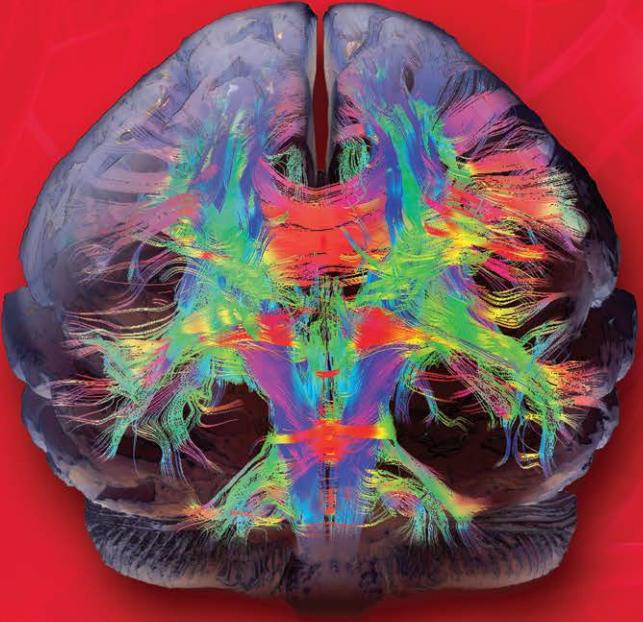


Research and Creative Activity



July 1, 2012 – June 30, 2013

Major Sponsored Programs
and Faculty Awards
for Research and Creative Activity

Office of Research and Economic Development
University of Nebraska-Lincoln



3	Awards of \$3 million or more
24	Awards of \$1 million to \$2,999,999
35	Awards of \$200,000 to \$999,999
76	American Recovery and Reinvestment Act Awards
81	Early Career Awards
83	Arts and Humanities Awards of \$50,000 or more
89	Arts and Humanities Awards of \$5,000 to \$49,999
91	License Agreements
98	Creative Activity
100	Books
107	Recognitions and Honors
112	Glossary

On the Cover: The University of Nebraska–Lincoln’s new Center for Brain, Biology and Behavior is poised to be a leader in exploring how brain functioning affects human behavior. The center’s multidisciplinary focus, state-of-the-art equipment and a unique partnership between UNL research and athletics expand our research capacity in a range of disciplines, including growing expertise in concussion research. The cover illustration shows fiber tracks of the brain, an example of information the center can capture through magnetic resonance imaging and other functional imaging software. *(Illustration/design by Joel Brehm/Rob Cope; diffusion tensor image courtesy Siemens Press Pictures)*



Vice Chancellor Prem Paul and Chancellor Harvey Perlman

This twelfth annual “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, 2012–June 30, 2013. It lists the funding sources, projects and investigators on major grants and sponsored program awards received during the year; published books and scholarship; fellowships and other recognitions; intellectual property licenses; and performances and exhibitions in the fine and performing arts.

This impressive list grows each year and I am pleased to present evidence of our faculty’s accomplishments. Grants and contracts in a diverse range of fields—from education and child development, to food safety, water and food security, from digital humanities to nanoscience—enable the UNL faculty to address grand challenges. Our total research expenditures of \$253 million in fiscal year 2012 represent a new record for UNL and, along with an impressive list of publications and awards, reflect our faculty’s achievements.

With an eye to the future, we are expanding our reach by pursuing interdisciplinary initiatives and partnerships necessary to tackle today’s complex issues. We are cultivating innovative collaborations across disciplinary, institutional, state and national boundaries to solve global challenges, address national needs and enhance Nebraska’s economy. And we are partnering with business, industry and entrepreneurs to ensure that we maximize the social and economic benefits of UNL research.

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!

Prem S. Paul
Vice Chancellor for Research
and Economic Development

AWARDS OF \$3 MILLION OR MORE

Active awards, July 1, 2012-June 30, 2013

* Indicates new in 2012-2013

Allen, Craig

Natural Resources

IGERT: Resilience and Adaptive
Governance in Stressed Watersheds

\$3,116,173

NSF

8/15/09 - 7/31/14

Fritz, Sherilyn
Samal, Ashok
Tyre, Richard
Tomkins, Alan

Earth and Atmospheric Sciences
Computer Science and Engineering
Natural Resources
Law/Public Policy Center



Wildlife ecologist Craig Allen, with a grant from the National Science Foundation's Integrative Graduate Education and Research Traineeship Program, known as IGERT, leads an innovative, interdisciplinary graduate education program to prepare future scientists, policymakers and natural resource managers to address increasingly complex global water issues. The five-year grant funds an education project focused on resilience and adaptive governance in stressed watersheds. Doctoral students from many disciplines across the natural, computational and social sciences study resilience and adaptive management strategies for stressed watersheds in the U.S. and Eastern Europe. The program integrates scientific, socioeconomic and legal aspects involved in studying and managing complex systems of people and nature.

Becker, Donald

Biochemistry

Redox Biology Center

\$4,336,262

NIH-NIGMS

9/1/12 - 7/31/17



Donald Becker, professor of biochemistry in the Institute of Agriculture and Natural Resources, is the director of the Redox Biology Center. Established in 2002 with a grant from the National Institutes of Health as a Center of Biomedical Research Excellence, the center received a competitive renewal grant in 2007 to support it through 2012. The center's researchers investigate how cells maintain a reduction-oxidation balance, a process called redox homeostasis, and study links between redox homeostasis and diseases such as cancer, cardiovascular disease, Alzheimer's disease and cataracts. The center's research will provide important advances in the understanding of redox regulation, comprising aspects of cellular aging and controlled cell death.

Buchholz, Wallace **Chemical and Biomolecular Engineering**

Therapeutic Countermeasures against the Botulinum Neurotoxin
in Support of USAMRIID Botulinum Therapeutic Program

\$3,875,001

DoD-DTRA

8/16/10 – 3/31/15



Wallace Buchholz is the director of the Biological Process Development Facility, which provides clients with process research and early manufacture of new therapeutic molecules for clinical testing. Supported in part by funding from the Department of Defense, the BPDF also develops vaccines against biological warfare agents, as well as products that can be used as therapeutic countermeasures to treat people who have been exposed to biological agents.

Cotton, Dan

eXtension

eXtension Building Cooperative Extension's 21st Century Network

\$6,626,640

USDA-NIFA

9/1/11 – 8/31/16

National eXtension Project

\$19,270,000

Association of Public

10/1/04 – 12/31/15

and Land-Grant Universities

eXtension: The Transformation of Cooperative Extension

\$5,961,221

USDA-CSREES

8/15/07 – 8/14/12



Dan Cotton directs the eXtension Initiative, an Internet-based Cooperative Extension Service education and information system. UNL is the lead institution in this multi-year project, which partners with the University of Kentucky, North Carolina State University and Virginia Tech University. This is a 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 to develop 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.

DiLillo, David

Sexual Revictimization: Emotional and Psychosocial Mechanisms

\$3,413,219

7/15/10 – 6/30/15

Hoffman, Lesa

Psychology

NIH-NICHD

Psychology



The National Institute of Child Health and Human Development is supporting the work of psychologist David DiLillo to study the problem of “revictimization” – the phenomenon in which women who suffered abuse during childhood or adolescence are up to 10 times more likely to be sexually victimized again as adults. This multi-site project is examining the processes that link early maltreatment to adult revictimization, in particular focusing on mechanisms related to psychopathology, sexual risk taking and alcohol use. Drawing on recent theoretical and empirical findings, DiLillo’s team proposes that difficulties regulating emotions stemming from early abuse create underlying risk factors for the more immediate predictors of revictimization. Together, these findings will permit the testing of a comprehensive model of revictimization.

Duppong Hurley, Kristin

Special Education and Communication Disorders

* Parent Connectors: An Efficacy Study of Peer-Support

for Parents of Middle-School Youth with Emotional Disturbance

\$3,206,013

ED-IES

7/1/13 – 6/30/17

Epstein, Michael

Special Education and Communication Disorders

Torkelson-Trout, Alexandra

Special Education and Communication Disorders



With support from a \$3.2 million grant from the U.S. Department of Education’s Institute of Education Sciences, Kristin Duppong Hurley, research associate professor of special education and communication disorders, and colleagues are evaluating a unique new program that uses parent-to-parent support to encourage families to get connected to services to help their children be successful in school. The four-year grant enables UNL researchers to evaluate the Parent Connectors Program, originally developed by researchers at the University of South Florida with U.S. Department of Education funding. This intervention program encourages parents of middle school-aged children with emotional or behavioral disorders to get involved in their children’s education and help them access available mental health and school services. UNL’s team is evaluating the program’s effectiveness through a randomized control trial involving about 250 families of Nebraska middle school students in the Lincoln and metro Omaha areas who have Individualized Education Programs for emotional or behavioral needs.

Dussault, Patrick**Chemistry**

Building Infrastructure in Nanohybrid Materials and
Algal Biology Research

\$11,100,982

NSF-EPSCoR

10/01/10 - 09/30/15

Bailey, Cheryl

Biochemistry

Black, Paul

Biochemistry

Cahoon, Edgar

Biochemistry/
Center for Plant Science Innovation/
Biological Sciences/
Center for Plant Science Innovation
Agronomy and Horticulture/
Center for Plant Science Innovation
Biochemistry/
Nutrition and Health Sciences
Chemistry

Cerutti, Heriberto

Clemente, Thomas

DiRusso, Concetta

Hage, David

Han, Ming

Hudgins, Jerry

Ianno, Natale

Lai, Rebecca

Lu, Yongfeng

Morris, T. Jack

Schubert, Eva

Schubert, Mathias

Spreitzer, Robert

Takacs, James

Van Etten, James

Weeks, Donald

Electrical Engineering

Electrical Engineering

Electrical Engineering

Chemistry

Electrical Engineering

Biological Sciences

Electrical Engineering

Electrical Engineering

Biochemistry

Chemistry

Plant Pathology

Biochemistry



UNL's planned Center for Nanohybrid Functional Materials will combine 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 will be led by Patrick Dussault, Charles Bessey

Professor of Chemistry, and Mathias Schubert, associate professor of electrical engineering. The center will bring 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 will expand on UNL's research in developing algal compounds of high value to

society, such as specialty chemicals and drugs for humans or animals and will be 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 – 9/29/13

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. Co-leaders of the project are Mark Ells and Michelle Graef of the Center on Children, Families and the Law.

Espy, Kimberly Andrews**Psychology**

Executive Function Development in Preschool Children

\$3,258,301

NIH-NIMH

8/26/09 – 5/31/14

Sheridan, Susan

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

Carlo, Gustavo

Psychology

Schutte, Anne

Psychology



With support from the NIH National Institute of Mental Health, Kim Espy, adjunct professor of psychology, is researching executive control in children, which has been shown to be a precursor to childhood externalizing disorders (including ADHD). The objective of this project is to determine how executive control relates to later functional outcomes, the next step toward clinical application. Espy's research will elucidate the fundamental mechanisms that go awry in childhood psychopathology and identify precursors for use in future work to tailor preventive interventions to those who stand to benefit most.

Harwood, David**Earth and Atmospheric Sciences**

ANDRILL: Investigating Antarctica's Role
in Cenozoic Global Environmental Change

\$12,978,160

NSF

6/1/05 - 7/31/14

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.

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

1/1/13 - 12/31/18

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



The USDA's Agriculture and Food Research Initiative has awarded \$3.375 million to a team led by Gary Hein, professor of entomology and director of UNL's Doctor of Plant Health Program, to develop a forecasting model that can help wheat growers predict the risk for mite-transmitted virus disease and make more effective management decisions. Beneficiaries of this 5-year project include wheat growers in the Great Plains from Montana to Texas, who produce over 1 billion bushels of wheat annually. In addition, the project provides opportunities and resources for students and teachers (graduate, undergraduate, G4-12 science teachers and their students) who can use information about management of this wheat-mite-virus complex to demonstrate the principles of biology, ecology and integrated pest management.

Hogan, Tiffany

**Special Education and
Communication Disorders**

Language Bases of Skilled Reading Comprehension
\$4,344,886 ED-IES through The Ohio State University
7/1/10 – 6/30/15
Bovaird, James

Educational Psychology/
Nebraska Center for Research on
Children, Youth, Families and Schools
Special Education and
Communication Disorders

Nelson, J. Ron



A UNL team led by Tiffany Hogan in the Department of Special Education and Communication Disorders is collaborating with researchers at The Ohio State University, University of Kansas and Arizona State University to study the language bases of skilled reading comprehension in 4- to 8-year-old children. The UNL researchers are working with local school districts to assess reading comprehension in approximately 300 children aged 4 to 8. They also work with other teams to develop instructional materials and procedures to improve reading comprehension and will then examine the effectiveness of those materials and procedures. The primary goal is to determine the feasibility and efficacy of instruction focused on basic and higher-order language skills for improving children’s reading comprehension in the short- and long-term.

Johnson, Scott

Biological Process Development Facility

Process Research, Development and
Manufacturing of 5P12 RANTES
\$3,806,494 Mintaka Foundation for Medical Research
3/1/10 – 12/31/13
Van Cott, Kevin

Chemical and Biomolecular Engineering



Mintaka Foundation for Medical Research is supporting the BPDF’s development of a process to produce a cream containing 5P12-RANTES, a protein widely considered to be one of the most promising candidates for use as a topical HIV prevention agent.

Lewis, Jim**Mathematics/Center for Science,
Mathematics and Computer Education**Nebraska NOYCE: NSF Mathematics Teaching
and Master Teaching Fellows Program

\$3,000,000

NSF

9/1/10 – 8/31/16

Fowler, David

Teaching, Learning and Teacher Education

Kauffman, Douglas

Educational Psychology

Papick, Ira

Mathematics/Center for Science,

Mathematics and Computer Education

Smith, Wendy

Center for Science, Mathematics and

Computer Education

Swidler, Scott

Teaching, Learning and Teacher Education



A team led by Jim Lewis, Aaron Douglas Professor of Mathematics and director of UNL's Center for Science, Mathematics and Computer Education, has secured a six-year, \$3 million grant from the National Science Foundation to improve math education. The grant is through NSF's Robert Noyce Teacher

Scholarship program, which aims to encourage talented science, technology, engineering and mathematics majors and professionals to become K-12 mathematics and science teachers in "high-need" classrooms. The math program covers tuition, fees and a stipend for 16 students who are pursuing master's degrees from the Department of Teaching, Learning and Teacher Education and certification to teach math for grades 7-12. Fellowship recipients also receive a supplementary stipend from UNL while they teach for four years in a high-need school district. The grant also provides professional development and stipends for 24 strong, master's-degree-holding, K-12 teachers who commit to teaching in a high-need district for five years. The selected "master teaching fellows" take courses that will give them the skills they need to improve math education in their schools and school districts. The program builds on previous successful efforts to enhance mathematics teaching and learning in Nebraska schools, including the Math in the Middle Institute and NebraskaMATH.

NebraskaMATH

\$9,235,407

NSF

1/1/09 – 12/31/13

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

Jim Lewis, professor of mathematics; Ruth Heaton, associate professor of teaching, learning and teacher education; Thomas McGowan, professor of teaching, learning and teacher education; Carolyn Edwards, professor of psychology; Ira Papick, professor of mathematics; and Barbara Jacobson, curriculum director for Lincoln Public Schools, are directing NebraskaMATH, 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.

Lodi, Kathleen

Extension

Child Care and Youth Training and Technical Assistance Project
\$7,045,455

USDA-NIFA

7/1/10 - 8/31/14

Durden, Tonia

Child, Youth and Family Studies



With support from the U.S. Department of Agriculture's National Institute of Food and Agriculture, UNL Extension is working with counterparts at Penn State University to develop and deliver content and provide programming for a nationwide educational program to help the children of military

families succeed as they enter the school system. The three-year project, led by Kathleen Lodi, associate dean of UNL Extension, aims to develop and deliver early childhood professional development in 13 states, focusing on children through age 12 from military families who live off base. The goals of the program are to improve the quality of existing home and center-based child care and school-age/afterschool programs and to increase the number of military-connected children with access to services by increasing the number of practitioners. The Child and Youth TTAP will provide training and technical assistance to increase the knowledge and skills of child care providers and youth program staff. Content will be delivered to early childhood educators both face-to-face and online.

Lu, Yongfeng

Electrical Engineering

Multi-Energy Processing for Novel Coating Technologies

\$4,138,000

DoD-ONR

4/10/09 - 4/18/14



With the support of the Department of Defense's Office of Naval Research, Lott Professor of Electrical Engineering Yongfeng Lu, is undertaking a project to investigate and delineate the underlying science behind multi-energy processing, an emerging surface coating technology that will make surface

coatings stiffer, tougher and lighter for use in applications like thermal barriers, corrosion protection and interface tribology. Multi-energy processing can be used, for example, to deposit diamond and diamond-like carbon coatings in open atmosphere. The multi-energy processing approach is a marked improvement over conventional coating techniques that require high vacuum and high temperature. Lu is applying his fundamental understanding of multi-energy processing to develop a new multi-laser-beam, low-temperature, open-atmosphere, contamination-free surface coating technique to deposit hard coating materials from gaseous and polymeric precursors on various substrates, resulting in optimized efficiency, improved quality and minimal thermal stress.

Lubben, Bradley

Agricultural Economics

North Central Risk Management Education Center

\$3,506,736

USDA-NIFA

9/1/12 - 8/31/15



The North Central Risk Management Education Center provides program leadership and coordination for risk management education in the North Central Region (Kansas, Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Nebraska, Ohio, North Dakota, South Dakota and

Wisconsin). It is one of four risk management education centers in the United States. They were established in 2001 to provide risk management education for agricultural producers to help them develop knowledge, skills and tools needed to make informed risk management decisions for their operations.

Moxley, Rodney

Veterinary Medicine and Biomedical Sciences

Shiga-Toxicogenic *Escherichia coli* (STEC) in the Beef Chain:

Assessing and Mitigating the Risk by

Translational Science, Education and Outreach

\$24,812,267

USDA-AFRI

1/1/12 - 12/31/13

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.

Pope, Kevin

Natural Resources

Angler Behavior in Response to Management
Actions on Nebraska Reservoirs

\$3,147,776

Nebraska Game and Parks Commission

1/1/09 - 12/31/13



Kevin Pope, assistant unit leader-fisheries of the Nebraska Cooperative Fish and Wildlife Research Unit and associate professor in the School of Natural Resources, with support from the Nebraska Game and Parks Commission, will document the current participation levels of anglers in Nebraska's

lentic systems. In particular, participation levels of generic angling groups will be quantified among specific water bodies, and a model will be developed to describe generic angler participation (spatial and temporal) within a region. Such a model will help managers better determine appropriate lake-specific management objectives, given the dynamic nature of angler participation, and will be important for increased effectiveness of angler recruitment and retention activities throughout the Midwest.

Rilett, Laurence

**Civil Engineering/
Nebraska Transportation Center**

* Transportation Infrastructure - Visualizations & ITS Laboratory
\$3,171,651 DOT-FHWA through
Nebraska Department of Roads

6/5/12 – 6/30/15

Faller, Ronald

Civil Engineering/
Midwest Roadside Safety Facility

Sicking, Dean

Civil Engineering/
Midwest Roadside Safety Facility



The U.S. Department of Transportation has awarded \$3.1 million to a team led by Laurence Rilett, Keith W. Klaasmeyer Chair in Engineering and Technology in UNL’s civil engineering department and director of the Nebraska Transportation Center (NTC), to conduct research related to 1) visualization and modeling on non-linear material behavior that is critical for new roadside safety devices; and 2) identifying promising safety and risk mitigation tools. As part of this research, funds will support state-of-the art ITS infrastructure (laboratory and test beds) and visualization capabilities in the NTC space in the Whittier Research Center on the UNL campus. The goal is to develop advanced technologies that can be economically adapted to make the nation’s multi-modal transportation system safer.

Region 7 University Transportation Center

\$6,897,600 DOT-RITA

1/1/12 – 1/31/14

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. 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 will focus 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.

Rothermel, Gregg**Computer Science and Engineering**

Safeguarding End-User Military Software

\$3,975,935

DoD-AFOSR

9/1/10 – 8/31/14

Cohen, Myra

Computer Science and Engineering

Dwyer, Matthew

Computer Science and Engineering

Elbaum, Sebastian

Computer Science and Engineering

Sarma, Anita

Computer Science and Engineering

Srisa-An, Witawas

Computer Science and Engineering



A team of University of Nebraska–Lincoln software engineering researchers, headed by Gregg Rothermel, has received a nearly \$4 million grant from the U.S. Air Force’s Office of Scientific Research for a project to help find and fix faults in modern military systems. Military systems are a complex assembly of

hardware systems, software systems and human beings all interacting to achieve an overall mission objective. The goal of UNL’s ESQuaRed team (Laboratory for Empirically-based Software Quality Research and Development), part of the Department of Computer Science and Engineering, is to develop methods for modeling how people interact with software and hardware components and with each other in order to analyze the quality of the system as a whole. The information obtained as a result will be used to improve the dependability and safety of the systems.

Sellmyer, David**Physics and Astronomy/Nebraska Center for Materials and Nanoscience**Research and Develop Nanoscale Magneto-electronic,
Sensor and Energy Materials and Devices

\$5,864,300

DoD-ARO

9/24/10 – 9/23/13

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, professor of physics and astronomy, and colleagues in the Nebraska Center for Materials and Nanoscience, have received funding from the Army Research Office to support several efforts of high current interest in nanoscience and nanotechnology: 1) magneto-electronic and

sensor materials and devices, 2) nanomaterials for energy applications, and 3) development of a nanofabrication and characterization facility to support related research. Goals of the first project are to develop a high-sensitivity magnetoresistive sensor for both DC and high-frequency-band EMI magnetic field mapping; investigate new magnetic semiconductor systems for room-temperature spintronic applications; and research the fabrication of nanodot arrays for magnetic logic and information-processing operations. Research on nanomaterials for energy systems will involve fabrication of new nanomagnets for applications in motors and hybrid vehicles, as well as research on nanoparticles and nanoclusters on oxide structures likely to have

applications in energy production and environmental science. The third general area of this project involves the purchase and installation of a variety of state-of-the-art nanofabrication and characterization tools to be housed in the new NIST ARRA-supported Nanoscience Metrology Facility.

Cooperative Agreement to Research and Develop
High-Sensitivity Nanosensors for Defense Applications

\$4,260,001	DoD-ARO
9/25/09 – 9/24/13	
Dussault, Patrick	Chemistry
Lai, Rebecca	Chemistry
Liou, Sy-Hwang	Physics and Astronomy
Skomski, Ralph	Physics and Astronomy

The Department of Defense's Army Research Office also supports research to develop high-sensitivity nanosensors for defense applications. The key to improving the sensitivity of the magnetic sensors is to understand and control sources of noise and to understand the fundamental limitations due to both noise and signal. This research will provide clear pathways for applications developers to improve signal and reduce noise and lead to development of new materials for improving future sensors. In particular, there is considerable room for improvement in ferromagnetic materials. The project has important applications in the areas of homeland security, health care, information technology and nanotechnology.

Sheridan, Susan

**Educational Psychology/
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
07/01/12 – 06/30/16	
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



Getting Ready 2 is a continuation of the Getting Ready Project, a recently completed five-year study of parent engagement in children's learning. In this project, supported by the U.S. Department of Education's Institute of Education Sciences, Susan Sheridan, George Holmes University

Professor of educational psychology, and her team are implementing the Getting Ready (GR) intervention with preschool children at risk of significant delays in the two years prior to kindergarten, then tracking these children and their families through kindergarten. They are evaluating the efficacy of the Getting Ready intervention in enhancing cognitive, language and

S/E functioning as children complete preschool; its impact on parent engagement and parent-teacher relationships as children complete preschool; whether changes in parent engagement and parent-teacher relationships mediate the effects of the intervention on child outcomes as children complete preschool; and the long-term effects of the GR intervention through kindergarten.

Nebraska Center for Research on Rural Education (R2Ed)	
\$9,997,852	ED-IES
7/1/09 – 6/30/14	
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

Sheridan also 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.

Shulski, Martha

Regional Climate Services Support in the High Plains Region
 \$4,063,320
 Hubbard, Kenneth
 You, Jinsheng
 07/01/10 – 09/30/13

Natural Resources

DOC-NOAA
 Natural Resources
 Natural Resources



NOAA’s National Climatic Data Center (NCDC) contracts with the Regional Climate Centers (RCCs) to provide regional climate services. The six centers that comprise the RCC Program are engaged in the timely production and delivery of useful climate data, information and knowledge for decision makers and other users at the local, state, regional and national levels. This includes information that will inform planning and preparedness activities for natural hazards. To improve how climate information is used for drought planning, the center coordinates activities to engage the preparedness community to better integrate climate monitoring and analysis for mitigation and reduction of drought impacts.

Stowell, Richard**Biological Systems Engineering**

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

\$4,295,536

USDA-NIFA

4/1/11 – 3/31/16

Heemstra, Jill

Northeast Research and Extension Center

Koelsch, Richard

Biological Systems Engineering/Extension



University of Nebraska–Lincoln Extension has been awarded \$4.1 million from the National Institute of Food and Agriculture for a five-year project addressing climate change and animal agriculture issues, led by UNL Extension engineer Richard Stowell. Five other land-grant universities are partnering

in the project that will be facilitated through the Livestock and Poultry Environmental Learning Center. The overall goal of the proposed project is for Extension, working with partner organizations, to effectively inform and influence livestock and poultry producers and consumers of animal products in all regions of the U.S. to move animal production toward practices that are environmentally sound, climatically compatible and economically viable.

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

7/1/12 – 6/30/16

Duppong Hurley, Kristin

Special Education and Communication Disorders

Epstein, Michael

Special Education and Communication Disorders



Alexandra Torkelson-Trout, research associate professor in the Department of Special Education and Communication Disorders, leads a project funded by the Department of Education's Institute of Education Sciences to evaluate the "On the Way Home" aftercare program. This

12-month aftercare program is designed to improve the transition outcomes for youth with emotional and behavioral disorders or learning disabilities who have returned to the home, community and school following a stay in out-of-home care.

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, professor of physics and astronomy 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:
Quantum Spin

\$7,976,180

NSF

9/1/08 - 8/31/14

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.

Velander, William**Chemical and Biomolecular Engineering**

cGMP Recombinant FIX and Oral Hemophilia B Therapy

\$9,587,071

NIH-NHLBI

9/6/05 – 8/31/12

Van Cott, Kevin

Chemical and Biomolecular Engineering



William Velander, Donald R. Voelte Jr. and Nancy A. Keegan Endowed Chair in Engineering, is principal investigator in a partnership funded by a \$9.9 million grant from the National Institutes of Health/ National Heart, Lung and Blood Institute.

The goal is to develop an abundant, pure, safe and effective therapy for Hemophilia B using recombinant human coagulation proteins produced in the milk of transgenic pigs. The project builds on innovative bioengineering technologies pioneered by Velander that enable improved intravenous and novel oral delivery of hemophilic factors to patients. Hemophilia B is a congenital bleeding disorder that causes pain, crippling injuries and early death. It can be treated by Factor IX, a blood protein, but the costs are prohibitive and most patients do not receive it. Velander's project isolates Factor IX in the milk of transgenic pigs.

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



Harkamal Walia, professor of agronomy and horticulture, leads a three-year project supported by a more than \$2 million grant from the National Science Foundation to study salinity stress in rice. As agriculture is gradually pushed to marginal lands, and the freshwater supply fluctuates due to erratic

weather patterns, drought and salinity continue to challenge the ability to meet the food needs of an increasing population. A key strategy to address this grand challenge is to develop crops that are more resilient to saline and drought environments. Rice is arguably the most important crop for global food security and is also the most salt-sensitive of all major cereals. Walia and colleagues are studying phenotypic diversity in rice and underlying genetic variations for salinity adaptive responses. This work will ultimately help rice breeders develop salt-tolerant rice cultivars.

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

9/1/08 – 8/31/14

Holmes, Mary Anne

Earth and Atmospheric Sciences

McQuillan, Julia

Sociology

Manderscheid, David

Arts and Sciences

Wei, Timothy

Engineering

Yoder, Ron

Biological Systems Engineering



The National Science Foundation funds ADVANCE-Nebraska, a program intended to significantly increase the gender diversity of the UNL faculty, especially in the science, technology, engineering and mathematics (STEM) fields. The ADVANCE office, led by program director Mary Anne Holmes,

professor of practice of earth and atmospheric sciences, coordinates recruitment and retention-enhancing activities, disseminates information to the campus and the academic community at large, and serves as liaison for the many groups engaged in diversity-focused activities on campus. Other ADVANCE efforts include initiatives related to flexible work arrangements to accommodate work-life issues of faculty; development of a dual career partner program; training programs to minimize the influence of bias on decision-making processes; and informal networking through professional development workshops and retreats. The five-year, \$3.8 million grant is from NSF's ADVANCE program, which aims to increase participation and advancement of women in academic science and engineering careers.

Great Plains National Security
Education Consortium (GP-NSEC)

\$3,210,000

DoD-NGIA

9/23/09 – 9/22/14

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

The Great Plains National Security Education Consortium (GP-NSEC) is an Intelligence Community (IC) Center of Academic Excellence, located at UNL, in partnership with the University of Nebraska at Omaha, Creighton University and Bellevue University. By forming a partnership among four institutions that reach a diverse mix of students and aligning strong IC-relevant programs designed to meet differing academic and professional needs, GP-NSEC establishes a whole that is greater than the sum of its individual parts. The goal of GP-NSEC is to help prepare and diversify the next-generation IC workforce by providing rich academic, research, cultural immersion, and outreach activities focused on national security-related topics to talented students from a variety of backgrounds.

Wood, Charles

Biological Sciences/ Nebraska Center for Virology

Nebraska Center for Virology

\$5,538,387

NIH-NCRR

9/16/10 - 7/31/15



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

\$4,650,860

NIH-NCI

7/16/10 - 4/30/15

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.

Yohe, John

**Agronomy and Horticulture/
International Sorghum and Millet
Collaborative Research Support Program**

International Sorghum/Millet Collaborative
Research Support Program (INTSORMIL)

\$15,300,000

USAID

9/30/06 – 9/29/12

Heinrichs, Elvis

Entomology/INTSORMIL



John Yohe, associate professor in the Department of Agronomy and Horticulture, directs the International Sorghum/Millet (INTSORMIL) Collaborative Research Support Program. INTSORMIL is a collaborative international organization that supports research focused on improving nutrition and

increasing income in developing countries and the United States. Scientists from U.S. land grant universities collaborate with scientists in host countries in the development of technology to improve production and utilization of sorghum and millet and facilitate natural resource management. Their work is done in Africa, Eurasia, Latin America and the United States.

Transfer of Sorghum & Millet Production,
Processing & Marketing Technologies Program in Mali

\$4,215,409

USAID

9/21/07 – 10/31/12

John Yohe, with support from the U.S. Agency for International Development, is directing this project designed to improve sorghum and millet farmers' productivity and incomes in targeted areas of Mali by moving sorghum and millet production technologies onto farmers' fields, linking farmers' organizations to food and feed processors, and commercializing processing technologies. Ultimately, the project's goal is to improve the supply chain from the farm level to the consumer.

Awards of \$1 Million to \$2,999,999

Active awards, July 1, 2012-June 30, 2013

* Indicates new in 2012-2013

Alfano, James

Plant Pathology/ Center for Plant Science Innovation

Suppression of Innate Immunity
by ADP Ribosyltransferase Type III Effectors

\$1,797,433

NIH-NIAID

Azizinamini, Atorod

Civil Engineering/ Nebraska Transportation Center

Bridges for Service Life Beyond 100 Years: Innovative Systems

\$1,999,637

NAS-TRB

Baenziger, P. Stephen

Agronomy and Horticulture

Improving Barley and Wheat Germplasm
for Changing Environments

\$1,261,597

USDA through University of California, Davis

Lee, Donald

Agronomy and Horticulture

Regassa, Teshome

Agronomy and Horticulture

Waters, Brian

Agronomy and Horticulture

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

Barycki, Joseph

Biochemistry

Structural Insights into Redox Homeostasis

\$1,065,673

NIH-NIGMS

Becker, Donald

Biochemistry

Role of Proline in Redox Homeostasis and Apoptosis

\$1,089,521

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

\$1,118,025

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

Bevins, Rick	Pharmacological Interventions to Diminish Nicotine-Associated Responding	Psychology
\$1,437,004		NIH-NIDA
Bloom, Kenneth	Transatlantic Networking	Physics and Astronomy
\$2,070,000		DOE-Fermi National Laboratory
	U.S. CMS Operations at the LHC	
\$1,320,613		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	Value-Added Products from Renewable Biofuels	Biological Sciences
\$1,968,000		DOE
Cassman, Kenneth		Agronomy and Horticulture
Bond, Alan	Mechanisms of Social Cognition	Biological Sciences
\$1,458,126		NIH-NIMH
Kamil, Alan		Biological Sciences
Bulling, Denise	Nebraska Youth Suicide Prevention and Early Intervention	Public Policy Center
\$1,500,000		DHHS-SAMSHA through Nebraska Department of Health and Human Services
Cahoon, Edgar	Center for Metabolic Channeling for Enhanced Biofuel Systems	Biochemistry/ Center for Plant Science Innovation
\$1,412,772		DOE through Donald Danforth Plant Science Center
Carr, Timothy	Innovation and Collaboration: Creating a Transdisciplinary Childhood Obesity Prevention Graduate Program	Nutrition and Health Sciences
\$1,450,389		USDA-NIFA through South Dakota State University
Anderson-Knott, Mindy		Statistics
De Guzman, Maria		Child, Youth and Family Studies
Fischer, Jean		Nutrition and Health Sciences
Takahashi, Shinya		Nutrition and Health Sciences
Cassman, Kenneth	Global Yield Gap and Water Productivity Atlas	Agronomy and Horticulture
\$2,034,324		Bill & Melinda Gates Foundation
Grassini, Patricio		Agronomy and Horticulture

Chen, Bing **Computer and Electronics Engineering**
SPIRIT^2.0 Silicon Prairie Initiative for Robotics in IT
\$2,999,963 NSF

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

Cotton, Dan **eXtension**
Supporting Military Families and Youth Partnership
\$2,500,000 USDA-NIFA

Diamond, Judy **University of Nebraska State Museum**
Biology of Human: Understanding Ourselves
through the Lens of Current Biomedical Research
\$1,315,193 NIH-NCRR
Angeletti, Anisa Biological Sciences
Bailey, Cheryl Biochemistry
McQuillan, Julia Sociology
Wood, Charles Biological Sciences/
Nebraska Center for Virology

DiMagno, Stephen **Chemistry**
Synthesis of Radiofluorinated PET Imaging Agents
\$1,185,328 NIH-NIBIB

DiRusso, Concetta **Biochemistry/
Nutrition and Health Sciences**
High Throughput Screens for Fatty Acid Uptake Inhibitors
\$1,259,580 NIH-NIDDK
Black, Paul Biochemistry

Doll, Elizabeth **Educational Psychology**
NU Data: Using Data and Technology to Foster Achievement
\$1,496,461 ED
Horn, Christy Educational Psychology
Shope, Ronald Educational Psychology

Dzenis, Yuris **Mechanical & Materials Engineering**
NIRT: Nanomanufacturing and Analysis
of Active Hierarchical Nanofilamentary Nanostructures
\$1,000,000 NSF
Feng, Ruqiang Mechanical & Materials Engineering
Poser, Susan Law/Center for the Teaching
and Study of Applied Ethics
Tomkins, Alan Law/Public Policy Center
Turner, Joseph Mechanical & Materials Engineering
Zeng, Xiao Cheng Chemistry

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

Mountain Prairie Upgrade Partnership-Itinerant

\$1,199,400

ED

Bovaird, James

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

Welch, Greg

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

Indigenous Roots Teacher Education Program

\$1,249,142

ED

McGowan, Thomas

Teaching, Learning and Teacher Education

Espy, Kimberly Andrews**Psychology**Prenatal Smoking and the Substrates
of Disruptive Behavior in Early Life

\$2,159,795

NIH-NIDA

Garza, John

Psychology

Faller, Ronald**Civil Engineering/
Midwest Roadside Safety Facility**

* Roadside Safety Research

\$1,177,040

Industry Client

Reid, John

Mechanical & Materials Engineering

Sicking, Dean

Civil Engineering/
Midwest Roadside Safety Facility**Farritor, Shane****Mechanical & Materials Engineering**

Supporting Surgical Options in Space

\$1,350,000

NASA through UNMC

Goddard, Stephen

Computer Science and Engineering

Nelson, Carl

Mechanical & Materials Engineering

Perez, Lance

Electrical Engineering

Robots for Telesurgery Research

\$1,485,000

DoD-AMR through UNMC

Goddard, Stephen

Computer Science and Engineering

Nelson, Carl

Mechanical & Materials Engineering

Perez, Lance

Electrical Engineering

Feng, Ruqiang**Mechanical & Materials Engineering**Effect of Protective Devices on Brain Trauma Mechanics
under Idealized Shock Wave Loading

\$2,678,119

DoD-ARO

Gu, Linxia

Mechanical & Materials Engineering

Lim, Jung Yul

Mechanical & Materials Engineering

Negahban, Mehrdad

Mechanical & Materials Engineering

Nelson, Carl

Mechanical & Materials Engineering

Turner, Joseph

Mechanical & Materials Engineering

Green, Jordan**Special Education and
Communication Disorders**

Bulbar Motor Deterioration in ALS

\$2,294,633

NIH-NIDCD

Guretzky, John

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

Agronomy and Horticulture**Heinrichs, Elvis**

Identification and Release of Brown Midrib (BMR) Sorghum
 Varieties to Producers in Central America and Haiti
 \$1,100,000 USAID

Entomology/INTSORMIL**Hygnstrom, Scott**

Development of Spatially Explicit Models of Wildlife Diseases
 \$1,220,184 USDA-APHIS

Natural Resources**Irmak, Suat**

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	Biological Systems Engineering
Martin, Derrel	Biological Systems Engineering
van Donk, Simon	Biological Systems Engineering
Verma, Shashi	Natural Resources

Biological Systems Engineering**Johnson, Scott**

USAMRAA CGMP Production Contract #1
 \$2,164,301 DoD-AMR

Van Cott, Kevin	Chemical and Biomolecular Engineering
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Biological Process Development Facility**Jones, David**

Strengthening Transitions into Engineering Program
 \$1,993,942 NSF

Ballard, John	Industrial and Management Systems Engineering
Perez, Lance	Electrical Engineering

Biological Systems Engineering**Josiah, Scott**

Cooperative Forestry Program
 \$1,165,139 USDA-FS
 10/1/11 – 9/30/16

Nebraska State Forest Service

Koszewski, Wanda **Nutrition and Health Sciences**
 Supplemental Nutrition Assistance Program (SNAP-ED)
 \$1,434,538 USDA-FNS through Nebraska Department of
 Health and Human Services
 Nutrition and Health Sciences
 Boeckner, Linda
 Lodi, Kathleen Extension

Lee, Jaekwon **Biochemistry**
 Mechanistic Insights into Cellular Metal Detoxification
 \$1,408,563 NIH-NIEHS

Lewis, Elizabeth **Teaching, Learning and Teacher Education**
 UNL Science Scholars Program
 \$1,194,387 NSF
 Bonnstetter, Ron Teaching, Learning and Teacher Education
 Claes, Daniel Physics and Astronomy
 Gosselin, David Natural Resources
 Heng-Moss, Tiffany Entomology
 Swidler, Scott Teaching, Learning and Teacher Education

Li, Ming **Psychology**
 * Serotonin, Maternal Behavior and Postpartum Depression
 \$1,497,476 NIH-NIMH
 Behavioral Mechanisms of Antipsychotic Action
 \$1,424,409 NIH-NIMH

Li, Qingsheng **Biological Sciences**
 The Early Events Determining SIV Rectal Transmission
 \$1,357,811 NIH-NIDDK

Lou, Marjorie **Veterinary Medicine and
Biomedical Sciences**
 Protein-Thiol Mixed Disulfide in Cataractogenesis
 \$2,083,886 NIH-NEI

Marley, Tom **Mathematics**
 EMSW21-MCTP: Nebraska Mentoring
 through Critical Transition Points
 \$2,225,689 NSF
 Donsig, Allan Mathematics
 Walker, Judy Mathematics

McCutcheon, Allan **Survey Research and Methodology/
Gallup Research Center**
 Reducing Error in Computer Survey Data Collection
 \$2,967,347 NSF
 Belli, Robert Psychology/Gallup Research Center
 Olson, Kristin Sociology/Gallup Research Center
 Smyth, Jolene Sociology/Gallup Research Center
 Soh, Leen-Kiat Computer Science and Engineering

Mendoza-Gorham, Joan	Student Affairs
\$1,312,500	Lincoln Upward Bound ED
\$1,312,500	Upward Bound Math/Science Program ED
Molfese, Victoria	Child, Youth and Family Studies
\$1,393,519	* Development Implications of Early Childhood Sleep NIH-NICHD through Indiana University Psychology
Molfese, Dennis	Rudasill, Kathleen
	Educational Psychology
Oyler, George	Biochemistry
\$1,672,123	Consortium for Commercialization of Algae Biofuels and Biotechnology DOE through University of California, San Diego Biological Sciences/ Center for Plant Science Innovation Biological Sciences Plant Pathology Biochemistry
Cerutti, Heriberto	Nickerson, Kenneth
	Van Etten, James
	Weeks, Donald
Pickard, Gary	Veterinary Medicine and Biomedical Sciences
\$1,765,147	Homeostatic Regulation of Peripheral Oscillators via Autonomic Circuitry NIH-NINDS
Sollars, Patricia	Veterinary Medicine and Biomedical Sciences
Redepenning, Jody	Chemistry
\$1,358,000	Bioceramic Bones for Battlefield Traumas DoD-AMR
Robertson Jr., Vaughn	Student Affairs
\$2,082,071	UNL Educational Talent Search ED
Rutenbeck, Kathy	Student Affairs
\$1,449,278	Upward Bound-Northeast Nebraska ED
Scott, Stephen	Computer Science and Engineering
\$1,371,121	An Extensible Semantic Bridge between Biodiversity and Genomics NSF
Henninger, Scott	Computer Science and Engineering
Jameson, Mary Liz	University of Nebraska State Museum
Moriyama, Etsuko	Biological Sciences/ Center for Plant Science Innovation
Soh, Leen-Kiat	Computer Science and Engineering
Sellmyer, David	Physics and Astronomy
\$1,197,462	Beyond Rare Earth Magnets 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

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

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
Development of a Three-Tiered Model in Early Intervention to Address Language and Literacy Needs of Children at Risk	
\$1,499,511	ED-IES
Ihlo, Tanya	Nebraska Center for Research on Children, Youth, Families and Schools
Knoche, Lisa	Nebraska Center for Research on Children, Youth, Families and Schools

Shi, Jonathan**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
Shen, Zhigang	Durham School of Architectural Engineering and Construction
Stansbury, John	Civil Engineering
Zhang, Tian	Civil Engineering

Simpson, Melanie	Biochemistry
* Mechanisms of Hyaluronan Signaling and Turnover in Prostate Cancer	
\$1,512,893	NIH-NCI
Harris, Edward	Biochemistry
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
Dynamics of Few-Body Atomic Processes	
\$1,816,554	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 Flores, Carlos	Panhandle Research and Extension Center
Storz, Jay	Biological Sciences
Mechanisms of Hemoglobin Adaptation to Hypoxia in High-Altitude Rodents	
\$1,411,572	NIH-NHLBI
Moriyama, Hideaki	Biological Sciences/ Center for Biotechnology
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
Tsymbal, Evgeny	Physics and Astronomy
Cyberinfrastructure-Enabled Computational Nanoscience for Energy Technologies	
\$2,587,878	NSF
Swanson, David	Computer Science and Engineering

Umstadter, Donald**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

Compact Source of Laser-Driven Monoenergetic Gamma-Rays
\$2,982,685

DoD-DTRA

Laser Produced Coherent X-Ray Sources

\$1,245,000

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

Verma, Shashi**Natural Resources**

Carbon Sequestration in Dryland & Irrigated Agroecosystems

\$2,364,500

DOE

Arkebauer, Timothy

Agronomy and Horticulture

Cassman, Kenneth

Agronomy and Horticulture

Hubbard, Kenneth

Natural Resources

Knops, Johannes

Biological Sciences

Suyker, Andrew

Natural Resources

Walters, Daniel

Agronomy and Horticulture

Viljoen, Hendrik**Chemical and Biomolecular Engineering**

A Rational Design of a Platform for de novo Gene Synthesis

\$1,312,056

NIH-NCRR

Subramanian, Anuradha

Chemical and Biomolecular Engineering

Walter, Jens**Food Science and Technology**

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

\$1,194,259

NIH-NIGMS

Benson, Andrew

Food Science and Technology

Peterson, Daniel

Food Science and Technology

Whitbeck, Les**Sociology**

Alcohol Abuse/Dependence and Its
Consequences for Indigenous Adolescents

\$1,404,987

NIH-NIAAA

Cheadle, Jacob

Sociology

Hoyt, Dan

Sociology

Resilience through the High School Years

\$2,609,905

NIH-NIMH

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

Redox Regulation of DJ-1 Function

\$1,597,595

NIH-NIGMS

Wood, Charles**Biological Sciences/
Nebraska Center for Virology**Neuropathogenesis and Neuroinvasiveness
of Subtype C Human Immunodeficiency Virus-1

\$1,715,746

DHHS-NINDS

Programs in HIV & AIDS Assoc Diseases/Malignancies

\$2,609,284

NIH-FIC

Research Training in Comparative Viral Pathogenesis

\$1,316,330

NIH-NIAID

Vaccination against Mucosal HIV Clade C Transmission

\$1,291,235

NIH-DFCI

Yamamoto, Catherine**Student Affairs**

Student Support Services Program

\$2,486,316

ED

Zempleni, Janos**Nutrition and Health Sciences**Biotin Deficiency Impairs Silencing
of Repeat Regions and Retrotransposons

\$1,224,019

NIH-NIDDK

Awards of \$200,000 - \$999,999

Active awards, July 1, 2012-June 30, 2013

* Indicates new in 2012-2013

Adamec, Jiri

Biochemistry

* Genetic & Genomic Approaches to Understanding

Long-Distance Transport and Carbon Partitioning in Plants

\$233,280

NSF through University of Missouri

Adenwalla, Shireen

Physics and Astronomy/ Center for Materials and Nanoscience

Magnetolectric Coupling in Ferroelectric/Ferromagnetic
Heterostructures: Beyond Volume Effects

\$395,020

NSF

Ducharme, Stephen

Physics and Astronomy

Gruverman, Alexei

Physics and Astronomy

Albrecht, Julie

Nutrition and Health Sciences

Food Safety for Diverse Families with Young Children

\$599,503

USDA-NIFA

Alexander, Dennis

Electrical Engineering

* Fundamental Studies of Femtosecond Pump Probe Techniques
for Killing and Assessment of Damage to Optical Components

\$330,000

DOD-AFRL

Ianno, Natale

Electrical Engineering

Ultrafast Laser Interaction Processes
for Libs & Other Sensing Technologies

\$702,784

DoD-ARO through University of Central Florida

Allen, Craig

Natural Resources

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

\$295,770

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

NCFWRU: Adaptive Management
for Nebraska Legacy Program Goals

\$200,000

Nebraska Game and Parks Commission

Fontaine, Joseph

Natural Resources

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

\$601,886

DOI-GS

Anderson, John

Economics

Clayton Yeutter Center for International Trade Phase I:
Trade Scholars Program

\$500,000

DOC-ITA

Anderson, Mark **Earth and Atmospheric Sciences**

Development of Northern Hemisphere
Snow & Ice Climate Data Records

\$247,874

NASA through Rutgers University

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

Azizinamini, Atorod **Civil Engineering**

Comprehensive Evaluation of Fracture Critical Bridges

\$286,348

Nebraska Department of Roads

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

Enhance Variety Development

of Scab Resistant Hard Winter Wheat Varieties in Nebraska

\$272,910

USDA-ARS

Wegulo, Stephen

Plant Pathology

Developing Small Grains Cultivars
Optimally Suited for Organic Production

\$755,937

USDA-NRICGP

Flores, Rolando

Food Science and Technology

Hein, Gary

Panhandle Research and Extension Center

Knezevic, Stevan

Northeast Research and Extension Center

Russell, William

Agronomy and Horticulture

Schlegel, Vicki

Food Science and Technology

Shapiro, Charles

Agronomy and Horticulture

Wegulo, Stephen

Plant Pathology

Wehling, Randy

Food Science and Technology

Balschweid, Mark**Agricultural Leadership,
Education and Communication**

* Soybean Market Journal

\$200,000

Harms, Kurtis

Nebraska Soybean Board

Agricultural Leadership,
Education and Communication

Schulte, Brandon

Agricultural Leadership,
Education and Communication

Wilkerson, Jeff

Agricultural Leadership,
Education and Communication**Barker, Bradley****4-H Youth Development**

4-H Robotics: Engineering for Today and Tomorrow

\$597,162

USDA-CSREES-National 4-H Headquarters

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

Design of Multi-Target D-Ala-D-Ala Ligase Ligands

\$204,322

NIH-NIAID through Southern Research Institute

Bartelt-Hunt, Shannon**Civil Engineering**Evaluating Air Emissions and Fuel Efficiency
of Solid Waste Collection Vehicles

\$262,602

Environmental Research & Education Foundation

Jones, Elizabeth

Civil Engineering

Fate and Bioavailability of Steroids in Aquatic Sediment

\$227,981

Snow, Daniel

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

\$506,998

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

\$473,000

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

Goodman, Richard
Peterson, DanielEPA
Food Science and Technology
Food Science and Technology

Becker, Donald **Biochemistry**

Coordination of Functions by Proline Metabolic Proteins
\$536,000 NIH-NIGMS through University of Missouri-Columbia

REU Site: Training in Redox Biology
\$278,500 NSF
Stone, Julie Biochemistry/Center for Plant Science Innovation

Belashchenko, Kirill **Physics and Astronomy**

First-Principles Theory of Thermal Effects in Spin Transport
\$225,000 NSF

Benson, Andrew **Food Science and Technology**

Microbiome Analysis of ConAgra Products
\$325,000 ConAgra

Berens, Charlyne **Journalism and Mass Communications**

Carnegie-Knight Initiative on the Future of Journalism Education
\$250,000 Carnegie Corporation of New York

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

Rehabilitation Engineering Research
Center on Communication Enhancement
\$392,328 ED through Duke University Medical Center

Billesbach, David **Biological Systems Engineering**

* The AmeriFlux Network Management Project
\$244,986 DOE through
University of California-Berkeley National Lab

SGP-Carbon Project
\$217,219 University of California-Berkeley National Lab

Bischoff, Richard **Child, Youth and Family Studies**

Improving Training in Rural Mental Health Care
through the Innovative Use of Technology and
the Application of Collaborative Care Models
\$455,062 USDA-CSREES
Reisbig, Allison Child, Youth and Family Studies
Springer, Paul Child, Youth and Family Studies

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**
 Cell Line Development, Early Stage Production
 and Establishment of a Research Cell Bank
 \$213,486 NovaDigm Therapeutics Inc.
- Uranium Mobilization by Extremely Thermoacidophilic Archaea
 \$513,000 DoD-DTRA through North Carolina State University
- REU Site: Bioenergy Systems
 \$274,987 NSF
 Cerutti, Heriberto Biological Sciences/
 Center for Plant Science Innovation
- Biohydrogenesis in the Thermotogales
 \$525,000 DOE through North Carolina State University
- Bobaru, Florin** **Mechanical & Materials Engineering**
 Predictive Models for Dynamic Brittle Fracture and Damage
 at High-Velocity Impact in Multilayered Targets
 \$257,020 DoD-ARO
- Bockelman, Brian** **Computer Science and Engineering**
 * CC-NIE Integration: Bringing Distributed
 High Throughput Computing to the Network with Lark
 \$573,344 NSF
- Brand, Jennifer** **Chemical and Biomolecular Engineering/
 Nebraska Center for
 Materials and Nanoscience**
 Quantifying Gamma/Neutron Discrimination in Gadolinium-Rich
 Real-Time Neutron Detection Materials and Devices
 \$349,664 DoD-DTRA
 Dowben, Peter Physics and Astronomy
 Hallbeck, Susan Mechanical & Materials Engineering/
 Biological Systems Engineering
- Brewer, Gary** **Entomology**
 * Biopesticide Management of Pasture Flies in the Great Plains
 via a Push-Pull Strategy
 \$200,000 USDA-NIFA
 Boxler, David West Central Research
 and Extension Center
- Brisson, Jennifer** **Biological Sciences**
 Contrasting Environmental and
 Genetic Controls of Alternative Phenotypes
 \$782,884 NIH-NIEHS
- Brown, Deborah** **Biological Sciences**
 Vaccine Strategies that Target Cytotoxic CD4 T Cells to the Lung
 \$398,919 NIH-NIAID
- Bulling, Denise** **Public Policy Center**
 Developing Nebraska's Homeland Security Planning Capacity
 \$300,000 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

\$240,448

EPA through Nebraska Department
of Environmental Quality

Pegg, Mark

Natural Resources

Pope, Kevin

Natural Resources

Thomas, Steven

Natural Resources

Coupled C, N and S Cycling in Coastal Plain Wetlands:
How Will Climate Change and Salt Water Intrusion Alter
Ecosystem Dynamics?

\$239,555

NSF

Cady, Daniel**Extension**

Nebraska Technology Transfer Center at UNL

\$609,780

Nebraska Department of Roads

Cahoon, Edgar**Biochemistry/
Center for Plant Science Innovation**Integrating the Regulatory Components
of Sphingolipid Biosynthesis in Arabidopsis

\$686,815

NSF

Stone, Julie

Biochemistry

Center for Enhanced Camelina Oil (CECO)

\$555,698

DOE through Donald Danforth
Plant Science CenterDevelopment of Bio-Based Lubricants
in a Dedicated Industrial Oilseed Crop

\$500,000

USDA-NIFA

Clemente, Thomas

Agronomy and Horticulture/
Center for Biotechnology/
Center for Plant Science InnovationProbing the Metabolic and Physiological Significance
of Sphingolipid Long-Chain Base Desaturation in Plants

\$550,500

NSF

Biochemical Genomics:

Quizzing the Chemical Factories of Oilseeds

\$979,028

NSF through Washington State University

BioCassava Plus

\$358,442

Bill & Melinda Gates Foundation through
Donald Danforth Plant Science Center**Cantrell, Randolph****Center for Applied Rural Innovation**

Marketing Rural Communities to Attract and Retain Workers

\$498,558

USDA-NRICGP

Burkhart-Kriesel, Cheryl

Panhandle Research
and Extension Center

- Cassman, Kenneth** **Agronomy and Horticulture**
 CGIAR Fund Office ISPC Chair
 \$970,147 World Bank Group-IBRD
- Centurion, Martin** **Physics and Astronomy**
 Ultrafast Imaging of Electronic Motion in Atoms and Molecules
 \$737,778 DoD-AFOSR
 Starace, Anthony Physics and Astronomy
- Cerutti, Heriberto** **Biological Sciences/
 Center for Plant Science Innovation**
 Histone H3 Phosphorylation and Gene Silencing
 in Chlamydomonas and Arabidopsis
 \$591,661 NSF
- Chambers, Jeffrey** **Center on Children, Family and the Law**
 * Nebraska Homeless Assistance Program -
 Homeless Management Information System
 Region VI and Balance of State
 \$202,221 Nebraska Department of Health and Human Services
- Cheung, Chin Li** **Chemistry**
 Boron Coatings for Scalable Solid-State Neuron Detectors
 \$400,000 DOE-Livermore National Laboratory
- Choueiry, Berthe** **Computer Science and Engineering**
 RI: Small: Towards Practical Tractability in Constraint Processing
 \$419,564 NSF
- Christensen, Alan** **Biological Sciences**
 EAGER: Plant Mitochondrial Transformation
 \$300,000 NSF
- Ci, Song** **Computer and Electronics Engineering**
 IHCS: ARMS: A Novel Adaptive Configurable Multi-Cell
 Battery System for Power-Aware Electronics
 \$299,626 NSF
 Alahmad, Mahmoud Durham School of Architectural
 Engineering and Construction
 Sharif-Kashani, Hamid Computer and Electronics Engineering
- Clemente, Thomas** **Agronomy and Horticulture/
 Center for Plant Science Innovation/
 Center for Biotechnology**
 Testing Replacement of Fishmeal and Fish Oil
 in *Seriola Rivoliana* (Kona Kampachi) Diet
 with Soy-Based Protein and Oil
 \$283,288 United Soybean Board/Smith/Bucklin
- Engineering Hydrocarbon Biosynthesis and Storage Together with
 Increased Photosynthetic Efficiency into the Saccharinase
 \$386,403 DOE through University of Illinois
 at Urbana-Champaign
- Necessary Resources to Aid in the Translation
 of Genomics Information into Applied Technologies
 \$421,598 NSF through University of Georgia

- Cohen, Myra** **Computer Science and Engineering**
 SHF: Medium: Regression Testing Techniques
 for Real-World Software Systems
 \$324,883 NSF
- Cotton, Dan** **eXtension**
 * eXtension Military Families Learning Network
 \$897,500 USDA-NIFA
- Cramer, Joel** **Nutrition and Health Sciences**
 * A Single Site, Double-Blind, Randomized, Placebo-Controlled,
 Crossover Trial to Evaluate the Safety and Potential Effects
 of the Dietary Supplement Anatabine
 on Delayed Onset Muscle Soreness in the Forearm Flexors
 \$377,456 Rock Creek Pharmaceuticals Inc.
 Housh, Terry Nutrition and Health Sciences
- Crockett, Lisa** **Psychology**
 An Ecological Model of Latino Youth Development
 \$315,000 NSF
 Buhs, Eric Educational Psychology
 Carranza, Miguel Sociology/Institute for Ethnic Studies
 De Guzman, Maria Child, Youth and Family Studies
- 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**
 * CSR: Small: Adaptive and Autonomous Energy Management
 on a Sensor Network Using Aerial Robots
 \$390,000 NSF
- RI: Small: Adaptive Sampling with Robots
 for Marine Observations
 \$249,971 NSF
- DiMagno, Stephen** **Chemistry**
 New Approaches to Catalyst Screening & Development
 \$435,000 NSF
- Dominguez, Aaron** **Physics and Astronomy**
 PIRE: Collaborative Research with the Paul Scherrer Institute
 and Eidgenoessische Technische Hochschule
 on Advanced Pixel Silicon Detectors for the CMS Detector
 \$782,447 NSF through University of Kansas
 Center for Research
 Bloom, Kenneth Physics and Astronomy

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

Doped Boron Carbide Polymers: Fundamental Studies of a Novel Class of Materials for Enhanced Radiation Detection
\$300,000 DoD-DTRA through University of North Texas

Du, Liangcheng **Chemistry**

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

Ducharme, Stephen **Physics and Astronomy/Nebraska Center for Materials and Nanoscience**

Ferroelectric-Enhanced Organic Electronics
\$225,000 NSF
Cheung, Chin Li Chemistry
Gruverman, Alexei Physics and Astronomy
Huang, Jinsong Mechanical & Materials Engineering

Dussault, Patrick **Chemistry**

New Reactions of Organic Peroxides
\$420,000 NSF

Dweikat, Ismail **Agronomy and Horticulture**

* Improvement of Millet Hybrid, Kenaf & Tropical Maize
\$220,000 Sola Agri Inc.

Characterization of Nitrogen Use Efficiency in Sweet Sorghum
\$390,000 DOE

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

Dzenis, Yuris **Mechanical & Materials Engineering**

* Combined Raman/SEM and Raman/FTIR System for High-Resolution Multispectral Analysis of Advanced Materials
\$450,128 DOD-AFOSR-DURIP

Advanced Single-Polymer Nanofiber-Reinforced Composite: Towards Next Generation Ultralight Superstrong/Tough Structural Material
\$595,285 DoD-AFOSR

MURI: Multiscale Design and Manufacturing of Hybrid DWCNT-Polymer Fibers
\$695,077 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

Enhancing the Dependability of Complex Missions
through Automated Analysis

\$548,852 DoD-AFOSR
Dwyer, Matthew Computer Science and Engineering

T2T: A Framework for Amplifying Testing Resources

\$491,688 NSF
Dwyer, Matthew Computer Science and Engineering

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

University of Nebraska’s Post-Doctoral Program
in Emotional Disturbance

\$643,776 ED

Randomized Clinical Trial of the Boys Town In-Home Program

\$621,989 Father Flanagan’s Boys’ Home
Duppong Hurley, Kristin Special Education and
Communication and Disorders

Leadership Training in Emotional Disturbance Disorders

\$601,733 ED
Duppong Hurley, Kristin Special Education and
Communication and Disorders

Torkelson-Trout, Alexandra Special Education and
Communication and Disorders

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

Fabrikant, Ilya **Physics and Astronomy**

Electron-Molecule Collisions in Different Environments

\$240,000 NSF

Faller, Ronald**Midwest Roadside Safety Facility**

* Dynamic Evaluation of Cable Guide Rail
with Strong and Standard J-Bolts under MASH

\$257,478

Bielenberg, Robert

Lechtenberg, Karla

Reid, John

Stolle, Cody

Nebraska Department of Roads

Midwest Roadside Safety Facility

Midwest Roadside Safety Facility

Mechanical & Materials Engineering

Midwest Roadside Safety Facility

Adaptation of the SAFER Barrier
for Roadside and Median Applications

\$990,000

Reid, John

Nebraska Department of Roads

Mechanical & Materials Engineering

Enhancement of Research Infrastructure
at the Midwest Roadside Safety Facility

\$346,000

Nebraska Department of Roads

Farritor, Shane**Mechanical & Materials Engineering**

Robotic Devices to Support Long-Term Human Space Flight

\$675,000

NASA through UNO

Feng, Song**Natural Resources**

Megadrought: Local vs. Remote Causal Factors
for Medieval North America

\$469,398

Hu, Qi (Steve)

Oglesby, Robert

Rowe, Clinton

NSF

Natural Resources

Earth and Atmospheric Sciences/
Natural Resources

Natural Resources

Earth and Atmospheric Sciences

Ferguson, Richard**Agronomy and Horticulture**

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

\$321,530

Irmak, Suat

Shaver, Timothy

van Donk, Simon

John Deere

Biological Systems Engineering

West Central Research and Extension Center

West Central Research and Extension Center

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

\$256,292

Luck, Joe

McCallister, Dennis

Public Power Generation Agency

Biological Systems Engineering

Agronomy and Horticulture

Fernando, Samodha**Animal Science**

* Dietary Intervention and Microbial Community Analysis
toward Methane Mitigation

\$749,941

Erickson, Galen

Jenkins, Karla

Klopfenstein, Terry

Luebbe, Matthew

Rasby, Richard

USDA-AFRI

Animal Science

Panhandle Research
and Extension Center

Animal Science

Panhandle Research
and Extension Center

Animal Science

- Flores, Rolando** **Food Science and Technology**
Midwest Advanced Food Manufacturing Alliance
\$319,775 USDA-CSREES
- Fomenko, Dmitri** **Biochemistry**
Methionine Sulfoxide Reduction, Selenium and Aging
\$248,679 NIH-NIA through Harvard
Med School-Brigham & Women's
- Fontaine, Joseph** **Natural Resources**
Assessing the Effects of Habitat Incentive Programs and
Public Access Programs on Pheasant Population Dynamics and
Hunter Harvest
\$405,382 Nebraska Game and Parks Commission
Powell, Larkin Natural Resources
- Assessing Landscape Constraints
on Habitat Management of Upland Birds
\$245,845 Nebraska Game and Parks Commission
Powell, Larkin Natural Resources
- Franco Cruz, Rodrigo** **Veterinary Medicine
and Biomedical Sciences**
* Thiol Redox Signaling in Neuronal Cell Death
\$214,500 American Heart Association
- Franti, Thomas** **Biological Systems Engineering**
Heartland Regional Water Coordination Initiative
\$571,988 USDA-CSREES through Iowa State University
Wortmann, Charles Agronomy and Horticulture
- Gardner, Scott** **Biological Sciences/
University of Nebraska State Museum**
Mongolia Vertebrate Parasite Project
\$627,491 NSF
- Enabling Access to Priority Taxa for Biodiversity Studies
in the Manter Laboratory of Parasitology
\$546,597 NSF
Jimenez-Ruiz, Francisco University of Nebraska State Museum
- Gaussoin, Roch** **Agronomy and Horticulture**
Evaluation of FRAC Group C Fungicides and Compounds
Designed to Amplify Physiological Benefits
on Mitochondrial and Whole Leaf Respiration
\$204,252 Syngenta
Schlegel, Vicki Food Science and Technology
- Gay, Timothy** **Physics and Astronomy**
* Polarized Electron Physics
\$635,000 NSF
- MRI: Development of a Rubidium Spin Filter
as a Source of Polarized Electrons
\$300,000 NSF
Batelaan, Herman Physics and Astronomy
Uiterwaal, Cornelis Physics and Astronomy

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

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

State-Wide Response-to-Intervention

Consortium for Training & Evaluation

\$458,330

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

Goodman, Richard**Food Science and Technology**

In Vitro IgE Testing of a Biotech Soybean Event LEPI 2800

\$225,755

Pioneer Hi-Bred

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

Online Master's Degree in Applied Science Education

\$540,345

Toyota USA Foundation

Bonnstetter, Ronald

Teaching, Learning and Teacher Education

Strand, Billie

Extended Education and Outreach

- Graef, George** **Agronomy and Horticulture**
 Quality Traits Regional Tests
 \$236,490 United Soybean Board/Smith/Bucklin
- Soybean Breeding and Genetic Research for Nebraska
 \$215,261 Nebraska Soybean Board
 Specht, James Agronomy and Horticulture
- Green, Jordan** **Special Education and Communication Disorders**
 Development of Childhood Chewing
 \$429,360 Nestec Ltd.
- 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 Resistive Switching Behavior
 of Ferroelectric and Multiferroic Tunnel Junctions
 \$750,000 DOE
 Tsymbal, Evgeny 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
- 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
- Gursoy, Mustafa** **Electrical Engineering**
 Energy Efficiency in Wireless Communications
 under Queuing Constraints
 \$335,856 NSF
 Velipasalar, Senem Electrical Engineering

Hage, David**Chemistry**

Chromatographic Automation of Immunoassays
 \$816,026 NIH-NIGMS

Microcolumns for Biomarker Detection
 \$250,000 DoD-DRMRP through SFC Fluids LLC

Hallbeck, M. Susan**Industrial and Management Systems Engineering**

VA Engineering Research Center
 \$450,986 VA Medical Center-Omaha
 Savory, Paul Management

Han, Ming**Electrical Engineering**

Highly Sensitive and Multiplexed Fiber-Optic Ultrasonic Sensors
 \$305,658 DoD

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

Harms, Peter**Management**

Comprehensive Soldier Fitness Program Assessment
 \$954,906 TKC Global Solutions
 Bien, Mary Management
 Bulling, Denise Public Policy Center
 Pearce, Craig Management

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

Harvey, F. Edwin**Natural Resources**

Investigation of the Role of Rainwater Basin Wetlands
 in Contributing to the Functions of Groundwater Recharge, Water
 Quality Improvement, and the Wildlife Habitat, Including an
 Assessment of the Impact of Sediment on These Functions
 \$386,520 Nebraska Game and Parks Commission

Hayes, Michael**Natural Resources**

Drought Mitigation, Nebraska Project
 \$558,401 USDA-NIFA
 Knutson, Cody Natural Resources
 Svoboda, Mark Natural Resources
 Wardlow, Brian Natural Resources

Heemstra, Jill**Northeast Research
and Extension Center**

Engaging Young Farmers and Ranchers
in Environmental Management Education

\$644,408

USDA-CSREES

Hein, Gary**Entomology**

National Needs Fellow: Integrated Practitioners
for Tomorrow's Sustainable Agricultural Systems

\$234,000

USDA-CSREES

Brewer, Gary

Entomology

Lagrimini, Mark

Agronomy and Horticulture

Steadman, James

Plant Pathology

Heng-Moss, Tiffany**Entomology**

Mitigating Insect Herbivory of Warm-Season Bioenergy Grasses –
Getting Ahead of the Curve

\$734,477

USDA-ARS

Bradshaw, Jeffrey

Entomology

Lagrimini, Mark

Agronomy and Horticulture

Hergert, Gary**Panhandle Research
and Extension Center**

Economic Implications of Reduced Ground Water Allocations
in the Nebraska Panhandle and Educational Programming
to Improve Management with Less Water

\$ 207,676

North Platte NRD

Enhancing Irrigation Management Tools & Developing
a Decision Support System for Managing Limited
Irrigation Supplies for the High Plains

\$249,999

USDA-RMA-FCIC

Burgener, Paul

Panhandle Research and Extension Center

Lyon, Drew

Panhandle Research and Extension Center

Martin, Derrel

Biological Systems Engineering

Pavlista, Alexander

Panhandle Research and Extension Center

Santra, Dipak

Panhandle Research and Extension Center

Supalla, Raymond

Agricultural Economics

Hibbing, John**Political Science**

DHB: Identifying the Biological Underpinnings
of Political Temperaments

\$587,068

NSF

Dodd, Michael

Psychology

Espy, Kimberly Andrews

Psychology

Smith, Kevin

Political Science

Wiebe, Sandra

Psychology

Higley, Leon**Natural Resources**

Establishing Blow Fly Development and Sampling Procedures
to Estimate Postmortem Intervals

\$483,323

DOJ-National Institute of Justice

Hofmann, Tino**Electrical Engineering**

Ellipsometric Materials Characterization
of Electronic Thin Film Heterostructures

\$217,868

DOC-NIST

Schubert, Mathias

Electrical Engineering

- Hogan, Tiffany** **Special Education and Communication Disorders**
 Working Memory and Word Learning in Children
 with Typical Development and Language Impairment
 \$586,879 NIH-NIDCD through Arizona State University
- Holmes, Mary Anne** **Earth and Atmospheric Sciences**
 Building a Community of Women Geoscience Leaders
 \$228,774 NSF
- Horn, Christy** **Equity, Access and Diversity Programs**
 Building Accepting Campus Communities
 \$976,900 ED
 Bruning, Roger Educational Psychology
 Sydik, Jeremy Equity, Access and Diversity Programs
- Houston, Adam** **Earth and Atmospheric Sciences**
 Criticality: A Theory for Understanding and
 Forecasting Deep Convective Initiation
 \$226,730 NSF
- 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
- Understanding and Predicting Tropical and
 North Atlantic SST Forcing on Variations
 in Warm Season Precipitation over North America
 \$292,000 DOC-NOAA
 Feng, Song Natural Resources
 Oglesby, Robert Earth and Atmospheric Sciences
- Huang, Jinsong** **Mechanical & Materials Engineering**
 * Room-Temperature Operation Single-Photon Detectors Based
 on Nanoparticle Super-Gated Organic Field Effect Transistors
 \$300,000 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
 \$300,000 DoD-DTRA

Hudgins, Jerry**Electrical Engineering**

A Roadway Wind/Solar Hybrid Power
Generation and Distribution System:
Towards Energy-Plus Roadways

\$999,504

Jones, Elizabeth

Qiao, Wei

Rilett, Laurence

Sharma, Anuj

DOT-FHWA

Civil Engineering

Electrical Engineering

Civil Engineering/

Nebraska Transportation Center

Civil Engineering

Hunt, William**Anthropology**

Pilot Project: A Multidisciplinary Exploratory Study
of Alpine Cairns, Baranof Island, Southeast Alaska

\$251,696

Hartley, Ralph

NSF

Anthropology

Hutkins, Robert**Food Science and Technology**

Assessing and Enhancing Stability
of Prebiotics in Processed Foods

\$444,920

Schlegel, Vicki

Wehling, Randy

USDA-NRICGP

Food Science and Technology

Food Science and Technology

Hynstrom, Scott**Natural Resources**

Outdoor U Program

\$252,790

Nebraska Game and Parks Commission

Irmak, Suat**Biological Systems Engineering**

* 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

Chatterjee, Sumantra

Djaman, Koffi

Mutiibwa, Denis

Odhiambo, Lameck

Skaggs, Kari

USDA-NRCS

Biological Systems Engineering

Biological Systems Engineering

Biological Systems Engineering

Biological Systems Engineering

Biological Systems Engineering

* Impact of Tillage Practices on Corn and Soybean Transpiration,
Nutrient Dynamics, and Crop Water Productivity

\$397,991

Eisenhauer, Dean

Gates, John

Nebraska Environmental Trust

Biological Systems Engineering

Earth and Atmospheric Sciences

Water Use, Surface Energy Balance, and
Vegetation Dynamics of Phragmites (*Phragmites australis*) in
the Central Platte River Valley

\$266,668

Central Platte NRD

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

Derived Categories of Complete Intersections
and Hochschild Cohomology
\$210,528 NSF

Jiang, Hong**Computer Science and Engineering**

CSR: Small: SANE:
Semantic-Aware Namespace in Exascale File Systems
\$249,053 NSF
Liu, Xue Computer Science and Engineering

Turbo Button: A Semantically Smart Flash Memory Layer
for Internet-Scale Storage Systems
\$471,631 NSF

CSR: Small: ProActive:
A RAID Protection Activator for High Availability
\$474,739 NSF

Johnson, Scott**Biological Process Development Facility**

STTR: Process Research, Development and
Stability Testing of cv-PDG-NLS.
\$763,023 DHHS-NIH through Restoration Genetics Inc
Van Cott, Kevin Chemical and Biomolecular Engineering

Process Research and Development of a *Streptococcus*
pneumoniae Whole Cell Vaccine (SPWVC)
\$578,920 PATH, through Bill & Melinda Gates Foundation

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

Analysis of Viral Factors that Regulate the
Bovine Herpesvirus 1 (BHV-1) Latency Reactivation Cycle
\$375,000 USDA-CSREES

Josiah, Scott**Nebraska State Forest Service**

Forest Legacy Program: Pine Ridge Project
\$500,000 USDA-FS

Pine Ridge Stewardship and Legacy Project:
Ferguson Property Acquisition
\$240,000 Nebraska Environmental Trust

Expansion of Hazelnut Production, Feedstock and
Biofuel Potential Through Breeding for
Disease Resistance and Climatic Adaption
\$389,224 USDA-CSREES through Oregon State University
Adams, Dennis Natural Resources
Hanna, Milford Industrial Agricultural Products Center

NRCS-Technical Service Provider Project
\$726,347 USDA-NRCS

Hazardous Fuels Reduction: Pine Ridge
\$250,000 USDA-FS

Khattak, Aemal**Civil Engineering**

HMEP Public Sector Planning Grant-Commodity Flow Survey
 \$300,000 Nebraska Military Department-NEMA
 Rilett, Laurence Civil Engineering/
 Nebraska Transportation Center

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

CPNRD Mapping Evapotranspiration
 with High Resolution Satellite Data
 \$325,789 Central Platte NRD

Kim, Yong Rak**Civil Engineering**

Asphalt Research Consortium
 \$425,000 DOT-FHWA through Texas A&M
 Research Foundation

Knops, Johannes**Biological Sciences**

ILTER: Biodiversity, Disturbance & Ecosystem Functioning
 at the Prairie-Forest Border
 \$200,280 NSF through University of Minnesota

Knutson, Cody**Natural Resources**

Transforming Climate Variability and Change Information
 for Cereal Crop Producers
 \$284,468 USDA-NIFA through Purdue University
 Shulski, Martha Natural Resources

Predictability and Prediction of Decadal Climate and Its
 Societal Impacts in the Missouri River Basin
 \$215,142 USDA-NIFA through Center for
 Research on Changing Earth System

Transition of an Interactive Drought Management Database
 for the Identification and Comparison
 of Drought Mitigation and Response Strategies
 \$203,861 DOC-NOAA
 Hayes, Michael Natural Resources

Koelsch, Richard**Biological Systems Engineering/
Extension**

Nebraska EIPM-CS Coordination Program
 \$669,915 USDA-CSREES
 Baxendale, Fred Entomology
 Bernards, Mark Agronomy and Horticulture
 Bradshaw, Jeffrey Panhandle Research and Extension Center
 Gaussoin, Roch Agronomy and Horticulture
 Hygnstrom, Scott Natural Resources
 Jackson, Tamra Plant Pathology
 Kamble, Shripat Entomology
 Ogg, Clyde Agronomy and Horticulture
 Reicher, Zac Agronomy and Horticulture
 Streich, Anne Agronomy and Horticulture
 Timmerman, Amy Plant Pathology
 Wright, Robert Entomology

Koszewski, Wanda

Growing Healthy Kids through Healthy Communities
 \$947,093
 Bergman, Gary

Nutrition and Health Sciences

USDA-AFRI
 Southeast Research and Extension Center

Kranz, William

Sustainable Energy Options for Rural Nebraska
 \$500,000
 Hay, Francis
 Hudgins, Jerry
 Isom, Loren
 Keshwani, Deepak
 Shelton, David

Northeast Research and Extension Center

DOE
 Biological Systems Engineering
 Electrical Engineering
 Industrial Agricultural Products Center
 Biological Systems Engineering
 Northeast Research and Extension Center

Krehbiel, Michelle

Nebraska CYFAR Sustainable Community Project
 \$627,967
 De Guzman, Maria

Extension

USDA-NIFA
 Child, Youth and Family Studies

Lackey, Susan

Developing Hydrogeologic Databases to Assist
 in Water Resources Management
 \$459,600

Natural Resources

Lower Elkhorn NRD

Developing Hydrogeologic Databases to Assist
 in Water Resources Management – UENRD
 \$203,353

Upper Elkhorn NRD

Langell, Marjorie

Metal Oxide Solid Solutions: Macroscopic to Nano-Scale
 \$449,855

Chemistry

NSF

GAANN Fellowships in Chemistry: Research First at UNL
 \$396,456

ED

Lee, Jaekwon

Mechanistic Insights into Copper Metabolism
 \$834,761
 Kim, Heejeong

Biochemistry

NIH-NIDDK
 Biochemistry

Lenters, John

Toward a Circumarctic Lakes Observation Network (CALON)
 \$297,082

Natural Resources

NSF

Lenton, Roberto

* Development of the Middle East and North Africa
 Network of Water Centers
 \$220,479

Water for Food Institute

USAID through DAI

Lesoing, Gary

Nebraska Network for Beginning Farmers and Ranchers
 \$202,397
 Conley, Dennis

Southeast Research and Extension Center

Center for Rural Affairs
 Agricultural Economics

Lewis, Charlotte **Center on Children, Families and the Law**
* EDN/IFSP ON-LINE
\$211,111 ED through Nebraska Department of Education

Answers4Families/
Nebraska Aging and Disability Resource Center
\$343,707 Nebraska Department of Health and Human Services

Li, Haorong **Durham School of Architectural
Engineering and Construction**
Enterprise Plug n Play Diagnostics
and Optimization for Smart Buildings
\$617,013 Sensus Machine Intelligence
Lu, Ying Computer Science and Engineering

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

Liou, Sy-Hwang **Physics and Astronomy**
High Sensitivity Magnetoresistive Sensors
for Both DC and EMI Magnetic Field Mapping
\$650,000 DoD-Strategic Environmental
Research Development Program

Liska, Adam **Biological Systems Engineering**
Second Generation Biofuels:
Carbon Sequestration and Life Cycle Analysis
\$500,000 DOE
Arkebauer, Timothy Agronomy and Horticulture
Cassman, Kenneth Agronomy and Horticulture

Lodi, Kathleen **Extension**
* Click2SciencePD Prototype Phase
\$335,000 Noyce Foundation
Ulferts, David Extension

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

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 Engineering

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

Chandra, Namas

Mechanical & Materials Engineering

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

Synthesis of Crystalline Carbon Nitride

by Simultaneous Vibrational and Electronic Excitations

\$255,771

NSF

Mackenzie, Sally

**Biological Sciences/
Agronomy and Horticulture/
Center for Plant Science Innovation**

* Understanding MSH1 Developmental Reprogramming

\$925,482

Syngenta

Elucidation of Mito-Nuclear Interplay in Arabidopsis

\$689,961

DOE

Wang, Dong

Statistics

GEPR: Intersection of the Plant Epigenome and
Bioenergetics in Phenotypy

\$599,998

NSF

Fromm, Michael

Center for Biotechnology/
Agronomy and Horticulture

Lorenz, Aaron

Agronomy and Horticulture

Riethoven, Jean-Jack

Center for Biotechnology

Xu, Yingzhi

Center for Plant Science Innovation

Yu, Bin

Biological Sciences

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**Mitra, Amit****Plant Pathology**

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

\$250,000

USDA-NIFA

Steadman, James

Plant Pathology

Urrea Flores, Carlos

Panhandle Research
and Extension Center**Moore, Raymond****Engineering**

Students United in Classes, Community, Engineering,
Service and Study Abroad

\$591,995

NSF

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

Self-Consolidating Concrete for Cast-in-Place Bridge Components

\$449,831

NAS-TRB

Moriyama, Etsuko**Biological Sciences/
Center for Plant Science Innovation**

Large-Scale Simultaneous Multiple
Alignment & Phylogeny Estimation

\$266,830

NSF

Mower, Jeffrey**Agronomy/Horticulture**

Tracing Processes of Genome Evolution using Plantaginaceae

\$594,190

NSF

The Geraniaceae Genomes Project: Accelerated and
Coordinated Evolution across the Three Plant Genomes

\$720,444

NSF through University of Texas at Austin

Nastasi, Michael**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

EMME: US-EU Transatlantic Degree Program in Engineering
Mechanics/Materials Engineering

\$407,997

ED

Chandra, Namas

Mechanical & Materials Engineering

Nelson, Carl **Mechanical & Materials Engineering**

* 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

\$209,723

ED

Hopkins, Megan

Educational Psychology

Shell, Duane

Educational Psychology

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

Immunologic Consequences of PRRSV Diversity

\$394,271

USDA-NIFA through Kansas State University

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

Missouri River Sportfish Ecology and Management
\$401,210 Nebraska Game and Parks Commission

Sturgeon Management in the Platte River
\$801,000 Nebraska Game and Parks Commission

Perez, Lance **Electrical Engineering**
2012 Math Science Partnership Learning Network Conference
\$255,394 NSF
Heaton, Ruth Teaching, Learning and Teacher Education
Smith, Wendy Center for Science, Mathematics and
Computer Education

NASA EPSCoR RFID and RTLS Enhancement for Inventory
Management and Logistics of Space Transportation Systems
\$690,000 NASA through UNO
Williams, Robert Mechanical & Materials Engineering

GAANN in Engineering & Assistive Technology
\$387,165 ED
Goddard, Stephen Computer Science and Engineering

Pope, Kevin **Natural Resources**
* NCFWRU: Population Assessments of Temperate Basses
in Nebraska Reservoirs
\$212,683 Nebraska Game and Parks Commission
Chizinski, Christopher Natural Resources

Recruitment of Walleye and White Bass in Irrigation Reservoirs
\$678,884 Nebraska Game and Parks Commission

Powell, Larkin **Natural Resources**
Persistent Effects of Wind-Power Development
on Prairie Grouse in Nebraska
\$686,300 Nebraska Game and Parks Commission
Brown, Mary Natural Resources
Fontaine, Joseph Natural Resources

Powers, Thomas **Plant Pathology**
Integrative Taxonomy and Biogeography of Criconematidae
\$528,561 NSF

Pytlik Zillig, Lisa**Public Policy Center**

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

\$490,758

NSF

Hayes, Michael

Natural Resources

Samal, Ashok

Computer Science and Engineering

Soh, Leen-Kiat

Computer Science and Engineering

Tomkins, Alan

Law/Public Policy Center

Central Great Plains Climate Change Education Partnership
(CGP-CCEP) Partnership Proposal:
Expanding our Reach and Research

\$287,125

NSF through Kansas State University

Abdel-Monem, Tarik

Public Policy Center

Hu, Qi

Natural Resources

Hubbard, Kenneth

Natural Resources

Nugent, Gwen

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

Shulski, Martha

Natural Resources

Tomkins, Alan

Public Policy Center

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

\$499,134

NSF

Dzenis, Yuris

Mechanical & Materials Engineering

Morris, T. Jack

Biological Sciences

Pardy, Ted

Biological Sciences

Tomkins, Alan

Law/Public Policy Center

Turner, Joseph

Mechanical & Materials Engineering

Qian, Yi**Computer and Electronics Engineering**

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

\$455,999

NSF

Sharif-Kashani, Hamid

Computer and Electronics Engineering

Yang, Yaoqing

Computer and Electronics Engineering

Qiao, Wei**Electrical Engineering**

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

\$359,852

NSF

Intelligent Optimal Mechanical Sensorless Control for Variable-
Speed Wind Energy Systems Considering System Uncertainties

\$214,754

NSF

Rack, Frank

**Earth and Atmospheric Sciences/
Antarctic Geological Drilling Program**

* SIMPLE: Sub-Ice Investigation of Marine
and Planetary-Analog Ecosystems

\$338,494

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

Promoting Environmental Literacy through
Teacher Professional Development Workshops and
Climate Change Student Summits (C2S2)

\$696,672

DOC-NOAA

Huffman, Louise

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

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

\$270,000

NSF

Griep, Mark

Chemistry

Stains, Marilyne

Chemistry

Stable High-Spin Polyradicals & Chiral Pi-Conjugated Systems

\$508,191

NSF

Rajurkar, Kamalakar

**Industrial and Management
Systems Engineering**

Theoretical and Experimental Study
of Debris Removal & Tool Wear in Micro-EDM

\$250,000

NSF

Ramamurthy, Byravamurthy

**Computer Science and
Engineering**

Mobility First: A Trustworthy Mobility-Centric Architecture
for the Future Internet

\$337,476

NSF

Dynamic Optimized Advance Scheduling of Bandwidth Demands

\$449,976

DOE

Ramer-Tait, Amanda

Food Science and Technology

* Impact of *Escherichia coli* Colonization
on Susceptibility to Inflammatory Insults

\$217,379

Crohn's and Colitis Foundation of America

Ratcliffe, Brett

**Entomology/
University of Nebraska State Museum**

Faunistic Survey of Dynastinae of Mexico, Guatemala, & Belize

\$481,493

NSF

Rebarber, Richard

Nebraska Math Scholars

\$599,996

Curto, Carina

Hartke, Stephen

Hunter, Amber

Woodward, Gordon

Mathematics

NSF

Mathematics

Mathematics

Student Affairs

Mathematics

REU Site: Nebraska REU in Applied Math

\$324,492

Tenhumberg, Brigitte

NSF

Biological Sciences

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

Delineating Autoimmunity in Post-Infectious Myocarditis

\$308,000

American Heart Association

Reid, John**Mechanical & Materials Engineering**

Wisconsin DOT Roadside Safety Research Program FY 2012

\$606,572

DOT-FHWA through

Nebraska Department of Roads

Midwest Roadside Safety Facility

Midwest Roadside Safety Facility

Midwest Roadside Safety Facility

Civil Engineering/

Midwest Roadside Safety Facility

Bielenberg, Robert

Faller, Ronald

Lechtenberg, Karla

Sicking, Dean

Testing of a New Guardrail Post
for the Midwest Guardrail System

\$237,901

Faller, Ronald

Roll Form Group

Midwest Roadside Safety Facility

Downstream Anchoring for MGS, Minimum Effective

Guardrail Length for MGS, Short-Radius Guardrail w/Large Radii

\$415,471

Nebraska Department of Roads

Midwest Roadside Safety Facility

Midwest Roadside Safety Facility

Midwest Roadside Safety Facility

Civil Engineering/

Midwest Roadside Safety Facility

Bielenberg, Robert

Faller, Ronald

Lechtenberg, Karla

Sicking, Dean

Midwest States Regional Pooled Fund Program

\$650,000

Sicking, Dean

Nebraska Department of Roads

Civil Engineering/

Midwest Roadside Safety Facility

Midwest Roadside Safety Facility

Midwest Roadside Safety Facility

Faller, Ronald

Bielenberg, Robert

Richardson, Amanda**Sociology**

* Behavioral Risk Factor Surveillance Survey 2012

\$605,859

DHHS-CDC through

Nebraska Department of

Health and Human Services

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

* Enhance Awareness of Transportation
and Transportation Careers - Fast Forward

\$200,000
Kunz, Gina

Department of Transportation-FHWA
Nebraska Center for Research on
Children, Youth, Families and Schools
Nebraska Center for Research on
Children, Youth, Families and Schools

Welch, Greg

Nebraska Transportation Center Seed Funding
\$300,000 Nebraska Department of Roads

Riveros Iregui, Diego**Natural Resources**

Soil Carbon Transformation in Heterogeneous Landscapes:
Implications for Soil, Water and Air

\$480,000
Li, Xu

USDA-NIFA
Civil Engineering

Rothermel, Gregg**Computer Science and Engineering**

II-EN: Infrastructure Support for Software Testing Research

\$345,985

NSF

Ruser, Kevin**Law**

UNL-UNAM Rule of Law Partnership

\$449,384

American Council on Education-HED

Bennett, Robert

Law

Lenich, John

Law

Lepard, Brian

Law

Lyons, William

Law

Moberly, Richard

Law

Pierce, Glenda

Law

Poser, Susan

Law

Schmidt, Steven

Law

Schopp, Robert

Law

Willborn, Steven

Law

Samal, Ashok**Computer Science and Engineering**

Evaluation of GPS-Enabled Cell Phones and Laptops
for Applications of Law Enforcement Patrolling Activities

\$494,516

DOJ-National Institute of Justice

Ramirez, Juan

Public Policy Center

Rosenbaum, David

Economics/Public Policy Center

Tomkins, Alan

Law/Public Policy Center

Saraf, Ravi**Chemical and Biomolecular Engineering**

Electronic Interfacing between a Living Cell and a Nanodevice:
A Bio-Nano Hybrid System

\$900,000

DOE

Sarma, Anita**Computer Science and Engineering**

HCC: Large: Large-Scale Human-Centered Coordination Systems
to Support Interdependent Tasks in Context

\$267,936

NSF

- Sayood, Khalid** **Electrical Engineering**
 ATD: Algorithms for the Analysis of Microbiomes
 \$246,367 NSF
- Scalora, Mario** **Public Policy Center/Psychology**
 * Improving Insider Threat Reporting
 \$392,274 DoD through Northrop Grumman Corporation
 Bulling, Denise Public Policy Center
- 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
- Sellmyer, David** **Physics and Astronomy/Nebraska
 Center for Materials and Nanoscience**
 Studies of Artificially Structured Composite Magnets
 \$948,000 DOE
- Seth, Sharad** **Computer Science and Engineering**
 HECURA: A New Semantic-Aware Metadata Organization
 for Improved File-System Performance and
 Functionality in High-End Computing
 \$344,552 NSF
- Shadwick, Bradley** **Physics and Astronomy**
 Multi-Physics Modeling of Intense,
 Short-Pulse Laser-Plasma Interactions
 \$342,000 NSF
 Kalmykov, Serguei Physics and Astronomy
- Wavebreaking and Particle Trapping in Collisionless Plasmas
 \$561,840 DOE
- Shank, Nancy** **Public Policy Center**
 SHNBHIN Improving Access Health IT
 \$385,528 Health Partners Initiative
- Sharif-Kashani, Hamid** **Computer and Electronics Engineering**
 Research & Development - Development of a Standard
 Communication Protocol for Wireless Sensor Network
 in Mobile Railroad Environment
 \$749,924 DOT-FRA
 Hempel, Michael Computer and Electronics Engineering

Shearman, Robert **Agronomy and Horticulture**
Buffalograss Breeding, Evaluation and
Management for Golf Course
\$330,000 U. S. Golf Association

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

Consultation Based Interventions for Students
with Social and Behavioral Concerns
\$599,694 ED
Glover, Todd Nebraska Center for Research on
Children, Youth, Families and Schools
Bovaird, James Educational Psychology/
Nebraska Center for Research on
Children, Youth, Families and Schools

Shield, Jeffrey **Mechanical & Materials Engineering/
Nebraska Center for
Materials and Nanoscience**
Multiscale Development of L10 Materials
for Rare-Earth-Free Permanent Magnets
\$288,933 DOE through Northeastern University
Skomski, Ralph Physics and Astronomy

Measurement of Vertical Track Deflection:
Testing, Demonstration & Implementation
\$546,000 DoT-FRA
Farritor, Shane Mechanical & Materials Engineering

Phase Transformations in Confined Nanosystems
\$450,000 DOE
Belashchenko, Kirill Physics and Astronomy

Siegfried, Blair**Entomology**

Utilization of RNAi to Validate Putative Cry Protein Receptors
in the Western Corn Rootworm, *Diabrotica virgifera virgifera*
\$211,229 Dow AgroSciences

Assessing the Risk of European Corn Borer Adaptation
to Transgenic Bt Maize
\$400,000 USDA-NIFA

Smith, Stacey**Biological Sciences**

* Evolution and Diversification of Red Flowers:
Testing the Macroevolutionary Causes of Rarity
\$359,999 NSF

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
\$200,000 USDA-NASS
Olson, Kristin Sociology/Gallup Research Center

Snow, Gregory**Physics and Astronomy**

GAANN Fellowships for Physics at UNL
\$400,704 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**

Integrating Computational and Creative Thinking (IC2Think)
\$250,000 NSF
Ingraham, Elizabeth Art and Art History
Ramsay, Stephen English
Shell, Duane Educational Psychology

CPATH CDP: Renaissance Computing:
Concept Development and Planning
\$217,970 NSF

Meyer, George Biological Systems Engineering
Moore, Brian Music
Moriyama, Etsuko Biological Sciences/
Center for Plant Science Innovation
Ramsay, Stephen English
Samal, Ashok Computer Science and Engineering
Scott, Stephen Computer Science and Engineering
Shell, Duane Educational Psychology
Thomas, William History

iLOG: Embedding & Validating Empirical
Usage Intelligence in Learning Objects
\$409,705 NSF
Nugent, Gwen Nebraska Center for Research on
Children, Youth, Families and Schools
Samal, Ashok Computer Science and Engineering

- Soundararajan, Madhavan** **Biochemistry**
 The Hunt for Green Every April:
 Factors Affecting Fitness in Switchgrass
 \$289,424 USDA-ARS
- Spangler, Matthew** **Animal Science**
 National Program for Genetic Improvement
 of Feed Efficiency in Beef Cattle
 \$398,937 USDA-NIFA through University of Missouri
- Specht, James** **Agronomy and Horticulture**
 Development and Analysis
 of Nested Association Mapping Populations in Soybean
 \$213,384 USDA-ARS
- Stains, Marilyne** **Chemistry**
 * WIDER: EAGER Evidence-Based Instructional Practices in Action:
 Enhancing Exemplary Teaching at
 the University of Nebraska-Lincoln
 \$299,703 NSF
 Ducharme, Stephen Physics and Astronomy
 Lee, Kevin Center for Science, Mathematics
 and Computer Education
 Morris, T. Jack Biological Sciences
- Starace, Anthony** **Physics and Astronomy**
 Strong Field & Ultrafast Atomic and Molecular Processes
 \$279,000 NSF
- Staswick, Paul** **Agronomy and Horticulture**
 Deciphering Novel Signaling Roles
 for Amino Acid Conjugates of Jasmonic Acid
 \$249,969 NSF
- Steadman, James** **Plant Pathology**
 A Search for Improvement & Resistance in Common Bean
 through Multi-Site Screening & Pathogen Characterization
 \$261,794 USDA-ARS
- Stockton, Matthew** **West Central Research
 and Extension Center**
 Whole-Farm Economic Biological Stochastic Simulation
 Model of Small to Medium Cow-calf Firms with Research,
 Teaching and Extension Modules
 \$499,740 USDA-NRICGP
- Storz, Jay** **Biological Sciences**
 The Mechanistic Basis of Parallel Evolution:
 Functional Analysis of Hemoglobin Polymorphism in Andean Ducks
 \$378,104 NSF
 Moriyama, Hideaki Biological Sciences/Center for Biotechnology

Stowell, Richard

Livestock Producer Environmental Assistance Project
\$600,000

Biological Systems Engineering

Nebraska Environmental Trust

Small AFO Demonstration and Education
\$264,577 Nebraska Department of Environmental Quality
Gross, Jason Biological Systems Engineering
Powers, Crystal Biological Systems Engineering

Subbiah, Jeyamkondan

* Modeling of Interaction of Microwaves
with Food and Packaging (Shielded)-Phase II
\$230,000 ConAgra
Birla, Sohan Biological Systems Engineering
Jones, David Engineering

**Biological Systems Engineering/
Food Science and Technology**

Improving the Safety of Prepared, But Not Ready-To-Eat
Microwavable Foods through Heat Transfer
and Pathogen Destruction Modeling
\$599,985 USDA-CSREES
Jones, David Biological Systems Engineering
Thippareddi, Harshavardhan Food Science and Technology

Svoboda, Mark

NIDIS Portal Content Development and Help Desk Support
\$497,496 DOC-NOAA

Natural Resources**Swanson, David**

Open Science Grid Consortium
\$605,000 NSF through University of Wisconsin-Madison

Computer Science and Engineering**Takacs, James**

Catalytic Asymmetric Hydroboration:
Uncapping the Potential with Two-Point Binding Substrates
\$900,114 NIH-NIGMS

Chemistry**Tan, Li**

Molecularly Intercalated Nanoflakes:
A Supramolecular Alloy for Strong Energy Absorption
\$349,088 NSF
Zeng, Xiao Cheng Chemistry

Mechanical & Materials Engineering

Self-Organized Nanolayers for Organic Thin-Film Transistors
\$387,463 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

Determination of Minimal Elicitation Dose
for Almond in Almond-Allergic Individuals

\$261,000

Almond Board of California

Tenhuberg, Brigitte**Biological Sciences/Mathematics**

* Evaluating Integrated Resistance Management Strategies
in Variable Environments

\$388,279

Monsanto

Chirakkal, Haridas

Biological Sciences

Meinke, Lance

Entomology

Siegfried, Blair

Entomology

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

FIBR: Linking Genes to Ecosystems

\$477,335

NSF through University of California-Riverside

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

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

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

* DMREF: Multifunctional Interfacial Materials by Design
\$215,000 NSF through University of Wisconsin

Turner, Joseph **Mechanical & Materials Engineering**

Ultrasonic Scattering for Measurement of Longitudinal Rail Stress
\$461,999 DOT-FRA

Uiterwaal, Cornelis **Physics and Astronomy**

REU Site: Optics and Laser Physics
\$246,450 NSF
Batelaan, Herman Physics and Astronomy

Molecules and Intense Light in a Photodynamical Test Tube
\$440,000 NSF

Umstadter, Donald **Physics and Astronomy**

* NSRI Standoff Detection
\$442,915 DoD-Offutt Air Force Base-STRATCOM
through NSRI
Banerjee, Sudeep Physics and Astronomy
Chen, Shouyuan Physics and Astronomy

Van Cott, Kevin **Chemical and Biomolecular Engineering**

Structural Characterization of Recombinant Glycoproteins
\$331,923 Inspiration Biopharmaceuticals

van Donk, Simon **West Central Research
and Extension Center**

Irrigation Management with Limited Water:
A Farm Education Program
\$287,080 DOI-BR
Corr, Alan West Central Research and Extension Center
Martin, Derrel Biological Systems Engineering
Melvin, Steven West Central Research and Extension Center

Van Etten, James **Plant Pathology**

* Evaluation of the Natural History of Algal Viruses Associated
with Patients Diagnosed with Human Psychiatric Disorders
\$246,422 Stanley Medical Research Institute

Van Tassell, Larry **Agricultural Economics**

Developing Economic Improvements through
Cooperative Businesses in Rural Nebraska

\$224,995

Burkhart-Kriesel, Cheryl

Hancock, Connie

Henneman, Alice

USDA-RD

Panhandle Research
and Extension Center
Panhandle Research
and Extension Center
Southeast Research
and Extension Center

Variyam, Vinodchandran **Computer Science and Engineering**

AF: Small: Studies in Nonuniformity,
Completeness and Reachability

\$272,031

NSF

Velipasalar, Senem **Electrical Engineering**

CSR-DMSS, SM: Cooperative Activity Analysis
in Wireless Smart-Camera Networks (Wi-SCaNs)

\$300,000

Gursoy, Mustafa

NSF

Electrical Engineering

Vuran, Mehmet **Computer Science and Engineering**

* Cog-TV with Neighborhood Watch:
Business and Technical Aspects

of Cognitive Radio TV Sets for Enhanced Spectrum Access

\$283,879

Batur, Demet

NSF

Management

Wagner, William **Biological Sciences**

Effects of Predation by a Phonotactic Parasitoid on Male
and Female Reproductive Behavior in a Field Cricket

\$523,414

NSF

Walia, Harkamal **Agronomy and Horticulture**

Early Seed Development under Stressful Environments

\$557,708

Wang, Dong

NSF

Statistics

Walter, Jens **Food Science and Technology**

Application of a Novel Synbiotic to Modulate the
Human Gut Microbiota and Improve Health in Obese Adults

\$489,699

Hutkins, Robert

USDA-NIFA

Food Science and Technology

Quantitative Evaluation of the Colonization and Persistence
of Bifidobacterium longum AH1206 in the Gastrointestinal Tract
and its Tolerance by Human Subjects

\$204,340

Hutkins, Robert

Mead Johnson Nutrition
Food Science and Technology

- Wang, Dong** **Statistics**
 Expanding the Scope of Association Mapping in Important
 Crop Species with Methodology Development in Statistics
 \$282,000 USDA-AFRI
 Eskridge, Kent Statistics
 Baenziger, P. Stephen Agronomy and Horticulture
 Dweikat, Ismail Agronomy and Horticulture
- Wang, Jun** **Earth and Atmospheric Sciences**
 Evaluate and Enhance the VIIRS Aerosol EDRs for Air Quality
 and Public Health Applications
 \$372,894 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
- Waters, Brian** **Agronomy and Horticulture**
 * Exploring Iron & Copper Cross-Talk
 in Iron Deficient *Arabidopsis Thaliana*
 \$391,077 NSF
- Weber, Karrie** **Biological Sciences**
 Feamox - A New Pathway for Nitrogen Loss from
 Terrestrial Ecosystems: REU
 \$202,210 NSF
- Weeks, Donald** **Biochemistry**
 LiT: Novel Bicarbonate Transporters in Chlamydomonas CO₂-
 Concentrating Mechanism
 \$553,000 NSF
- Wegulo, Stephen** **Plant Pathology**
 Regional Distribution and Host Range of Triticum Mosaic Virus,
 an Emerging Virus of Wheat,
 and Its Potential Impact on Wheat Production
 \$621,284 USDA-NIFA
 Baenziger, P. Stephen Agronomy and Horticulture
 Hein, Gary Doctor of Plant Health Program
- Whitbeck, Les** **Sociology**
 Culturally-Based, Family-Centered Mental Health Promotion
 for Aboriginal Youth II
 \$749,958 Government of Canada-Public Health Agency
 though Jewish General Hospital-CMHRU
 A Lakota Type 2 Diabetes Mellitus Prevention
 \$231,359 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

BAF: an Intrinsic Host Defense Responsive to Foreign DNA

\$270,000

NIH-NIAID

Wiener, Richard**Psychology**

Objectification, Affective Forecasting, and Sexual Harassment

\$300,000

NSF

Gervais, Sarah

Psychology

Self-referencing, Social Identity &
Judgments of Sexual Harassment

\$302,364

NSF

Wilson, Richard**Plant Pathology**

Pathogenic Gene Discovery and Elucidation
of Genetic Regulatory Networks in the Rice Blast Fungus

\$506,955

NSF

Wood, Charles**Biological Sciences/
Nebraska Center for Virology**

Chronic HIV Infection and Aging in NeuroAIDS (CHAIN) Center

\$314,643

NIH-NIMH through UNMC

Xiang, Shi-Hua**Biological Sciences**

Mucosal Delivery and Retention
of Anti-HIV Agents Using Lactobacillus

\$611,119

Bill & Melinda Gates Foundation

Xu, Lisong**Computer Science and Engineering**

NeTS: Small: Internet Congestion Control Census

\$450,000

NSF

Deogun, Jitender

Computer Science and Engineering

Lu, Ying

Computer Science and Engineering

Yang, Yiqi**Textiles, Merchandising and Fashion Design**

Resistance of Sulfur Dyed Fabrics to Oxidative

Bleaching & Acidic Tendering: Improvement & Application

\$300,618

Procter & Gamble

Yoder, Ronald**Biological Systems Engineering**

Nebraska AgrAbility

\$684,000

USDA-NIFA

Booker, William

Panhandle Research and Extension Center

Nielsen, Sharon

West Central Research and Extension Center

Yu, Bin**Biological Sciences/
Center for Plant Science Innovation**

Understanding DAWDLE Function
in miRNA and siRNA Biogenesis

\$499,504

NSF

Zempleni, Janos

Nutrition and Health Sciences

Biotin Sensing and Chromatin Remodeling
by Holocarboxylase Synthetase

\$800,742

NIH-NIDDK

Zera, Anthony

Biological Sciences

Nutritional Physiology of Life History Allocation Trade-Offs

\$337,500

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

American Recovery and Reinvestment Act (ARRA) Awards

Through ARRA, or the Stimulus Act, the U.S. is investing in science, technology and engineering research and infrastructure to stimulate the nation's economy and bolster its research capacity. These are active ARRA awards UNL faculty received through competitive grants from federal agencies since 2009.

Avalos, George

Mathematics

Analysis, Computation and Control
of Coupled Partial Differential Equation Systems

\$182,898

NSF

Barletta, Raul

Veterinary Medicine and Biomedical Sciences

Isolation and Verification
of Mycobacterium tuberculosis Mutant Strains

\$122,532

NIH-NIAID through Texas A&M University

Benson, Andrew

Food Science and Technology

Genetic Control over the Gut Microbiome Composition

\$997,732

NIH-NIDDK

Walter, Jens

Food Science and Technology

Moriyama, Etsuko

Biological Sciences/
Center for Plant Science Innovation

Bevins, Rick

Psychology

Acquired Appetitive Properties of Nicotine

\$533,413

NIH-NIDA

Black, Paul

Biochemistry

Fatty Acid Transport in Eukaryotes

\$627,878

NIH-NIGMS

DiRusso, Concetta

Nutrition and Health Sciences/Biochemistry

Blum, Paul

Biological Sciences

Metabolic Engineering Studies of Extreme Thermoacidophily

\$260,406

NIH through North Carolina State University

Cartwright, Tamara

Center on Children, Families and the Law

NE Management Information System

\$81,314

Nebraska Management Information System

Centurion, Martin

Physics and Astronomy

Ultrafast Electron Diffraction from Aligned Molecules

\$600,000

DOE

Chandra, Namas

Engineering

Factors that Facilitate or Inhibit Enrollment
of Domestic Engineering PhD Students: A Mixed Methods Study

\$149,851

NSF

Weissinger, Ellen

Educational Psychology

Smith, Michelle Howell

Graduate Studies

Curto, Carina	Mathematics
Stimulus Representation and Spontaneous Activity in Recurrent Networks	
\$109,635	NSF
Dominguez, Aaron	Physics and Astronomy
MRI-R2: Development of a Pixel Detector for the Upgraded CMS Experiment	
\$263,430	NSF through University of Kansas Center for Research Physics and Astronomy
Bloom, Kenneth	
Gay, Timothy	Physics and Astronomy
Polarized Electron Physics	
\$610,000	NSF
Grosskopf, Kevin	Durham School of Architectural Engineering and Construction
Building a Green Economy: Nebraska Workforce Development in New and Emerging Industries	
\$1,253,000	Nebraska Department of Labor
Norton, Terri	Durham School of Architectural Engineering and Construction
Shi, Jonathan	Durham School of Architectural Engineering and Construction
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
Hanson, Paul	Natural Resources
REU Site: Dune Undergraduate Geomorphology and Geochronology Project in Wisconsin	
\$45,331	NSF
Harris, Steven	Plant Pathology/ Center for Plant Science Innovation
Evolutionary Genetics of Morphogenetic Regulatory Systems in Fungi	
\$392,796	NSF
Harshman, Lawrence	Biological Sciences
Nebraska Research Network in Functional Genomics INBRE	
\$242,092	NIH through UNMC
Hartke, Stephen	Mathematics
Computerized Search for Combinatorial Objects	
\$220,000	NSF
Jorgensen, Stacia	Sociology
Communities Putting Prevention to Work	
\$134,806	Douglas County Health Department
McQuillan, Julia	Sociology

Li, Yusong

Civil Engineering

Fate and Transport of Metal-Based
Nanoparticles in the Subsurface

\$122,572

NSF through Tufts University

Lubben, Bradley

Agricultural Economics

2009 Trade Adjustment Assistance for Farmers

\$855,000

USDA-NIFA through University of Minnesota

Nam, Yunwoo

Community and Regional Planning

Nebraska Rural Health and Primary Care

\$112,000

Nebraska Department of
Health and Human Services

Scholz, Gordon

Community and Regional Planning

Paul, Prem

Research and Economic Development

Nebraska Center for Virology Facility Expansion

\$8,000,000

NIH-NCRR

Wood, Charles

Biological Sciences/
Nebraska Center for Virology

High-Power Laser Science Collaboratory

\$1,825,345

NSF

Chandra, Namas

Mechanical & Materials Engineering

Lu, Yongfeng

Electrical Engineering

Umstadter, Donald

Physics and Astronomy

Wedige, Alan

Facilities Management

Qiao, Wei

Electrical Engineering

A Nationwide Consortium of Universities
to Revitalize Electric Power Engineering Education
by State-of-the-Art Laboratories

\$24,999

DOE through University of Minnesota

Asgarpoor, Sohrab

Electrical Engineering

Hudgins, Jerry

Electrical Engineering

Patterson, Dean

Electrical Engineering

Qu, Lilyan

Electrical Engineering

Rack, Frank

**Earth and Atmospheric Sciences/
Antarctic Geological Drilling Program**

Response to Whillans Ice Stream Subglacial Access
Research Drilling (WISSARD) Project:

Drilling Support Overview and Requirements Request

\$3,097,964

NSF through Montana State University/
Northern Illinois University/
University of California, Santa Cruz

ANDRILL Coulman High Project -

Investigating Antarctica's Role in Cenozoic

Global Environmental Change Phase 1 (Site Surveys)

\$2,684,370

NSF

Fischbein, Steven

Antarctic Geological Drilling Program

Harwood, David

Earth and Atmospheric Sciences

Rosenbaum, David**Economics**

An Economic Evaluation of the Benefits of Nebraska's
Weatherization Program

\$499,469

DeKraai, Mark
Thompson, Eric

Nebraska Energy Office
Psychology/Public Policy Center
Bureau of Business Research

Energy Loan Program Evaluation

\$453,514

DeKraai, Mark
Thompson, Eric

Nebraska Energy Office
Psychology/Public Policy Center
Bureau of Business Research

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

Schubert, Mathias**Electrical Engineering**

Effects of Polarization Fields and
Surface Charge Layers on p-type Conductivity in In(Ga)N

\$231,857

NSF

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

MRI-R2: Acquisition of FEG TEM/STEM

for Materials and Nanotechnology Research and Education

\$1,300,000

NSF

Cheung, Chin Li
Robertson, Brian
Schubert, Eva
Shield, Jeffrey

Chemistry
Mechanical & Materials Engineering
Electrical Engineering
Mechanical & Materials Engineering

High Energy Permanent Magnets
for Hybrid Vehicles and Alternative Uses

\$674,998

Shield, Jeffrey
Skomski, Ralph

DOE through University of Delaware
Mechanical & Materials Engineering
Physics and Astronomy

Shank, Nancy**Public Policy Center**

Health Information Technology Extension Program (HIT EP)
Local Workforce Development Coordination

\$285,861

CIMRO of Nebraska

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

Veterans Commissioning Training Program
for Commercial-Healthcare Facilities

\$405,741

DOE

Shield, Jeffrey**Mechanical & Materials Engineering**

REU Site:

Undergraduate Research Opportunities
in Nanomaterials and Nanoscience
at the University of Nebraska-Lincoln

\$360,000

Enders, Susan

NSF
Mechanical & Materials Engineering

- Subramanian, Anuradha** **Chemical and Biomolecular Engineering**
 Design and Evaluation of Ultrasound Stimulation-Aided Bioreactor Configurations
 \$533,941 NIH-NCRR
 Turner, Joseph Mechanical & Materials Engineering
- Tan, Li** **Mechanical & Materials Engineering**
 Free-Standing All-Nanoparticle Thin Fibers: A Novel Building Block for Organic Photovoltaic Applications
 \$300,002 NSF
- Toundykov, Daniel** **Mathematics**
 Stabilization and Control in Nonlinear Structural-Acoustics, Magnetic Imaging, and Elasticity
 \$96,436 NSF
- Tsymbal, Evgeny** **Physics and Astronomy**
 FRG: Switchable Two-Dimensional Materials at Oxide Hetero-Interfaces
 \$210,000 NSF through University of Wisconsin-Madison
- Whitbeck, Les** **Sociology**
 Novel Approaches to Understanding Mental Disorder, Substance Abuse and HIV-Risk Among Homeless Women
 \$400,715 NIH-NICHD
- Wood, Charles** **Biological Sciences/ Nebraska Center for Virology**
 Immunofocusing for Kaposi's Sarcoma-Associated Herpesvirus Neutralizing Epitopes
 \$990,796 NIH-NCI
 Nebraska Center for Virology T1
 \$998,839 NIH-NCRR
 Vaccination Against Mucosal HIV Clade C Transmission
 \$251,363 NIH-DFCI
 Nebraska Center for Virology
 \$398,981 NIH-NCRR
- Zhang, Shunpu** **Statistics**
 A Computational Genotyping System for Improved Influenza Surveillance
 \$203,488 NIH through UNO
- Zhang, Luwen** **Biological Sciences/ Nebraska Center for Virology**
 Modulation of Apoptosis by IRF-4 in EBV Transformation
 \$545,682 NIH-NCI

Early Career Awards

Active awards, July 1, 2012-June 30, 2013

* Indicates new in 2012-2013

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



Cohen, Myra

Computer Science and Engineering

Configuration-Aware Testing Through Intelligent Sampling to Improve Software Dependability

\$400,000

NSF



Enders, Axel

Physics and Astronomy

Self-Assembled Magnetic Nanostructures

\$411,850

NSF



Frank, Tracy

Earth and Atmospheric Sciences

Exploring the Geologic Record of Major Climate Transitions: Causes, Consequences, & Impacts on the Evolution of Earth Systems

\$583,816

NSF



Gu, Linxia

Mechanical & Materials Engineering

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

\$406,248

NSF

**Hebets, Eileen**

Biological Sciences
 Evolution and Function of Complex Signaling in
 Wolf Spider Genus Schizocosa
 \$692,351

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

**Pannier, Angela**

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

NSF

**Qiao, Wei**

Electrical Engineering
 CAREER: Stochastic Optimization and Coordinating
 Control for the Next-Generation Electric Power
 System with Significant Wind Penetration
 \$399,999

NSF

**Schubert, Eva**

Electrical Engineering
 Chiral Nanostructure Hybrid Materials for
 Application in Terahertz Resonator and Magnetic
 Storage Devices
 \$400,000

NSF

**Vuran, Mehmet**

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

NSF

Arts and Humanities Awards \$50,000 or more

Active awards, July 1, 2012-June 30, 2013

* Indicates new in 2012-2013

Awakuni-Swetland, Mark

Anthropology/Ethnic Studies

Omaha and Ponca Digital Dictionary

\$348,800

NEH

9/1/08 – 8/31/12

Walter, Katherine

University Libraries/Center for
Digital Research in the Humanities



Mark Awakuni-Swetland, assistant professor of anthropology, and colleagues are creating a comprehensive Omaha and Ponca digital dictionary that will be available online for native communities, students, researchers and the public. The National Endowment for the Humanities funds this work through a joint NEH-National Science Foundation-Smithsonian Institution “Documenting Endangered Languages” initiative. It’s also a “We the People” project, a special NEH recognition for model projects advancing the study, teaching and understanding of American history and culture. This project will provide extensive information on the Omaha and Ponca language and will be far more robust and usable than existing resources.

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

01/01/14 – 12/31/15



With support from the National Endowment for the Humanities, Brett Barney, research associate professor with University Libraries, in collaboration with scholars in Germany, is investigating ways to improve editing processes for digital scholarship, drawing on the experiences of existing author-focused digital projects to encode English- and German-language literature. The project involves testing practices for encoding texts to record not only the textual content but also the ways texts develop over time and across multiple drafts. The goals are to establish standards for this markup and to develop software components to provide user access to the encoded information. These outcomes will have broad applications in the area of digital scholarly editing.

Behrendt, Stephen**English**

* Reassessing British Romanticism

\$117,198

NEH

10/01/12 – 09/30/13



With support of a grant from the National Endowment for the Humanities, Stephen Behrendt, George Holmes Professor of English, has developed a five-week summer seminar for college teachers to help participants reassess the historical influences upon modern conceptions of “British Romanticism.” The seminar’s goal is to reconceptualize and redefine issues of literary judgment, canonical status and varieties of audience response involved in British Romantic literary production.

Kooser, Ted**English**

American Life in Poetry Project

\$236,800

Poetry Foundation

1/1/05 – 12/31/12



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.

Moeller, Aleidine**Teaching, Learning and Teacher Education**

Chinese Academy

\$84,778

NSA

03/29/12 – 02/28/13

Hurlbut, Sherri

Teaching, Learning and Teacher Education



Aleidine Moeller, professor of foreign language education/second language acquisition, with a grant from the National Security Agency, directs the Chinese Academy, designed to provide an immersion for high school students in Chinese language and culture, develop and spark interest in

Chinese language and culture, and initiate new programs and expand Chinese programs in Nebraska. A continuation of Chinese language programs is available for rural and other interested schools through an established distance education program provided by ESU #5. Collaborative efforts between UNL, the UNL Confucius Institute, Nebraska Department of Education, Omaha Public Schools, Lincoln Public Schools and Millard Public Schools will ensure the establishment and expansion of Chinese programs.

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.

* Walt Whitman and Post-Reconstruction America

\$156,470

National Historical Publications
and Records Commission

08/01/14 – 07/31/15

Barney, Brett

University Libraries/Center for
Digital Research in the Humanities

The Walt Whitman Archive is collecting, editing, and publishing a full decade of Whitman's correspondence, from 1877-1887, including all letters to and from Walt Whitman, and making them freely available online. A \$156,000 award from the National Historical Publications Commission is funding this project, under the direction of Kenneth Price. The work involves editing anew materials previously treated by other editors in print, as well as gathering and presenting many additional materials never before treated. The proposed project builds on the existing infrastructure developed by the Whitman Archive over the past sixteen years. Students of American history will be able to see how the life and work of the nation's most famous and innovative poet was interwoven with the social, cultural and political events of this troubled decade.

An Integrated Guide to Walt Whitman's Literary Manuscripts

\$275,000

NEH

06/01/12 – 05/31/15

Walter, Katherine

University Libraries/Center for
Digital Research in the Humanities

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

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

Seefeldt, William

History/Center for Digital Research in the Humanities

William Cody Research Project

\$131,374

Buffalo Bill Historical Center

7/1/09 - 8/31/12



William Seefeldt, assistant professor of history, has received support from the Buffalo Bill Historical Center to develop a series of thematic digital datasets that can be used to provide historical context for the center's Cody Papers project. The digital datasets will include the rosters of the

various Wild West shows from published programs and other business records and biographical sketches of the participants, including the Show Indians. They will be marked and encoded for inclusion in the larger Buffalo Bill digital archive collection hosted by BBHC. Other research projects may include a database containing encoded full-text transcriptions of newspaper coverage of the tour stops throughout North America and Europe and a geospatial database of Cody's travels and residences throughout his lifetime that could be used to create maps and visualizations by date or location.

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 - 11/30/14



This three-year, \$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.

Major Railroad Archival Collections

\$208,481 Council on Library and Information Resources
12/16/10 – 12/31/13
Bolin, Mary University Libraries
Mering, Margaret University Libraries

Walter also is leading UNL Libraries’ “Major Railroad Archival Collections” project. Funded by a three-year, \$208,500 grant from the Andrew W. Mellon Foundation in cooperation with the Council of Library and Information Resources, the initiative will make the archival collections from four major railroads (Union Pacific, Charles J. Kennedy, Chicago Burlington and Quincy Lines West, and Val Kuska Burlington Northern) available through a single Web portal. The project’s goal is to enhance knowledge of railroad history and make it easier for historians and railroad aficionados to link multiple information sources that show how major railroad lines influenced the growth of U.S. cities and towns during the 19th century.

centerNet: Cyberinfrastructure for Digital Humanities
\$50,000 NEH
9/1/09 – 8/31/12

The National Endowment for the Humanities also is supporting construction of a technical infrastructure and institutional framework that will enable centerNet to play a vital role in developing both national and international cyberinfrastructure and become a stable, self-supporting organization. Through centerNet, digital humanities centers can collaborate and maximize their capacity for sparking further innovation in the digital humanities.

National Digital Newspaper Program: Nebraska

\$563,012

NEH

7/1/07 – 8/31/12

Wunder, John

Journalism and Mass Communications

Mering, Margaret

Center for Digital Research in the Humanities

Pytlík Zillig, Brian

Center for Digital Research in the Humanities

Katherine Walter, who co-directs UNL's Center for Digital Research in the Humanities, leads the Nebraska Digital Newspapers Project, through which about 100,000 pages of Nebraska newspapers from 1880 through 1910 will be digitized for inclusion in the Library of Congress' national "Chronicling America" website. UNL Libraries is partnering with the College of Journalism and Mass Communications and the Nebraska State Historical Society on this "We the People" grant. Nebraska is one of nine states selected in the early phases of this project, which eventually will include all 50 states. "We the People" grants recognize model projects that advance the study, teaching and understanding of American history and culture.

Winkle, Kenneth

History

Civil War Washington Collaborative Research

\$220,000

NEH

7/1/10 – 6/30/13

Lawrence, Susan

History

Price, Kenneth

English/Center for Digital Research in the Humanities



History professor Kenneth Winkle received a three-year, \$220,000 collaborative research grant from the National Endowment for the Humanities to expand digital research on Civil War-era Washington, D.C., especially its pivotal role in the antislavery and civil rights movements. The Civil War Washington

project examines the war's impact on the nation's capital. The grant received "We the People" designation, which recognizes projects that advance the study, teaching and understanding of American history and principles. The grant will enable researchers to study how race, slavery and emancipation changed the capital a century and a half ago. Researchers will investigate how African Americans living in Washington during the Civil War gained their freedom, won the fight for the Union and against slavery and achieved legal equality.

Arts and Humanities Awards

\$5,000-\$49,999

Active awards, July 1, 2012-June 30, 2013

* Indicates new in 2012-2013

Busch, Nancy **University Libraries**

* Books on Chinese Literature and Art

\$5,580

Various Sources

Ducey, Carolyn **Textiles, Merchandising and Fashion Design/
International Quilt Study Center**

The Ardis and Robert James Collection Conservation

\$25,000

Institute of Museum and Library Services

Elias Rowley, Kristen **University of Nebraska Press**

Literary Publishing at the University of Nebraska Press

\$20,000

NEA

Engen-Wedin, Nancy **Teaching, Learning and Teacher
Education/Lied Center for
Performing Arts**

Lied Center Community Engagement Touring Grant - MAAA

\$15,000

Mid-America Arts Alliance

Jacobs, Margaret **History**

Pauley Symposium on History, Truth, and Reconciliation

\$5,000

Nebraska Humanities Council

Borstelmann, Thomas

History

Richmond, John **Glenn Korff School of Music**

* Clavichord Instrument

\$9,500

Various Sources

Seefeldt, William **History**

Sustaining Digital History

\$49,116

NEH

Thomas, William

History

Shear, Donna **University of Nebraska Press**

Early American Regions

\$30,100

University of Georgia

Literary Publishing, Digitization, and E-Pub Conversion
at the University of Nebraska Press

\$20,000

NEA

Elias-Rowley, Kristen

University of Nebraska Press

Faust, Jana

University of Nebraska Press

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

* Residency with STREB

\$20,000

NEA

* STREB Residency and Performance of Essentialist Acts

\$11,000

New England Foundation for the Arts

Arts Across Nebraska Introduces Nebraskans of All Ages
to Modern Dance, Leaving a Lasting Legacy Throughout the State

\$20,000

NEA

Arts across Nebraska Extension

\$23,000

Nebraska Arts Council

Yoon, Hye Yung**Glenn Korff School of Music**

Music for Hope Concert Series

\$5,000

Woods Charitable Fund



Pioneering Partnerships for Innovation™

NUtech Ventures connects innovators with the people and resources they need to start companies, develop products and create jobs. If you're interested in starting a company, licensing your technologies or securing developmental funding for your leading-edge research, we can help you connect with industry partners, entrepreneurs and investors. Because we're commercialization agents and not just brokers of intellectual property, we represent your interests to external partners. We add value to your research by enabling a fully collaborative process for joint creation, development and commercialization so your technologies can change the world.

We would like to recognize the following UNL inventors and creators whose technologies have formed the basis of licensing agreements with our industry partners between July 1, 2012, and June 30, 2013.

(UNL faculty and staff are indicated in red. Other co-inventors are students, postdocs or collaborators at other institutions.)

2012-2013 LICENSE AGREEMENTS

David Allen, Engineering; **Yong Rak Kim**, Civil Engineering;
Roberto F. Soares, Flavio Souza

Technology: Computational Model for Predicting Asphaltic Pavement Life (2 licenses)

Gary Anderson, Veterinary and Biomedical Sciences

Technology: BRSV Hybridoma Cell Line 8G12 Secreting Monoclonal Antibodies

David J. Andrews, John Rajewski, Ismail M. Dweikat,

Agronomy and Horticulture; Linda Pavlish

Technology: Nebraska Bioenergy Millet Hybrid (NBMH) aka "MooMillet"

P. Stephen Baenziger, Agronomy and Horticulture

Technology: Alliance Hard Red Winter Wheat

Technology: Millennium Hard Red Winter Wheat

P. Stephen Baenziger, Mitchell Montgomery, Carol Speth, Greg Dorn, Agronomy and Horticulture

Technology: Barley Experimental Lines: NB99875, NB07410, NB07411, NB07412, NB08428, NB09427, NB09433, NB09434, NB09437, NB99845(=P-845), NB98919 (=P-919)

P. Stephen Baenziger, Greg Dorn, Mitchell Montgomery,

Agronomy and Horticulture

Technology: P-954, P-721, P-713, P-919 Winter Barley

P. Stephen Baenziger, Greg Dorn, Mitchell Montgomery, Richard Little, Agronomy and Horticulture; Jerry Bohlmann

Technology: Hard Red Winter Wheat Cultivar N104421 "Robidoux"

Christopher Alan Bruening, George Gogos,

Mechanical & Materials Engineering; Brian Neilson

Technology: Vaporizer

Christopher Alan Bruening, George Gogos,

Mechanical & Materials Engineering

Technology: Ignition Chamber

Neal M. Bryan, Richard A. Lombardo, Laurie Bellows, Graduate Studies; **Steven E. Swartz**, Center for Teaching and Study of Applied Ethics; **Sara Conrad**, Research Compliance Services

Technology: Online Course in the Responsible Conduct of Research

Kenneth G. Cassman, James E. Specht, Agronomy and Horticulture; **Albert Weiss**, School of Natural Resources; Tri D. Setiyono, Achim Dobermann

Technology: SoySim - A Simulation Model for Soybean Growth and Yield

Ian J. Cottingham, Kevin Farrell, Ashok Samal, Computer Science and Engineering; **Alan Tomkins, Juan Paulo Ramirez**, Public Policy Center; Brian Andrew Knapp

Technology: Proactive Police Patrol Information (P3i)

Ismail M. Dweikat, Agronomy and Horticulture

Technology: Kenaf and Tropical Maize

Ismail M. Dweikat, John Rajewski, Agronomy and Horticulture
Technology: Development of Seedless Sweet Sorghum Hybrid - 26127A x male #2

Shane M. Farritor, Mechanical & Materials Engineering
Technology: System for Imaging and Measuring Rail Deflection

Shane M. Farritor, Mechanical & Materials Engineering;
Jack Mondry
Technology: Shape Memory Alloy Actuated Grasper for Minimally Invasive Surgical Robots

Shane M. Farritor, Mechanical & Materials Engineering;
Thomas Frederick, Eric Markvicka
Technology: Unipolar Cautery Device with Suction/Irrigation for a Surgical Robot
Technology: Insertable Miniature in Vivo Surgical Robot with Embedded Control

Shane M. Farritor, Mechanical & Materials Engineering;
Thomas Frederick, Eric Markvicka; Dmitry Oleynikov, UNMC
Technology: Insertion of a Surgical Robot into an Insufflated Body Cavity

Shane M. Farritor, Mechanical & Materials Engineering;
Joe Bartels, Thomas Frederick, Eric Markvicka, Jack Mondry
Technology: Miniature In Vivo Surgical Robot for Single-Incision Surgery

Shane M. Farritor, Mechanical & Materials Engineering;
Thomas Frederick, Joe Bartels
Technology: Bipolar Robotic End-Effector with Integrated Dissection Capabilities (Ligasure)

Shane M. Farritor, Mechanical & Materials Engineering;
Tyler Wortman, Ryan L. McCormick, Eric Markvicka;
Dmitry Oleynikov, UNMC
Technology: Robotic Surgical Devices, Systems and Related Methods

George L. Graef, Leslie Korte, Agronomy and Horticulture;
Dennis White, Travis L. Wegner
Technology: Soybean Variety U03-300134
Technology: Soybean Variety U07-135601R

George L. Graef, Agronomy and Horticulture
Technology: U03-825124 Roundup Ready Soybean Variety

George L. Graef, Leslie Korte, Agronomy and Horticulture;
Dennis White
Technology: NE3001 Soybean Variety
Technology: Soybean Germplasm

George L. Graef, Leslie Korte, Agronomy and Horticulture;
Dennis White, Leandro Alberto Castenada Rivera
Technology: NEX2403K2R Round Up Ready Soybean Variety

George L. Graef, Leslie Korte, James E. Specht, Agronomy and
Horticulture; Dennis White, Travis L. Wegner
Technology: Soybean Varieties

Jason Gross, Biological Systems Engineering; Chris Henry
Technology: Movable Center Pivot Fence for Cattle

E. Charles Healey, Special Education and
Communications Disorders
Technology: Cognitive, Affective, Linguistic, Motor and Social
Assessment (CALMS)

Alan Kolok, Biology; Heiko Schoenfuss
Technology: Mini-mobile Environmental Monitoring Unit

Bryan Leavitt, School of Natural Resources
Technology: CDAP-2 CALMIT Data Acquisition Program-2

Haorong Li, Siu Kit Lau, Yanshun Yu, Durham School of
Architectural Engineering and Construction; **Tian Zhang**,
Civil Engineering-PKI-Omaha
Technology: Novel Heat Pump System for Biomass Energy
Recovery for Hot Water and Space Heating

Haorong Li, Yanshun Yu, Durham School of Architectural Engineering and Construction; Daihong Yu
Technology: A Low-cost, Scalable, Negative-pressure Gas Collection System
Technology: A Scalable, High-performance, Active-pressure Gas Collection System
Technology: Novel Biomass Waste Aerobic Bio-degradation System for Producing Sustainable Heat Energy and Bio-fertilizers

Haorong Li, Yanshun Yu, Yong Kwon Cho, Durham School of Architectural Engineering and Construction; Daihong Yu
Technology: A Fast, Low-cost, Scalable Waste Anaerobic Bio-degradation System for Producing Sustainable Bio-gas Energy and Bio-fertilizers

Haorong Li, Durham School of Architectural Engineering and Construction; Daihong Yu
Technology: A Rapid Two-stage Waste Bio-degradation System for Producing Sustainable Bio-heat, -gas, and -fertilizers

Aaron Lorenz, Agronomy and Horticulture; **Tamra Jackson-Ziems**, Plant Pathology
Technology: Molecular Markers for Screening for Tolerance to Goss's Wilt

Sally Mackenzie, Agronomy and Horticulture; Roberto de la Rosa Santamaria
Technology: An Inducible Cytoplasmic Male Sterility and Fertility Restoration System for Hybrid Seed Production in Crops (2 licenses)

Carl A. Nelson, Mechanical & Materials Engineering; Jeffrey Middy, Alan Goyzueta; Dmitry Oleynikov, UNMC
Technology: Natural Orifice Material Delivery System for Surgery

Shadi Othman, Huihui Xu, Karin Wartella, Biological Systems Engineering; Vahid Khalilzad-Sharghi, Ian Bargar
Technology: Smart Bioreactor (2 licenses)

Ravi F. Saraf, Chemical and Biomolecular Engineering; Seung-Woo Lee
Technology: Pressure-sensitive Electrochemical Device

Timothy Savage, Peter W. Stewart, Shane Kimbrough, Joel Brehm, Research Information Systems; Samantha Warriner, Charles Cihacek, Brett Baumert, Norman O. Braaten
Technology: NUgrant

Blair Siegfried, Entomology
Technology: European Corn Borer Displaying Resistance to CRY1AB Bt Toxin

Blair Siegfried, Entomology; Andre Crespo
Technology: A Cry1Ab Resistant Strain of the European Corn Borer, *Ostrinia nubilalis* (Lepidoptera: Crambidae)

Anuradha Subramanian, Chemical and Biomolecular Engineering;
Joseph A. Turner, Mechanical & Materials Engineering
Technology: Ultrasonic Bioreactor

Joseph A. Turner, Mechanical & Materials Engineering;
Christopher M. Kube
Technology: Method to Determine Residual Stress in Polycrystalline Materials

Harshavardhan Thippareddi, Food Science and Technology;
Jeyamkondan Subbiah, Biological Systems Engineering;
Govindarajan Suresh Babu
Technology: MicroTrack: An Environmental Monitoring Software for the Food Industry

Mehmet C. Vuran, Computer Science and Engineering; Xin Dong, David J. Anthony
Technology: Antenna for Wireless Underground Communication (2 licenses)

Haishun Yang, Kenneth G. Cassman, Daniel T. Walters, Agronomy and Horticulture; Achim Dobermann
Technology: Hybrid-Maize: A Simulation Model for Corn Growth and Yield

Yiqi Yang, Narendra Reddy, Textiles, Merchandising and Fashion Design

Technology: Cellulosic Fiber Bundles from Cornhusk: Methods of Fiber Bundle Production and the Resulting High Quality Fiber Products for Textiles and Other Applications

Technology: High Quality and Long Natural Cellulose Fibers from Rice Straw and the Method of Producing the Fibers

Technology: Long Natural Cellulose Fibers from Switchgrass for Industrial Applications

Technology: Long Natural Cellulose Fibers from Sorghum Stalk and Leaves for Industrial Applications

Janos Zemleni, Nutrition and Health Sciences

Technology: Polyclonal Antibodies to Biotinylated Histones H3 and H4

CREATIVE ACTIVITY

Faculty who created, performed or produced creative works in
fine and performing arts and architecture, nationally or internationally,
July 1, 2012-June 30, 2013
Submitted by faculty, chairs/heads or deans

John R. Bailey

Glenn Korff School of Music

Conductor, International Flute Orchestra. Spanish concert tour performed at conservatories and cathedrals in Bilbao, Barcelona, Zaragoza, Segovia, Basque Country and Catalonia.

Performer, flute, lecture/recital, "Teaching and Performing the Widor Suite." National Flute Association Convention, New Orleans, LA.

Performer, flute, lecture/recital, "Salon Music for Professionals: Flute and Piano Music of Theodor Blumer." College Music Society International Conference, Buenos Aires, Argentina.

Guest conductor and soloist, flute ensemble. New Jersey Flute Society Flute Choir Day, Drew University, Madison, NJ.

Diane Barger

Glenn Korff School of Music

Performer, clarinet. Featured soloist and member of the American Clarinet Professors Clarinet Choir at the International Clarinet Association's ClarinetFest®, Assisi, Italy.

Performer, clarinet. Featured guest artist at the University of Alabama-Birmingham Clarinet Symposium, Birmingham, AL.

Ian Borden

Johnny Carson School of Theatre and Film/ Medieval and Renaissance Studies

Performer and fight director, *The River and the Mountain*. Stage production performed at multiple locations in Washington, DC, and Baltimore, MD.

Performer and fight director, *The Three Musketeers*. Stage production at Black Hills Playhouse, Custer State Park, SD.

Performer, *As You Like It*. Stage production at South Dakota Shakespeare Festival, Vermillion, SD.

Fight director, *The Three Musketeers*. Stage production at Iowa State University, Ames, IA.

Paul Haar

Glenn Korff School of Music

Performer, saxophone. Featured artist with the Amazonia Jazz Band at Festival Internacional De Musica Do Para. Teatro da Paz, Behlem, Para, Brazil.

Karen Kunc

Art and Art History

Artist. Print exhibit at the 8th Biennale Internationale de'Estampe Contemporaine. Lasnier Exhibition Center, Trois-Rivières, Quebec, Canada.

Artist. Print exhibit at the 2nd Printmaking Masters Series. Hangzhou Art Exposition, World Trade Center, Hangzhou, Zhejiang Province, China.

The Moran Woodwind Quintet **Glenn Korff School of Music**

John Bailey, flute; William McMullen, oboe; Diane Barger, clarinet; Alan Mattingly, horn; Jeffrey McCray, bassoon

Performers, concert tour. The University of North Texas, Texas Christian University, Baylor University, Southeastern Oklahoma State University.

Eric Richards **Glenn Korff School of Music**

Composer, *ABIDE*. Commissioned for the Mid-Atlantic Collegiate Jazz Orchestra and performed at St. Peter's Church, New York, NY.

Conductor and composer, *JOSHUA*. Written for the Mid-Atlantic Collegiate Jazz Orchestra and performed at St. Peter's Church, New York, NY.

Conductor, *Amazing Grace*. Arranged for the Mid-Atlantic Collegiate Jazz Orchestra and performed at St. Peter's Church, New York, NY.

Conductor, *Freedom Jazz Dance*. Arranged for Belwin Premier Jazz Publications, Los Angeles, CA. Published by Belwin/Alfred Publications.

Conductor, *Eleanor Rigby*. Arranged for Hal Leonard Publications, Milwaukee, WI. Published internationally by Hal Leonard Publications.

Composer, *Gosto Importa!* Performed by the UNL Jazz Orchestra at the Elmhurst College Jazz Festival, Elmhurst, IL.

Composer, *The Lord's Prayer*. Performed on national concert tour by the Concordia University Chamber Singers.

Composer, *C-H-E Groove*. Commissioned by the Conjunto High-Energy Big Band, Tokyo, Japan.

Paul Steger **Johnny Carson School of Theatre and Film**

Director, *Comedy of Errors*. Stage production at Houston Shakespeare Festival, Houston, TX.

Fight director, *Hamlet*. Stage production at Houston Shakespeare Festival, Houston, TX.

Sandy L. Veneziano **Johnny Carson School of Theatre and Film**

Art director, *Nebraska*. Film produced by Paramount Pictures, opening nationwide in 2013.

James Goeke **Natural Resources**
Patricio Grassini **Agronomy and Horticulture**
Ronnie Green **Animal Science/IANR**
Paul Jasa **Biological Systems Engineering**
Roberto Lenton **Biological Systems Engineering/
Daugherty Water for Food Institute**
Derrel Martin **Biological Systems Engineering**
Ron Yoder **Biological Systems Engineering/IANR**

Creators, *Lake McConaughy Water Interpretive Project*. Interactive multi-media exhibit, various locations.

BOOKS

Faculty who wrote or edited books published July 1, 2012-June 30, 2013

UNL authors in red

Submitted by faculty, chairs/heads or deans

Marco Abel

English

Editor, with Michael Wedel, Chris Wahl and Jesko Jockenhövel. *Im Angesicht des Fernsehens: Der Filmemacher Dominik Graf (In the Face of Television: The Filmmaker Dominik Graf)*. Munich, Germany: text + kritik.

Susan Belasco

English

Editor, with Linck Johnson. *The Bedford Anthology of American Literature, Volumes 1 and 2*. Boston, MA: Bedford/St. Martins.

Charlyne Berens

Journalism and Mass Communications

Author. *One House*. Lincoln, NE: University of Nebraska Press.

David R. Beukelman

Special Education and
Communication Disorders

Author, with Pat Mirenda. *Augmentative and Alternative Communication: Supporting Children and Adults with Communication Needs*. Baltimore, MD: Paul H. Brookes Publishing Co.

Alan Bond

Biological Sciences

Author, with Judy Diamond, University of Nebraska State Museum. *Concealing Coloration in Animals*. Cambridge, MA: Harvard University Press.

Brian H. Bornstein

Psychology

Editor, with Monica K. Miller. *Stress, Trauma, and Wellbeing in the Legal System*. New York, NY: Oxford University Press.

Eve Brank

Psychology

Editor, with Richard Wiener, *Psychology and Law*. *Problem Solving Courts: Social Science and Legal Perspectives*. New York, NY: Springer.

Anthony J. Bushard

Glenn Korff School of Music

Author. *Leonard Bernstein's On the Waterfront: A Film Score Guide*. Lanham, MD: Scarecrow Press.

Janet F. Carlson

BUROS

Editor, with Kurt F. Geisinger, *Educational Psychology*, Jennifer E. Schlueter and Linda L. Murphy. *Pruebas Publicadas en Español (Spanish Tests in Print)*. Lincoln, NE: Buros Center for Testing.

Joy Castro

English

Author. *Island of Bones*. Lincoln, NE: University of Nebraska Press.

Author. *Family Trouble*. Lincoln, NE: University of Nebraska Press.

Author. *The Truth Book*. Lincoln, NE: University of Nebraska Press.

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Elaine Chan

**Teaching, Learning and
Teacher Education**

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Kwame Dawes

English

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John DeFrain

Child, Youth and Family Studies

Author, with Gail Brand, Maureen Burson, Jeanette Friesen, Mary Nelson and Cindy Strasheim, all Southeast Research and Extension Center; Ann Fenton and LaDonna Werth, both Northeast Research and Extension Center; Janet Hanna, Dianne Swanson, Kathleen Lodal and Beth Birnstihl, all Cooperative Extension. *Getting Connected, Staying Connected: Loving Each Other Day by Day*. Bloomington, IN: iUniverse.

Robert C. Denicola

Law

Author. *Copyright*. Saint Paul, MN: Foundation Press.

Judy Diamond

University of Nebraska State Museum

Author, with Tom Floyd, University Television; Martin Powell; Angie Fox, University of Nebraska State Museum; Ann Downer-Hazell; Charles Wood, Nebraska Center for Virology. *World of Viruses*. Lincoln, NE: University of Nebraska Press.

Wheeler Winston Dixon

English

Author. *Streaming: Movies, Media and Instant Access*. Lexington, KY: University Press of Kentucky.

Michael D. Dodd

Psychology

Editor, with John Flowers, *Psychology*. *The Influence of Attention, Learning, and Motivation on Visual Search (Nebraska Symposium on Motivation)*. New York, NY: Springer.

Dennis M. Ferraro

Natural Resources

Author, with Lisa A. Pennisi, Scott E. Hygnstrom and Stephen M. Vantassel, all Natural Resources. *Bats In and Around Structures*. Lincoln, NE: UNL EdMedia.

Thomas G. Franti

Biological Systems Engineering

Author, with Steven N. Rodie, *Agronomy and Horticulture*. *Rain Garden Design*. Lincoln, NE: UNL EdMedia.

Tanya Gachovska

Electrical Engineering

Author, with Jerry Hudgins, *Electrical Engineering*; Enrico Santi, Angus Bryant and Patrick Palmer. *Modeling Bipolar Power Semiconductor Devices*. San Rafael, CA: Morgan & Claypool Publishers.

Sarah J. Gervais

Psychology

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Amy M. Goodburn **English**
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Author. *Government Issue: Comics for the People*. New York, NY: Abrams Comic Arts.

William Grange **Johnny Carson School of Theatre and Film**
Author. *A Primer in Theatre History*. Lanham, MD: University Press of America.

David S. Hage **Chemistry**
Author, with James D. Carr, **Chemistry**. *Chimica Analitica e Analisi Quantitativa (Analytical Chemistry and Quantitative Analysis)*. Padua, Italy: Piccin.

Gerard S. Harbison **Chemistry**
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Michael C. Hoff **Art and Art History**
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Melissa J. Homestead **English/
Women's and Gender Studies**
Editor, with Pamela T. Washington. *E. D. E. N. Southworth: Recovering a Nineteenth-Century Popular Novelist*. Knoxville, TN: University of Tennessee Press.

Ron Hull **University Television**
Author. *Backstage Stories from My Life in Public Television*. Lincoln, NE: University of Nebraska Press.

John Janovy, Jr. **Biological Sciences**
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Jay Jenkins **Panhandle Research and Extension Center**
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Andrew Jewell **University Libraries**
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Matthew L. Jockers **English**
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Paul A. Johnsgard**Biological Sciences**

Author. *Yellowstone Wildlife: Ecology and Natural History of the Greater Yellowstone Ecosystem*. Boulder, CO: University Press of Colorado.

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Marianne Kunkel**English**

Editor, with James Engelhardt. *The Prairie Schooner Book Prize Tenth Anniversary Reader*. Lincoln, NE: University of Nebraska Press.

Stephen E. Lahey**Classics and Religious Studies**

Translator. *Wyclif: Trialogus*. Cambridge, England: Cambridge University Press.

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Glenn Ledder**Mathematics**

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Brian D. Lepard**Law**

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J. David Logan**Mathematics**

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Suping Lu**University Libraries**

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Colleen E. Medill**Law**

Author, with Grant S. Nelson, Dale A. Whitman and Shelley Ross Saxer. *Contemporary Property*. St. Paul, MN: West.

J. Ron Nelson**Special Education and
Communication Disorders**

Author, with Ronald C. Martella, Nancy E. Marachand-Martella and Mark O'Reilly. *Comprehensive Behavior Management: Individualized, Classroom, and Schoolwide Approaches*. Los Angeles, CA: SAGE.

Tom Osborne**Athletics**

Author. *On Solid Ground*. Lincoln, NE: University of Nebraska Press.

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

Editor, with Samuel Totten. *Educating about Social Issues in the 20th and 21st Centuries: A Critical Annotated Bibliography, Volume 2*. Charlotte, NC: Information Age Publishing.

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Kenneth M. Price**English**

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Yi Qian**Computer and Electronics Engineering**

Editor, with Rose Q. Hu. *Heterogeneous Cellular Networks*. United Kingdom: John Wiley & Sons Ltd.

George E. Rejda**Finance**

Author, with Michael J. McNamara. *Principles of Risk Management and Insurance*. Upper Saddle River, NJ: Pearson.

Steven W. Ress**Water Center**

Author, with René J. Lanik, Cheryl Alberts, Sandi Alswager-Kartsens, all Agricultural Leadership, Education and Communication/IANR-Cooperative Extension; Bruce I. Dvorak, Biological Systems Engineering/IANR-Cooperative Extension. *The Nebraska "CLEAR" Program: Helping Restore Community Lakes and Ponds*. Lincoln, NE: Jacob North.

Guy J. Reynolds **English**

Editor. *My Ántonia*, by Willa Cather, Bedford College Edition. Boston, MA: Bedford/St. Martins.

Kari A. Ronning **English**

Editor. *Song of the Lark* (Willa Cather scholarly edition). Lincoln, NE: University of Nebraska Press.

Corey B. Rumann **Educational Administration**

Editor, with Florence A. Hamrick. *Called to Serve: A Handbook on Student Veterans and Higher Education*. San Francisco, CA: Jossey-Bass.

Gregory E. Rutledge **English/
Institute for Ethnic Studies**

Author. *The Epic Trickster in American Literature: From Sunjata to So(u)*. New York, NY: Routledge.

Brandon Ruud **Sheldon Memorial Art Gallery
and Sculpture Garden**

Editor. *Encounters*. Lincoln, NE: University of Nebraska Press.

William J. Seiler **Communication Studies**

Author, with Melissa L. Beall and Joseph P. Mazer. *Communication Making Connections*. Boston, MA: Pearson.

Ralph Skomski **Physics and Astronomy**

Author. *Simple Models of Magnetism*. New York, NY: Oxford University Press.

Shari J. Stenberg **English**

Author. *Composition Studies Through a Feminist Lens*. Anderson, SC: Parlor Press.

Jeffrey R. Stevens **Psychology/
Center for Brain, Biology and Behavior**

Editor, with Peter Hammerstein. *Evolution and the Mechanisms of Decision Making*. Cambridge, MA: MIT Press.

Jordan Stump **Modern Languages and Literature**

Translator, with Lutz Bassmann. *We Monks and Soldiers*. Lincoln, NE: University of Nebraska Press.

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

Editor, with Elbio R. A. Dagotto, Chang-Beom Eom and Ramamoorthy Ramesh. *Multifunctional Oxide Heterostructures*. New York, NY: Oxford University Press.

Roland Vegso **English**

Author. *The Naked Communist: Cold War Modernism and the Politics of Popular Culture*. New York, NY: Fordham University Press.

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Roger Welsch**Anthropology**

Author. *Embracing Fry Bread*. Lincoln, NE: University of Nebraska Press.

Kenneth Winkle**History**

Author. *Lincoln's Citadel: The Civil War in Washington, D.C.* New York, NY: W.W. Norton & Co.

David Wishart**Geography**

Author. *Last Days of the Rainbelt*. Lincoln, NE: University of Nebraska Press.

Sandra Zellmer**Law**

Author. *Comparative Environmental and Natural Resources Law*. Durham, NC: Carolina Academic Press.

Janos Zemleni**Nutrition and Health Sciences**

Editor, with John W. Suttie, Jesse F. Gregory III and Patrick Stover. *Handbook of Vitamins*. Boca Raton, FL: Taylor and Francis.

Tian C. Zhang**Civil Engineering**

Editor, with Rao Y. Surampalli, C.S.P. Ojha, B. R. Gurjar, R.D. Tyagi and C.M. Kao. *Climate Change Modeling, Mitigation, and Adaptation*. Reston, VA: ASCE.

RECOGNITIONS AND HONORS

Faculty who have been elected to honor academies or who received national or international honors or awards, July 1, 2012-June 30, 2013

Submitted by faculty, chairs/heads or deans

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

National Academy of Sciences

James Van Etten **Plant Pathology**

National Academy of Sciences

James Alfano **Plant Pathology**

Fellow, American Association for the Advancement of Science

Luchezar Avramov **Mathematics**

Fellow, American Mathematical Society

Lloyd Bell **Agricultural Leadership,
Education and Communication**

Fellow, American Association for Agricultural Education

Mary Bomberger Brown **Natural Resources**

Fellow, American Ornithologists Union

Les Carlson **Marketing**

Lamb, Hair, McDaniel Best Paper Award - Marketing Education Track, Society of Marketing Advances Conference

Kenneth G. Cassman **Agronomy and Horticulture**

Presidential Award, Crop Science Society of America

Raymond Chollet **Biochemistry/
Center for Plant Science Innovation**

Fellow, American Society of Plant Biologists

Kwame Dawes **English**

Jerome J. Shestack Prize, *American Poetry Review*

David DiLillo **Psychology**

Fellow, American Psychological Association

Anne Duncan **Classics and Religious Studies**

Solmsen Fellowship, Institute for Research in the Humanities, University of Wisconsin-Madison

Tonia Durden **Child, Youth and Family Studies**

Early Achievement Award, National Family Life and Human Development Specialists

Matthew Dwyer **Computer Science and Engineering**

Fellow, Institute of Electrical and Electronics Engineers

Dana Fritz **Art and Art History**

2013 Imagemaker Award, The Society for Photographic Education

Karen Kunc**Art and Art History**

Fulbright Specialist Project Grant, U.S. Department of State
Fulbright Program

Best of Show, Canadian Bookbinders & Book Arts Guild, Art of the
Book Exhibition

Yvonne Lai**Mathematics**

Janet Duffin Award, British Society for Research into Learning
Mathematics

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

Charter Fellow, National Academy of Inventors

Stephen Hales Prize, American Society of Plant Biologists

W. James Lewis**Mathematics/Center for Science,
Mathematics and Computer Education**

Fellow, American Mathematical Society

Ming Li**Psychology**

Fellow, Division 6, American Psychological Association

Sally Mackenzie**Biological Sciences/
Agronomy and Horticulture/
Center for Plant Science Innovation**

Fellow, American Society of Plant Biologists

Derrel L. Martin**Biological Systems Engineering**

Heermann Sprinkler Irrigation Award, American Society of
Agricultural and Biological Engineers

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

Fellow, American Association for the Advancement of Science

Carl Nelson**Mechanical & Materials Engineering**

Da Vinci Innovation Award (for ICARE system, Recreation and
Leisure division), National Multiple Sclerosis Society

Carrie Lee Patterson**Johnny Carson School
of Theatre and Film**

Howard Frank Mosher Short Fiction Prize, *Hunger Mountain
Journal of the Arts*

Prem S. Paul**Research and Economic Development**

Charter Fellow, National Academy of Inventors

Amy L. Peterson**Southeast Research
and Extension Center**

President, National Extension Association of Family and Consumer
Sciences

Gary Pickard**School of Veterinary Medicine
and Biomedical Sciences**

Visiting Research Professorship, Hong Kong University

Yi Qian **Computer and Electronics Engineering**
2012 Best Paper Award, Institute of Electrical and Electronics Engineers

Petronela Radu **Mathematics**
Fulbright Scholar, Council for International Exchange of Scholars

Steven N. Rodie **Agronomy and Horticulture**
Fellow, American Society of Landscape Architects

Gregory E. Rutledge **English/
Institute for Ethnic Studies**
Fulbright, U.S. Department of State Fulbright Program

Philip Sapirstein **Art and Art History/
Center for Digital Research
in the Humanities**
Fulbright Post-doctoral Award, United States-Israel Educational Foundation
Post-doctoral Fellowship, Sonia and Marco Nadler Institute of Archaeology of Tel Aviv University

Mario Scalora **Public Policy Center/Psychology**
Fellow, American Psychological Association
Distinguished Achievement Award, Association of Threat Assessment Professionals

Julia Schleck **English/Medieval and Renaissance Studies**
Fellow, Folger Shakespeare Library

Marc Schniederjans **Management**
President, Decisions Sciences Institute

David J. Sellmyer **Physics and Astronomy**
Distinguished Achievement Award, Iketani Science and Technology Foundation, Nagasaki, Japan

Hamid Sharif **Computer and Electronics Engineering**
Fulbright Scholar, Council for International Exchange of Scholars

L. Dennis Smith **Biological Sciences**
Fellow, American Association for the Advancement of Science

Ravi Sohi **Marketing**
2012 Stern Award, American Marketing Association Foundation

Alison G. Stewart **Art and Art History**
Senior Researcher/Lecturer Fulbright Grant, Fulbright Commission

Colleen Syron **Lied Center for Performing Arts/
Art and Art History**
Best National Magazine Advertising (Series), Marine Marketers of America

John D. Turner **Classics and Religious Studies**
“Gnosticism, Platonism and the Late Ancient World,” essays in honor of the work of John D. Turner, Charles J. Mach University of Classics and Religious Studies, Brill, the Netherlands

James Van Etten **Plant Pathology**
Charter Fellow, National Academy of Inventors

Judy Walker **Mathematics**
Fellow, American Mathematical Society

Roger Wiegand **Mathematics**
Fellow, American Mathematical Society

Sylvia Wiegand **Mathematics**
Fellow, American Mathematical Society

Tadeusz A. Wysocki **Computer and Electronics Engineering**
Professor of the Republic of Poland, conferred by Bronisław Komorowski, President of Poland

Tian C. Zhang **Civil Engineering**
Fellow, American Society of Civil Engineering
Elected Member, European Academy of Sciences and Arts
Diplomate of Water Resources Engineer, American Academy of Water Resources Engineers

Glossary of Federal Agency Abbreviations

- DHS Department of Homeland Security
DNDO Domestic Nuclear Detection Office
- 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
ITA International Trade Administration
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
AMR Army Medical Research
ARO Army Research Office
DRMRP Defense Deployment Related Medical
Research Program
DTRA Defense Threat Reduction Agency
DURIP Defense University Research
Instrumentation Program
MDA Missile Defense Agency
MURI Multidisciplinary University Research Initiative
NGIA National Geospatial Intelligence Agency
ONR Office of Naval Research
USAMRAA United States Army Medical Research
Acquisition Activity
- DOE Department of Energy
- DOI Department of Interior
BR Bureau of Reclamation
GS Geological Survey
- DOJ Department of Justice
- DOL Department of Labor
- DOT Department of Transportation
FHWA Federal Highway Administration
FRA Federal Railroad Administration
RITA Research and Innovative
Technology Administration
- ED Department of Education
GAANN Graduate Assistance in Areas of National Need
IES Institute of Education Sciences

EPA	Environmental Protection Agency
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
DFCI	Dana-Farber Cancer Institute
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
NIA	National Institute on Aging
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
NINDS	National Institute of Neurological Disorders and Stroke
NLM	National Library of Medicine
NSA	National Security Agency
NSF	National Science Foundation
EPSCoR	Experimental Program to Stimulate Competitive Research
USAID	United States Agency for International Development

USDA	United States Department of Agriculture
AFRI	Agriculture and Food Research Initiative
APHIS	Animal and Plant Health Inspection Service
ARS	Agricultural Research Service
CSREES	Cooperative State Research, Education & Extension Service
FCIC	Federal Crop Insurance Corporation
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
NRICGP	National Research Initiative Competitive Grant Program
RD	Rural Development
RMA	Risk Management Agency

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