

11-2015

## Research and Creative Activity July 1, 2014 – June 30, 2015: Major Sponsored Programs and Faculty Awards for Research and Creativity

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# Research and Creative Activity

**July 1, 2014 – June 30, 2015**

Major Sponsored Programs  
and Faculty Awards  
for Research and Creative Activity



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

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".

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

Association of Public  
and Land-Grant Universities

10/1/04 – 12/31/15



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](http://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 (ANtarctic 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 Magnetoelctronic,  
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

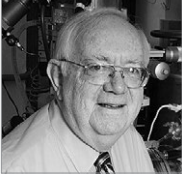
Mechanical & Materials Engineering

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) magnetoelctronic 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

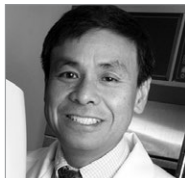
## Biological Sciences/ Nebraska Center for Virology

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.

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

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

\* Indicates new in 2014-2015

## Alexander, Dennis

## Electrical and Computer Engineering

Fundamental Studies of Femtosecond Pump Probe Techniques  
for Killing and Assessment of Damage to Optical Components  
\$1,111,104 DoD-AFRL  
Ianno, Natale Electrical and Computer Engineering

## Allen, Craig

## Natural Resources

IGERT: Resilience and Adaptive  
Governance in Stressed Watersheds  
\$3,116,173 NSF  
Fritz, Sherilyn Earth and Atmospheric Sciences  
Samal, Ashok Computer Science and Engineering  
Tomkins, Alan Law/Public Policy Center  
Tyre, Richard Natural Resources

## Baenziger, P. Stephen

## Agronomy and Horticulture

Improving Barley and Wheat Germplasm  
for Changing Environments  
\$1,065,801 USDA through University of California, Davis  
Lee, Donald Agronomy and Horticulture  
Regassa, Teshome Agronomy and Horticulture  
Waters, Brian Agronomy and Horticulture

## Balkir, Sina

## Electrical and Computer Engineering

Ultra-Low-Power Long-Duration Programmable  
Remote Radiation Monitoring Sensor Electronics  
\$1,385,150 DoD-DTRA  
Bauer, Mark Electrical and Computer Engineering  
Hoffman, Michael Electrical and Computer Engineering

## Barker, Bradley

## 4-H Youth Development

Scale-UP: National Robotics in 4-H:  
Workforce Skills for the 21st Century  
\$2,498,908 NSF  
Adamchuk, Viacheslav Biological Systems Engineering  
Nugent, Gwen Nebraska Center for Research on  
Children, Youth, Families and Schools

## Becker, Donald

## Biochemistry

Redox Biology Center  
\$4,305,466 NIH-NIGMS  
Mechanistic Studies of Functional Switching  
in the PutA Flavoprotein  
\$1,888,980 NIH-NIGMS

## Bellows, Laurie

## Graduate Studies

McNair Scholars Project and the University of Nebraska-Lincoln  
\$1,088,494 ED



**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**

\* SI2-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

Anderson-Knott, Mindy

De Guzman, Maria

Fischer, Jean

Takahashi, Shinya

Child, Youth and Family Studies

Nutrition and Health Sciences

Nutrition and Health Sciences

**Buchholz, Wallace****Biological Process Development Facility**

\* Tech Transfer, Scale Up, and GMP Production of XTEN

\$2,413,917

Amunix Operating Inc.

Johnson, Scott

Biological Process Development Facility

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

Grassini, Patricio

Agronomy and Horticulture

Yang, Haishun

Agronomy and Horticulture

**Ciobanu, Daniel****Animal Science**

Translational Genomics for Improving  
Sow Reproductive Longevity

\$1,166,650

USDA-AFRI

Kachman, Stephen

Statistics

Riethoven, Jean-Jack

Biotechnology

Spangler, Matthew

Animal Science

**Diamond, Judy****University of Nebraska State Museum**

Biology of Human: Understanding Ourselves  
through the Lens of Current Biomedical Research

\$1,386,925

NIH-NCRR

Angeletti, Anisa

Biological Sciences

Bailey, Cheryl

Biochemistry

McQuillan, Julia

Sociology

Wood, Charles

Biological Sciences/

Nebraska Center for Virology

**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**

High Throughput Screens for Fatty Acid Uptake Inhibitors  
 \$1,259,580  
 Black, Paul

**Biochemistry/****Nutrition and Health Sciences**

NIH-NIDDK  
 Biochemistry

**Doll, Elizabeth**

NU Data: Using Data and Technology to Foster Achievement  
 \$1,496,461  
 Horn, Christy  
 Shope, Ronald

**Educational Psychology**

ED

Educational Psychology  
 Educational Psychology

**Dombrowski, Kirk**

\* Injection Risk Networks in Rural Puerto Rico  
 \$2,936,639  
 Welch-Lazoritz, Melissa

**Sociology**

NIH-NIDA

Bureau of Sociological Research/  
 Sociology

**Duppong Hurley, Kristin**

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

**Special Education and  
Communication Disorders**

ED-IES

Special Education and  
 Communication Disorders  
 Special Education and  
 Communication Disorders

**Dzenis, Yuris**

\* Optimal Stent Selection for the Femoropopliteal Artery  
 \$1,028,824  
 Desyatova, Anastasia

**Mechanical & Materials Engineering**

NIH-NHLBI through UNMC

Mechanical & Materials Engineering

**Eccarius, Malinda**

Mountain Prairie Upgrade Partnership-Itinerant  
 \$1,199,400  
 Bovaird, James  
 Welch, Greg

**Special Education and  
Communication Disorders**

ED

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

**Engen-Wedin, Nancy**

Indigenous Roots Teacher Education Program  
 \$1,078,185  
 McGowan, Thomas

**Teaching, Learning and  
Teacher Education**

ED

Teaching, Learning and Teacher Education

**Espy, Kimberly Andrews****Psychology**

Prenatal Smoking and the Substrates  
of Disruptive Behavior in Early Life

\$2,320,241

Garza, John

NIH-NIDA

Psychology

Executive Function Development in Preschool Children

\$3,258,301

Sheridan, 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

NASA through UNMC

Nelson, Carl

Computer Science and Engineering

Pérez, Lance

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

DoD-ARO

Lim, Jung Yul

Mechanical & Materials Engineering

Negahban, Mehrdad

Mechanical & Materials Engineering

Nelson, Carl

Mechanical & Materials Engineering

Turner, Joseph

Mechanical & Materials Engineering

**Fischer, Jean****Nutrition and Health Sciences**

Supplemental Nutrition Assistance Program (SNAP-ED)

\$1,623,210

Boeckner, Linda

USDA-FNS through Nebraska Department of

Carr, Timothy

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

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**

Electrical and Computer Engineering  
\* Portable Fiber Laser System and Method to Remove Pits  
and Cracks on Sensitized Surfaces of Aluminum Alloys

\$1,025,000

DoD-ONR

Multi-Energy Processing for Novel Coating Technologies  
\$4,138,000

DoD-ONR

**Lubben, Bradley**

Agricultural Economics  
North Central Risk Management Education Center

\$3,362,959

USDA-NIFA

**Mackenzie, Sally**

Agronomy and Horticulture/  
Biological Sciences  
Epigenetic Breeding in Crops

\$2,996,073

Bill & Melinda Gates Foundation

**Marley, Tom****Mathematics**

EMSW21-MCTP: Nebraska Mentoring  
through Critical Transition Points

\$2,225,689

NSF

Donsig, Allan

Mathematics

Walker, Judy

Mathematics

**Mendoza-Gorham, Joan****Student Affairs**

Lincoln Upward Bound

\$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



<b>Pope, Kevin</b>	<b>Natural Resources</b>
Human Dimensions of Nebraska's Fisheries	
\$2,165,236	Nebraska Game and Parks Commission
Chizinski, Christopher	Natural Resources

<b>Qiao, Wei</b>	<b>Electrical and Computer Engineering</b>
* 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

<b>Reddy, N.R. Jayagopala</b>	<b>Veterinary Medicine and Biomedical Sciences</b>
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

<b>Rilett, Laurence</b>	<b>Civil Engineering/ Nebraska Transportation Center</b>
Transportation Infrastructure - Visualizations & ITS Laboratory	
\$3,171,651	DOT-FHWA through Nebraska Department of Roads
Faller, Ronald	Civil Engineering/ Midwest Roadside Safety Facility

<b>Robertson Jr., Vaughn</b>	<b>Student Affairs</b>
UNL Educational Talent Search	
\$2,082,071	ED

<b>Rothermel, Gregg</b>	<b>Computer Science and Engineering</b>
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

<b>Sellmyer, David</b>	<b>Physics and Astronomy/Nebraska Center for Materials and Nanoscience</b>
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-MeV X-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

Magnetoelectric 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

Zach, Allison

Natural Resources

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

\$438,664

Nebraska Game and Parks Commission

Fontaine, Joseph

Natural Resources

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 &amp; 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 &amp; 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 Rivoliiana (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 Saccharinae  
\$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, Dmitry 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 Volatiles 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

Mechanical & Materials Engineering

Bielenberg, Robert

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

Luebke, Matthew

Panhandle Research and Extension Center

Rasby, Richard

Animal Science

<b>Fontaine, Joseph</b>	<b>Natural Resources</b>
* Climatic Constraints on Bobwhite Quail Populations along Their Northern Extent	
\$299,686	DOI-FWS through Nebraska Game and Parks Commission
Bachman, Gwendolyn	Biological Sciences

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
Powell, Larkin	Natural Resources

<b>Forbes, Cory</b>	<b>Natural Resources</b>
Modeling Hydrologic Systems in Elementary Science	
\$327,537	NSF

<b>Francisco, Joseph</b>	<b>Chemistry</b>
* Radical Chemistry on Cloud and Aerosol Surfaces	
\$269,915	NSF

<b>Franzen-Castle, Lisa</b>	<b>Nutrition and Health Sciences</b>
* 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

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

<b>Gaussoin, Roch</b>	<b>Agronomy and Horticulture</b>
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

<b>Gay, Timothy</b>	<b>Physics and Astronomy</b>
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

<b>Hawks, Jeff</b>	<b>Mechanical &amp; Materials Engineering</b>
MPRP Sauce Fluid Dynamic Study for Perfect Dispense System	
\$550,000	ConAgra
Farritor, Shane	Mechanical & Materials Engineering
Zhang, Zhaoyan	Mechanical & Materials Engineering

<b>Hayes, Michael</b>	<b>Natural Resources</b>
* 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

<b>Heaton, Ruth</b>	<b>Center for Science, Mathematics and Computer Education/ Teaching, Learning and Teacher Education</b>
	* Math Early On
\$528,071	Buffett Early Childhood Fund
Edwards, Carolyn	Psychology/Child, Youth and Family Studies
Molfese, Victoria	Child, Youth and Family Studies

<b>Hebert, Michael</b>	<b>Special Education and Communication Disorders</b>
* 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

<b>Heng-Moss, Tiffany</b>	<b>Entomology</b>
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

<b>Hermiller, Susan</b>	<b>Mathematics</b>
Topology and Geometry of Cayley Graphs for Groups	
\$251,096	NSF

<b>Hogan, Tiffany</b>	<b>Special Education and Communication Disorders</b>
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  
 Farritor, 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



<b>Pérez, Lance</b>	<b>Electrical and Computer Engineering</b>
A Chautauqua Program for the 21st Century	
\$448,603	NSF
<b>Pierobon, Massimiliano</b>	<b>Computer Science and Engineering</b>
* MCB EAGER: TelePathy: Telecommunication Systems Modeling and Engineering of Cell Communication Pathways	
\$300,000	NSF
Buan Murphy, Nicole	Biochemistry
<b>Powell, Larkin</b>	<b>Natural Resources</b>
* 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
<b>Powers, Thomas</b>	<b>Plant Pathology</b>
Integrative Taxonomy and Biogeography of Criconematidae	
\$528,561	NSF
<b>Pytlík Zillig, Lisa</b>	<b>Public Policy Center</b>
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
<b>Qian, Yi</b>	<b>Computer and Electronics Engineering</b>
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
<b>Qiao, Wei</b>	<b>Electrical and Computer Engineering</b>
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, Marilynne**

**Chemistry**

WIDER: EAGER Evidence-Based Instructional Practices in Action:  
Enhancing Exemplary Teaching  
at the University of Nebraska-Lincoln

\$299,703

NSF

Ducharme, Stephen

Lee, Kevin

Physics and Astronomy

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

Powers, Crystal

Biological Systems Engineering

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

Thippareddi, Harshavardhan

Biological Systems Engineering

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

**Tenhumberg, 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, Ziguao 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 fefe 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

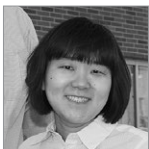


### **Gu, Linxia**

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**

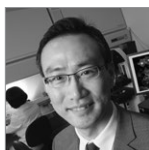
Chemistry  
 CAREER: Ligand-Induced Folding in Peptides  
 for Biosensing Applications  
 \$455,000

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

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#### 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

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#### 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](http://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  
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

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**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

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**Sebastian Elbaum**, Computer Science and Engineering;

Kathryn Stolee

**Title:** Semantic Source Code Searching

**Date:** 3/3/2015

**Number:** 8972372

**Country:** United States

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**Maheer K. Tadros**, Civil Engineering

**Title:** Bolted Precast Concrete Pile Splicing System

**Date:** 6/16/2015

**Number:** 9057170

**Country:** United States

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**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

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**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

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**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

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**Yongbo Yuan, Jinsong Huang**, Mechanical & Materials Engineering; Bin Yang

**Title:** Photovoltaic Device

**Date:** 8/5/2014

**Number:** 8796677

**Country:** United States

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# 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

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**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'

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**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

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**Steven Comfort, Mark Christenson**, School of Natural Resources  
*Technology:* Slow-Release Oxidant Candles for Groundwater  
Remediation

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**Andre Crespo**, Entomology  
*Technology:* European Corn Borer Displaying Resistance to  
CRY1AB Bt Toxin

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**Ismail Dweikat**, Agronomy and Horticulture  
*Technology:* Sorghum Lines

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**George L. Graef, Leslie Korte**, Agronomy and Horticulture;  
Dennis White, Travis Wegner  
*Technology:* Soybean Variety U07-135601R

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**George L. Graef, Leslie Korte, James Specht**, Agronomy and  
Horticulture; Dennis White, Travis Wegner  
*Technology:* Soybean Variety U11-614093

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

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

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**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

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**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

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

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

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

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# 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.

# Books

Faculty who wrote or edited books published July 1, 2014-June 30, 2015

UNL authors in red

Submitted by faculty, chairs/heads or deans

**J. Clark Archer**

**Geography/School of Natural Resources**

Editor, with Fiona Davidson, Erin H. Fouberg, Kenneth C. Martis, Richard L. Morrill, Fred M. Shelley, Robert H. Watrel and Gerald R. Webster. *Atlas of the 2012 Elections*. Lanham, MD: Rowman and Littlefield.

**Stephen C. Behrendt**

**English**

Author. *Refractions*. Spokane, WA: Shechem Press.

**Brian H. Bornstein**

**Psychology/Public Policy Center**

Author, with Alan J. Tomkins, Law/Public Policy Center. *Motivating Cooperation and Compliance with Authority: The Role of Institutional Trust*. New York, NY: Springer.

**Dawn O. Braithwaite**

**Communication Studies**

Editor, with Paul Schrodtt. *Engaging Theories in Interpersonal Communication (2nd ed.)*. Thousand Oaks, CA: Sage.

**Anthony Bushard**

**Music History/Glenn Korff School of Music**

Editor, with Stanley C. Pelkey II. *Anxiety Muted: American Film Music in A Suburban Age*. New York, NY: Oxford University Press.

**Jennine Capó Crucet**

**English/Ethnic Studies**

Author. *Make Your Home Among Strangers*. New York, NY: St. Martin's Press.

**Peter J. Capuano**

**English**

Author. *Changing Hands: Industry, Evolution, and the Reconfiguration of the Victorian Body*. Ann Arbor, MI: University of Michigan Press.

**Joy Castro**

**English**

Author. *How Winter Began*. Lincoln, NE: University of Nebraska Press.

**Juan Cui**

**Computer Science and Engineering**

Author, with Ying Xu and David Puett. *Cancer Bioinformatics*. New York, NY: Springer.

**Kwame Dawes**

**English**

Editor, with Christopher Abani. *Seven New Generation African Poets: A Chapbook Boxset*. New York, NY: Slapering Hol Press.

Editor, with Christopher Abani. *Eight New Generation African Poets: A Chapbook Boxset*. New York, NY: Akashic Books.

Editor. *A Bloom of Stones: A Multilingual Anthology of Haitian Poetry Written After the Quake*. Leeds, United Kingdom: Peepal Tree Press.

Editor, with Olasope O. Oyelaran. *Gem of the Ocean: Essays on August Wilson in the Black Diaspora*. Chicago, IL: Third World Press.

**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**

Editor, with Stanton Wortham and Enrique G. Murillo Jr. *Revisiting Education in the New Latino Diaspora*. Charlotte, NC: Information Age Publishing.

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.

**Rumiko Handa****Architecture Program**

Author. *Allure of the Incomplete, Imperfect, and Impermanent: Designing and Appreciating Architecture as Nature*. New York, NY: Routledge.

**Mark Harris****University of Nebraska State Museum**

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**

Editor, with Stephen Plog. *Chaco Revisited: New Research on the Prehistory of Chaco Canyon, NM*. Tucson, AZ: University of Arizona Press for the Amerind Studies in Archaeology Series.

**Karla Jenkins****Panhandle Research and Extension Center**

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.

Author. *Seasons of the Tallgrass Prairie: A Nebraska Year*. Lincoln, NE: University of Nebraska Press.

**Alice Kang** **Political Science/Institute for Ethnic Studies**

Author. *Bargaining for Women's Rights: Activism in an Aspiring Muslim Democracy*. Minneapolis, MN: University of Minnesota Press.

**Stevan Z. Knezevic** **Northeast Research and Extension Center**

Editor. *Guide for Weed Management in Nebraska*. Lincoln, NE: University of Nebraska–Lincoln Printing Services.

**Yaroslav Komarovski** **Classics and Religious Studies**

Author. *Tibetan Buddhism and Mystical Experience*. New York, NY: Oxford University Press.

**William L. Kranz** **Northeast Research and Extension Center**

Editor. *Irrigation and Nitrogen Management: User Education/Certification Program*. Lincoln, NE: University of Nebraska–Lincoln Printing Services.

**Brian D. Lepard** **College of Law**

Author. *Section 482 Allocations: Specific Allocation Methods and Rules in the Code and Regulations*. Arlington, VA: Bloomberg BNA.

**Carole Levin** **History**

Author. *Scholars And Poets Talk About Queens*. New York, NY: Palgrave Macmillan.

**Suping Lu** **University Libraries**

Editor. 英国外交官和英美海军军官的记载——日军大屠杀与浩劫后的南京城 (*British Diplomats, Royal and U. S. Navy Officers Record: Japanese Atrocities and the Aftermath at Nanjing*). Nanjing, China: Nanjing Publishing Press.

**Tom Lynch** **English**

Editor, with Paul A. Johnsgard, School of Biological Sciences, and Jack Phillips. *Natural Treasures of the Great Plains: An Ecological Perspective*. Lincoln, NE: Prairie Chronicles Press.

**Colleen E. Medill** **College of Law**

Author. *Introduction to Employee Benefits Law: Policy and Practice*. St. Paul, MN: West Academic Publishing.

**Richard Moberly** **College of Law**

Editor, with A.J. Brown, David Lewis and Wim Vandekerckhove. *International Handbook on Whistleblowing Research*. Cheltenham, UK: Edward Elgar.

**Chigozie Obioma** **English**

Author. *The Fishermen*. New York, NY: Little, Brown and Company.



**David L. Olson****Management**

Author. *Information Systems Project Management*. New York, NY: Business Expert Press.

Author, with Desheng Dash Wu. *Enterprise Risk Management (2nd ed.)*. Singapore: World Scientific.

Author. *Supply Chain Risk Management: Tools for Analysis (2nd ed.)*. New York, NY: Business Expert Press.

Author. *Supply Chain Information Technology (2nd ed.)*. New York, NY: Business Expert Press.

**Asit K. Pattnaik****School of Veterinary Medicine  
and Biomedical Sciences**

Editor, with Michael A. Ahitt. *Biology and Pathogenesis of Rhabdoviruses and Filoviruses*. Singapore: World Scientific.

**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.

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

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

### **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.

### **Amy Topp**

### **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

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**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****Women's and Gender Studies**

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

**Julie Honaker****Special Education and  
Communication Disorders**

Editor's Award, *American Journal of Audiology*

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

**Suat Irmak, Jenny Rees,  
Brandy VanDeWalle, Gary Zoubek****Biological Systems  
Engineering**

National Innovative Programs and Partnership Award, USDA-NIFA

**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****News-Editorial**

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

**Carole Levin****History**

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

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

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

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

**Xu Li****Civil Engineering**

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

**Kathleen Lodi****Cooperative Extension**

Most Influential in STEM 2015, *After School Today*

**Suping Lu****University Libraries**

Special Contribution Award Medallion, Nanjing Massacre  
Memorial Museum

**Joe D. Luck****Biological Systems Engineering**

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

**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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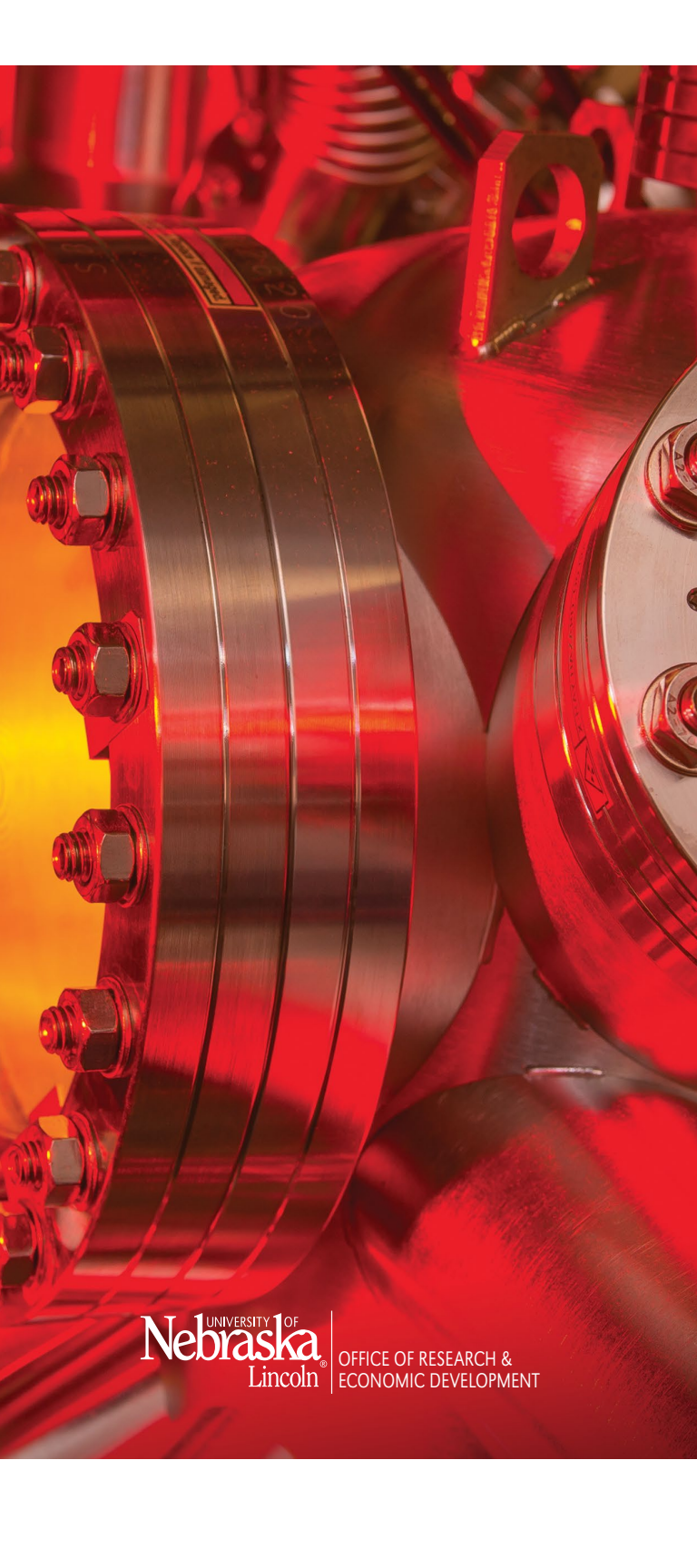
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