
Infrastructure & Transportation

Rosenbaugh, Scott
Schmidt, Jennifer

Midwest Roadside Safety Facility
Midwest Roadside Safety Facility

* Phase II Conceptual Development of an Impact
Attenuation System for Intersecting Roadways

\$256,184

DOT-FHWA through

Nebraska Department of Roads

Reid, John
Bielenberg, Robert

Mechanical & Materials Engineering
Midwest Roadside Safety Facility

Adaptation of the SAFER Barrier
for Roadside and Median Applications

\$990,000

Nebraska Department of Roads

Reid, John

Mechanical & Materials Engineering

Farritor, Shane**Mechanical & Materials Engineering**

Robotic Tele-Surgery Research

\$686,808

DoD-Army-TATRC through UNMC

Hawks, Jeff

Mechanical & Materials Engineering

Nelson, Carl

Mechanical & Materials Engineering

Terry, Benjamin

Mechanical & Materials Engineering

Ferguson, Richard**Agronomy and Horticulture**

Interactions of Water and Nitrogen Supply
for Irrigated Corn across Field Landscapes

\$483,373

John Deere

Irmak, Suat

Biological Systems Engineering

Shaver, Timothy

West Central Research and Extension Center

van Donk, Simon

West Central Research and Extension Center

Evaluation of Flue Gas Desulfurization Gypsum (FGDG)
as a Soil Amendment for Irrigated Crop Production

\$256,292

Public Power Generation Agency

Luck, Joe

Biological Systems Engineering

McCallister, Dennis

Agronomy and Horticulture

Fernando, Samodha**Animal Science**

Dietary Intervention and Microbial Community Analysis
toward Methane Mitigation

\$749,941

USDA-AFRI

Erickson, Galen

Animal Science

Jenkins, Karla

Panhandle Research and Extension Center

Klopfenstein, Terry

Animal Science

Luebbe, Matthew

Panhandle Research and Extension Center

Rasby, Richard

Animal Science

Fontaine, Joseph**Natural Resources**

* Climatic Constraints on Bobwhite Quail
Populations along Their Northern Extent

\$299,686

DOI-FWS through Nebraska
Game and Parks Commission
Biological Sciences

Bachman, Gwendolyn

Assessing the Effects of Habitat Incentive Programs and
Public Access Programs on Pheasant Population
Dynamics and Hunter Harvest

\$867,766

Nebraska Game and Parks Commission
Natural Resources

Powell, Larkin

Forbes, Cory**Natural Resources**

Modeling Hydrologic Systems in Elementary Science

\$327,537

NSF

Francisco, Joseph**Chemistry**

* Radical Chemistry on Cloud and Aerosol Surfaces

\$269,915

NSF

Franzen-Castle, Lisa**Nutrition and Health Sciences**

* Voices for Food

\$618,314

USDA-NIFA through
South Dakota State University

Kroupa, Michelle

Northeast Research and Extension Center

Sale, Brenda

Northeast Research and Extension Center

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

* CSBR: Natural History: Securing and Digitizing Data for
Parasite Biodiversity Specimens in the Manter Laboratory

\$499,991

NSF

Racz, Gabor

University of Nebraska State Museum

Gaussoin, Roch**Agronomy and Horticulture**

Development of Quality Protein Popcorn as a Non-GMO
Approach to Enhanced Nutritional Quality,
Pop Volume and Flavor Profile

\$694,200

ConAgra

Holding, David

Agronomy and Horticulture

Rodriguez, Oscar

Agronomy and Horticulture

Rose, Devin

Food Science and Technology

ConAgra Popcorn Breeding Maintenance

\$815,154

ConAgra

McAndrew, Thomas

Agronomy and Horticulture

Rodriguez, Oscar

Agronomy and Horticulture

Gay, Timothy**Physics and Astronomy**

Polarized Electron Physics

\$635,000

NSF

Giannakas, Konstantin**Agricultural Economics**Center For Agricultural and Food Industrial Organization-
Policy Research Group (CAFIO-PRG)

\$766,166

USDA-NIFA

Anderson, John

Economics

Burbach, Mark

Natural Resources

Calow, Peter

Research and Economic Development

Fulginiti, Lilyan

Agricultural Economics

Hayes, Michael

Natural Resources

Lubben, Bradley

Agricultural Economics

Lynne, Gary

Agricultural Economics

Perrin, Richard

Agricultural Economics

Schoengold, Karina

Agricultural Economics

Thompson, Eric

Bureau of Business Research

Yiannaka, Amalia

Agricultural Economics

Gibson, Robert**Biological Sciences**

* GAANN Integrative Ecology and Evolution

\$544,420

ED

Glover, Todd**Nebraska Center for Research on
Children, Youth, Families and Schools**

State-Wide Response-to-Intervention

Consortium for Training & Evaluation

\$499,917

Nebraska Department of Education

Ihlo, Tanya

Nebraska Center for Research on
Children, Youth, Families and Schools**Goddard, Stephen****Computer Science and Engineering**CSR: Small: Systematic Approaches for Real-Time
Stream Data Services

\$250,000

NSF

Liu, Xue

Computer Science and Engineering

Gogos, George**Mechanical & Materials Engineering*** Highly Permanent Biomimetic Micro/Nanostructured
Surfaces by Femtosecond Laser Surface Processing
for Thermal Management Systems

\$563,131

NASA-EPSCoR through UNO

Alexander, Dennis

Electrical and Computer Engineering

Anderson, Troy

Electrical and Computer Engineering

Ianno, Natale

Electrical and Computer Engineering

Ndao, Sidy

Mechanical & Materials Engineering

Shield, Jeffrey

Mechanical & Materials Engineering

Goodman, Richard**Food Science and Technology**

Food Allergen Database

\$957,318

Various Industries

Goosby, Bridget**Sociology**

Intergenerational Transmission of Race Disparities in Health

\$546,345

NIH-NICHD

Gosselin, David**Natural Resources**

Global Climate Change Education:
Research Experiences, Modeling and Data

\$349,973

NASA

Bonnstetter, Ron

Teaching, Learning and Teacher Education

Low, Russanne

Natural Resources

Oglesby, Robert

Earth and Atmospheric Sciences/
Natural Resources**Graef, George****Agronomy and Horticulture**

Soybean Breeding and Genetic Studies for Nebraska

\$257,379

Nebraska Soybean Board

Griep, Mark**Chemistry**

Framing the Chemistry Curriculum

\$749,285

NSF

REU Site: Research Experiences for Undergraduates
in Chemical Assembly at the University of Nebraska

\$270,000

NSF

Grosskopf, Kevin**Durham School of Architectural
Engineering and Construction**

IMPACT - Trade Adjustment Assistance Grant

\$725,842

DOL through Central Community College

Harms, Peter

Management

Luthans, Fred

Management

Shen, Zhigang

Durham School of Architectural
Engineering and Construction

Stentz, Terry

Durham School of Architectural
Engineering and Construction

Torraco, Richard

Educational Administration

Gruverman, Alexei**Physics and Astronomy**

Nanoscale Studies of Pyroelectric and Thermoelectric Phenomena

\$600,000

DOE

Ducharme, Stephen

Physics and Astronomy

Materials World Network:
Critical Scaling of Domain Dynamics
in Ferroelectric Nanostructures

\$314,950

NSF

Guo, Jiantao**Chemistry**Mechanistic Study of Cellulosome
through Reprogramming Its Assembly

\$307,741

NSF

Niu, Wei

Chemistry

Guretzky, John **Agronomy and Horticulture**

Demonstrating Mob Grazing Impacts
in the Northern Great Plains on Grazingland Efficiency,
Botanical Composition, Soil Quality, and Ranch Economics
\$330,256 USDA-NRCS through
South Dakota State University
Mamo, Martha Agronomy and Horticulture
Schacht, Walter Agronomy and Horticulture
Stockton, Matthew West Central Research and Extension Center
Volesky, Jerry West Central Research and Extension Center

Hage, David **Chemistry**

Instrumentation Development:
Label-Free and Rapid 3D-Nanostructure
Ultrathin-Layer Imaging Chromatography
\$402,483 NSF
Hofmann, Tino Electrical and Computer Engineering
Chromatographic Automation of Immunoassays
\$809,387 NIH-NIGMS

Han, Ming **Electrical and Computer Engineering**

* Adaptive and Sensitive Fiber-Optic Sensor Systems for
Detection of Acoustic Emissions in Vibrational Environment
\$300,810 DoD-ONR

* Fiber Laser Sensors for Acoustic Emission Detection
\$300,590 DoD-ONR

* Multiplexed Fiber-Ring Laser Acoustic Emission
Sensors for Structural Health Monitoring
\$300,270 DoD-ONR

Distributed Fiber-Optic Laser Ultrasound Generation
\$300,103 DoD

Harshman, Lawrence **Biological Sciences**

Molecular Evolution of Genes Expressed
in *D. melanogaster* Sperm Storage Structures
\$302,713 NSF
Moriyama, Etsuko Biological Sciences/
Center for Plant Science Innovation

Genome Biology of Innate Immunity: Genetic Dissection
of *Drosophila melanogaster* Responses to Bacillus Infection
\$454,013 DoD
Benson, Andrew Food Science and Technology
Kachman, Stephen Statistics

Harris, Steven **Plant Pathology**

* Engineering Protein Transport and Secretion in Filamentous Fungi
\$274,949 NSF

Hauptman, Kelli **Center on Children, Families, and the Law**

Court Improvement Project Infant/Toddler Program
\$655,843 The Sherwood Foundation®
Cole-Mossman, Jennie Center on Children, Families, and the Law

Hawks, Jeff**Mechanical & Materials Engineering**

MPPR Sauce Fluid Dynamic Study for Perfect Dispense System
 \$550,000 ConAgra
 Farritor, Shane Mechanical & Materials Engineering
 Zhang, Zhaoyan Mechanical & Materials Engineering

Hayes, Michael**Natural Resources**

* Drought Risk Management for the United States
 \$693,696 DOC-NOAA through University of Oklahoma
 Bathke, Deborah Earth and Atmospheric Sciences
 Fuchs, Brian Natural Resources
 Knutson, Cody Natural Resources
 Svoboda, Mark Natural Resources
 Tadesse, Tsegaye Natural Resources

Drought Information Service in Support
 of the National Integrated Drought Information System NIDIS
 \$739,803 DOC-NOAA
 Bathke, Deborah Earth and Atmospheric Sciences
 Fuchs, Brian Natural Resources
 Knutson, Cody Natural Resources
 Svoboda, Mark Natural Resources
 Tadesse, Tsegaye Natural Resources

Heaton, Ruth**Center for Science, Mathematics and Computer Education/ Teaching, Learning and Teacher Education**

* Math Early On
 \$528,071 Buffett Early Childhood Fund
 Edwards, Carolyn Psychology/Child, Youth and Family Studies
 Molfese, Victoria Child, Youth and Family Studies

Hebert, Michael**Special Education and Communication Disorders**

* Structures: Improving the Reading Comprehension
 of Struggling Readers in the 4th Grade through
 Expository Text Structure and Writing
 \$399,073 ED
 Nelson, J. Ron Special Education and
 Communication Disorders

Heng-Moss, Tiffany**Entomology**

Mitigating Insect Herbivory of Warm-Season Bioenergy Grasses –
 Getting Ahead of the Curve
 \$734,477 USDA-ARS
 Bradshaw, Jeffrey Entomology
 Lagrimini, Mark Agronomy and Horticulture

Hermiller, Susan**Mathematics**

Topology and Geometry of Cayley Graphs for Groups
 \$251,096 NSF

Hogan, Tiffany**Special Education and Communication Disorders**

Working Memory and Word Learning in Children
 with Typical Development and Language Impairment
 \$586,879 NIH-NIDCD through Arizona State University

Holding, David **Agronomy and Horticulture**
 A Novel Functional Genomics Platform
 for Dissecting Maize Kernel Maturation and Protein Quality
 \$412,985 USDA-NIFA
 Zhang, Chi Biological Sciences

Houston, Adam **Earth and Atmospheric Sciences**
 * Energy-Aware Aerial Systems for
 Persistent Sampling and Surveillance
 \$379,591 DoD-AFOSR through University of Colorado Boulder

Hu, Qi (Steve) **Natural Resources**
 Development of a Northern Hemisphere
 Gridded Precipitation Dataset
 Spanning the Past Half Millennium for Analyzing
 Interannual and Longer-Term Variability in the Monsoons
 \$529,501 DOC-NOAA
 Feng, Song Natural Resources
 Oglesby, Robert Earth and Atmospheric Sciences

Huang, Jinsong **Mechanical & Materials Engineering**
 * Combined Macroscopic and Nanoscopic Studies of the
 Photovoltaic Behavior of Organic Perovskite Solar Cells
 \$480,000 NSF
 Gruverman, Alexei Physics and Astronomy

* ARI-MA: Trap-Triggered Organic Field Effect Transistor
 as Low-Cost, Uncooled, Highly Sensitive Solid-State
 Photodetector for Radiation Sensing
 \$300,000 NSF

Room-Temperature Operation Single-Photon Detectors Based
 on Nanoparticle Super-Gated Organic Field Effect Transistors
 \$305,000 NSF

Extremely Sensitive Solid-State Ultraviolet Photodetector
 by Fabricated Low-Cost Solution Process
 \$628,183 DoD-ONR

Tailoring the Energy Levels of Donor and Acceptor
 in Organic Photovoltaics for Increased Photovoltage
 with Ferroelectric Dipole Layer
 \$416,000 NSF
 Ducharme, Stephen Physics and Astronomy

Highly Sensitive, Low Cost
 Organic Photodetector-Based Photomultiplication
 \$500,000 DoD-DTRA

Hunt, William **Anthropology**
 Pilot Project: A Multidisciplinary Exploratory Study
 of Alpine Cairns, Baranof Island, Southeast Alaska
 \$290,992 NSF
 Hartley, Ralph Anthropology

Hutkins, Robert **Food Science and Technology**

Application of a Novel Synbiotic to Modulate the
Human Gut Microbiota and Improve Health in Obese Adults
\$489,699 USDA-NIFA
Walter, Jens Food Science and Technology

Ihlo, Tanya **Nebraska Center for Research on
Children, Youth, Families and Schools**

* Nebraska Multi-Tiered System of
Support Implementation Support Team
\$624,891 Nebraska Department of Education

Irmak, Suat **Biological Systems Engineering**

* Continuous Evapotranspiration and
Consumptive Water Use Measurements of
Various Cropping Systems and Natural Ecosystems
\$355,956 Nebraska Environmental Trust

Impact of Rotational Cover Crops on Soil Quality Parameters,
Soil Water Holding Capacity, Soil-Water Retention Curves,
and Field-Scale Water Balance Dynamics
\$490,340 USDA-NRCS
Chatterjee, Sumantra Biological Systems Engineering
Djaman, Koffi Biological Systems Engineering
Mutiibwa, Denis Biological Systems Engineering
Odhiambo, Lameck Biological Systems Engineering
Skaggs, Kari Biological Systems Engineering

Impact of Tillage Practices on Corn and Soybean Transpiration,
Nutrient Dynamics, and Crop Water Productivity
\$538,809 Nebraska Environmental Trust
Eisenhauer, Dean Biological Systems Engineering
Gates, John Earth and Atmospheric Sciences

Itskov, Vladimir **Mathematics**

Topology of Neural Coding in Recurrent Networks:
Theory and Data Analysis
\$316,862 NSF

Iyengar, Srikanth **Mathematics**

Commutative Algebra: Homological and Homotopical Aspects
\$435,785 NSF

Jhala, Amitkumar **Agronomy and Horticulture**

Pollen-Mediated Gene Flow from Acetolactate Synthase-Inhibiting
Herbicide-Resistant Sorghum to Johnsongrass
\$296,286 E. I. Dupont
Lindquist, John Agronomy and Horticulture

Jones, Clinton **Veterinary Medicine and Biomedical Sciences**

Analysis of Bovine Herpesvirus 1
Stress-Induced Reactivation from Latency
\$500,000 USDA-NIFA
Doster, Alan Veterinary Medicine and Biomedical Sciences

Josiah, Scott **Nebraska State Forest Service**

Protecting, Rehabilitating and Restoring
Nebraska's Pine Forest Ecosystems

\$989,667

Nebraska Environmental Trust

Hazardous Mitigation Treatments on Non-Federal Lands
\$388,900

USDA-FS

Conservation and Stewardship Education
for Nebraska Educators and Youth
\$295,781

USDA-FS

Kilic, Ayse **Civil Engineering/Natural Resources**

* Developing and Enhancing Landsat Derived
Evapotranspiration and Surface Energy Products

\$268,110

DOI-GS through University of Idaho

CPNRD Mapping Evapotranspiration
with High Resolution Satellite Data
\$521,705

Central Platte NRD

Kim, Yong Rak **Civil Engineering**

Asphalt Research Consortium

\$425,000

DOT-FHWA through Texas A&M
Research Foundation

Knutson, Cody **Natural Resources**

* Drought Impacts: Vulnerability Thresholds
in Monitoring and Early Warning Research

\$542,073

NSF

Svoboda, Mark

Natural Resources

Transforming Climate Variability and Change Information
for Cereal Crop Producers

\$284,468

USDA-NIFA through Purdue University

Shulski, Martha

Natural Resources

Koelsch, Richard **Extension**

* Nebraska Extension Implementation Program

\$716,100

USDA-NIFA

Bradshaw, Jeffrey

Panhandle Research and Extension Center

Cortinas, Manuel

Veterinary Medicine and Biomedical Sciences

Glewen, Keith

Southeast Research and Extension Center

Jackson-Ziems, Tamra

Plant Pathology

Jhala, Amitkumar

Agronomy and Horticulture

Kamble, Shripat

Entomology

Ogg, Clyde

Agronomy and Horticulture

Wright, Robert

Entomology

Increasing IPM Adoption in Nebraska

\$475,000	USDA-NIFA
Bradshaw, Jeffrey	Panhandle Research and Extension Center
Cortinas, Manuel	Veterinary Medicine and Biomedical Science
Doster, Alan	Veterinary Medicine and Biomedical Science
Ferraro, Dennis	Southeast Research and Extension
Glewen, Keith	Southeast Research and Extension
Hunt, Thomas	Northeast Research and Extension
Jackson-Ziems, Tamra	Plant Pathology
Jhala, Amit	Agronomy and Horticulture
Kamble, Shripat	Entomology
Ogg, Clyde	Agronomy and Horticulture
Sandell, Lowell	Agronomy and Horticulture
Schild, James	Panhandle Research and Extension
Streich, Anne	Agronomy and Horticulture
VanTassel, Stephen	Natural Resources
Wright, Robert	Entomology

Kovalev, Alexey **Physics and Astronomy**

* Statistical Mechanics of Non-Local Disordered Models
Associated with Quantum LDPC Codes

\$255,000 NSF

Kranz, William **Northeast Research and Extension Center**

Sustainable Energy Options for Rural Nebraska

\$500,000	DOE
Hay, Francis	Biological Systems Engineering
Hudgins, Jerry	Electrical and Computer Engineering
Isom, Loren	Industrial Agricultural Products Center
Keshwani, Deepak	Biological Systems Engineering
Shelton, David	Northeast Research and Extension Center

Krehbiel, Michelle **Extension**

Nebraska CYFAR Sustainable Community Project

\$673,750	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

Kruger, Greg **West Central Research and Extension Center**

* Management Solutions for Glyphosate-Resistant
Pigweeds in Soybean Production Systems

\$299,902 United Soybean Board/Smith/Bucklin
through University of Arkansas

* Influence of Agrisure Artesian Water-Optimization Alleles
\$279,920 Syngenta

Lackey, Susan **Natural Resources**

Developing Hydrogeologic Databases to Assist
in Water Resources Management

\$539,100 Lower Elkhorn NRD

- Langell, Marjorie** **Chemistry**
GAANN Fellowships in Chemistry: Research First at UNL
\$396,456 ED
- Lee, Jaekwon** **Biochemistry**
Mechanistic Insights into Copper Metabolism
\$834,761 NIH-NIDDK
Kim, Heejeong Biochemistry
- Lewis, Jim** **Mathematics/Center for Science,
Mathematics and Computer Education**
UNL-LPS Title I Mathematics
Professional Development Partnership
\$553,196 Lincoln Public Schools
Homp, Michelle Center for Science, Mathematics
and Computer Education
Smith, Wendy Center for Science, Mathematics
and Computer Education
- Li, Qingsheng** **Biological Sciences/
Nebraska Center for Virology**
* Early Innate/IgA Anti-HIV/SIV Response in Exposed Uninfected
\$417,151 NIH-NIAID through Wistar Institute
- Li, Xu** **Civil Engineering**
Bioaccumulation of Antibiotic Resistant Salmonella
in Produce after Irrigation Using Recycled Waters
\$500,000 USDA-AFRI
Bartelt-Hunt, Shannon Civil Engineering
Hodges, Laurie Agronomy and Horticulture
Snow, Daniel Natural Resources
- Lindquist, John** **Agronomy and Horticulture**
Crop-Wild Gene Flow in Sorghum and Relative Fitness
of the Shattercane x Sorghum F2 Population
\$300,000 USDA-NIFA
Bernards, Mark Agronomy and Horticulture
- Loecke, Terrance** **Natural Resources**
* Can Improving Predictions of Soil Oxygen Dynamics Increase
Understanding of Greenhouse Gas Hotspots and Hot Moments
\$699,254 NSF
Bernadt, Tonya Natural Resources
Burgin, Amy Natural Resources
Franz, Trenton Natural Resources
Pathak, Tapan Natural Resources
- Lorenz, Aaron** **Agronomy and Horticulture**
Uncovering the Genetic Basis of Tolerance to Goss's Wilt
in North American Maize
\$293,431 Dow AgroSciences
Jackson-Ziems, Tamra Plant Pathology
- Lou, Marjorie** **Veterinary Medicine and Biomedical Sciences**
Protein-Thiol Mixed Disulfide in Cataractogenesis
\$409,259 NIH-NEI
Wu, Hong Li Veterinary Medicine and Biomedical Sciences

Lu, Ying **Computer Science and Engineering**

CSR: Small: Energy Management
for Heterogeneous MapReduce Data Centers

\$432,932 NSF
Swanson, David Computer Science and Engineering

Lu, Yongfeng **Electrical and Computer Engineering**

* Post-Detonation Radiological and Nuclear Forensics
Using Laser-Assisted Mass Spectrometry in Open Air

\$750,000 DoD-DTRA

* Vertically Aligned Carbon-Nanotubes Embedded
in Ceramic Matrices for Hot Electrode Applications

\$400,000 DOE-NETL

* Ultrafast Fiber Laser Sampling and Plasma-Enhanced Laser
Induced Breakdown Spectroscopy to Combat WMD

\$308,000 DoD-DTRA through University of Pittsburgh

* Diamond Coating Adaptive to Substrate Materials
Using a Diamond-Composite Buffer Layer

\$296,410 DoD-MDA

Fast Deposition of Diamond Films in Open Air for Thermal
Management, Wear Resistance, and Corrosion Resistance

\$795,389 DoD-MDA

Fast Growth of Large Diamond Crystals in Open Air

\$275,195 NSF

MRI: Development of Multifunctional CARS
(Coherent Anti-Stokes Raman Spectroscopy) Imaging System

\$266,460 NSF

Black, Paul Biochemistry

Ducharme, Stephen Physics and Astronomy

Pannier, Angela Biological Systems Engineering

Zhou, You Center for Biotechnology

Low-Temperature Epitaxy of Gallium Nitride Thin Films

\$275,338 NSF

Laser-Assisted Chemical Vapor Deposition of Carbon Nanotubes

\$275,000 Panasonic Boston Laboratory

Lubben, Bradley **Agricultural Economics**

2009 Trade Adjustment Assistance for Farmers

\$855,000 USDA-NIFA through University of Minnesota

Mackenzie, Sally **Agronomy and Horticulture/
Biological Sciences**

Understanding MSH1 Developmental Reprogramming

\$925,482 Syngenta

Elucidation of Mito-Nuclear Interplay in Arabidopsis

\$789,961 DOE

Wang, Dong Statistics

Mamo, Martha**Agronomy and Horticulture**

Grazing Management Effect on Micro- and Macro-Scale Fate
of Carbon and Nitrogen in Rangelands

\$497,000

USDA-NIFA

Bradshaw, Jeffrey

Panhandle Research and Extension Center

Eskridge, Kent

Statistics

Ferguson, Richard

Agronomy and Horticulture

Guretzky, John

Agronomy and Horticulture

Jenkins, Karla

Panhandle Research and Extension Center

Schacht, Walter

Agronomy and Horticulture

Volesky, Jerry

West Central Research and Extension Center

Whipple, Sean

Panhandle Research and Extension Center

Wingeyer, Ana

Agronomy and Horticulture

Yang, Haishun

Agronomy and Horticulture

McCurdy, Merilee**Educational Psychology**

Training School Psychologists in Response-to-Intervention
Implementation and System Change

\$799,981

ED

Daly, Edward

Educational Psychology

Ihlo, Tanya

Nebraska Center for Research on
Children, Youth, Families and Schools

Kunz, Gina

Nebraska Center for Research on
Children, Youth, Families and Schools

McMahon, Patrice**Political Science**

Study of the U.S. Institute on Civic Engagement

\$450,067

DOS-BECA

Major, Linda

Student Affairs

Pfister, Damien

Communication Studies

Meinke, Lance**Entomology**

Characterizing Resistance Evolution to Pyrethroid Insecticides

\$528,340

Monsanto

Miller, Nicholas

Entomology

Miller, Nicholas**Entomology**

* The Genetics of Emerging Resistance to Cry3Bb1 Corn

\$500,000

Monsanto

Meinke, Lance

Entomology

Mitra, Amit**Plant Pathology**

Development of Transgenic Beans for Broad-Spectrum Resistance
against Fungal Diseases

\$250,000

USDA-NIFA

Steadman, James

Plant Pathology

Urrea Florez, Carlos

Panhandle Research and Extension Center

Molfese, Dennis**Psychology/Center for Brain,
Biology and Behavior**

* The NCAA-DoD Grand Alliance:

Concussion Assessment, Research and Education (CARE)
 \$395,747 DoD-NCAA-Grand Alliance through University of
 Michigan
 Burnfield, Judith Nebraska Athletic Performance Lab
 Honaker, Julie Special Education and
 Communication Disorders
 Maerlander, Arthur Center for Brain, Biology and Behavior
 Stoltenberg, Scott Psychology

Morcous, George**Durham School of Architectural
Engineering and Construction**

Self-Consolidating Concrete for Cast-in-Place Bridge Components
 \$449,831 NAS-TRB

Mower, Jeffrey**Agronomy and Horticulture**

Tracing Processes of Genome Evolution using Plantaginaceae
 \$594,190 NSF

The Geraniaceae Genomes Project: Accelerated and
 Coordinated Evolution across the Three Plant Genomes
 \$749,544 NSF through University of Texas at Austin

Nastasi, Michael**Mechanical & Materials Engineering/
Nebraska Center for Energy Sciences Research**

Radiation Tolerance and Mechanical Properties
 of Advanced Ceramic/Metal Composites
 \$979,978 DOE

Negahban, Mehrdad**Mechanical & Materials Engineering**

Polymer Parts with Tailored Microstructure Distributions
 Optimized for an Application
 \$837,503 DoD-MDA
 Tan, Li Mechanical & Materials Engineering

Nelson, Carl**Mechanical & Materials Engineering**

Multifunction Robotic Tools for Natural Orifice
 and Single-Incision Surgery
 \$395,905 NIH-NIBIB
 Farris, Shane Mechanical & Materials Engineering

A Novel Pediatric Gait Rehabilitation Device
 \$394,911 NIH-NICHD

REU Site: Undergraduate Research Opportunities
 in Biomedical Devices at the University of Nebraska-Lincoln
 \$303,265 NSF
 Bashford, Gregory Biological Systems Engineering

UNO-NASA Space Grant Consortium - ModRED:
 A Highly Dexterous Modular Robot with Autonomous Dynamic
 Reconfigurations for Extra-Terrestrial Exploration
 \$338,184 NASA through UNO

Nelson, J. Ron **Special Education and
Communication Disorders/
Nebraska Center for Research on
Children, Youth, Families and Schools**

Efficacy of Supplemental Early Vocabulary Connections
Instruction for English Language Learners
\$274,955 ED-IES through Washington Research Institute
Bovaird, James Educational Psychology

Newman, Ian **Educational Psychology**

Nebraska Collegiate Consortium to Reduce High Risk Drinking
\$222,023 DOT-FHWA through
Nebraska Department of Roads-
Office of Highway Safety
Hopkins, Megan Educational Psychology
Shell, Duane Educational Psychology

Niu, Wei **Chemistry**

* SusChEM: Novel 1,2-Propanediol Biosynthesis from
Renewable Feedstocks through Enzyme Discovery
\$317,611 NSF
Guo, Jiantao Chemistry

Olson, Kathryn **Center on Children, Families, and the Law**

Project Safe Start - Nebraska 2013-2014
\$251,978 DHHS-SAMSHA through Supreme Court of Nebraska
Nebraska Administrative Office of Probation Services
\$263,738 Supreme Court of Nebraska

Osorio, Fernando **Veterinary Medicine and Biomedical Sciences**

Molecular Structures of Porcine Reproductive
and Respiratory Virus (PRRSV)
that Contribute to Protective Immunity
\$500,000 USDA-AFRI
Pattnaik, Asit Veterinary Medicine and Biomedical Sciences

Pannier, Angela **Biological Systems Engineering**

Microarray Analysis of Gene Expression Profiles
in Cells Transfected with Nonviral Gene Delivery Vectors
\$307,809 American Heart Association

Pattnaik, Asit **Veterinary Medicine and
Biomedical Sciences**

Porcine Reproductive and Respiratory Syndrome Virus:
Modulation of Innate and Acquired Immune Response
\$484,245 USDA-NIFA
Osorio, Fernando Veterinary Medicine and Biomedical Sciences

Paul, Prem **Research and Economic Development**

Nebraska Innovation Center (Whittier) to Renovate and Improve
the Whittier School for Use as the Nebraska Innovation Center
\$656,600 HUD

Pegg, Mark **Natural Resources**

Platte River Catfish Population Dynamics
\$530,321 Nebraska Game and Parks Commission

Pérez, Lance **Electrical and Computer Engineering**

A Chautauqua Program for the 21st Century

\$448,603

NSF

Pierobon, Massimiliano **Computer Science and Engineering**

* MCB EAGER: TelePathy: Telecommunication Systems Modeling and Engineering of Cell Communication Pathways

\$300,000

NSF

Buan Murphy, Nicole

Biochemistry

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

Brown, Mary

Natural Resources

Fontaine, Joseph

Natural Resources

Powers, Thomas **Plant Pathology**

Integrative Taxonomy and Biogeography of Criconematidae

\$528,561

NSF

Pytlík Zillig, Lisa **Public Policy Center**

SBES: Medium: Investigating the Role of Distrust in Unauthorized Online Activities Using an Integrated Sociotechnical Approach

\$490,758

NSF

Hayes, Michael

Natural Resources

Samal, Ashok

Computer Science and Engineering

Soh, Leen-Kiat

Computer Science and Engineering

Tomkins, Alan

Law/Public Policy Center

Developing an Empirically-Based, Multi-Level, Social-Cognitive Model of Public Engagement in Science & Innovation Policy Development

\$499,134

NSF

Dzenis, Yuris

Mechanical & Materials Engineering

Morris, T. Jack

Biological Sciences

Pardy, Ted

Biological Sciences

Tomkins, Alan

Law/Public Policy Center

Turner, Joseph

Mechanical & Materials Engineering

Qian, Yi **Computer and Electronics Engineering**

NeTS: Medium: AC-MWN: Application-Aware Cognitive Multihop Wireless Networks

\$455,999

NSF

Sharif-Kashani, Hamid

Computer and Electronics Engineering

Yang, Yaoqing

Computer and Electronics Engineering

Qiao, Wei **Electrical and Computer Engineering**

Cognitive Prediction-Enabled Online Intelligent Fault Diagnosis and Prognosis for Wind Energy Systems

\$359,852

NSF

Rack, Frank**Earth and Atmospheric Sciences/
Antarctic Geological Drilling Program**

* Whillans Ice Stream Subglacial Access Research Drilling:
Integrative Study of Marine Ice Sheet Stability
and Subglacial Life Habitats in West Antarctica
\$356,461 NSF through Montana State University

Developing New Science and Technology for Subglacial Studies
of the Whillans Ice Plain and West Antarctic Ice Sheet
\$616,775 NSF

SIMPLE: Sub-Ice Investigation of Marine
and Planetary-Analog Ecosystems
\$383,297 NASA through University of Texas at Austin

EAGER: Handbook of Hot Water Drill System (HWDS)
Design Considerations and Best Practices
\$299,724 NSF
Fischbein, Steven Earth and Atmospheric Sciences/
Antarctic Geological Drilling Program

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

Evaluation of Early Steps to School Success
\$605,303 Save the Children

Rajca, Andrzej**Chemistry**

* Nitrogen-Centered Radicals
\$463,278 NSF

Stable High-Spin Polyradicals & Chiral Pi-Conjugated Systems
\$508,191 NSF

Ramamurthy, Byravamurthy**Computer Science and
Engineering**

Mobility First: A Trustworthy Mobility-Centric Architecture
for the Future Internet
\$337,476 NSF

Ratcliffe, Brett**Entomology/
University of Nebraska State Museum**

Faunistic Survey of Dynastinae of Mexico, Guatemala, & Belize
\$481,493 NSF

Rebarber, Richard**Mathematics**

Nebraska Math Scholars
\$599,996 NSF
Curto, Carina Mathematics
Hartke, Stephen Mathematics
Williams, Amber Student Affairs
Woodward, Gordon Mathematics

REU Site: Nebraska REU in Applied Math
\$285,263 NSF
Ledder, Glenn Mathematics

Reid, John**Mechanical & Materials Engineering**

Wisconsin DOT Roadside Safety Research Program FY 2012
 \$606,572 DOT-FHWA
 through Nebraska Department of Roads
 Bielenberg, Robert Midwest Roadside Safety Facility
 Faller, Ronald Midwest Roadside Safety Facility
 Lechtenberg, Karla Midwest Roadside Safety Facility

Midwest States Regional Pooled Fund Program
 \$780,000 Nebraska Department of Roads
 Faller, Ronald Midwest Roadside Safety Facility
 Bielenberg, Robert Midwest Roadside Safety Facility

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

Traffic Calming Elements for Entry Control Facility
 Threat Delay and Containment
 \$474,663 National Strategic Research Institute
 Faller, Ronald Midwest Roadside Safety Facility
 Jones, Elizabeth Nebraska Transportation Center
 Reid, John Mechanical & Materials Engineering

UTC Tier 1 with University of Texas Pan American
 \$844,890 DOT-FHWA
 through University of Texas-Pan-American
 Khattak, Aemal Civil Engineering

Riley, Mark**Biological Systems Engineering**

Nebraska AgrAbility
 \$720,000 USDA-NIFA
 Frecks, Nancy West Central Research and Extension Center
 Nielsen, Sharon West Central Research and Extension Center

Riveros-Iregui, Diego**Natural Resources**

Soil Carbon Transformation in Heterogeneous Landscapes:
 Implications for Soil, Water and Air
 \$480,000 USDA-NIFA
 Li, Xu Civil Engineering

Rosenbaum, David**Economics**

Nebraska Energy Office Loan Management System
 \$294,745 Nebraska Energy Office

Samal, Ashok**Computer Science and Engineering**

* Speech Movement Classification for Diagnosing and Treating ALS
 \$256,061 NIH-NIDCD through
 MGH Institute of Health Professions
 Marx, David Statistics

Saraf, Ravi**Chemical and Biomolecular Engineering**

Regulating Current through a
 Nanoparticle Necklace by Microorganism:
 A Transformative Technology for Biofuel Cells and Biosensors
 \$391,056 NSF

Scalora, Mario **Public Policy Center/Psychology**
 Post-Secondary Institutions Safety Threat Assessment
 Technical Assistance Center
 \$769,537 DHS through Nebraska Military Department-NEMA
 Bulling, Denise Public Policy Center
 Yardley, Owen UNL Police

Schacht, Walter **Agronomy and Horticulture**
 Demonstrating Grazing Land Resilience to Drought
 in the Central and Northern Great Plains
 \$363,120 USDA-NRCS through South Dakota State University
 Knutson, Cody Natural Resources
 Stockton, Matthew West Central Research and Extension Center
 Volesky, Jerry West Central Research and Extension Center

Schubert, Eva **Electrical and Computer Engineering**
 MRI: Development of an Ion-Beam-Assisted Glancing Angle
 Deposition Tool (iGLAD) for 3D Nanostructure Thin Film
 Preparation with in situ Ellipsometry Control
 \$411,501 NSF
 Bartelt-Hunt, Shannon Civil Engineering
 Hage, David Chemistry
 Hofmann, Tino Electrical and Computer Engineering
 Ianno, Natale Electrical and Computer Engineering
 Korlacki, Rafal Electrical and Computer Engineering
 Lai, Rebecca Chemistry
 Pannier, Angela Biological Systems Engineering
 Schmidt, Daniel Electrical and Computer Engineering
 Schubert, Mathias Electrical and Computer Engineering
 Sinitskii, Alexander Chemistry

Sellmyer, David **Physics and Astronomy/
 Nebraska Center for
 Materials and Nanoscience**
 * Development of Radically Enhanced alnico Magnets (DREaM)
 \$600,000 DOE-Ames Laboratory
 Shield, Jeff Mechanical & Materials Engineering
 Skomski, Ralph Physics and Astronomy

* DMREF: Design and Synthesis of Novel Magnetic Materials
 \$461,154 NSF
 Xu, Xiaoshan Physics and Astronomy

Shadwick, Bradley **Physics and Astronomy**
 * Theory and Modeling of Petawatt Laser Pulse
 Propagation in Low Density Plasmas
 \$419,999 DOE
 Kalmykov, Serge Physics and Astronomy

Multi-Physics Modeling of Intense,
 Short-Pulse Laser-Plasma Interactions
 \$342,000 NSF
 Kalmykov, Serguei Physics and Astronomy

Sharif-Kashani, Hamid Computer and Electronics Engineering

Research & Development - Development of a Standard
Communication Protocol for Wireless Sensor Network
in Mobile Railroad Environment

\$999,921

DOT-FRA

Hempel, Michael

Computer and Electronics Engineering

Shelton, David

**Northeast Research
and Extension Center**

Improving and Conserving Water Resources
Through Stormwater Management Education
for Community Decision Makers of Today and Tomorrow

\$544,500

USDA-CSREES

Feehan, Kelly

Northeast Research and Extension Center

Franti, Thomas

Biological Systems Engineering

Rodie, Steven

Agronomy and Horticulture

Sheridan, Susan

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

A Meta-Analysis of Parent Involvement Interventions
and Family-School Partnerships' Effects on Student Outcomes

\$699,997

ED-IES

Kim, Elizabeth

Nebraska Center for Research on
Children, Youth, Families and Schools

Shield, Jeffrey

**Mechanical & Materials Engineering/
Nebraska Center for
Materials and Nanoscience**

* Development of Textured High Energy Nanocomposite
Permanent Magnets for Electric Motors and Generators

\$347,726

National Oilwell Varco

Measurement of Vertical Track Deflection:
Testing, Demonstration & Implementation

\$546,000

DoT-FRA

Farritor, Shane

Mechanical & Materials Engineering

Shulski, Martha

Natural Resources

Automated Weather Data Network

\$300,000

Nebraska Department of Natural Resources

Simpson, Melanie

Biochemistry

* Defining Aberrant Steroid Elimination in
Castration-Resistant Prostate Cancer

\$333,178

NIH-NCI

Barycki, Joseph

Biochemistry

Guo, Jiantao

Chemistry

Markham, Jonathan

Biochemistry

Sinitskii, Alexander

Chemistry

* Polarization-Mediated Modulation of Electronic Properties
of Hybrid Ferroelectric Based Heterostructures

\$409,996

NSF

Gruverman, Alexei

Physics and Astronomy

Smith, Stacey **Biological Sciences**

* Mechanisms of Convergent Flower Color Evolution
Above and Below the Species Level

\$479,999 NSF

Evolution and Diversification of Red Flowers:
Testing the Macroevolutionary Causes of Rarity

\$359,999 NSF

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

Midwest Regional Robert Noyce Connections 2014-2015:
Building Communities of Practice

\$799,420 NSF

Lewis, Elizabeth Teaching, Learning and Teacher Education
Lewis, Jim Mathematics/Center for Science,
Mathematics and Computer Education

Pedersen, Jon Teaching, Learning and Teacher Education

Swidler, Stephen Teaching, Learning and Teacher Education

Smyth, Jolene **Sociology/Gallup Research Center**

Using Survey Methodology Research to Assist
with Design Improvements and/or the Redesign of Surveys
Related to Science, Engineering and Agriculture

\$300,000 USDA-NASS

Olson, Kristin Sociology/Gallup Research Center

Snow, Gregory **Physics and Astronomy**

GAANN Fellowships for Physics at UNL

\$408,315 ED

Adenwalla, Shireen Physics and Astronomy

Batelaan, Herman Physics and Astronomy

Claes, Daniel Physics and Astronomy

Dominguez, Aaron Physics and Astronomy

Gay, Timothy Physics and Astronomy

Uiterwaal, Cornelis Physics and Astronomy

Soh, Leen-Kiat **Computer Science and Engineering**

* Computational Creativity to Improve Computer Science
Education for CS and non-CS Undergraduates

\$873,250 NSF

Ingraham, Elizabeth Art and Art History

Moore, Brian Music

Ramsay, Stephen English

Shell, Duane Educational Psychology

Integrating Computational and Creative Thinking (IC2Think)

\$250,000 NSF

Ingraham, Elizabeth Art and Art History

Ramsay, Stephen English

Shell, Duane Educational Psychology

- Sokolov, Andrei** **Physics and Astronomy/
Nebraska Center for
Materials and Nanoscience**
* Robust Room Temperature Electric Field Control
of Structural Magnetic and Transport Properties
of Ultra-Thin Shape Memory Heusler Alloys Films
\$364,567 NSF
- Soulakova, Julia** **Statistics**
* Evaluating Racial and Ethnic Disparities in the Success
of National Health Care Efforts to Promote Smoking Cessation
\$554,392 NIH-NIMHD
Crockett, Elizabeth Psychology
- Spangler, Matthew** **Animal Science**
National Program for Genetic Improvement
of Feed Efficiency in Beef Cattle
\$488,959 USDA-NIFA through University of Missouri
- Srisa-An, Witawas** **Computer Science and Engineering**
Automatic Vetting For Malice in Android Platforms
\$630,141 DoD-DARPA through Iowa State University
Rothermel, Gregg Computer Science and Engineering
- Stains, Marilyne** **Chemistry**
WIDER: EAGER Evidence-Based Instructional Practices in Action:
Enhancing Exemplary Teaching
at the University of Nebraska–Lincoln
\$299,703 NSF
Ducharme, Stephen Physics and Astronomy
Lee, Kevin Center for Science, Mathematics
and Computer Education
Morris, T. Jack Biological Sciences
- Starace, Anthony** **Physics and Astronomy**
Strong Field & Ultrafast Atomic and Molecular Processes
\$270,000 NSF
- Steadman, James** **Plant Pathology**
* Feed the Future Innovation Lab for
Collaborative Research on Grain Legumes
\$380,000 AID through Michigan State University
Urrea Florez, Carlos Panhandle Research and Extension Center
- Stowell, Richard** **Biological Systems Engineering**
Small AFO Demonstration and Education
\$264,577 Nebraska Department of Environmental Quality
Gross, Jason Biological Systems Engineering
Powers, Crystal Biological Systems Engineering
- Subbiah, Jeyamkondan** **Biological Systems Engineering/
Food Science and Technology**
Radio Frequency Processing for Improving Microbiological Safety
of Low Moisture Foods
\$299,989 USDA-NIFA
Birla, Sohan Biological Systems Engineering
Thippareddi, Harshavardhan Food Science and Technology

- Svoboda, Mark** **Natural Resources**
 * Enhancing Decision Support for Drought Risk
 in the United States: The Drought Risk Atlas
 \$260,131 DOC-NOAA
 Fuchs, Brian Natural Resources
 Hayes, Michael Natural Resources
 Shulski, Martha Natural Resources
- Swanson, David** **Computer Science and Engineering**
 Open Science Grid Consortium
 \$788,000 NSF through University of Wisconsin-Madison
- Tadesse, Tsegaye** **Natural Resources**
 Seasonal Prediction of Hydro-Climatic Extremes
 in the Greater Horn of Africa under Evolving Climate Conditions
 to Support Adaptation Strategies
 \$987,767 NASA
 Baigorria, Guillermo Agronomy and Horticulture/
 Natural Resources
 Beyene, Shimelis Anthropology
 Hayes, Michael Natural Resources
 Wardlow, Brian Natural Resources
- Takacs, James** **Chemistry**
 Catalytic Asymmetric Hydroboration:
 Uncapping the Potential with Two-Point Binding Substrates
 \$900,114 NIH-NIGMS
- Tan, Li** **Mechanical & Materials Engineering**
 Molecularly Intercalated Nanoflakes:
 A Supramolecular Alloy for Strong Energy Absorption
 \$349,088 NSF
 Zeng, Xiao Cheng Chemistry
- Taylor, Stephen** **Food Science and Technology**
 Effects of Food Processing on Food Allergens - Assessment and
 Improvement of Detection Methods
 \$500,000 USDA-NIFA
 Baumert, Joseph Food Science and Technology
 Hutkins, Robert Food Science and Technology
 Keshwani, Deepak Biological Systems Engineering
 Subbiah, Jeyamkondan Biological Systems Engineering/
 Food Science and Technology
- Primary and Secondary Prevention of Peanut and Tree Nut Allergy
 \$275,000 USDA-ARS
 Baumert, Joseph Food Science and Technology
- Tenhuberg, Brigitte** **Biological Sciences/Mathematics**
 Evaluating Integrated Resistance Management Strategies
 in Variable Environments
 \$388,279 Monsanto
 Chirakkal, Haridas Biological Sciences
 Meinke, Lance Entomology

Terry, Benjamin **Mechanical & Materials Engineering**

* Oxygen Microbubble Peritoneal Ventilation Treatment
for Acute Respiratory Distress Syndrome

\$405,929

NIH-NHLBI

Thippareddi, Harshavardhan **Food Science and Technology**

Food Safety Assistance for Small Meat and Poultry Processors
through Development and Implementation
of Industry Best Practices

\$599,992

USDA-CSREES

Burson, Dennis

Animal Science

Ellis, Jason

Agricultural Leadership,
Education and Communication

Thomas, Steven **Natural Resources**

Dimensions: An Integrative Traits-Based Approach
to Predicting Variation in Vulnerability

of Tropical and Temperate Stream Biodiversity to Climate Change

\$310,811

NSF

Tian, Lei **Computer Science and Engineering**

Turbo Button: A Semantically Smart Flash Memory Layer
for Internet-Scale Storage Systems

\$479,631

NSF

Yu, Hongfeng

Computer Science and Engineering

Todd, Kim **Agronomy and Horticulture**

UNL Greenhouse Tomato Production

\$800,000

ConAgra

Browning, Sarah

Southeast Research and Extension Center

Gaussoin, Roch

Agronomy and Horticulture

Schlegel, Vicki

Food Science and Technology

Tomkins, Alan **Law/Public Policy Center**

Testing a Three-Stage Model

of Institutional Confidence across Branches of Government

\$283,280

NSF

Bornstein, Brian

Psychology/Public Policy Center

Herian, Mitch

Public Policy Center

Pytlik Zillig, Lisa

Center for Instructional Innovation/
Public Policy Center

Torkelson-Trout, Alexandra **Special Education and
Communication and Disorders**

Leadership Training in Emotional Disturbance Disorders

\$601,733

ED

Duppong Hurley, Kristin

Special Education and
Communication and Disorders

Trainin, Guy **Teaching, Learning and Teacher Education**

NEA Foundation Grant Evaluation OPS

\$336,008

National Education Association Foundation through
Omaha Public Schools

Hamann, Edmund

Teaching, Learning and Teacher Education

- Tuan, Christopher** **Civil Engineering**
 * Conductive Concrete for Airfield Heated Pavement Construction
 \$276,649 DOT-FAA
 Nguyen, Lim Electrical and Computer Engineering
- Tucker, Shane** **University of Nebraska State Museum**
 * Highway Paleontology Program
 \$367,361 DOT-FHWA through
 Nebraska Department of Roads
- Turner, Joseph** **Mechanical & Materials Engineering**
 * Development of Improved Product Performance
 through Optimization and Modeling of
 Engineering Materials, Processing, and Function
 \$341,746 Amsted Industries
- Tyler, Kimberly** **Sociology**
 Stressors, Protective Factors, and Substance Use
 among Homeless Youth and Young Adults
 \$408,768 NIH-NIDA
 Olson, Kristen Sociology/Survey Research and Methodology
- Uiterwaal, Cornelis** **Physics and Astronomy**
 Molecules and Intense Light in a Photodynamical Test Tube
 \$440,000 NSF
- Umstadter, Donald** **Physics and Astronomy**
 Nuclear Forensics
 \$514,995 National Strategic Research Institute
 Banerjee, Sudeep Physics and Astronomy
- NSRI Standoff Detection
 \$442,915 National Strategic Research Institute
 Banerjee, Sudeep Physics and Astronomy
 Chen, Shouyuan Physics and Astronomy
- Van Den Broeke, Matthew** **Earth and Atmospheric Sciences**
 Quantifying the Relative Roles
 of Progressive Land Use Change, Irrigation, and Remote Forcing
 in Southern Great Plains Precipitation Variability
 \$446,697 NSF
 Hu, Qi Natural Resources
 Oglesby, Robert Earth and Atmospheric Sciences/
 Natural Resources
- Van Etten, James** **Plant Pathology**
 Evaluation of the Natural History of Algal Viruses Associated
 with Patients Diagnosed with Human Psychiatric Disorders
 \$397,147 Stanley Medical Research Institute
- Variyam, Vinodchandran** **Computer Science and Engineering**
 AF: Small: Studies in Nonuniformity,
 Completeness and Reachability
 \$272,031 NSF

Vuran, Mehmet **Computer Science and Engineering**

* NeTS: Small: Advancing Time Synchronization
for Sustainable Wireless Networks

\$500,000 NSF
Zhong, Ziguo Computer Science and Engineering

CyberSEES: Type 1: Improving Crop Production Efficiency
Using Wireless Underground Sensor-Guided Irrigation Systems
\$300,000 NSF
Irmak, Suat Biological Systems Engineering

Cog-TV with Neighborhood Watch:
Business and Technical Aspects
of Cognitive Radio TV Sets for Enhanced Spectrum Access
\$283,879 NSF
Batur, Demet Management

Walia, Harkamal **Agronomy and Horticulture**

Early Seed Development under Stressful Environments

\$557,708 NSF
Wang, Dong Statistics

Walker, Mark **Mathematics**

* GAANN: Department of Mathematics

\$544,420 NSF
Bellows, Laurie Graduate Studies
Hermiller, Susan Mathematics
Lewis, Jim Mathematics
Rebarber, Richard Mathematics
Walker, Judy Mathematics

Walter-Shea, Elizabeth **Natural Resources**

Toward a Circumarctic Lakes Observation Network (CALON)

\$297,082 NSF

Walters, Cory **Agricultural Economics**

* Northern Plains Regional Farm Business Management
and Benchmarking Partnership

\$424,000 USDA-NIFA
Lubben, Bradley Agricultural Economics

Wang, Jun **Earth and Atmospheric Sciences**

* Sensitivity Analysis and Recovery of Dust Emissions
from Spectral Climate Signals

\$539,721 NASA

* GEOS-Chem Adjoint Inversion of Aerosol Source Emissions
with Multi-Sensor (MODIS, MISR, and OMI) Datasets
over East Asia, and Consequences for Estimating
Aerosol Direct Radiative Forcing and Transboundary Air Pollution
\$466,002 NASA
Zeng, Jing Earth and Atmospheric Sciences

* Evaluate and Enhance Suomi NPP Products
for Air Quality and Public Health Applications
\$444,280 NASA
Zeng, Jing Earth and Atmospheric Sciences

Evaluate and Enhance the VIIRS Aerosol EDRs for Air Quality
and Public Health Applications
\$402,894 NASA

AERONET Skylight Retrievals Using Polarimetric Measurements:
Toward Physically Consistent Validation of APS Aerosol Products
\$443,464 NASA

A Combined EOS Data and GEOS-Chem Modeling Study
of the Direct Radiative Forcing of Volcanic Sulfate Aerosols
\$429,637 NASA

Wang, Lily **Durham School of Architectural
Engineering and 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 and Construction
Waters, Clarence Durham School of Architectural
Engineering and Construction

Waters, Brian **Agronomy and Horticulture**

Discovering New Aspects of Iron Uptake Regulation
Controlled by the *efe* Gene
\$452,000 USDA-NIFA

Exploring Iron & Copper Cross-Talk
in Iron Deficient *Arabidopsis Thaliana*
\$391,077 NSF

Weller, Curtis **Extension/Biological Systems Engineering/
Food Science and Technology**

Manufacturing Extension Partnership Center for Nebraska
\$929,431 DOC-NIST
Faller, Ronald Midwest Roadside Safety Facility
Wei, Timothy Engineering

Whitbeck, Les **Sociology**

Culturally-Based, Family-Centered Mental Health Promotion
for Aboriginal Youth II
\$749,958 Government of Canada-Public Health Agency
through Jewish General Hospital-CMHRU

A Lakota Type 2 Diabetes Mellitus Prevention
\$353,806 Aberdeen Area Tribal Chairmen's Health Board

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

Intracellular Defenses against Foreign DNA:
Insights from Poxvirus-Infected Cells
\$340,339 NIH-NIAID

- Wiener, Richard** **Psychology**
 * Therapeutic Jurisprudence and Probationer Decision Making:
 A Social Cognitive Model
 \$641,614 DOJ-NIJ
- Objectification, Affective Forecasting, and Sexual Harassment
 \$314,956 NSF
 Gervais, Sarah Psychology
- Wilson, Mark** **Biochemistry**
 * Biochemical Definition of LRRK2 Protein Complexes
 \$409,704 Michael J. Fox Foundation
- Wilson, Richard** **Plant Pathology**
 Defining Mechanisms of Nutrient Adaptation
 to Host Rice Cells by the Blast Fungus
 \$500,000 USDA-NIFA
- Pathogenic Gene Discovery and Elucidation
 of Genetic Regulatory Networks in the Rice Blast Fungus
 \$512,955 NSF
- Witt-Swanson, Lindsey** **Sociology**
 2014-2015 Student Health
 and Risk Prevention Surveillance System
 \$275,981 DHHS-SAMSHA through
 Nebraska Department of Health
 Meiergerd, Kimberly Bureau of Sociological Research
- Wood, Charles** **Biological Sciences/
 Nebraska Center for Virology**
 Chronic HIV Infection and Aging in NeuroAIDS (CHAIN) Center
 \$521,954 NIH-NIMH through UNMC
- Wortmann, Charles** **Agronomy and Horticulture**
 Developing and Fine-Tuning Fertilizer Recommendations
 within an Integrated Soil Fertility Management Framework
 \$360,470 Alliance for Green Revolution in Africa through CABI
- Wragge, Annette** **Special Education and
 Communication Disorders**
 * Nebraska Autism Spectrum Disorders Network,
 State Coordinator Project
 \$288,895 ED through Nebraska Department of Education
- Xiang, Shi-Hua** **Biological Sciences**
 Mucosal Delivery and Retention
 of Anti-HIV Agents Using Lactobacillus
 \$611,119 Bill & Melinda Gates Foundation

Yang, Haishun **Agronomy and Horticulture**
 * Development of the Middle East and
 North Africa Network of Water Centers
 \$542,988 AID through Development Alternatives Inc
 Cassman, Kenneth Agronomy and Horticulture
 Zlotnik, Vitaly Earth and Atmospheric Sciences
 Ledder, Glenn Mathematics
 Hayes, Michael Natural Resources
 Fuchs, Brian Natural Resources
 Smith, Kelly Natural Resources
 Svoboda, Mark Natural Resources
 Tadesse, Tsegaye Natural Resources
 Lenton, Roberto Robert B. Daugherty Water for Food Institute

Yu, Bin **Biological Sciences/
 Center for Plant Science Innovation**
 Understanding DAWDLE Function
 in miRNA and siRNA Biogenesis
 \$499,504 NSF

Yu, Hongfeng **Computer Science and Engineering**
 * CGV: Small: A Scalable Visual Analytics Framework
 for Exascale Scientific Simulations
 \$397,378 NSF

Zempleni, Janos **Nutrition and Health Sciences**
 * Roles of Milk-Borne MicroRNAs in
 the Regulation of Gut Inflammation
 \$499,812 USDA-NIFA
 Ramer-Tait, Amanda Food Science and Technology
 * Assessment of the Role of microRNAs
 in Infant Formulas for Bone Health
 \$286,799 Gerber Foundation

Zera, Anthony **Biological Sciences**
 Nutritional Physiology of Life History Allocation Trade-Offs
 \$343,500 NSF

Zhang, Tian **Civil Engineering**
 Influence of Soil Particle Size Fractions and Environmental
 Conditions on Fate and Transport of Hormones in Soils
 \$300,000 NSF

Zygielbaum, Art **Natural Resources**
 * Dimensions NASA: Linking Remotely Sensed Optical Diversity
 to Genetic, Phylogenetic and Functional Diversity
 to Predict Ecosystem Processes
 \$716,893 NSF

Early Career Awards

Active awards, July 1, 2014-June 30, 2015

Indicates new in 2014-2015

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.



Bartelt-Hunt, Shannon

Civil Engineering

CAREER: The Influence of Soil Attachment on the Biologic Activity of Extracellular Proteins

\$413,883

NSF



Bassett, Gilles

Agronomy and Horticulture/Biochemistry/
Center for Plant Science Innovation

CAREER: The Metabolism of Prenylated Benzoquinones through the Lens of Plant-Prokaryote Phylogenomics

\$784,820

NSF



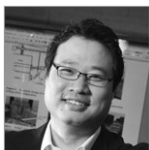
Brassil, Chad

Biological Sciences

CAREER: How Temporal Fluctuations Alter Indirect Interactions in Duckweed-Based Communities and Its Integration with a Student Report Exchange

\$531,141

NSF



Cho, Yong Kwon

Durham School of Architectural
Engineering and Construction

CAREER: Hybrid 3D Unstructured Workspace Modeling: A Critical Component in Developing an Automated Construction Site

\$400,000

NSF



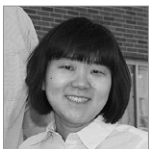
Gu, Linxia

Mechanical & Materials Engineering

CAREER: Bridging Cellular-Level Changes to Vascular Tissue Response to Reveal Basic Mechanisms of Restenosis

\$433,248

NSF



Hong, Xia

Physics and Astronomy

CAREER: Interface Engineered Multiferroics and Nanoscale Phase Modulation in Complex Oxide Heterostructures

\$600,000

NSF

**Huang, Jinsong**

Mechanical & Materials Engineering
 CAREER: Increasing Charge Separation and
 Extraction by Ferroelectric Polymer-Induced
 Persisting Electric Field for Efficient Organic
 Solar Cell
 \$400,000

NSF

**Lai, Rebecca**

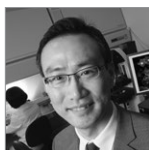
Chemistry
 CAREER: Ligand-Induced Folding in Peptides
 for Biosensing Applications
 \$455,000

NSF

**Li, Xu**

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

NSF

**Lim, Jung Yul**

Mechanical & Materials Engineering
 CAREER: Adipocytic Mechanotransduction
 for Obesity
 \$430,554

NSF

**Montooth, Kristi**

Biological Sciences
 * CAREER: The Physiology and Genetics of
 Adaptation in a Complex Environment
 \$683,365
 \$369,422

NSF

DoD-AFOSR

**Pannier, Angela**

Biological Sciences
 CAREER: Nanostructured Thin Films for
 Substrate-Mediated Gene Delivery
 \$419,051

NSF

**Qiao, Wei**

Electrical and Computer Engineering
 CAREER: Stochastic Optimization and Coordinating
 Control for the Next-Generation Electric Power
 System with Significant Wind Penetration
 \$407,999

NSF

**Sinitskii, Alexander**

Chemistry
 * CAREER: Narrow Graphene Nanoribbons with
 Tunable Electronic Properties
 \$538,477
 \$369,422

NSF

DoD-AFOSR



Vuran, Mehmet

Computer Science and Engineering
CAREER: Bringing Wireless Sensor Networks
Underground
\$418,760

NSF

Air Force Young Investigator Program

YIP awards support scientists and engineers who have received Ph.D. or equivalent degrees in the last five years and show exceptional ability and promise for conducting basic research.



Fuchs, Matthias

Physics and Astronomy
* YIP: Next-Generation X-Ray Lightsource and
First Applications
\$369,422

DoD-AFOSR

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



Kovalev, Alexey

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

DOE

Arts and Humanities Awards \$250,000 or More

Active awards, July 1, 2014-June 30, 2015

* Indicates new in 2014-2015

Heitman, Carolyn

**Anthropology/Center for Digital
Research in the Humanities**

* Salmon Pueblo Archaeological Research Collection

\$300,000

NEH

05/01/2015 - 10/31/2017

Walter, Katherine

Center for Digital
Research in the Humanities



With a \$300,000 National Endowment for the Humanities grant, anthropologist Carrie Heitman is part of a team of researchers who are digitizing about 1.5 million photographs, field notes and other records generated during 1970s and 1980s excavations of the 1,000-year-old Salmon Pueblo in

northwestern New Mexico. The Chaco Research Archive, which Heitman directs, will house the digitized records. Digital access will allow researchers to explore more fully this historically and culturally significant community. Collaborators are the Salmon Ruins Museum, Archaeology Southwest, UNL's Center for Digital Research in the Humanities and the University of Virginia's Institute for Advanced Technology in the Humanities, home to the Chaco Research Archive.

Jewell, Andrew

**Center for Digital
Research in the Humanities**

* Complete Letters of Willa Cather

\$271,980

NEH

10/01/2014 - 09/30/2017

Homestead, Melissa

English/Center for Digital
Research in the Humanities



The National Endowment for the Humanities is supporting the work of Andrew Jewell, associate professor of 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

\$376,385

Poetry Foundation

1/1/05 – 12/31/15



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 UNL English department, where the project office is located.

Price, Kenneth**English/Center for Digital Research in the Humanities**Walt Whitman as an Author before *Leaves of Grass*

\$330,000

NEH

08/01/13 – 07/31/16



With a \$330,000 award from the National Endowment for the Humanities, the Walt Whitman Archive, a digital archive that makes Whitman's vast work easily and conveniently accessible to scholars, students, and general readers alike, is expanding its content to include Whitman-authored

materials written before the 1855 edition of *Leaves of Grass*. The Whitman Archive is gathering, editing and annotating these early materials for digital publication, offering a seamlessly integrated presentation of Whitman's literary contributions in the lead-up to his masterpiece, *Leaves of Grass*. This three-year project is led by Kenneth Price, Hillegass University Professor of English and co-director of the Center for Digital Research in the Humanities.

An Integrated Guide to Walt Whitman's Literary Manuscripts

\$275,000

NEH

06/01/12 – 07/31/15

Walter, Katherine

University Libraries/Center for Digital Research in the Humanities

The Walt Whitman Archive (whitmanarchive.org), with support from the National Endowment for the Humanities, is using Encoded Archival Description (EAD) to create item-level finding guides to the more than seventy individual repositories holding Walt Whitman's prose manuscripts. Each description is linked to high-quality digital images of the manuscript material and dynamically joined in an integrated guide. Under the direction of Kenneth Price, the archive has developed a system that creates a relationship between the manuscript and the final manifestation of the prose draft, most often the version Whitman published in his

collection, *Complete Prose Works* (1892). Creating EAD records for Whitman's prose manuscripts will provide unprecedented documentation of and access to the literary manuscripts of a major literary figure. The end result will be an overarching guide to a virtual collection of all of Whitman's manuscripts, organized not around their physical location but according to the conceptual work to which they contribute.

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 – 12/31/17



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

Center for Digital Research in the Humanities Endowment

\$500,000

NEH

12/21/10 – 7/31/14

Price, Kenneth

English/Center for Digital Research in the Humanities



The National Endowment for the Humanities has awarded a four-year, \$500,000 challenge grant to the Center for Digital Research in the Humanities, led by Katherine Walter, UNL Libraries chair of digital initiatives and collections, to permanently support some of the center's key programs.

The grant will support two graduate student assistantships annually, an ongoing two-year postdoctoral fellowship and the Nebraska Digital Workshop, the center's signature event. The workshop brings the nation's top early career digital humanities scholars to UNL to showcase their research, get feedback from senior faculty and network with potential research partners and employers.

Wisnicki, Adrian

English/Center for Digital Research in the Humanities

The Livingstone Online Enrichment and Access Project (LEAP)

\$275,000

NEH

9/1/13 – 8/31/16

Pytlik Zillig, Brian

University Libraries/Center for Digital Research in the Humanities



Adrian Wisnicki, assistant professor of English and spectral imaging specialist at UNL's Center for Digital Research in the Humanities, leads Livingstone Online, <http://livingstoneonline.org>, a large multi-institutional project to update the digital home for Livingstone's manuscripts. Wisnicki

and colleagues are collaborating with more than 30 archives worldwide, developing a sustainable digital platform, and conducting scholarship and outreach activities. More than \$430,000 in grants from the National Endowment for the Humanities funds Wisnicki's Livingstone work.

Arts and Humanities Awards

\$50,000 to \$249,999

Active awards, July 1, 2014-June 30, 2015

* Indicates new in 2014-2015

Barney, Brett

**University Libraries/Center for
Digital Research in the Humanities**

Diachronic Markup and Presentation Practices
for Text Editions in Digital Research Environments

\$165,005

NEH

Jockers, Matthew

**English/Center for Digital
Research in the Humanities**

Text Mining the Novel:
Establishing the Foundations of a New Discipline

\$112,524

Government of Canada-SSHRC
through McGill University

Lorang, Elizabeth

**University Libraries/Center for
Digital Research in the Humanities**

Image Analysis for Archival Discovery:
Poetic Content in Historic Newspapers

\$60,000

NEH

Soh, Leen-Kiat

Computer Science and Engineering

Price, Kenneth

**English/Center for Digital
Research in the Humanities**

Walt Whitman and Post-Reconstruction America

\$156,470

National Historical Publications
and Records Commission

Barney, Brett

University Libraries/Center for
Digital Research in the Humanities

Thomas, William

**History/Center for Digital
Research in the Humanities**

O Say Can You See:
Early Washington, D.C., Law and Family Project

\$200,000

NEH

Walter, Katherine

**University Libraries/Center for
Digital Research in the Humanities**

Major Railroad Archival Collections

\$208,481

Council on Library and Information Resources

Bolin, Mary

University Libraries

Mering, Margaret

University Libraries

Wisnicki, Adrian

**English/Center for Digital
Research in the Humanities**

Explorer David Livingstone's 1870 Field Diary
and Select 1871 Letters: A Multispectral Critical Edition

\$158,605

NEH

Pytlik Zillig, Brian

University Libraries/Center for
Digital Research in the Humanities

Arts and Humanities Awards

\$5,000 to \$49,999

Active awards, July 1, 2014-June 30, 2015

* Indicates new in 2014-2015

Abel, Marco

English

* Humanities on the Edge:
Economies of Crisis/ Crises of Economies
\$5,000 Nebraska Humanities Council
Vegso, Roland English

Edwards, Richard

Center for Great Plains Studies

* Symposium on Standing Bear and Trail Ahead
\$7,000 Humanities Nebraska

Lost Writers of the Plains
\$5,000 Woods Charitable Fund
Katz, Wendy Center for Great Plains Studies

Engen-Wedin, Nancy

Lied Center for Performing Arts

* Big Red Lied Experience for 2015
\$15,000 Pace Woods Foundation

Voloshky Ukrainian Dance Ensemble - 25th Anniversary Project
\$10,000 New England Foundation for the Arts

James, Michael

Textiles, Merchandising and Fashion Design

* Historic Costume Collection
\$6,000 Friends of the Hillestad Textiles Gallery

Katz, Wendy

Center for Great Plains Studies

Lost Writers of the Plains
\$9,500 Cooper Foundation

Levy, Leslie

International Quilt Study Center

* Digital Outreach Project
\$15,000 Woods Charitable Fund

* Ambiguity and Enigma: Recent Quilts by Michael James
\$5,000 Quilter's Guild of Dallas Inc

Price, Kenneth

**English/Center for Digital
Research in the Humanities**

* Walt Whitman and Post-Reconstruction America
\$19,620 National Historical Publications and Records
Commission through University of Iowa

Pytlík Zillig, Brian

**Center for Digital
Research in the Humanities**

* TEI Simple: Towards an Amenable TEI
\$10,200 Andrew W. Mellon Foundation
through Northwestern University

Renaud, Jerry **Journalism and Mass Communications**

* Native Daughters Oklahoma K-12 Curriculum Guide
\$8,500 NEH through Oklahoma Humanities Council
Starita, Joseph Journalism and Mass Communications

Shear, Donna **University of Nebraska Press**

Publishing Literary Translation Works
at the University of Nebraska Press
\$10,000 NEA

Early American Regions
\$30,100 University of Georgia

Wahlqvist, Petra **Lied Center for Performing Arts**

* Susan Werner's Hayseed in Nebraska -
Where Art and Agriculture Meet
\$15,000 NEA

Residency with STREB
\$20,000 NEA

Arts Across Nebraska Education Enhancement
\$23,000 Nebraska Arts Council

Walter, Katherine **University Libraries/Center for Digital
Research in the Humanities**

Buffalo Bill's European Frontier
\$40,404 NEH through Buffalo Bill Historical Center

Humanities without Walls
\$35,988 Andrew W. Mellon Foundation
through University of Illinois-IPRH

Weiss, Wendy **Textiles, Merchandising and Fashion Design**

Visiting Artists at the Robert Hillestad Textiles Gallery
\$5,000 Pearle Francis Finigan Foundation



Pioneering Partnerships for Innovation™

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

Further, NUtech Ventures also connects innovators with the people, coaching and resources they need to start companies, develop products and create jobs. If you're interested in starting a company, seeing your innovations licensed or securing developmental funding for your leading-edge research, we can help you connect with potential industry partners, entrepreneurs and investors. We can add value to your research by enabling a fully collaborative process for joint creation, development and commercialization so your technologies can change the world.

Patents Issued in 2014-2015

Recognition for faculty who received patents for their inventions

July 1, 2014-June 30, 2015

UNL faculty in red

*Other co-inventors are students, postdocs
or collaborators at other institutions*

David B. Berkowitz, Chemistry; Sylvain Broussy

Title: Analogues of (-)-Picropodophyllin, Synthesis and Uses Thereof

Date: 10/14/2014

Number: 8859614

Country: United States

Myra B. Cohen, Computer Science and Engineering;

Amanda M. Swearngin

Title: A System for Linking Gui Testing Tools and Human Performance Modeling to Enable Usability Assessment

Date: 12/2/2014

Number: 8903690 and 8903691

Country: United States

Sebastian Elbaum, Computer Science and Engineering;

Kathryn Stolee

Title: Semantic Source Code Searching

Date: 3/3/2015

Number: 8972372

Country: United States

Maher K. Tadros, Civil Engineering

Title: Bolted Precast Concrete Pile Splicing System

Date: 6/16/2015

Number: 9057170

Country: United States

Joseph A. Turner, Engineering Mechanics

Title: Systems and Methods for Ultrasonically Evaluating Structural Properties

Date: 10/14/2014

Number: 8857262

Country: United States

Title: System and Methods to Determine and Monitor Changes in Microstructural Properties

Date: 11/18/2014

Number: 8887572

Country: United States

Christopher Y. Tuan, Civil Engineering; **Lim Nguyen**, Computer and Electronics Engineering

Title: Concrete Mix for Electromagnetic Wave/Pulse Shielding

Date: 3/3/2015

Number: 8968461

Country: United States

Huihui Xu, Shadi Othman, Biological Systems Engineering;

Karin Wartella, Vahid Khalilzad, Ian Barger

Title: MRI-Compatible Bioreactors and Methods of Using

Date: 6/9/2015

Number: 9051541

Country: United States

Yongbo Yuan, Jinsong Huang, Mechanical & Materials

Engineering; Bin Yang

Title: Photovoltaic Device

Date: 8/5/2014

Number: 8796677

Country: United States

2014-2015 License Agreements

Recognition for faculty whose technologies formed the basis
of licensing agreements with industry partners

July 1, 2014-June 30, 2015

UNL faculty and staff in red

*Other co-inventors are students, postdocs
or collaborators at other institutions*

P. Stephen Baenziger, Agronomy and Horticulture

Technology: Advanced Triticale Line

P. Stephen Baenziger, Mitchell Montgomery, Greg Dorn,

Richard Little, Agronomy and Horticulture; Jerry Bohlmann,
Chris Hoagland

Technology: Hard Red Winter Wheat Varieties: NE10478,
NE10507, NE10589, NH11489, NHH11569, NI09710H, NW09627,
NI10718W, NE10683, NE05548 (Panhandle)

Technology: Wheat Experimental Line: NE06545, Released as
Husker Genetics Brand 'Freeman'

P. Stephen Baenziger, Mitchell Montgomery, Greg Dorn,

Richard Little, Agronomy and Horticulture; Chris Hoagland

Technology: Advanced Winter Triticale Line

Technology: Advanced Winter Triticale Lines – Startup License

Steven Comfort, Mark Christenson, School of Natural Resources

Technology: Slow-Release Oxidant Candles for Groundwater
Remediation

Andre Crespo, Entomology

Technology: European Corn Borer Displaying Resistance to
CRY1AB Bt Toxin

Ismail Dweikat, Agronomy and Horticulture

Technology: Sorghum Lines

George L. Graef, Leslie Korte, Agronomy and Horticulture;

Dennis White, Travis Wegner

Technology: Soybean Variety U07-135601R

George L. Graef, Leslie Korte, James Specht, Agronomy and
Horticulture; Dennis White, Travis Wegner

Technology: Soybean Variety U11-614093

Ming Han, Blair Siegfried, Electrical and Computer Engineering
Technology: Fiber Optic Sensors for Highly Sensitive Detection of Strain in Large Frequency Range

Jinsong Huang, Mechanical & Materials Engineering;
Yuchuan Shao, Qingfeng Dong
Technology: Modified PVDF and Its Co-Polymers

Jinsong Huang, Mechanical & Materials Engineering;
Zhengguo Xiao, Yuchuan Shao, Qingfeng Dong, Rui Dong,
Yuchuan Sao, Cheng Bi, Qi Wang,
Technology: Methods of Fabrication for High Efficiency Perovskite Materials and Solar Cells by Solution Process, Materials and Devices

Arjun Kapoor, ALEC-Educational Media; **Steve Johnson**,
Richard Randle, School of Veterinary and Biomedical Sciences;
Nic Colgrove, IANR Media
Technology: Mobile Cattle Tracker - Mobile Application

Bryan Leavitt, Survey Division, School of Natural Resources
Technology: CDAP-2 Software

Carlos Urrea Florez, Panhandle Research Extension Center
Technology: Improved Light Red Kidney Lines

Haishun Yang, Kenneth G. Cassman, Daniel T. Walters,
Agronomy and Horticulture
Technology: Hybrid Maize Software-3 licenses

Creative Activity

Faculty who created, performed or produced works
in the fine and performing arts and architecture, television and film,
or digital creativity, nationally or internationally,

July 1, 2014-June 30, 2015

Submitted by faculty, chairs/heads or deans

Ranae Aspen **West Central Research and Extension Center**

Writer, mobile application. "Farm to Plate."

Mark K. Clinton **Glenn Korff School of Music**

Performer, piano. Chamber Works by Josef Suk, Arno Babajanian and Richard Strauss. Chamber Performance with the Montecristo Piano Quartet, Historic St. Anne's Church, Mackinac Island, MI.

Performer, piano. Works by Richard Strauss, Josef Suk and Maurice Ravel. Illinois Chamber Music Festival, Presser Hall, Bloomington, IL.

Nancy Eberle **4-H State Office**

Writer, software. "Dream Design Deliver: A 3-D Blueprint for Innovation and Entrepreneurship."

Kelly Feehan **Northeast Research and Extension Center**

Writer, software. "Stormwater Sleuth Card Game."

Michael F. James **Textiles, Merchandising and Fashion Design**

Artist, quilted fabric construction. "Next, then, afterward (at loose ends)." Exhibition at the Wayne Art Center, Wayne, PA.

Artist, quilted fabric construction. "Ambiguity & Enigma: Recent Quilts by Michael James." Exhibition at the International Quilt Study Center and Museum, Lincoln, NE.

J.D. Madsen **Johnny Carson School of Theatre and Film**

Artist, scenic design. "Sex With Strangers," Signature Theatre, Shirlington, VA.

Artist, scenic design. "One Man, Two Guvnors," 1st Stage Theatre, Tyson's Corner, VA.

Artist, scenic design. "Grains," Kennedy Center for the Performing Arts, Washington, DC.

Artist, scenic design. "Carousel," Hartke Theatre at Catholic University, Washington, DC.

Christopher Marks **Glenn Korff School of Music**

Performer, organ. *Organ Music of Seth Bingham, Vol. 3 Cathedral Strains*. CD recording, Raven Compact Discs, Richmond, VA.

Laurel Shoemaker **Johnny Carson School of Theatre and Film**

Artist, lighting direction. "Chicago Dancing Festival," Harris Theatre, Pritzker Pavillion, Chicago, IL.

Artist, lighting design. "Dance Gala '14," University of Iowa, Space Place, Iowa City, IA.

Wheeler Winston Dixon **English**

Author. *Dark Humor in Films of the 1960s*. New York, NY: Palgrave Macmillan.

Aaron M. Duncan **Communication Studies**

Author. *Gambling with the Myth of the American Dream*. New York, NY: Routledge.

Iker González-Allende **Modern Languages and Literatures**

Editor. *Epistolario de Pilar de Zubiaurre (1906-1970)*. Woodbridge, UK: Tamesis.

William Grange **Johnny Carson School of Theatre and Film**

Author. *Historical Dictionary of German Theater (2nd ed.)*. Lanham, MD: Scarecrow Press, an imprint of Rowman and Littlefield.

Edmund T. Hamann **Teaching, Learning and Teacher Education/Anthropology**

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Author. *Moses Senz: Vigencia de su Legado/The Intellectual Perspective of Moses Senz: Is His Legacy Still Relevant?* Monterrey, Mexico: Fondo Editorial de Nuevo Len.

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Author. *Rodeo Nebraska*. Lincoln, NE: Nebraska State Historical Society.

Robert M. Harveson **Plant Pathology**

Author. *The Bacterium of Many Colors*. St. Paul, MN: The American Phytopathological Society Press.

Carrie C. Heitman **Anthropology**

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Editor. *2015 Beef Cattle Report*. Lincoln, NE: University of Nebraska-Lincoln Printing Services.

Paul A. Johnsgard **School of Biological Sciences**

Author, with Eric Fowler, Michael Forsberg, **Mary Bomberger Brown**, **Dee Ebbeka**, **Jacki Loomis** and **Patricia W. Freeman**, **School of Natural Resources**. *Game Birds of the World; A Catalog of the Madson Collection*. Lincoln, NE: Conservation and Survey Division, University of Nebraska.

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David L. Olson**Management**

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Jon E. Pedersen**Teaching Learning and Teacher Education/
Education and Human Sciences**

Editor, with Kevin D. Finson. *Application of Visual Data in K-16 Science Classrooms*. Charlotte, NC: Information Age Publishing.

Damien S. Pfister**Communication Studies**

Author. *Networked Media, Networked Rhetorics: Attention and Deliberation in the Early Blogosphere*. University Park, PA: Pennsylvania State University Press.

Brett C. Ratcliffe**Entomology/University of
Nebraska State Museum**

Author, with Ronald D. Cave. *The Dynastine Scarab Beetles of the West Indies (Coleoptera: Scarabaeidae: Dynastinae) vol. 28*. Lincoln, NE: University of Nebraska State Museum.

Chittaranjan Ray**Civil Engineering**

Author, with Ravi Jain. *Low Cost Emergency Water Purification Technologies*. Oxford, UK: Butterworth-Heinemann, an imprint of Elsevier.

Guy J. Reynolds**English**

Editor, with Anne Kaufman and Richard Millington. *Cather Studies 10: Cather and the Nineteenth Century*. Lincoln, NE: University of Nebraska Press.

Anna W. Shavers**College of Law**

Editor, with Jennifer A. Hermansky, Hatie Kalmykov, William S. Jordan III and Jill E. Family. *What Every Lawyer Needs to Know About Immigration Law*. Chicago, IL: American Bar Association - Section of Administrative Law and Regulatory Practice.

Susan M. Sheridan**Educational Psychology/
Nebraska Center for Research on
Children, Youth, Families and Schools**

Author. *The Tough Kid: Teachers and Parents as Partners*. Eugene, OR: Pacific Northwest Publishers.

Editor, with Elizabeth Moorman Kim. *Research on Family-School Partnerships: An Interdisciplinary Examination of State of the Science and Critical Needs (Vol. I: Foundational Aspects of Family-School Partnerships)*. New York, NY: Springer.

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Steve Smith

University Communications

Author. *Forever Red: More Confessions of a Cornhusker Fan*. Lincoln, NE: University of Nebraska Press.

Jolene D. Smyth

Sociology

Author, with Don A. Dillman and Leah Melani Christian. *Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method*. Hoboken, NJ: John Wiley & Sons, Inc.

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4-H State Office

Editor. *Beef Resource Handbook*. Lincoln, NE: University of Nebraska–Lincoln Printing Services.

Mark van Roojen

Philosophy

Author. *Metaethics: A Contemporary Introduction*. New York, NY: Routledge/Taylor & Francis.

Diane Vigna

Textiles, Merchandising and Fashion Design

Editor. *STEAM Clothing Series (Clothing 1: Fundamentals; Clothing 2: Simply Sewing; Clothing 3: A Stitch Further; Maker's Guide)*. Lincoln, NE: University of Nebraska–Lincoln Printing Services.

Editor. *STEAM Clothing - Beyond the Needle*. Lincoln, NE: University of Nebraska–Lincoln Printing Services.

Yiqi Yang

Textiles, Merchandising and Fashion Design/ Biological Systems Engineering

Author, with Narendra Reddy. *Innovative Biofibers from Renewable Resources*. Heidelberg, Germany: Springer.

Editor, with Helan Xu, Textiles, Merchandising and Fashion Design, and Xin Yu. *Lightweight Materials from Biopolymers and Biofibers*. Washington, DC: American Chemical Society.

Aaron R. Young

School of Natural Resources/ Conservation and Survey Division

Author, with Mark E. Burbach and Leslie M. Howard, School of Natural Resources. *Nebraska Statewide Groundwater-Level Monitoring Report 2014*. Lincoln, NE: Conservation and Survey Division, School of Natural Resources.

Recognitions and Honors

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

July 1, 2014-June 30, 2015

Submitted by faculty, chairs/heads or deans

Joseph S. Francisco

**Chemistry/Dean of the
College of Arts and Sciences**

National Academy of Sciences

Brian Larkins

**Agronomy and Horticulture/
Associate Vice Chancellor for Life Sciences**

National Academy of Sciences

James Van Etten

Plant Pathology

National Academy of Sciences

Marco Abel

English

German Academic Exchange Service Book Prize, German Studies Association

Jiri Adamec

Biochemistry/Redox Biology Center

Innovator Award, Clinical and Pharmaceutical Solutions through Analysis

RandD 100 Award, *RandD Magazine*

James Alfano

Plant Pathology

Fellow, American Academy of Microbiology

Kathleen P. Anderson

Animal Science

Equine Science Award, American Society of Animal Science

P. Stephen Baenziger

Agronomy and Horticulture

Lifetime Achievement Award, National Association of Plant Breeders

Steven Barlow

**Special Education and
Communication Disorders**

Honors of the Association, American Speech-Language-Hearing Association

Shannon Bartelt-Hunt

Civil Engineering

Grand Prize for University Research, American Academy of Environmental Engineers and Scientists

Frederick P. Baxendale

Entomology

Honorary Member Award, Entomological Society of America

Richard J. Bischoff

Child, Youth and Family Studies

Emerging Administrator Award, Board on Human Sciences, Council of Administrators of Family and Consumer Sciences

Erin E. Blankenship

Statistics

Fellow, American Statistical Association

- Edgar Cahoon** **Biochemistry/
Center for Plant Science Innovation**
Yangtze River Scholar, Chinese Ministry of Education
- Chris R. Calkins** **Animal Science**
Animal Industry Service Award, American Society of Animal Science
- Mohamed Dahab** **Civil Engineering**
Fellow, Water Environment Federation
- Kwame Dawes** **English**
Paterson Poetry Prize for Literary Excellence, Passaic County Community College, Paterson, NJ
- Behzad Esmaeili** **Durham School of Architectural
Engineering and Construction**
New Scholar Award, Construction Industry Institute

Jaume Blasco Award for Innovation, 18th International Congress on Project Management and Engineering
- Charles Francis** **Agronomy and Horticulture**
Honorary Doctorate, Sveriges lantbruksuniversitet Swedish University of Agricultural Sciences
- Tracy D. Frank** **Earth and Atmospheric Sciences**
Fellow, Geological Society of America
- Rick N. Funston** **Animal Science/
West Central Research
and Extension Center**

Excellence in Extension Award, North Central Region of Cooperative Extension and USDA's National Institute of Food and Agriculture
- Rhonda Garelick** **English/Hixson-Lied College
of Fine and Performing Arts**
Stanley Kelly, Jr., Visiting Professorship for Distinguished Teaching in Comparative Literature, Princeton University
- Roch E. Gaussoin** **Agronomy and Horticulture**
President, Crop Science Society of America
- Ronnie D. Green** **Animal Science**
Administration Fellow Award, American Society of Animal Science
- Carrie Heitman** **Anthropology**
Leadership Fellow, American Anthropological Association
- David Henderson** **Philosophy**
Fellow, John Templeton Foundation
- Chuck Hibberd** **Dean's Office for Cooperative Extension**
APEX Installation Award, Education and Health – Gold, Digital Signage Expo

Rose Holz

History of Medicine Fellowship, Francis L. Countway Library,
Harvard University

Women's and Gender Studies**Julie Honaker**

Editor's Award, *American Journal of Audiology*

**Special Education and
Communication Disorders**

Distinguished Alumni Award, College of Allied Health Sciences at
the University of Cincinnati

**Suat Irmak, Jenny Rees,
Brandy VanDeWalle, Gary Zoubek**

National Innovative Programs and Partnership Award, USDA-NIFA

**Biological Systems
Engineering****Michael F. James Textiles, Merchandising and Fashion Design**

Juror's Award, Wayne Art Center, Wayne, PA

Master of the Medium, James Renwick Alliance of the Renwick
Gallery, Smithsonian Institution

Johnny Carson School of Theatre and Film

Standing Ovation, Educational Theatre Association

Gary Kebbel

Fulbright Specialist Award, U.S. Mission to the Africa Union,
Council for International Exchange of Scholars

News-Editorial**Carole Levin**

Fulbright U.S. Scholar, University of York, United Kingdom, Council
for International Exchange of Scholars

History**Jim Lewis**

Gung and Hu Award for Distinguished Service to Mathematics,
Mathematical Association of America

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

Award for Impact on the Teaching and Learning of Mathematics,
American Mathematical Association

Xu Li

Grand Prize for University Research, American Academy of
Environmental Engineers and Scientists

Civil Engineering**Kathleen Lodi**

Most Influential in STEM 2015, *After School Today*

Cooperative Extension**Suping Lu**

Special Contribution Award Medallion, Nanjing Massacre
Memorial Museum

University Libraries**Joe D. Luck**

Gale A. Holloway Professional Development Award, American
Society of Agricultural and Biological Engineers

Biological Systems Engineering

J.D. Madsen **Johnny Carson School of Theatre and Film**
Helen Hayes Award of Excellence in Scenic Design Nomination,
Helen Hayes Award Committee in Partnership with Theatre
Washington

Bernard R. McCoy **Broadcasting**
Award of Excellence, Documentary Feature Competition, Canada
International Film Festival

Colleen Medill **College of Law**
Fellow, American College of Employee Benefits Counsel

Dennis L. Molfese **Psychology**
Lifetime Achievement Award for Contributions to the Fields of
Learning Disabilities and Dyslexia, Nebraska Dyslexia Association

Inaugural Neuroeducator Award, Electrical Geodesics Inc.

Victoria J. Molfese **Child, Youth and Family Studies**
Lifetime Achievement Award for Contributions to the Fields of
Learning Disabilities and Dyslexia, Nebraska Dyslexia Association

Glenn E. Nierman **Glenn Korff School of Music**
Lowell Mason Fellow, National Association for Music Education

President, National Association for Music Education

Jon E. Pedersen **Teaching Learning and Teacher Education/
Education and Human Sciences**
Outstanding Longtime Service Award, Association for Science
Teacher Education

Robert Powers **Chemistry**
Outreach Volunteer of the Year, American Chemical Society

Chemistry Ambassador, American Chemical Society

Mackenzie Savaiano **Special Education and
Communication Disorders**
Dissertation of the Year, Division on Visual Impairments and
Deafblindness, Council for Exceptional Children

Matthew Schaefer **College of Law**
Inducted into International Academy of Astronautics

David P. Shelton **Biological Systems Engineering/
Northeast Research
and Extension Center**
Gold Award - Long Publication, Association of Natural Resource
Extension Professionals

Blue Ribbon Award – Short Publication, American Society of
Agricultural and Biological Engineers

Susan M. Sheridan

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

Senior Scientist Award for Lifetime Career Accomplishments,
Division 16 of the American Psychological Association

James Specht

Agronomy and Horticulture

Special Meritorious Service Award, American Soybean Association

James R. Steadman

Plant Pathology

Fellow, American Phytopathological Society

Hans Sturm

Glenn Korff School of Music

Prize and Diploma for Performance Excellence and Prize and
Diploma of Professor, International Rabbath Institute

Mehmet C. Vuran

Computer Science and Engineering

Highly Cited Researcher 2015, Thomson Reuters

Innovators under 35 Turkey, *MIT Technology Review*

Stephen N. Wegulo

Plant Pathology

Outstanding Achievement Award, Nebraska Wheat Growers
Association

Wendy Weiss

Textiles, Merchandising and Fashion Design

Fulbright U.S. Scholar, University of Baroda, India, Council for
International Exchange of Scholars

John Woollam

Electrical and Computer Engineering

Fellow, National Academy of Inventors

Tian Zhang

Civil Engineering

State of the Art of Civil Engineering Award, American Society of
Civil Engineers

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
SAMSHA	Substance Abuse and Mental Health Services Administration
DOC	Department of Commerce
NIST	National Institute of Standards and Technology
NOAA	National Oceanic & Atmospheric Administration
DoD	Department of Defense
AFOSR	Air Force Office of Scientific Research
AFRL	Air Force Research Laboratory
ARO	Army Research Office
DARPA	Defense Advanced Research Projects Agency
DTRA	Defense Threat Reduction Agency
MDA	Missile Defense Agency
NGIA	National Geospatial Intelligence Agency
ONR	Office of Naval Research
USAMRAA	United States Army Medical Research Acquisition Activity
USAMRMC-TATRC	United States Army Medical Research and Materiel Command-Telemedicine and Advanced Technology Research Center
DOE	Department of Energy
NETL	National Energy Technology Laboratory
DOI	Department of Interior
FWS	Fish and Wildlife Service
GS	Geological Survey
DOJ	Department of Justice
DOL	Department of Labor
DOS	Department of State
BECA	Bureau of Educational and Cultural Affairs
DOT	Department of Transportation
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
RITA	Research and Innovative Technology Administration
ED	Department of Education
IES	Institute of Education Sciences
EPA	Environmental Protection Agency

EPSCoR	Experimental Program to Stimulate Competitive Research
HUD	Department of Housing and Urban Development
NAS	National Academy of Sciences
TRB	Transportation Research Board
NASA	National Aeronautics and Space Administration
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
NCRR	National Center for Research Resources
NEI	National Eye Institute
NHLBI	National Heart, Lung and Blood Institute
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIAID	National Institute on Allergy & 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 & Communication Disorders
NIDDK	National Institute of Diabetes, Digestive & Kidney Disease
NIEHS	National Institute of Environmental Health Sciences
NIGMS	National Institute on General Medical Sciences
NIMH	National Institute of Mental Health
NIMHD	National Institute on Minority Health and Health Disparities
NINDS	National Institute of Neurological Disorders & Stroke
NSF	National Science Foundation
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
AFRI	Agriculture and Food Research Initiative
ARS	Agricultural Research Service
CSREES	Cooperative State Research, Education & Extension 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

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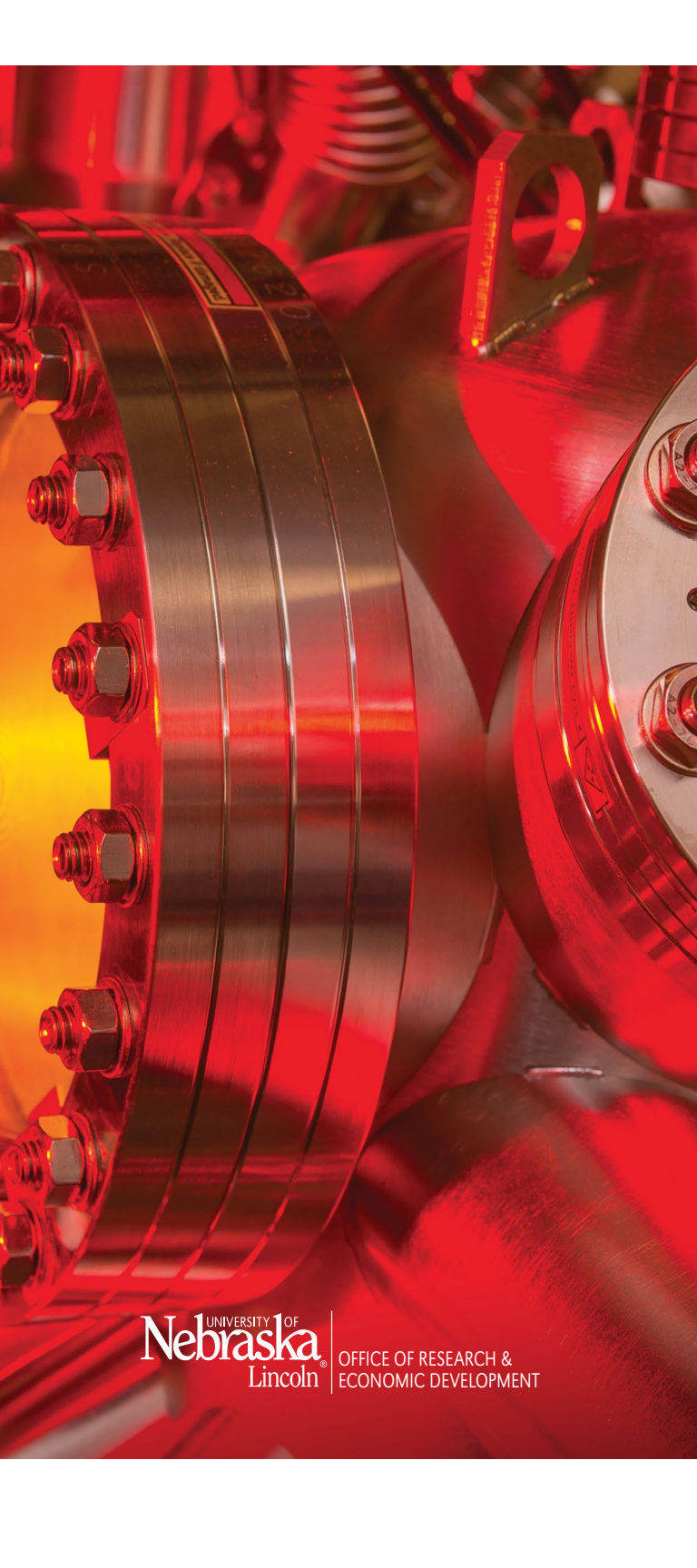
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