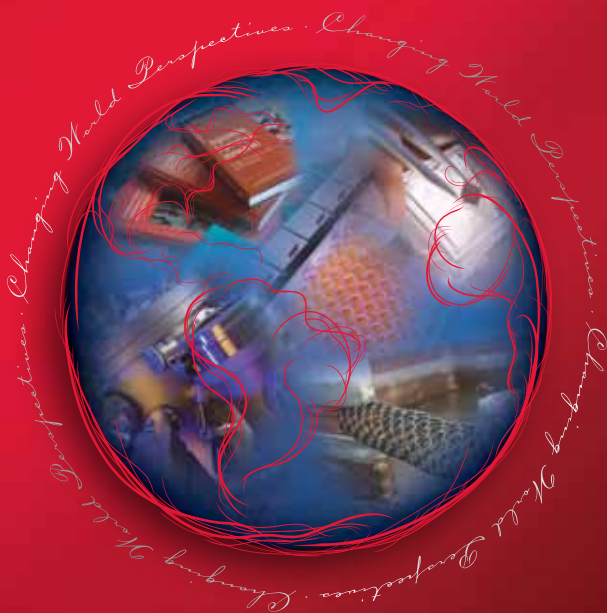


# Research and Creative Activity

2009 Major Sponsored Programs  
and Faculty Awards  
for Research and Creative Activity



Office of Research and  
Economic Development  
University of Nebraska-Lincoln



<b>3</b>	<b>Awards of \$3 million or more</b>
<b>18</b>	<b>Awards of \$1 million to \$2,999,999</b>
<b>26</b>	<b>Awards of \$200,000 to \$999,999</b>
<b>64</b>	<b>American Recovery and Reinvestment Act Awards</b>
<b>70</b>	<b>Early Career Awards</b>
<b>73</b>	<b>Arts and Humanities Awards of \$50,000 or more</b>
<b>78</b>	<b>Arts and Humanities Awards of \$5,000 to \$49,999</b>
<b>80</b>	<b>Startups</b>
<b>82</b>	<b>License Agreements</b>
<b>83</b>	<b>Option Agreements</b>
<b>84</b>	<b>Creative Activity</b>
<b>85</b>	<b>Books</b>
<b>93</b>	<b>Recognitions and Honors</b>

On the Cover: These images reflect the diversity and global reach of research at the University of Nebraska–Lincoln. From discoveries in nanoscience, nutrigenomics and software engineering to innovative initiatives in math achievement, child welfare, water and climate change, UNL faculty are engaged in meeting the challenges of a changing world.



**Chancellor Harvey Perlman and Vice Chancellor Prem Paul**

This eighth annual “Major Sponsored Programs and Faculty Awards for Research and Creative Activity” booklet highlights the successes of University of Nebraska–Lincoln faculty during 2009. 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; startups and 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. Large grants in fields ranging from rural and math education to water and renewable energy to virology, redox biology and nanomaterials enable UNL faculty to address important challenges facing Nebraska, our nation and the world. Our external research funding reflects their achievements, reaching a new record total of \$122 million in fiscal year 2009, marking a 13 percent increase over last year.

We are harnessing this momentum to advance new initiatives with an innovative perspective and research that responds to a changing world. We are reaching beyond our institutional, state and national borders to build partnerships that seek solutions to global challenges, provide our students with an interdisciplinary, international perspective, and enhance our state’s economy.

As you read the accomplishments in this booklet, I invite you to imagine how the innovative and collaborative research, scholarship and creative activity of our faculty is changing our world and meeting the complex global challenges that lie before us.

Thank you for your interest in and support for research and creative activity at the University of Nebraska–Lincoln!

Prem S. Paul  
Vice Chancellor for Research and  
Economic Development



# AWARDS OF \$3 MILLION OR MORE

Active awards in 2009

\* Indicates new in 2009

## Allen, Craig

## Natural Resources

\* IGERT: Resilience and Adaptive  
Governance in Stressed Watersheds

\$3,116,173

NSF

8/15/09 - 7/31/10

Fritz, Sherilyn

Geosciences

Samal, Ashok

Computer Science and Engineering

Tyre, Richard

Natural Resources

Tomkins, Alan

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, will lead 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 will fund an education project focused on resilience and adaptive governance in stressed watersheds. Doctoral students from many disciplines across the natural, computational and social sciences will study resilience and adaptive management strategies for stressed watersheds in the U.S. and Eastern Europe. The program will integrate scientific, socio-economic and legal aspects involved in studying and managing complex systems of people and nature.

## Allen, David

## Engineering

Blast Wave Absorbing Structures:  
An Experimental & Modeling Program

\$7,500,000

DOD-Army Research Laboratory

6/25/04 - 6/24/09



David Allen, dean of the College of Engineering and professor of engineering mechanics, with funding from the Army Research Laboratory-Weapons and Materials Research Directorate, directs a collaborative effort focused on development of new materials and technologies relevant to blast mitigation and weapons detection. The program includes 24 UNL faculty from six different departments—civil engineering, structural engineering, chemical and biomolecular engineering, electrical engineering, engineering mechanics and mechanical engineering—working on 15 multidisciplinary projects. The projects have the common objective of providing new materials and technologies for blast mitigation, mine detection and pathogen detection.

**Becker, Donald****Biochemistry**

Redox Biology Center

\$10,202,043

DHHS-NIH-NCRR

8/1/07 – 7/31/12



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.

**Cassman, Kenneth****Agronomy and Horticulture/Nebraska Center for Energy Sciences Research**

Nebraska Center for Energy Sciences Research

\$5,000,000

Nebraska Public Power District

11/24/09 – 3/31/16

Paul, Prem

Research and Economic Development



Kenneth Cassman directs the Nebraska Center for Energy Sciences Research, 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.

**Chandra, Namas****Engineering**

Army-UNL Center for Trauma Mechanics

\$3,261,250

DOD-Army Research Office

10/1/08 – 9/30/10



Namas Chandra, associate dean in the College of Engineering, has received a grant from the Army Research Office to create the UNL Center for Trauma Mechanics. The center will focus on the effects of blast waves on the head and brain of a fully equipped soldier in the field. The project will study

wave propagation effects on the skull and brain especially under mild traumatic brain injury (TBI) pressure loading conditions. The work of the center will be instrumental in improving understanding of TBI and may lead to design of more effective protection systems that shield soldiers from the combined effects of both blast waves and impact.

### **Cotton, Dan**

### **eXtension**

\$11,070,000

10/1/04 – 12/31/11

National eXtension Project

National Association of State  
Universities and Land-Grant Colleges

eXtension: The Transformation of Cooperative Extension

\$5,702,400

8/15/07 – 8/14/11

Department of Agriculture-CSREES



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](http://www.extension.org).

### **DeKraai, Mark**

### **Public Policy Center**

\$3,129,313

4/1/05 – 9/30/10

Gallagher, Kenneth

\* Child Mental Health State Infrastructure Grant

Nebraska Department of  
Health and Human Services

Special Education and  
Communication Disorders



The Nebraska Department of Health and Human Services is supporting a five-year project directed by Mark DeKraai of UNL's Public Policy Center to build on major behavioral health system reform efforts to develop systems of care specifically for children (age birth to 5; youth; youth with co-occurring disorders; substance abuse; transition age youth). The project aims to individualize service models for children and youth, establish culturally and linguistically appropriate practices, and form a coalition for an integrated, family-centered system for children and families.

**Ells, Mark**

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

Midwest Child Welfare

Technical Assistance Implementation Center

\$8,695,645

DHHS-Administration for Children & Families

9/1/08 – 8/31/13

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 new center will provide long-term consultation and support to child service agencies and tribes in

Nebraska, Iowa, Illinois, Indiana, Kansas, Michigan, Missouri, Minnesota, Ohio and Wisconsin. It will partner 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 system. 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/Research and Economic Development**

\* Executive Function Development in Preschool Children

\$3,310,053

DHHS-NIH-NIMH

8/26/09 – 5/31/14

Wiebe, Sandra

Psychology/Research and Economic Development

Sheridan, Susan

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

Carlo, Gustavo

Psychology

Schutte, Anne

Psychology

Fang, Hua

Psychology



With support from the NIH National Institute of Mental Health, Kim Espy, professor of psychology and associate vice chancellor for research, will continue her research into 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. Dr. 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.



**Farritor, Shane**

**Mechanical Engineering**

Track Stability Assessment & Data Transmission

\$3,534,439

Department of Transportation-FRA

9/17/04 - 12/31/10

Turner, Joseph  
Nelson, Carl

Engineering Mechanics  
Mechanical Engineering



With more than \$3 million in support from the Department of Transportation’s Federal Railroad Administration, associate professor of mechanical engineering Shane Farritor and colleagues are continuing to develop techniques to assess track stability and related high-speed wireless communication to improve the safety of railroad operations. This funding supports research in three different areas of railroad track safety: 1) real-time measurement of track modulus from a moving car, leading to preventative maintenance strategies that relate track modulus data to specific track problems; 2) study of the measurement of rail longitudinal stress, to help reduce rail failure; and 3) study of the use of electrical energy from passing trains to power an efficient warning light system at grade crossings that are not equipped with warning light systems due to the lack of electrical infrastructure, thus reducing accidents at these “passive” grade crossings.

**Goddard, Stephen**

**Computer Science and Engineering**

Drought Risk, Impact and Mitigation Information System

\$6,407,473

Department of Agriculture-RMA-FCIC

9/1/05 - 8/31/10

Wilhite, Donald

Natural Resources



Stephen Goddard



Donald Wilhite

Stephen Goddard, associate professor of computer science and director of UNL’s Laboratory for Advanced Research Computing, is principal investigator in a \$6.4 million joint effort by climatologists and computer scientists to bring cutting-edge computer science technologies to agricultural producers’ age-old decision-making processes. The three-year partnership agreements are between the U.S. Department of Agriculture’s Risk Management Agency, UNL’s Department of Computer Science and Engineering and the UNL-based National Drought Mitigation Center. A separate \$1 million cooperative agreement, directed by Donald Wilhite, professor in the School of Natural Resources and director of the National Drought Mitigation Center, will support continued work on a tool that uses satellite technology and climate information to detect vegetation stress on the ground for a much more detailed view of drought’s scope and potential impact.

**Harwood, David****Geosciences**

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

\$12,978,160

NSF

6/1/05 - 5/31/10

Levy, Richard

Geosciences



David Harwood, professor of geosciences, 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 has 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.

**Jose, H. Douglas****Agricultural Economics**

North Central Risk Management Education Center

\$3,506,736

Department of Agriculture-CSREES

11/15/09 - 11/14/12



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.

**Lewis, Jim**

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

NebraskaMATH

\$9,235,407

NSF

1/1/09 – 12/31/13

Heaton, Ruth

Teaching, Learning and Teacher Education/  
CSMCE

McGowan, Thomas

Teaching, Learning and Teacher Education

Stroup, Walter

Statistics

Edwards, Carolyn

Psychology/Child, Youth and Family Studies

Papick, Ira

Mathematics/CSMCE

Jacobson, Barbara

Lincoln Public Schools



Jim Lewis, professor of mathematics; Ruth Heaton, associate professor of teaching, learning and teacher education; Tom 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.

**Math in the Middle Institute Partnership**

\$5,900,000

NSF

8/1/04 – 7/31/11

Heaton, Ruth

Teaching, Learning and Teacher Education/  
CSMCE

McGowan, Thomas

Teaching, Learning and Teacher Education

Jacobson, Barbara

Lincoln Public Schools

Drs. Lewis, Heaton, McGowan and Jacobson are co-leaders of a \$5.9 million project titled the Math in the Middle Institute Partnership. The goal is to create the next set of leaders in middle school mathematics who will mentor peers and offer challenging courses to their students. With support from the grant, 156 teachers from across Nebraska will take 12 challenging math and pedagogy courses and earn master’s degrees from UNL. Middle school is a gateway to high school success, and efforts to improve middle school learning, especially in mathematics, show benefits at later stages in students’ academic careers.

## Lu, Yongfeng

\* Multi-Energy Processing for Novel Coating Technologies  
\$4,138,000  
4/10/09 – 4/9/11

## Electrical Engineering

DOD-Office of Naval Research



With the support of the Department of Defense's Office of Naval Research, electrical engineering professor 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 (DLC) coatings in open atmosphere. The multi-energy processing approach is a marked improvement over conventional coating techniques that require high vacuum and high temperature. Dr. Lu will apply 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 minimum thermal stress.

Multi-Laser-Beam Open-Atmosphere Surface  
Coating Techniques Based on Precursor Excitation,  
Photodissociation and Controlled Cooling

\$4,764,956  
3/15/05 – 7/31/10  
Zeng, Xiao Cheng

DOD-Office of Naval Research-MURI

Chemistry

With support from the Department of Defense, Professor Lu is conducting a five-year study to investigate a new process to deposit a diamond or diamond-like coating on surfaces to create thermal barriers and increase corrosion protection. He is developing a coating technique that employs multiple laser beams to deposit the coating at room temperature in an open atmosphere – a significant improvement over conventional coating techniques that require low vacuum and high temperature. The resulting process will be more energy-efficient, improve the quality of materials on which the coating is deposited, and minimize thermal stress.

## Meagher, Michael

## Chemical and Biomolecular Engineering

Process Research & Development of Antibodies as  
Countermeasures for C. Botulinum Neurotoxin

\$10,627,000  
3/1/02 – 2/28/09

DOD-Army Medical Research



Michael Meagher, Donald F. Othmer professor of chemical and biomolecular engineering, is the director of the Biological Process Development Facility. The facility provides clients with process research and early manufacturing of new therapeutic molecules for human clinical testing. The

facility is also involved in the development of vaccines against biological warfare agents and products that can be used as therapeutic countermeasures to treat people who have been exposed to biological agents. Department of Defense funding has led to the building of new laboratories that give the Biological Process Development Facility new capabilities in mammalian cell culture process research and development.

**Paul, Prem** **Research and Economic Development**

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 – 8/31/13	
Holmes, Mary Anne	Geosciences
McQuillan, Julia	Sociology
Manderscheid, David	Arts and Sciences
Allen, David	Engineering
Fritz, Susan	IANR
Chandra, Namas	Engineering

Prem Paul, vice chancellor for research and economic development, with funding from the National Science Foundation, directs ADVANCE-Nebraska, a program intended to significantly increase the gender and racial 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 geosciences, will coordinate recruitment and retention-enhancing activities, disseminate information to the campus and the academic community at large, and serve 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, luncheons 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.

**Pope, Kevin** **Natural Resources**

\* Angler Behavior in Response to Management Actions on Nebraska Reservoirs

\$3,147,776  
1/1/09 – 12/31/13  
Nebraska Game and Parks Commission



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**

Region 7 University Transportation Center  
 \$6,225,000 Department of Transportation-Research and  
 10/1/06 – 9/30/11 Innovative Technology Administration



The U.S. Department of Transportation’s Research and Innovative Technology Administration has designated UNL’s Mid-America Transportation Center 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. Laurence Rilett, Keith W. Klaasmeyer chair in engineering and technology in UNL’s civil engineering department, directs the center. Its 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.

**Sellmyer, David**

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

\* Cooperative Agreement to Research and Develop  
 High-Sensitivity Nanosensors for Defense Applications  
 \$4,260,001 DOD-Army Research Office  
 9/25/09 – 9/24/12  
 Liou, Sy-Hwang Physics and Astronomy  
 Skomski, Ralph Physics and Astronomy  
 Lai, Rebecca Chemistry  
 Dussault, Patrick Chemistry



David Sellmyer, professor of physics and astronomy, and colleagues in the Nebraska Center for Materials and Nanoscience have received funding from the Department of Defense’s Army Research Office 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**

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

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

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

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

Steckelberg, Allen Teaching, Learning and Teacher Education  
Trainin, Guy Teaching, Learning and Teacher Education



Susan Sheridan, Willa Cather Professor and professor of educational psychology, will head the new 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 will conduct

cutting-edge rural education research to improve student learning in reading, science and math. Researchers will 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.

Parent Engagement and Learning Birth to Five  
\$5,077,441 DHHS-NIH-NICHD  
9/26/03 – 7/31/10  
Edwards, Carolyn Psychology/Child, Youth and Family Studies

Professor Sheridan and co-investigator Carolyn Edwards, Willa Cather professor of psychology and child, youth and family studies, are leading a team of researchers from UNL and UNMC in a school-readiness project funded by three federal agencies. The team will launch and evaluate a comprehensive, community-based early education program for children aged 0-5. The goal is to increase children’s readiness for school by teaching parents to build an effective relationship with their children at home and to be active participants in their children’s learning when they enter school. The program is designed to enhance children’s cognitive, behavioral and socioemotional well-being, which together set the stage for school readiness.

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

\$6,321,899

NSF

9/1/08 – 8/31/14

Grouverman, Alexei

Physics and Astronomy



Evgeny Tsymbal, professor of physics and astronomy at UNL, leads the Materials Research Science and Engineering Center. The center 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 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.

**Umstadter, Donald****Physics and Astronomy**High-Energy Laser for Detection,  
Inspection, & Non-Destructive Testing

\$4,846,860

DOD-Air Force Office of Scientific Research

5/15/08 – 5/14/10

Banerjee, Sudeep

Physics and Astronomy

Shadwick, Bradley

Physics and Astronomy



With support from the Department of Defense Air Force Office of Scientific Research, Donald Umstadter, professor of physics and astronomy, will complete construction of a high-energy laser system at the UNL Extreme Light Laboratory capable of delivering a peak power of 1 petawatt. This project is critical to the development and performance of laser-driven radiation sources used for detection, inspection and non-destructive testing. The most immediate result will be a dramatic increase in the brightness and quality of the laser-driven electron beams and x-rays, with applications for detecting cracks in aging critical components and detecting special nuclear materials through large thicknesses of shielding.

Tunable, Monoenergetic Gamma-Ray Source  
for Identification of Embedded SNM

\$3,904,359

Department of Homeland Security-DNDO

3/1/07 – 8/31/11

Banerjee, Sudeep

Physics and Astronomy

With support from the Department of Homeland Security Domestic Nuclear Detection Office, Professor Umstadter is developing an x-ray source capable of distinguishing different



target materials embedded in thick shielding, including special nuclear materials (SNM), and determining the target's size, shape and isotopic composition. By allowing rapid scanning of a large number of cargo containers, and enabling spot inspections on land and sea, this system would provide early detection capability, and so greatly reduce the threat from SNM. As such, it has the potential to radically improve current cargo screening capabilities and transform the national security environment.

**Velander, William**

**Chemical and Biomolecular Engineering**

cGMP Recombinant FIX and Oral Hemophilia B Therapy

\$9,587,071

DHHS-NIH-NHLBI

9/6/05 – 8/31/10

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.

Production and Purification of Fibrinogen Components  
for Production Fibrin Sealant of Hemostatic Dressing

\$5,398,990

DOD-Army Medical Research

8/1/05 – 10/31/09

Van Cott, Kevin

Chemical and Biomolecular Engineering

Velander is also leading a project, funded by the Department of Defense, to develop processes to produce recombinant fibrinogen and other blood proteins for bandages and implant devices, and to conduct research and clinical trials on their effectiveness. The fibrinogen bandage is a potentially life-saving technology for patients who lose large amounts of blood. When applied, the bandage immediately begins clotting the wound, stemming blood loss. The technology could be used in battlefield or other applications where patients are hemorrhaging. Fibrinogen technology could also play a role in helping develop implantable devices with increased biological compatibility. Fibrinogen made from human plasma is scarce and expensive; Velander has developed a process for producing it from transgenic cattle bred with a human gene that enables them to produce fibrinogen.

**Whitbeck, Les****Sociology**

Ojibwe Pathways Through the High School Years

\$3,121,678

DHHS-NIH-NIDA

9/3/05 – 6/30/12

Johnson, Kurt

Sociology



Les Whitbeck, professor of sociology, is coordinating a seven-year project, funded by the National Institute on Drug Abuse, to investigate risk and resilience for early onset substance use and abuse among pre-teen Native children in the Upper Midwest.

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

Nebraska Center for Virology

\$10,149,257

DHHS-NIH-NCRR

9/26/05 – 4/30/10



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 &amp; Human Herpesvirus in Africa

\$3,860,682

DHHS-NIH-National Cancer Institute

9/30/03 – 6/30/10

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 (KSHV). The project looks 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

### International Sorghum and Millet Collaborative Research Support Program

International Sorghum/Millet Collaborative  
Research Support Program (INTSORMIL)

\$12,900,000

U.S. Agency for International Development

9/30/06 – 9/29/11

Heinrichs, Elvis

IANR-International Programs

Johnsen, Carolyn

Journalism and Mass Communications

Struthers, Amy

Journalism and Mass Communications



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

\$5,250,000

U.S. Agency for International Development

10/1/07 – 9/30/12

Dr. 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.

### Interdisciplinary Team

Infrastructure for the Enhancement of Systems  
Biology Research & Development at UNL

\$4,329,877

NSF-EPSCoR

7/1/07 – 6/30/10

This grant supports multi-campus collaborative research between biologists and engineers for creating a strategic research niche in epigenetics – the study of heritable changes in gene functions not associated with changes in DNA sequence. Much of what comprises the complexity of multi-cellular organisms is programmed within the network of interacting molecules – protein, RNA and DNA – known collectively as chromatin. Engineers will create nano-devices for delivering molecules into cells for better understanding the role of chromatin in cell function and its response to the environment.

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

Active awards in 2009

\* Indicates new in 2009

### **Alfano, James**

#### **Plant Pathology/ Center for Plant Science Innovation**

Suppression of Innate Immunity by  
ADP Ribosyltransferase Type III Effectors

\$1,815,504

DHHS-NIH-NIAID

### **Azizinamini, Atorod**

#### **Civil Engineering/ Nebraska Transportation Center**

Bridges for Service Life Beyond 100 Years: Innovative Systems

\$1,999,637

National Academy of Sciences-  
Transportation Research Board

Tadros, Maher

Civil Engineering

### **Barker, Bradley**

#### **4-H Youth Development**

Scale-UP: National Robotics in 4-H:  
Workforce Skills for the 21st Century

\$2,498,908

NSF

Nugent, Gwen

Nebraska Center for Research on  
Children, Youth, Families and Schools  
Biological Systems Engineering

Adamchuk, Viacheslav

### **Barycki, Joseph**

#### **Biochemistry**

Structural Insights into Redox Homeostasis

\$1,067,922

DHHS-NIH-NIGMS

### **Becker, Donald**

#### **Biochemistry**

Role of Proline in Redox Homeostasis and Apoptosis

\$1,097,641

DHHS-NIH-NIGMS

Mechanistic Studies of Functional Switching  
in the PutA Flavoprotein

\$1,218,025

DHHS-NIH-NIGMS

### **Bellows, Laurie**

#### **Graduate Studies**

McNair Scholars Project and the University of Nebraska-Lincoln

\$1,125,000

Department of Education

### **Blum, Paul**

#### **Biological Sciences**

Value-Added Products from Renewable Biofuels

\$1,968,000

Department of Energy

Cassman, Kenneth

Agronomy and Horticulture/  
Nebraska Center for Energy Sciences Research

### **Bond, Alan**

#### **Biological Sciences**

Mechanisms of Social Cognition

\$1,465,500

DHHS-NIH-NIMH

Kamil, Alan

Biological Sciences

### **Bulling, Denise**

#### **Public Policy Center**

\* Nebraska Youth Suicide Prevention and Early Intervention

\$1,500,000

Nebraska Department of  
Health and Human Services

<b>Cady, Daniel</b>	<b>Extension</b>
Development of Tools for Rating Bridges & Application to State Bridges	
\$1,097,005	Nebraska Department of Roads
Azizinamini, Atorod	Civil Engineering
<b>Cerutti, Heriberto</b>	<b>Biological Sciences/ Center for Plant Science Innovation</b>
RNA-Mediated Silencing: Mechanisms and Biological Roles in Chlamydomonas	
\$1,020,169	DHHS-NIH-NIGMS
<b>Chen, Bing</b>	<b>Computer and Electronics Engineering</b>
SPiRiT^2.0 Silicon Prairie Initiative for Robotics in IT	
\$2,999,963	NSF
<b>Cupp, Andrea</b>	<b>Animal Science</b>
Role of VEGF in Testis Morphogenesis	
\$1,066,625	DHHS-NIH-NICHD
Weber, John	Animal Science
White, Brett	Animal Science
<b>Diamond, Judy</b>	<b>University of Nebraska State Museum</b>
Omaha Science Media Project: Improving Science Literacy through Media Experiences	
\$1,471,768	Omaha Public Schools
Struthers, Amy	Journalism and Mass Communications
Angeletti, Peter	Biological Sciences
	World of Viruses
\$1,266,290	DHHS-NIH-NCRR
Wood, Charles	Biological Sciences/ Nebraska Center for Virology
<b>Dzenis, Yuris</b>	<b>Engineering Mechanics</b>
NIRT: Nanomanufacturing and Analysis of Active Hierarchical Nanofilamentary Nanostructures	
\$1,000,000	NSF
Zeng, Xiao Cheng	Chemistry
Feng, Ruqiang	Engineering Mechanics
Turner, Joseph	Engineering Mechanics
Poser, Susan	Law/Center for the Teaching and Study of Applied Ethics
Tomkins, Alan	Law/Public Policy Center
<b>Eisloeffel, Deborah</b>	<b>Student Involvement</b>
Midwest Consortium for Service-Learning in Higher Education	
\$1,411,709	Corporation for National Service
Major, Linda	Student Involvement
<b>Epstein, Michael</b>	<b>Special Education and Communication Disorders</b>
On the Way Home: A Family-Centered Academic Reintegration Intervention Model	
\$1,443,284	Department of Education
Torkelson-Trout, Alexandra	Special Education and Communication Disorders

**Espy, Kimberly Andrews****Psychology/Research and Economic Development**

\* Prenatal Smoking and the Substrates of Disruptive Behavior in Early Life

\$2,130,842

Wiebe, Sandra

DHHS-NIH-NIDA

Psychology/Research and Economic Development

**Farrell, Michael****University Television**

IPY: Engaging Antarctica

\$1,246,068

Diamond, Judy

NSF

University of Nebraska State Museum

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

\* Bulbar Motor Deterioration in ALS

\$2,389,340

DHHS-NIH-NIDCD

Early Speech Motor Development

\$1,754,412

DHHS-NIH-NIDCD

**Hoagland, Kyle****Natural Resources**

DNR Ground Water Management and Protection Act Service Agreement

\$1,500,000

Nebraska Department of Natural Resources

**Hubbard, Kenneth****Natural Resources**

Regional Climate Services Support in the High Plains Region: The High Plains Regional Climate Center

\$1,644,816

Department of Commerce-NOAA

**Jones, David****Biological Systems Engineering**

Strengthening Transitions into Engineering Program

\$1,648,354

Ballard, John

Perez, Lance

NSF

Engineering

Electrical Engineering

**Josiah, Scott****Nebraska State Forest Service**

Cooperative Forestry Program

\$2,043,842

Department of Agriculture-FS

**Kirby, Roger****Physics and Astronomy**

Track 2, GK-12: Project Fulcrum: Phase II

\$1,987,732

Claes, Daniel

NSF

Physics and Astronomy

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

Rural Language and Literacy Connections (Rural LLC)

\$2,741,563

Raikes, Helen

Department of Education

Child, Youth and Family Studies

**Koszewski, Wanda**

Food Stamp Nutrition Education Program  
\$1,385,681

Birnstihl, Elizabeth  
Schnepf, Marilyn

**Nutrition and Health Sciences**

Nebraska Department of  
Health & Human Services  
Extension  
Nutritional and Health Sciences

**Lee, Jaekwon**

\* Mechanistic Insights into Cellular Metal Detoxification  
\$1,405,457

Mechanistic Insights into Homeostatic Copper Ion Acquisition  
\$1,058,638

**Biochemistry**

DHHS-NIH-NIEHS

DHHS-NIH-NIDDK

**Lou, Marjorie**

Protein-Thiol Mixed Disulfide in Cataractogenesis  
\$2,116,675

**Veterinary and Biomedical Sciences**

DHHS-NIH-National Eye Institute

**Mackenzie, Sally**

TRMS: An Integrative Study of Plant Mitochondrial Biology  
\$1,420,753

Christensen, Alan  
Elthon, Thomas  
Wang, Dong

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

NSF  
Biological Sciences  
Agronomy and Horticulture  
Statistics

**Marley, Tom**

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

**Mathematics**

NSF  
Mathematics  
Mathematics

**Meagher, Michael**

\* Technical Transfer and cGMP Production of a Trivalent Vaccine  
\$2,302,839

**Chemical and Biomolecular Engineering**

Industry client

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

Van Cott, Kevin

DOD-Army Medical Research  
Chemical and Biomolecular Engineering

Process Research and Development of Antibodies as  
Countermeasures for C. Botulinum Neurotoxin  
\$2,877,000

DOD-Army Space and Missile Defense Command

Therapeutic Agents & Vaccines against Biological Warfare  
\$2,905,899

DOD-Army Medical Research

Process Development & cGMP Production  
\$1,228,735

Targepeutics Inc.

**Mendoza-Gorham, Joan**

Classic Upward Bound  
\$1,250,000

**Student Affairs**

Department of Education

Upward Bound Math/Science Program  
\$1,000,000

Department of Education

**Paul, Prem****Research and Economic Development**

\* Great Plains National Security  
Education Consortium (GP-NSEC)

\$1,200,000

Adenwalla, Shireen

LeSueur, James

McMahon, Patrice

Wedeman, Andrew

Wood, Simon

Weissinger, Ellen

DOD-National Geospatial Intelligence Agency

Physics and Astronomy

History

Political Science

Political Science

Classics and Religious Studies

Graduate Studies

**Redepenning, Jody****Chemistry**

\* Biceramic Bones for Battlefield Traumas

\$1,358,000

DOD-Army Medical Research

**Robertson Jr., Vaughn****Student Affairs**

UNL Educational Talent Search

\$2,091,823

Department of Education

**Rutenbeck, Kathy****Student Affairs**

Upward Bound-Northeast Nebraska

\$1,458,320

Department of Education

**Schaefer, Matthew****Law**

University of Nebraska College of Law  
Space & Telecommunications Law Program:  
Filling a National Need, Advancing the Field

\$1,717,370

Willborn, Steven

Leiter, Richard

NASA

Law

Law

**Scott, Stephen****Computer Science and Engineering**

An Extensible Semantic Bridge between  
Biodiversity and Genomics

\$1,367,121

Soh, Leen-Kiat

Henninger, Scott

Jameson, Mary Liz

Moriyama, Etsuko

NSF

Computer Science and Engineering

Computer Science and Engineering

University of Nebraska State Museum

Biological Sciences/  
Center for Plant Science Innovation

Center for Plant Science Innovation

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

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

\$1,419,710

Brandle, James

Francis, Charles

Knezevic, Stevan

Schlegel, Vicki

Wright, Robert

Wortmann, Charles

Bernards, Mark

Hergert, Gary

Ferguson, Richard

Quinn, John

Lyon, Drew

Department of Agriculture-CSREES

Natural Resources

Agronomy and Horticulture

Northeast Research and Extension Center

Food Science and Technology

Entomology

Agronomy and Horticulture

Agronomy and Horticulture

Panhandle Research and Extension Center

Agronomy and Horticulture

Natural Resources

Panhandle Research and Extension Center



**Sheridan, Susan****Educational Psychology/  
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 Department of Education-IES  
Knoche, Lisa Nebraska Center for Research on  
Children, Youth, Families and Schools  
Ihlo, Tanya Nebraska Center for Research on  
Children, Youth, Families and Schools

Evaluation of Efficacy of CBC for Addressing Disruptive  
Behaviors of Children-at-Risk for Academic Failure  
\$1,368,067 Department of Education  
Glover, Todd Nebraska Center for Research on  
Children, Youth, Families and Schools

**Shi, Jonathan****Construction Management**

\*Advanced Decentralized Water/Energy  
Network Design for Sustainable Infrastructure  
\$1,249,995 Environmental Protection Agency  
Zhang, Tian Civil Engineering  
Berryman, Charles Construction Management  
Shen, Zhigang Construction Management  
Stansbury, John Civil Engineering  
Alahmad, Mahmoud Architectural Engineering  
Li, Haorong Architectural Engineering  
Schwer, Avery Construction Systems  
Dahab, Mohamed Civil Engineering

**Simpson, Melanie****Biochemistry**

Role of Hyaluronan Matrix in Prostate Cancer Progression  
\$1,056,209 DHHS-NIH-NCI

**Spreitzer, Robert****Biochemistry**

Role of the Rubisco Small Subunit  
\$1,001,500 Department of Energy

**Starace, Anthony****Physics and Astronomy**

Dynamics of Few-Body Atomic Processes  
\$1,326,337 Department of Energy

**Storz, Jay****Biological Sciences**

Mechanisms of Hemoglobin Adaption  
to Hypoxia in High-Altitude Rodents  
\$1,323,748 DHHS-NIH-NHLBI  
Moyiyama, Hideaki Center for Biotechnology

**Swanson, David****Computer Science and Engineering**

US CMS Tier 2 Center  
\$2,678,720 University of California, Los Angeles  
Bloom, Kenneth Physics and Astronomy  
Dominguez, Aaron Physics and Astronomy

**Van Etten, James**

DNA Replication &amp; Gene Expression of Chlorella Viruses

\$1,215,694

Dunigan, David

Kang, Ming

Agarkova, Irina

Gurnon, James

**Plant Pathology**

DHHS-NIH-NIGMS

Plant Pathology

Plant Pathology

Plant Pathology

Plant Pathology

**Verma, Shashi**

Carbon Sequestration in Dryland &amp; Irrigated Agroecosystems

\$2,265,000

Cassman, Kenneth

Knops, Johannes

Hubbard, Kenneth

Arkebauer, Timothy

Walters, Daniel

Suyker, Andrew

Ginting, Daniel

**Natural Resources**

Department of Energy

Agronomy and Horticulture

Biological Sciences

Natural Resources

Agronomy and Horticulture

Agronomy and Horticulture

Natural Resources

Agronomy and Horticulture

**Wiljoen, Hendrik****Chemical and Biomolecular Engineering**

A Rational Design of a Platform for de novo Gene Synthesis

\$1,315,289

Subramanian, Anu

DHHS-NIH-NCRR

Chemical and Biomolecular Engineering

Vortex-Tube Based Thermocycler w/Intelligent Software

\$1,068,925

Gogos, George

DHHS-NIH-NCRR

Mechanical Engineering

**Weeks, Donald****Biochemistry**

Development of Dicamba-Resistant Crops

\$2,500,000

Monsanto Co.

**Whitbeck, Les****Sociology**

Resilience through the High School Years

\$2,654,155

DHHS-NIH-NIMH

Great Plains Cultural Ways Mental Health Careers Program

\$1,120,576

Moore, Helen

DHHS-NIH-NIMH

Sociology

**Wilcke, William****IANR-Research**

North Central Regional Sustainable Agriculture

Research &amp; Education Program - SARE

\$2,707,719

Department of Agriculture-CSREES

**Wilcox, Brian****Center on Children, Families and the Law**

Midwest Child Care Research Consortium

\$1,200,000

Torquati, Julia

Raikes, Helen

DHHS-ACF

Child, Youth and Family Studies

Child, Youth and Family Studies

**Wilhite, Donald****Natural Resources**

Rangeland and Forage Geospatial Decision

Support System for Drought Risk Management

\$1,023,038

Department of Agriculture-RMA

**Wood, Charles**

**Biological Sciences/  
Nebraska Center for Virology**

Programs in HIV & AIDS Assoc Diseases/Malignancies  
\$2,376,315 DHHS-NIH-Fogarty International Center

Research Training in Comparative Viral Pathogenesis  
\$1,306,932 DHHS-NIH-NIAID

**Yamamoto, Catherine**

**Student Affairs**

Student Support Services Program  
\$2,431,588 Department of Education

**Zempleni, Janos**

**Nutrition and Health Sciences**

Biotin Deficiency Impairs Silencing of  
Repeat Regions and Retrotransposons  
\$1,233,088 DHHS-NIH-NIDDK

**Zhang, Luwen**

**Biological Sciences/  
Nebraska Center for Virology**

Oncogenic Properties of Interferon Regulatory Factor 7  
\$1,105,123 DHHS-NIH-NCI

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

Active awards in 2009

\* Indicates new in 2009

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

Development of Semiconducting Boron Carbide Neutron Detectors  
for Astrobiological Applications

\$299,991

NASA

**Admiraal, David** **Civil Engineering**

Low-Cost Energy Dissipation at Culvert Exits

\$201,856

Nebraska Department of Roads

**Albrecht, Julie** **Nutrition and Health Sciences**

Food Safety for Families with Young Children

\$599,503

Department of Agriculture-NRICGP

**Alexander, Dennis** **Electrical Engineering**

Ultrafast Laser Interaction Processes

for Libs & Other Sensing Technologies

\$600,000

University of Central Florida

**Alfano, James** **Plant Pathology/  
Center for Plant Science Innovation**

Secretion Signals & Type III Chaperones in  
Pseudomonas Syringae Type III Secretion System

\$440,000

NSF

Dissecting the Function of HrpJ & HrpK – Two Type III Secreted  
Proteins Required for Injection of Effectors into Plant Cells

\$398,500

Department of Agriculture-NRICGP

**Allen, Craig** **Natural Resources**

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

\$556,603

Department of Interior-GS

Monitoring, Mapping & Risk Assessment for  
Non-Indigenous Invasive Species in Nebraska

\$325,081

Nebraska Environmental Trust

Merchant, James

Natural Resources

Cross-Scale Structure & Scale Breaks in Complex Systems

\$248,986

James S. McDonnell Foundation

**Allen, David** **Engineering**

U.S.-Brazil Dual Degree in Infrastructure &  
Sustainability Engineering Program

\$208,211

Department of Education-FIPSE

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

\$407,997

Department of Education

Chandra, Namas

Engineering

Negahban, Mehrdad

Engineering Mechanics

<b>Anderson, Mark</b>	<b>Geosciences</b>
Development of Northern Hemisphere Snow & Ice Climate Data Records	
\$213,461	Rutgers University
<b>Asgarpoor, Sohrab</b>	<b>Electrical Engineering</b>
Reliability Modeling and Maintenance Optimization of Aging Substations	
\$206,082	NSF
<b>Atkin, Audrey</b>	<b>Biological Sciences</b>
Wild-Type PPR1 mRNA Decay by Yeast Nonsense-Mediated mRNA Decay Pathway	
\$403,219	NSF
Moriyama, Etsuko	Biological Sciences/ Center for Plant Science Innovation
<b>Avramov, Luchezar</b>	<b>Mathematics</b>
Cohomology and Structure of Commutative Algebras	
\$260,667	NSF
<b>Avramova, Zoya</b>	<b>Biological Sciences</b>
Lipid-Signaling and Epigenetic Regulations in Arabidopsis: Are Myotubularins the Link?	
\$450,000	NSF
<b>Azizinamini, Atorod</b>	<b>Civil Engineering</b>
* NaBRO-POSCO Cooperative Research Plan in Bridge and Material Research	
\$225,204	Research Institute of Industrial Science & Technology
Comprehensive Evaluation of Fracture Critical Bridges	
\$286,348	Nebraska Department of Roads
Simple for Dead-Continuous for Live Load System with Partial Pre-Fabricated Deck System	
\$242,038	Nebraska Department of Roads
Development of Design Tools for Steel Bridge Systems, Simple for Dead Loads & Continuous for Superimposed Dead Load & Live Loads	
\$226,306	Nebraska Department of Roads
Steel Box System Monitoring of N-2 over I-480 Bridge	
\$292,244	Nebraska Department of Roads
IBRC 2002 Project	
\$240,000	Nebraska Department of Roads
Folded Plate Technology: Research, Design & Monitoring	
\$445,000	Nebraska Department of Roads
Development of Field Data for Effective Implementation of Mechanistic-Empirical Pavement Design Procedure	
\$315,252	Nebraska Department of Roads
Negahban, Mehrdad	Engineering Mechanics

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

Developing Winter Wheat with Improved Fusarium Head Blight  
Tolerance by Conventional and Transgenic Approaches

\$354,437

Department of Agriculture-ARS

Wegulo, Stephen

Plant Pathology

Clemente, Thomas

Agronomy and Horticulture

Baltensperger, David

Panhandle Research and Extension Center

Developing Small Grains Cultivars  
Optimally Suited for Organic Production

\$755,937

Department of Agriculture-NRICGP

Flores, Rolando

Food Science and Technology

Wegulo, Stephen

Plant Pathology

Russell, William

Agronomy and Horticulture

Shapiro, Charles

Agronomy and Horticulture

Schlegel, Vicki

Food Science and Technology

Wehling, Randy

Food Science and Technology

Knezevic, Stevan

Northeast Research and Extension Center

Hein, Gary

Panhandle Research and Extension Center

Lyon, Drew

Panhandle Research and Extension Center

**Balkir, Sina****Electrical Engineering**

All Solid-State Wireless Sensor Network for  
Nuclear Proliferation Detection

\$417,191

Department of Energy

Hoffman, Michael

Electrical Engineering

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

\* 4-H Robotics: Engineering for Today and Tomorrow

\$400,000

Department of Agriculture-

CSREES-National 4-H Headquarters

Robotics & GPS/GIS in 4-H: Workplace Skills for the 21st Century

\$864,139

NSF

Adamchuk, Viacheslav

Biological Systems Engineering

**Basolo, Alexandra****Biological Sciences**

Behavioral Plasticity in Preexisting Receiver Bias

\$384,000

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**

Matter Optics with Intense Laser Light

\$467,590

NSF

**Becker, Donald****Biochemistry**

\* REU Site: Training in Redox Biology

\$252,250

NSF

Stone, Julie

Biochemistry/Center for Plant Science Innovation

MRI: Acquisition of Beckman XL-I Analytical Ultracentrifuge

\$284,160

NSF

- Belli, Robert** **Psychology/Gallup Research Center**  
 Verbal Behaviors in Computerized Lifecourse Surveys  
 \$409,889 DHHS-National Institute on Aging
- Benson, Andrew** **Food Science and Technology**  
 Pyrosequencing and Community Profiling for  
 Risk Assessment in Leafy Greens  
 \$370,927 Department of Agriculture-NRICGP  
 Walter, Jens Food Science and Technology  
 Hutkins, Robert Food Science and Technology
- Berens, Charlyne** **Journalism and Mass Communications**  
 Carnegie-Knight Initiative on the Future of Journalism Education  
 \$250,000 Carnegie Corporation of New York
- Berkowitz, David** **Chemistry**  
 Stereocontrolled Total Synthesis of  
 (-)-Picropodophyllin Analogues  
 \$500,000 Stockbridge Pharmaceuticals Inc.
- New Approaches to Catalyst Screening & Development  
 \$435,000 NSF
- Beukelman, David** **Special Education and  
 Communication Disorders**  
 Rehabilitation Engineering Research  
 Center on Communication Enhancement  
 \$392,328 Duke University Medical Center
- Bevins, Rick** **Psychology**  
 Altering Nicotine Reward through Conditioning  
 \$339,446 DHHS-NIH-NIDA
- Acquired Appetitive Properties of Nicotine  
 \$881,371 DHHS-NIH-NIDA
- Bilder, Christopher** **Statistics**  
 Disease Detection and Prevalence Estimation  
 through Informative Group Testing  
 \$713,250 DHHS-NIH-NIAID
- Billesbach, David** **Biological Systems Engineering**  
 Development & Field Testing of a Rapidly Deployable  
 Carbon Dioxide Flux Management System  
 \$607,405 Department of Energy-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 Department of Agriculture-CSREES  
 Springer, Paul Child, Youth and Family Studies  
 Reisbig, Allison Child, Youth and Family Studies

**Blum, Paul****Biological Sciences**

\* Uranium Mobilization by Extremely Thermoacidophilic Archaea  
\$512,998 North Carolina State University

\* REU Site: Integrated Development of Bioenergy Systems  
\$269,592 NSF  
Cerutti, Heriberto Biological Sciences

Biohydrogenesis in the Thermotogales  
\$525,000 North Carolina State University

**Bobaru, Florin****Engineering Mechanics**

Adaptivity in Peridynamics for Composite Plates  
\$294,880 Department of Energy–Sandia National Laboratories

**Brand, Jennifer****Chemical and Biomolecular Engineering/  
Nebraska Center for  
Materials and Nanoscience**

Novel Rare-Earth Semiconductors for  
Solid-State Neutron Detectors  
\$767,293 DOD-Defense Threat Reduction Agency  
Belashchenko, Kirill Physics and Astronomy  
Dowben, Peter Physics and Astronomy

Direct Energy Conversion with  
Heteroisomeric Boron Carbide Diode Devices  
\$238,398 Central Intelligence Agency

**Brisson, Jennifer****Biological Sciences**

\* Contrasting Environmental and  
Genetic Controls of Alternative Phenotypes  
\$746,411 DHHS-NIH-NIEHS

**Brown, Mary****Natural Resources**

Advancing Tern and Plover Common Sense  
Conservation into the Future  
\$270,000 Nebraska Environmental Trust

**Bulling, Denise****Public Policy Center**

\*Development of Nebraska's  
Homeland Security Planning Capacity  
\$385,987 Nebraska Military Department-NEMA

Hospital Preparedness – Bioterrorism  
\$230,000 Nebraska Department of Health and Human Services

Critical Incidence Stress Management Program Coordination  
\$309,812 Nebraska Department of Health and Human Services

**Burbach, Mark****Natural Resources**

Integrated Real-Time Groundwater-Level Monitoring Network to  
Support Drought Impact Assessment and Mitigation Programs  
\$403,293 Department of Agriculture-RMA  
Ramamurthy, Byrav Computer Science and Engineering

**Cady, Daniel****Extension**

Nebraska Technology Transfer Center at UNL  
\$523,035 Nebraska Department of Roads



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

\* Probing the Metabolic and Physiological Significance of  
Sphingolipid Long-Chain Base Desaturation in Plants  
\$550,500 NSF

\* Biochemical Genomics:  
Quizzing the Chemical Factories of Oilseeds  
\$457,014 Washington State University

\* Center for Metabolic Channeling  
for Enhanced Biofuel Systems  
\$322,938 Donald Danforth Plant Science Center

\* BioCassava Plus  
\$234,325 Donald Danforth Plant Science Center

\* Metabolic Profiling to Understand the Biochemical Basis  
for Genetic Enhancement of Soybean  
\$200,000 Nebraska Soybean Board

**Cantrell, Randolph****Center for Applied Rural Innovation**

Marketing Rural Communities to Attract and Retain Workers  
\$498,558 Department of Agriculture-NRICGP  
Burkhart-Kriesel, Cheryl Panhandle Research  
and Extension Center

Relocation to the Buffalo Commons: Marketing Approach  
to Understand Residential Decisions among Migrants  
\$220,387 Department of Agriculture-NRICGP  
Burkhart-Kriesel, Cheryl Panhandle Research  
and Extension Center  
Johnson, Bruce Agricultural Economics

**Carr, Timothy****Nutrition and Health Sciences**

Regulation of Cholesterol Absorption by  
Plant Sterol & Stanol Esters  
\$466,915 Department of Agriculture-NRICGP

**Cassman, Kenneth****Agronomy and Horticulture**

Demonstration/Validation of a Dynamic  
Real-Time Decision Support System for  
Irrigation Management with Limited Water Supply  
\$230,537 Nebraska Corn Board  
Dobermann, Achim Agronomy and Horticulture  
Walters, Daniel Agronomy and Horticulture  
Yang, Haishun Agronomy and Horticulture  
Irmak, Suat Biological Systems Engineering  
Kranz, William Northeast Research and Extension Center  
Shapiro, Charles Northeast Research and Extension Center  
Tarkalson, David West Central Research and Extension Center

**Cejda, Brent****Educational Administration**

\*Enrollment Management Journal  
\$210,000 Texas Guaranteed  
LaCost, Barbara Educational Administration

- Cerutti, Heriberto** **Biological Sciences/  
Center for Plant Science Innovation**  
Histone Modifications & Transcriptional  
Silencing in Chlamydomonas  
\$448,235 NSF
- Chen, Xun-Hong** **Natural Resources**  
Development of Groundwater Flow Model  
in the Lower Platte North NRD Area  
\$220,458 Lower Platte North NRD
- Cheung, Chin Li** **Chemistry**  
\* Boron Coatings for Scalable Solid-State Neuron Detectors  
\$400,000 Department of Energy-  
Livermore National Laboratory
- 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 Architectural Engineering  
Sharif-Kashani, Hamid Computer and Electronics Engineering
- Claes, Daniel** **Physics and Astronomy**  
Experimental High Energy Physics  
\$573,000 NSF  
Snow, Gregory Physics and Astronomy  
Bloom, Kenneth Physics and Astronomy  
Dominguez, Aaron Physics and Astronomy
- Clemente, Thomas** **Agronomy and Horticulture/  
Center for Plant Science Innovation/  
Center for Biotechnology**  
Necessary Resources to Aid in the Translation  
of Genomics Information into Applied Technologies  
\$459,396 University of Georgia
- Functional Analysis of Soybean Genes  
through Transposon Mutagenesis  
\$532,229 United Soybean Board/SmithBucklin  
Specht, James Agronomy and Horticulture
- Enhancing Disease Resistance in Soybean through Biotechnology  
\$456,000 North Central Soybean Research Program  
Alfano, James Plant Pathology/  
Center for Plant Science Innovation  
Morris, T. Jack Biological Sciences
- Comfort, Steven** **Natural Resources**  
Field-Scale Demonstrations of Innovative Remediation  
Techniques for Contaminated Soil and Water  
\$994,100 Environmental Protection Agency
- Costello, Don** **Computer Science and Engineering**  
GAANN Fellowships for Computer Science & Engineering  
\$500,000 Department of Education

**Daly, Edward**

School Psychology Leadership Specialization in  
Response-to-Intervention Research & Systems Change

\$800,000

McCurdy, Merilee

Sheridan, Susan

Kunz, Gina

**Educational Psychology**

Department of Education

Educational Psychology

Educational Psychology

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

**DeKraai, Mark**

Evaluation of Public Engagement Demonstration Projects  
on Pandemic Influenza (E-PEDPPI)

\$348,716

Bulling, Denise

**Public Policy Center**

DHHS-Centers for Disease Control

Public Policy Center

**DiMagno, Stephen**

Anhydrous Fluoride Salts

\$420,000

**Chemistry**

NSF

**DiRusso, Concetta**

\* High Throughput Screens for Fatty Acid Uptake Inhibitors

\$325,983

Black, Paul

**Biochemistry/  
Nutrition and Health Sciences**

DHHS-NIH-NIDDK

Biochemistry

**Dominguez, Aaron**

PIRE: Collaborative Research with the Paul Scherrer Institute  
and Eidgenoessische Technische Hochschule on

Advanced Pixel Silicon Detectors for the CMS Detector

\$406,500

Bloom, Kenneth

University of Kansas Center for Research

Physics and Astronomy

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

\* Polymer Interface Induced Spin and Dipole Ordering

\$484,478

NSF

\* Doped Boron Carbide Polymers: Fundamental Studies of a  
Novel Class of Materials for Enhanced Radiation Detection

\$225,000

University of North Texas

Surface Chemistry of Adsorbates on Crystalline Polymers

\$690,000

NSF

**Drijber, Rhae****Agronomy and Horticulture**

Developing Technologies to Improve Soil & Nutrient Management

\$291,000

Department of Agriculture-ARS

**Du, Liangcheng****Chemistry**

Biosynthesis of Mycotoxin Fumonisin: Characterization of  
Enzymes for Vicinal Diol & Tricarballic Ester Formation

\$284,667

NSF

**Ducharme, Stephen****Physics and Astronomy/Nebraska  
Center for Materials and Nanoscience**Rational Design of Molecular Ferroelectric  
Materials and Nanostructures

\$434,054

Department of Energy-EPSCoR  
Chemistry

Takacs, James

Nanostructure-Designed Dielectric Material for  
High-Energy-Density Capacitors

\$586,000

DOD-DEPSCoR

Ferroelectric Polymer Langmuir-Blodgett Films for  
Nonvolatile Random-Access Memory Applications

\$240,000

NSF

**Duppong Hurley, Kristin****Special Education and  
Communication Disorders**Treatment Implementation and Mental Health Outcomes  
for Youth in Residential Care

\$510,300

DHHS-NIH-NIMH

Epstein, Michael Special Education and Communication Disorders

**Dussault, Patrick****Chemistry**

Detection of Emerging Classes of Explosives

\$950,000

DOD-DARPA

Cerny, Ronald

Chemistry

DiMagno, Stephen

Chemistry

Hage, David

Chemistry

Harbison, Gerard

Chemistry

Redepenning, Jody

Chemistry

Directed Reactions of Carbonyl Oxides:  
A New Approach to Ozonolysis

\$365,000

NSF

**Dweikat, Ismail****Agronomy and Horticulture**\* Characterization of Nitrogen Use  
Efficiency in Sweet Sorghum

\$390,000

Department of Energy

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

Weeks, Donald

Biochemistry

**Dwyer, Matthew****Computer Science and Engineering**

Finite-State Verification for High-Performance Computing

\$300,000

NSF

CSR-EHS Predictable Adaptive Residual  
Monitoring for Real-time Embedded Systems

\$500,000

NSF

Goddard, Stephen

Computer Science and Engineering

Elbaum, Sebastian

Computer Science and Engineering

<b>Dzenis, Yuris</b>	<b>Engineering Mechanics</b>
\$250,002	Nanoengineered Interfaces NSF
	Modeling-Based Control of Electrospinning Process NSF
<b>Eccarius, Malinda</b>	<b>Special Education and Communication Disorders</b>
\$781,642	Mountain Prairie Upgrade Partnership - Early Childhood Department of Education
Marvin, Chris	Special Education and Communication Disorders
<b>Eckhardt, Craig</b>	<b>Chemistry</b>
\$600,000	Experimental Investigation of the Role of Defects in Detonation Sensitivity of Energetic Materials DOD-Office of Naval Research
	A Study of the Mechanochemistry of Carbamazepine Polymorphs Pfizer Inc./PGRD Groton Labs
<b>Elbaum, Sebastian</b>	<b>Computer Science and Engineering</b>
\$548,852	* Enhancing the Dependability of Complex Missions through Automated Analysis DOD-Air Force Office of Scientific Research
Dwyer, Matthew	Computer Science and Engineering
	* T2T: A Framework for Amplifying Testing Resources NSF
\$491,688	Dwyer, Matthew Computer Science and Engineering
	ITR: Dependable End-User Software NSF
\$253,573	
<b>Engen-Wedin, Nancy</b>	<b>Teaching, Learning and Teacher Education/ Lied Center for Performing Arts</b>
\$704,730	Indigenous Roots Teacher Education Program Department of Education
McGowan, Thomas	Teaching, Learning and Teacher Education
<b>Epstein, Michael</b>	<b>Special Education and Communication and Disorders</b>
\$219,454	Evaluation of Family Reunification Program Father Flanagan's Boys' Home
	Leadership Training in Emotional Disturbance Disorders Department of Education
\$601,733	Duppong Hurley, Kristin Special Education and Communication and Disorders
Torkelson-Trout, Alexandra	Special Education and Communication and Disorders
<b>Fabrikant, Ilya</b>	<b>Physics and Astronomy</b>
\$240,001	Electron-Molecule Collisions in Different Environments NSF

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

\* Wisconsin DOT Roadside Safety Research Program FY 2010  
 \$601,736 Nebraska Department of Roads  
 Sicking, Dean Civil Engineering/  
 Midwest Roadside Safety Center  
 Reid, John Mechanical Engineering

Dynamic Evaluation of Box Beam End Terminal  
 Using the MASH 2008 Guidelines

\$204,533 Nebraska Department of Roads  
 Sicking, Dean Civil Engineering/  
 Midwest Roadside Safety Center  
 Reid, John Mechanical Engineering

Development of a New Precast Concrete  
 Bridge Railing System

\$229,820 Nebraska Department of Roads  
 Bielenberg, Robert Civil Engineering  
 Reid, John Mechanical Engineering  
 Tadros, Maher Civil Engineering

Development of an Economical Guardrail  
 System for Use on Gabion Walls

\$450,000 Department of Transportation-FHWA  
 Sicking, Dean Civil Engineering/  
 Midwest Roadside Safety Center  
 Rohde, John Civil Engineering/  
 Midwest Roadside Safety Center  
 Reid, John Mechanical Engineering

**Flores, Rolando****Food Science and Technology**

Midwest Advanced Food Manufacturing Alliance  
 \$319,775 Department of Agriculture-CSREES

**Franti, Thomas****Biological Systems Engineering**

\* Heartland Regional Water Coordination Initiative  
 \$273,046 Iowa State University  
 Wortmann, Charles Agronomy and Horticulture

**Fromm, Michael****Agronomy and Horticulture/  
Center for Biotechnology**

MRI: Acquisition of High Capacity DNA Sequencing System  
 \$714,750 NSF

**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

\$523,847 NSF  
 Jimenez-Ruiz, Francisco University of Nebraska State Museum

**Gay, Timothy****Physics and Astronomy**MRI: Development of a Rubidium Spin Filter  
as a Source of Polarized Electrons

\$285,000

NSF

Batelaan, Herman

Physics and Astronomy

Uiterwaal, Kees

Physics and Astronomy

Polarized Electron and Photon Physics

\$385,000

NSF

**Gibson, Robert****Biological Sciences**

GAANN Fellowship for Ecology, Evolution &amp; Behavior at UNL

\$625,000

Department of Education

**Giesler, Loren****Plant Pathology**Improving Management of Soybean Cyst Nematode  
through Extension Demonstration and Outreach

\$292,000

North Central Soybean Research Program

**Gitelson, Anatoly****Natural Resources**A Satellite-Based Quantification of Carbon Exchange  
of the Dominant Ecosystem (Maize-Soybean) in the  
NACP Mid-Continent Intensive (MCI) Region

\$496,124

NASA

Verma, Shashi

Natural Resources

Suyker, Andrew

Natural Resources

Responses of Coastal Waters to Terrestrial Inputs  
of Elemental CNP in Urbanizing Coastal Regions

\$264,990

University of Maryland

Rundquist, Donald

Natural Resources

Land Cover Land Use Change Effects on Surface  
Water Quality: Integrated MODIS & SeaWiFS Assessment  
of Dnieper & Don River Basins

\$598,130

NASA

**Glover, Todd****Nebraska Center for Research on  
Children, Youth, Families and Schools**Establish a State-Wide Response-to-Intervention  
Consortium for Training & Evaluation

\$432,605

Nebraska Department of Education

McCurdy, Merilee

Educational Psychology

**Goddard, Stephen****Computer Science and Engineering**CRI: IAD: Towards Cyber-Physical Computing at Scale: A Life-Size  
Experimental Facility for Applied Sensor Networks Research

\$200,000

NSF

Ci, Song

Computer and Electronics Engineering

Peng, Dongming

Computer and Electronics Engineering

Sharif-Kashani, Hamid

Computer and Electronics Engineering

Hudgins, Jerry

Electrical Engineering

**Goodman, Richard****Food Science and Technology**

\* Differentiating Biologically Relevant from Irrelevant IgE Binding to Food Antigens for Improved Risk Assessment and Diagnostic Studies Using a Humanized Rat Basophil Cell Line (RBL 30/25)  
 \$372,340 Environmental Protection Agency  
 Siddanakoppalu, Pramod Food Science and Technology

Food Allergen Database

\$679,742

Various Industries

Assessing the Potential Allergenicity of Proteins Introduced by Genetic Engineering

\$450,000 Environmental Protection Agency  
 Schlegel, Vicki Food Science and Technology  
 Taylor, Stephen Food Science and Technology

**Gosselin, David****Natural Resources**

Earth Science Institute for Elementary Educators

\$356,094 NASA  
 Bonnstetter, Ronald Teaching, Learning and Teacher Education

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

\$225,535 United Soybean Board/Smith/Bucklin

Soybean Breeding and Genetic Research for Nebraska

\$203,596 Nebraska Soybean Board  
 Specht, James Agronomy and Horticulture

**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

\$946,982 DHHS-NIH-NIGMS

Chromatographic Studies of Functional Proteomics

\$756,640 DHHS-NIH-NIDDK

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

\* VA Engineering Research Center

\$371,804 VA Medical Center-Omaha  
 Savory, Paul Industrial and Management Systems Engineering



**Hanna, Milford** **Food Science and Technology/  
Industrial Agricultural Products Center**

\* Pine Ridge Stewardship and Legacy Project:  
Ferguson Property Acquisition

\$240,000 Nebraska Environmental Trust

**Harris, Steven** **Plant Pathology/  
Center for Plant Science Innovation**

Autophagy in Fungal Hyphae: Functional  
Genomic & Mechanical Strength Studies

\$417,852 University of Maryland-Baltimore

**Harshman, Lawrence** **Biological Sciences**

Comparative Functional Genomics of Drosophila Obesity

\$516,548 Cornell University

Molecular Evolution of Genes Expressed in  
D. melanogaster Sperm Storage Structures

\$295,213 NSF

Moriyama, Etsuko Biological Sciences/  
Center for Plant Science Innovation

Genome Biology of Innate Immunity: Genetic Dissection of  
Drosophila melanogaster Responses to Bacillus Infection

\$452,163 DOD-DEPSCoR

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

Habitat Conservation Plan for the Salt Creek Tiger Beetle  
and the Eastern Saline Wetlands of Nebraska

\$380,000 Nebraska Game and Parks Commission

**Hay, DeLynn** **Extension**

North Central Region Sustainable Agriculture  
Professional Development Program—FY 2005

\$910,283 Department of Agriculture-CSREES

**Hayes, Michael****Natural Resources**

Drought Mitigation, Nebraska Project  
 \$437,243 Department of Agriculture-CSREES  
 Svoboda, Mark Natural Resources  
 Knutson, Cody Natural Resources  
 Wardlow, Brian Natural Resources

Developing Seasonal Predictive Capability for  
 Drought Mitigation Decision Support System  
 \$311,000 University of Illinois, Urbana-Champaign  
 Svoboda, Mark Natural Resources  
 Knutson, Cody Natural Resources  
 Sittler, Megan Natural Resources

Transitioning the Drought Impact  
 Reporter into an Operational System  
 \$445,257 Department of Commerce-NOAA-NCTP

Estimating the Impacts of Complex Climatic Events:  
 Drought in Colorado, Nebraska & New Mexico  
 \$300,000 Department of Commerce-NOAA

Developing a Drought Preparedness Framework for Tribal  
 Governments: Moving from Crisis to Risk-Based Management  
 \$609,539 Department of Interior-BIA  
 Knutson, Cody Natural Resources  
 Svoboda, Mark Natural Resources

**Hebets, Eileen****Biological Sciences**

Searle Scholar: Exploring Neural Basis of  
 Complex Behavior in Amblypygids  
 \$240,000 Chicago Community Trust/Searle Scholar

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

\* Engaging Young Farmers and Ranchers in  
 Environmental Management Education  
 \$644,408 Department of Agriculture-CSREES

**Hein, Gary****Entomology**

\* National Needs Fellow: Integrated Practitioners  
 for Tomorrow's Sustainable Agricultural Systems  
 \$234,000 Department of Agriculture-CSREES  
 Lagrimini, Mark Agronomy and Horticulture  
 Steadman, James Plant Pathology  
 Brewer, Gary Entomology

**Henry, Christopher****Biological Systems Engineering**

Livestock Producer Environmental Assistance Project  
 \$600,000 Nebraska Environmental Trust

Development of Alternative Technologies  
 for Small Livestock Producers  
 \$221,881 Nebraska Department of Environmental Quality  
 Gross, Jason Biological Systems Engineering

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

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

\$249,999

Department of Agriculture-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

Demonstrate & Adapt Remote Sensing Technology to Produce  
Consumptive Water Use Maps for the Nebraska Panhandle

\$239,951

Department of Agriculture-NRCS

Baltensperger, David

Panhandle Research and Extension Center

Berger, Aaron

Panhandle Research and Extension Center

DeBoer, Karen

Panhandle Research and Extension Center

Hla, Aung

Panhandle Research and Extension Center

Lyon, Drew

Panhandle Research and Extension Center

Pavlista, Alexander

Panhandle Research and Extension Center

Yonts, C. Dean

Panhandle Research and Extension Center

**Hibbing, John****Political Science**

DHB: Identifying the Biological Underpinnings  
of Political Temperaments

\$587,068

NSF

Espy, Kimberly Andrews

Psychology/Research and  
Economic Development

Smith, Kevin

Political Science

Dodd, Michael

Psychology

Wiebe, Sandra

Psychology/Research and  
Economic Development**Hoffman, Lesa****Psychology**

Visual Attention in Aging: Bridging Experimental  
and Psychometric Approaches

\$322,745

DHHS-NIH-NIA

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

The Lexicon and Phoneme Awareness

\$430,591

DHHS-NIH-NIDCD

**Holmes, Mary Anne****Geosciences**

Building a Community of Women Geoscience Leaders

\$228,774

NSF

**Holz, Aris****Natural Resources**

Fremont Lake #20 Alum Treatment Evaluation Project

\$201,700

Nebraska Department of Environmental Quality

Barrow, Tadd

Natural Resources

Hoagland, Kyle

Natural Resources

**Horn, Christy** **Equity, Access and Diversity Programs**  
 Building Accepting Campus Communities  
 \$993,398 Department of Education  
 Bruning, Roger Educational Psychology  
 Sydik, Jeremy Equity, Access and Diversity Programs

**Hu, Qi (Steve)** **Natural Resources**  
 \* Understanding and Predicting Tropical and  
 North Atlantic SST Forcing on Variations in  
 Warm Season Precipitation over North America  
 \$292,000 Department of Commerce-NOAA  
 Oglesby, Robert Geosciences  
 Feng, Song Natural Resources

**Hudgins, Jerry** **Electrical Engineering**  
 Development of System Level Modeling & Simulation  
 Capability for SiC Power Semiconductor Devices  
 \$246,935 University of South Carolina

**Hutkins, Robert** **Food Science and Technology**  
 \* Assessing and Enhancing Stability of  
 Prebiotics in Processed Foods  
 \$444,920 Department of Agriculture-NRICGP  
 Wehling, Randy Food Science and Technology  
 Schlegel, Vicki Food Science and Technology

**Hygnstrom, Scott** **Natural Resources**  
 Development of Spatially Explicit Models of Wildlife Diseases  
 \$782,945 Department of Agriculture-APHIS

**Irmak, Suat** **Biological Systems Engineering**  
 Quantifying Evaporation, Crop Evapotranspiration,  
 and the Water Balance for Tilled and Untilled Fields  
 \$679,160 Nebraska Department of Natural Resources  
 Irmak, Ayse Natural Resources  
 Rundquist, Donald Natural Resources  
 Eisenhauer, Dean Biological Systems Engineering  
 Van Donk, Simon Biological Systems Engineering  
 Zoubek, Gary Southeast Research and Extension Center  
 Rees, Jennifer Southeast Research and Extension Center  
 Siekman, Darrel Southeast Research and Extension Center  
 VanDeWalle, Brandy Southeast Research and Extension Center  
 Yoder, Ronald Biological Systems Engineering

Measurement of Growing Season Actual Crop  
 Evapotranspiration and Crop Coefficients, and Dormant  
 Season Evaporative Losses for Key Vegetation Surfaces  
 in the Central Platte Natural Resources District  
 \$492,564 Central Platte NRD  
 Irmak, Ayse Biological Systems Engineering  
 Martin, Derrel Biological Systems Engineering  
 van Donk, Simon Biological Systems Engineering  
 Verma, Shashi Natural Resources

**Iyengar, Srikanth** **Mathematics**  
 \* Derived Categories of Complete Intersections  
 and Hochschild Cohomology  
 \$210,528 NSF

**Jiang, Hong** **Computer Science and Engineering**

\* CSR: Small: Flashtube: A Semantic-Aware,  
Highly Reliable Flash Memory SSD

\$474,739 NSF

\* HECURA: A New Semantic-Aware Metadata Organization  
for Improved File-System Performance and  
Functionality in High-End Computing

\$344,552 NSF

SAM^2 Toolkit: Scalable & Adaptive Metadata  
Management for High-End Computing

\$602,326 NSF

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

\* Analysis of Viral Factors that Regulate the  
Bovine Herpesvirus 1 (BHV-1) Latency Reactivation Cycle

\$375,000 Department of Agriculture-CSREES

Functional Analysis of biCPO

\$375,000 Department of Agriculture-NRICGP

Functional Analysis of Proteins Encoded by the Bovine  
Herpesvirus 1 Latency Related Gene

\$374,475 Department of Agriculture-CSREES

Does HSV-1 Latency Associated Transcript (LAT)  
Encode a Protein?

\$402,122 DHHS-NIH-NIAID

**Jones, Erick** **Industrial and Management  
Systems Engineering**

RFID License Plate System Feasibility Study  
for Commercial Vehicle Operators

\$250,000 Nebraska Department of Roads

**Josiah, Scott** **Nebraska State Forest Service**

\* Forest Legacy Program: Pine Ridge Project

\$500,000 Department of Agriculture-FS

\* Expansion of Hazelnut Production, Feedstock and  
Biofuel Potential Through Breeding for  
Disease Resistance and Climatic Adaption

\$389,224 Oregon State University  
Adams, Dennis Natural Resources

NRCS-Technical Service Provider Project

\$407,426 Department of Agriculture-NRCS

Hazardous Fuels Reduction: Pine Ridge

\$250,000 Department of Agriculture-FS

**Kamil, Alan** **Biological Sciences**

\* Operant Research on Episodic Memory in an Animal Model

\$383,500 DHHS-NIH-NIMH  
Bond, Alan Biological Sciences

**Kim, Yong Rak****Civil Engineering**

Asphalt Research Consortium  
 \$350,000 Texas A & M Research Foundation  
 Allen, David Engineering Mechanics

Layer Moduli of Nebraska Pavements for the New Mechanistic-  
 Empirical Pavement Design Guide (MEPDG)  
 \$255,367 Nebraska Department of Roads

**Knutson, Cody****Natural Resources**

Development of a Drought Decision Support Portal for the  
 Republican River Basin of Colorado, Nebraska & Kansas  
 \$223,524 Department of Commerce-NOAA  
 Svoboda, Mark Natural Resources

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

\* Nebraska EIPM-CS Coordination Program  
 \$235,725 Department of Agriculture-CSREES  
 Wright, Robert Entomology  
 Hunt, Thomas Northeast Research and Extension Center  
 Bernards, Mark Agronomy and Horticulture  
 Hein, Gary Entomology  
 Ogg, Clyde Agronomy and Horticulture  
 Kamble, Shripat Entomology  
 Gaussoin, Roch Agronomy and Horticulture  
 Baxendale, Fred Entomology  
 Streich, Anne Agronomy and Horticulture  
 Yonts, C. Dean Panhandle Research and Extension Center  
 Hygnstrom, Scott Natural Resources

Heartland Integrated Water Quality Coordination Initiative  
 \$338,650 Iowa State University  
 Wortmann, Charles Agronomy and Horticulture

**Kostelnik, Marjorie****Education and Human Sciences**

Osher Lifelong Learning Institute  
 \$450,000 Bernard Osher Foundation  
 Eversoll, Deanna Education and Human Sciences  
 Aguilar, Deanna Education and Human Sciences

**Lackey, Susan****Natural Resources**

Eastern Nebraska Water Resources Assessment LPNRD  
 \$476,668 Lower Platte North NRD  
 Ayers, Jerry Natural Resources  
 Hanson, Paul Natural Resources  
 Joeckel, Robert Natural Resources

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

**Ledder, Glenn**

UBM: Research for Undergraduates in  
Theoretical Ecology (RUTE)

\$905,000

Deng, Bo  
Gibson, Robert  
Loladze, Irakli  
Louda, Svata

**Mathematics**

NSF  
Mathematics  
Biological Sciences  
Mathematics  
Biological Sciences

**Lee, Ji-Young****Nutrition and Health Sciences**

\* Evaluation of Athero-Protective Role of Blue-Green Algae  
\$387,365

DHHS-NCCAM

**Lee, Kevin****Physics and Astronomy**

ClassAction: Model Rapid-Feedback &  
Dynam Formative Assess System

\$359,768

Schmidt, Edward

NSF  
Physics and Astronomy

**Lenters, John****Natural Resources**

Riparian Vegetation Impacts on Water  
Quantity, Quality, and Stream Ecology

\$433,960

Istanbulluoglu, Erkan

Nebraska Department of Natural Resources  
Geosciences

**Levis, Donald****Northeast Research  
and Extension Center**

\* Extension and Educational Programs and Materials for  
Small- and Medium-Sized Pork Operations  
\$258,644

Department of Agriculture-NRICGP

**Lewis, Charlotte****Center on Children, Families and the Law**

Answers4Families/NRRS Database  
\$307,011

Nebraska Department of Health and Human Services

**Li, Haorong****Architectural Engineering**

\* Intelligent Controls for Net-Zero Energy Buildings  
\$475,750

Cho, Yong Kwon  
Peng, Dongming  
Goedert, James  
Cogdill, Robert

Department of Energy  
Construction Systems  
Computer and Electronics Engineering  
Construction Systems  
Engineering

**Li, Ming****Psychology**

Anxiolytic Property of Atypical Antipsychotics  
\$362,145

DHHS-NIH-NIMH

**Lindquist, John****Agronomy and Horticulture**

Contribution of Fusarium lateritium to Weed  
Suppressive Soils & Weed Abundance  
\$366,186

Drijber, Rhae  
Yuen, Gary

Department of Agriculture-NRICGP  
Agronomy and Horticulture  
Plant Pathology

**Liou, Sy-Hwang****Physics and Astronomy**Advanced Probes for Characterizations  
of Magnetic Nanostructures

\$539,998

DOD-DEPSCoR

Sellmyer, David

Physics and Astronomy/Nebraska  
Center for Materials and Nanoscience

Skomski, Ralph

Physics and Astronomy

**Liu, Mingsheng****Architectural Engineering**

CC Implementation of VA Medical Center at Omaha

\$414,963

Omaha Public Power District

**Lodi, Kathleen****Extension**

\* Nebraska CYFAR Sustainable Community Project

\$659,822

Department of Agriculture-CSREES

De Guzman, Maria

Child, Youth and Family Studies

Health Rocks-Healthy Life Curricula Development

\$250,700

National 4-H Council

Birnstihl, Elizabeth

Extension

Fox, Marilyn

Southeast Research and Extension Center

**Lu, Yongfeng****Electrical Engineering**\* Synthesis of Crystalline Carbon Nitride by  
Simultaneous Vibrational and Electronic Excitations

\$255,771

NSF

Coating and Patterning Diamond Films by  
Laser Resonant Bond Breaking in Polymer Precursors

\$259,384

NSF

Self-Integration of Carbon-Nanotube Sensors  
in Functional Integrated Circuits

\$240,000

NSF

MRI: Development of Multifunctional  
Nanoscale Measurement System

\$220,000

NSF

Alexander, Dennis

Electrical Engineering

Ducharme, Stephen

Physics and Astronomy

Tunable Photonic Bandgap Crystals  
with Integrated Functionalities

\$330,000

DOD-Air Force Office of Scientific Research

Near-Field-Controlled Nanoscale Coating  
of Functional Thin Films for Nanodevices

\$240,000

NSF



**Mackenzie, Sally****Biological Sciences/  
Agronomy and Horticulture/  
Center for Plant Science Innovation**Nuclear Mechanisms that Influence  
Mitochondrial Genome Stability

\$450,000

NSF

Christensen, Alan

Biological Sciences

Montiel, Maria Arrieta

Center for Plant Science Innovation

Nuclear-Organellar Interactions  
Involving AtMSH1 in Arabidopsis

\$810,000

Department of Energy

Training Graduate Students in Plant Breeding Using  
Crop Drought Tolerance Improvement as a Model

\$599,999

Department of Agriculture-NRICGP

Fromm, Michael

Center for Plant Science Innovation

**Martin, Derrel****Biological Systems Engineering**Modeling and Field Experimentation to Determine  
Effects of Land Terracing-Republican River Basin (CESU)

\$515,775

Department of Interior-BR

**McCurdy, Merilee****Educational Psychology**\* Training School Psychologists in Response-to-Intervention  
Implementation and System Change

\$799,981

Department of Education

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**McNulty, Lawrence****Educational Administration**\* IREX End of Conference Program/  
TEA Professional Development

\$259,920

International Research &amp; Exchanges Board

**McQuillan, Julia****Sociology**

Infertility: Pathways &amp; Psychosocial Outcomes

\$637,373

Pennsylvania State University

**Meagher, Michael****Chemical and Biomolecular Engineering**

\* Development of a Fermentation Process for a Biotherapeutic

\$578,477

Industry client

\* Strain Development and Expression of Alpha-Galactosidase

\$438,097

Aperion Biologics Inc/CrossCart Inc.

Manufacture of a Next Generation Vaccine  
for Clinical Trial and Toxicity Testing

\$725,993

Industry client

**Melvin, Steven****West Central Research  
and Extension Center**

Irrigation Management with Limited Water:  
A Farm Education Program

\$287,080

Martin, Derrel

Corr, Alan

van Donk, Simon

Department of Interior-BR  
Biological Systems Engineering  
West Central Research and Extension Center  
West Central Research and Extension Center

**Merchant, James****Natural Resources**

Initial Design and Implementation of the Nebraska  
Geospatial Data Sharing and Web Services Network

\$295,311

Nebraska Office of the Chief Information Officer

**Miller, Nancy****Textiles, Clothing and Design**

Collaborative Research on Small Business Network  
Creation and Outcomes for Change and Innovation

\$230,011

NSF

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

Functional Map of Tomato Genome Using  
Direct Repeat Induced Gene Silencing

\$301,000

Department of Agriculture-NRICGP

**Moore, Raymond****Engineering**

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

\$591,995

NSF

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

Efficient and Sensitive Mining System for  
G-Protein Coupled Receptors

\$577,014

DHHS-NIH-NLM

Large-Scale Simultaneous Multiple  
Alignment & Phylogeny Estimation

\$223,215

NSF

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

Effects of a Supplementary Vocabulary Intervention for  
Students with Limited English Proficiency

\$694,884

Department of Education

**Newman, Ian****Educational Psychology**

\* Nebraska Collegiate Consortium to Reduce High Risk Drinking

\$374,993

Shell, Duane

Department of Education

Educational Psychology

**Nickerson, H. Doak****Nebraska State Forest Service**

Restoring the Pine Ridge Forest Ecosystem

\$300,000

Nebraska Environmental Trust

- Nguyen, Lim** **Computer and Electronics Engineering**  
 Self-Encoded Spread Spectrum Modulation for  
 Robust Anti-Jamming Communication  
 \$379,767 DOD-DEPSCoR  
 Jang, Won Computer and Electronics Engineering
- Noureddini, Hossein** **Chemical and Biomolecular Engineering**  
 Reduction of Phosphorus from Ethanol  
 By-Product used as Livestock Feed  
 \$210,781 Nebraska Corn Board
- Nowak, Andrzej** **Civil Engineering/  
 Nebraska Transportation Center**  
 \* SHRP2 R19 Bridges for Service Life beyond 100 years:  
 Service Limit States  
 \$293,118 Modjeski and Masters  
 Azizinamini, Atorod Civil Engineering
- Oglesby, Robert** **Geosciences**  
 Evaluating the Role of Global Snow Cover on Seasonal to  
 Interannual Predictability of Temperature & Precipitation  
 \$598,216 NASA
- Osorio, Fernando** **Veterinary and Biomedical Sciences**  
 Porcine Reproductive and Respiratory Virus:  
 Role of Viral Genes in Virulence/Attenuation  
 \$375,000 Department of Agriculture-NRICGP  
 Pattnaik, Asit Veterinary and Biomedical Sciences
- Pattnaik, Asit** **Veterinary and Biomedical Sciences**  
 \* Glycoproteins of Porcine Reproductive and  
 Respiratory Syndrome Virus in Infection and Immunity  
 \$371,230 Department of Agriculture-AFRI  
 Osorio, Fernando Veterinary and Biomedical Sciences
- Pegg, Mark** **Natural Resources**  
 \* Environmental Flows in the Niobrara River for Fish and Wildlife  
 \$726,754 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**  
 Self-Configuration & Localization in  
 Ad Hoc Wireless Sensor Networks  
 \$548,807 DOD-DEPSCoR  
 Goddard, Stephen Computer Science and Engineering  
 GAANN in Engineering & Assistive Technology  
 \$387,165 Department of Education  
 Goddard, Stephen Computer Science and Engineering

**Peterson, Daniel** **Food Science and Technology**

\* Adaptive Immune Response to Symbiotic Bacteria  
as a Mediator of Gut Homeostasis

\$379,890

DHHS-NIH-NIAID

**Pickard, Gary** **Veterinary and Biomedical Sciences**

\* Retinal Neurons Afferent to the Circadian System

\$852,035

DHHS-NIH-National Eye Institute

Sollars, Patricia

Veterinary and Biomedical Sciences

\* 5HT Presynaptic Inhibition of Retinal Input to the SCN

\$317,718

DHHS-NIH-NINDS

Sollars, Patricia

Veterinary and Biomedical Sciences

**Pilson, Diana** **Biological Sciences**

Transgenic Virus Resistant Squash: Ecological Effect

\$314,877

Department of Agriculture-CSREES

Morris, T. Jack

Biological Sciences

**Pope, Kevin** **Natural Resources**

Recruitment of Walleye and White Bass in Irrigation Reservoirs

\$484,448

Nebraska Game and Parks Commission

**Powell, Larkin** **Natural Resources**

Assessing Local & Regional Variability in Productivity & Fidelity of  
Grassland Birds on National Park Service Units in the Great Plains

\$212,122

Department of Interior-GS

Allen, Craig

Natural Resources

**Qiao, Wei** **Electrical Engineering**

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

\$214,754

NSF

**Rack, Frank** **Geosciences/  
Antarctic Geological Drilling Program**

\* Promoting Environmental Literacy through

Teacher Professional Development Workshops and

Climate Change Student Summits (C2S2)

\$694,095

Department of Commerce-NOAA

Huffman, Louise

Antarctic Geological Drilling Program

**Rajca, Andrzej** **Chemistry**

High-Spin Nitroxide Diradical for  
Biomedical Imaging Applications

\$421,174

DHHS-NIH-NIBIB

Rajca, Suchada

Chemistry

Stable High-Spin Polyradicals & Chiral Pi-Conjugated Systems

\$570,715

NSF

**Rajurkar, Kamalakar****Industrial and Management  
Systems Engineering**

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

\$250,000

NSF

Modeling and Analysis of Material Removal and  
Tool Wear in Micro Ultrasonic Machining

\$247,760

NSF

**Ramamurthy, Byrav****Computer Science and Engineering**

\* Dynamic Optimized Advance Scheduling of Bandwidth Demands  
Department of Energy-EPSCoR

\$449,976

Department of Energy-EPSCoR

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

Faunistic Survey of Dynastinae of Mexico, Guatemala, & Belize

\$481,493

NSF

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

\* Delineating Autoimmunity in Post-Infectious Myocarditis  
(National Center, Scientist Development Grant)

\$308,000

American Heart Association

**Redepinning, Jody****Chemistry/Nebraska Center  
for Materials and Nanoscience**

Chemically Modified Nano-Electrodes  
for Magnetolectronics Applications

\$390,000

NSF

Binek, Christian  
Sokolov, Andrei

Physics and Astronomy  
Physics and Astronomy

**Reichenbach, Stephen****Computer Science and Engineering**

SEI: Information Modeling for  
Comparative Visualizations & Analyses

\$389,228

NSF

**Reid, John****Mechanical Engineering**

Midwest States Regional Pooled Fund Program  
Nebraska Department of Roads  
Sicking, Dean Civil Engineering/Midwest Roadside Safety Facility  
Faller, Ron Midwest Roadside Safety Facility

\$600,000

Nebraska Department of Roads

Civil Engineering/Midwest Roadside Safety Facility  
Midwest Roadside Safety Facility

**Reid, Robert****Special Education and  
Communication Disorders**

Leadership Training in Attention Deficit Hyperactivity Disorder  
Department of Education

\$620,006

Department of Education

**Rilett, Laurence****Civil Engineering**

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

Development of State of the Art Traffic  
 Micro-Simulation Model for Nebraska  
 \$222,896 Nebraska Department of Roads  
 Jones, Elizabeth Civil Engineering

Intelligent Transportation System Deployment Project  
 \$831,942 Nebraska Department of Roads  
 Jones, Elizabeth Civil Engineering  
 Khattak, Aemal Civil Engineering

**Robertson, Brian****Mechanical Engineering/Nebraska Center for Materials and Nanoscience**

Spintronic Devices Enabled by Semiconducting Boron Carbide  
 \$299,998 NSF  
 Adenwalla, Shireen Nebraska Center for  
 Materials and Nanoscience  
 Dowben, Peter Physics and Astronomy/Nebraska  
 Center for Materials and Nanoscience

**Rothermel, Gregg****Computer Science and Engineering**

CRI: Community Resource to Support Controlled  
 Experimentation with Program Analysis and Testing Techniques  
 \$874,636 NSF  
 Elbaum, Sebastian Computer Science and Engineering  
 Dwyer, Matthew Computer Science and Engineering

ITR: Dependable End-User Software  
 \$439,593 Oregon State University

**Samal, Ashok****Computer Science and Engineering**

Building Knowledge Discovery & Information Fusion  
 Tools for Collaborative Systems to Adaptively  
 Manage Uncertain Hydrological Resources  
 \$601,816 NSF  
 Chen, Xun-Hong Natural Resources  
 Soh, Leen-Kiat Computer Science and Engineering  
 Tomkins, Alan Public Policy Center  
 Zellmer, Sandra Law

**Saraf, Ravi****Chemical and Biomolecular Engineering**

\* Electronic Interfacing between a Living Cell and a Nanodevice:  
 A Bio-Nano Hybrid System  
 \$900,000 Department of Energy

Nanodevice for Digital Imaging of Palpable Structure at  
 Human-Finger Resolution for Clinical Breast Examination  
 \$377,552 DHHS-NIH-NIBIB

**Scalora, Mario****Psychology**

\* Post-Secondary Institutions Safety Threat Assessment  
 Technical Assistance Center  
 \$357,037 Nebraska Military Department-NEMA  
 Yardley, Owen UNL Police  
 Bulling, Denise Public Policy Center

**Scheffler, Marilyn****Special Education and  
Communication Disorders**

Project RTI: Building Capacity Together  
to Implement Response to Intervention

\$800,000

Sanger, Dixie

Department of Education  
Special Education and Communication Disorders

Project Support: Speech-Language  
Pathologists Supporting Literacy Instruction

\$800,000

Sanger, Dixie

Department of Education  
Special Education and Communication Disorders

Project Re-entry: Preparing Speech-Language  
Pathologists to Serve Students with Traumatic Brain Injury

\$800,000

Hux, Karen

Department of Education  
Special Education and Communication Disorders

Project NETS: Nebraska Educational Transition Specialists

\$798,624

Department of Education

**Schubert, Mathias****Electrical Engineering**

\* MRI: Development of an Optical Hall Effect Instrumentation  
for Non-Contact Nanostructure Electrical Characterization

\$299,915

Lu, Yongfeng

Han, Ming

Schubert, Eva

Binek, Christian

Ducharme, Stephen

Tsymbal, Evgeny

Shield, Jeffrey

Hofmann, Tino

NSF

Electrical Engineering

Electrical Engineering

Electrical Engineering

Physics and Astronomy

Physics and Astronomy

Physics and Astronomy

Mechanical Engineering

Electrical Engineering

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

Studies of Artificially Structured Composite Magnets

\$603,000

Department of Energy

**Shadwick, Bradley****Physics and Astronomy**

Wavebreaking and Particle Trapping in Collisionless Plasmas

\$561,840

Department of Energy

**Shank, Nancy****Public Policy Center**

\* SHNBHIN Improving Access Health IT

\$385,528

Health Partners Initiative

\* Western Nebraska Health Information  
Exchange Network HIT RND Project

\$255,843

Chadron Community Hospital

HIT Regional Health Records Implementation & Evaluation

\$437,567

Rural Nebraska Healthcare Network

**Shea, Patrick****Natural Resources**

Targeting Watershed Vulnerability & Behaviors Leading to  
Adoption of Conservation Management Practices

\$570,000

Department of Agriculture-CSREES

Burbach, Mark

Natural Resources

Lynne, Gary

Agricultural Economics

Martin, Alexander

Agronomy and Horticulture

Milner, Maribeth

Agronomy and Horticulture

**Shearman, Robert****Agronomy and Horticulture**

\* Buffalograss Breeding, Evaluation and  
Management for Golf Course

\$210,000

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

Department of Agriculture-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**

Consultation Based Interventions for Students  
with Social and Behavioral Concerns

\$599,694

Department of Education

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 Engineering/Nebraska  
Center for Materials and Nanoscience**

\* Phase Transformations in Confined Nanosystems

\$450,000

Department of Energy-EPSCoR

Belashchenko, Kirill

Physics and Astronomy

Novel Nanostructures for High-Energy  
Nanocomposite Permanent Magnets

\$251,819

NSF

**Sicking, Dean****Civil Engineering**

Enhancement of Research Infrastructure  
at the Midwest Roadside Safety Facility

\$346,000

Nebraska Department of Roads

Identification of Vehicular Impact Conditions  
Associated with Serious Ran-Off-Road Crashes

\$634,521

National Cooperative

Highway Research Program

Khattak, Aemal

Civil Engineering

Jones, Elizabeth

Civil Engineering



**Siegfried, Blair****Entomology**

Quantifying Risk Factors for Evolution of European  
Corn Borer Resistance to Cry1F Expressing Corn Hybrids  
\$346,845 Department of Agriculture-CSREES

Evaluating Bioactivity of Insecticidal Proteins Against  
European Corn Borer (Lepidoptera: Crambidae)  
\$220,000 Pioneer Hi-Bred

**Simmons, Mark****Southeast Research  
and Extension Center**

\* Operation Military Kids  
\$267,211 Kansas State University

**Sleight, Weldon****Nebraska College of  
Technical Agriculture**

\* Biomass Energy System  
\$360,000 Nebraska Environmental Trust

**Smith, David****Veterinary and Biomedical Sciences**

\* Nebraska Get Smart on Farm 2008/09 Contract  
\$235,000 Nebraska Department of  
Health and Human Services

**Snow, Daniel****Natural Resources**

Effects of Cattle Manure Handling & Management  
Strategies on Fate & Transport of Hormones  
\$699,607 Environmental Protection Agency  
Bartelt-Hunt, Shannon Civil Engineering  
Zhang, Tian Civil Engineering  
Kranz, William Northeast Research and Extension Center  
Mader, Terry Northeast Research and Extension Center  
Shapiro, Charles Northeast Research and Extension Center  
Shelton, David Northeast Research and Extension Center

**Snow, Gregory****Physics and Astronomy**

The Luminosity Measurement for the  
DZERO Experiment at Fermilab  
\$410,352 Department of Energy-EPSCoR  
Bloom, Kenneth Physics and Astronomy  
Claes, Daniel Physics and Astronomy  
Dominguez, Aaron Physics and Astronomy

GAANN Fellowships for Physics at UNL  
\$653,280 Department of Education  
Claes, Daniel Physics and Astronomy  
Dominguez, Aaron Physics and Astronomy  
Uiterwall, Cornelis Physics and Astronomy  
Batelaan, Herman Physics and Astronomy  
Gay, Timothy Physics and Astronomy  
Adenwalla, Shireen Physics and Astronomy

- Soh, Leen-Kiat** **Computer Science and Engineering**  
iLOG: Embedding & Validating Empirical  
Usage Intelligence in Learning Objects  
\$409,705 NSF  
Samal, Ashok Computer Science and Engineering  
Nugent, Gwen Nebraska Center for Research on  
Children, Youth, Families and Schools
- Soukup, Rodney** **Electrical Engineering**  
A Novel Variable Wide Bandgap Material  
for High Power, High Frequency Devices  
\$368,008 DOD-DEPSCoR  
Hudgins, Jerry Electrical Engineering  
Ianno, Natale Electrical Engineering
- Spalding, Roy** **Agronomy and Horticulture**  
Effectiveness of Irrigated Crop Management Practices in  
Reducing Groundwater Nitrate Contamination  
\$630,768 Department of Agriculture-CSREES  
Ferguson, Richard Agronomy and Horticulture  
Marx, David Statistics  
Spalding, Mary Natural Resources
- Spaulding, William** **Psychology**  
Decision Science in Rehabilitation  
\$860,775 DHHS-NIH-NIMH  
Garbin, Calvin Psychology
- Specht, James** **Agronomy and Horticulture**  
Genetic Mapping & Application of SNP DNA Markers in Soybean  
\$389,391 Department of Agriculture-ARS
- Spreitzer, Robert** **Biochemistry**  
Rubisco Phylogenetic Engineering  
\$202,383 Department of Agriculture-NRICGP
- Srisa-an, Witawas** **Computer Science and Engineering**  
CSR-PDOS: Memory Efficient Garbage Collection  
Framework for Java Server Applications  
\$300,000 NSF
- Stansbury, John** **Civil Engineering**  
Feasibility of Integrating Natural and Constructed Wetlands  
in Roadway Drainage System Design  
\$255,562 Nebraska Department of Roads  
Moussavi, Massoum Civil Engineering  
Zhang, Tian Civil Engineering
- Starace, Anthony** **Physics and Astronomy**  
Strong Field & Ultrafast Atomic and Molecular Processes  
\$240,000 NSF
- Staswick, Paul** **Agronomy and Horticulture**  
Deciphering Novel Signaling Roles for  
Amino Acid Conjugates of Jasmonic Acid  
\$249,969 NSF

**Stentz, Terry****Construction Management**

Human Factors in Railway Operation  
 Department of Transportation-FRA  
 \$344,575  
 Jones, Elizabeth Civil Engineering  
 Rilett, Laurence Civil Engineering  
 Khattak, Aemal Civil Engineering  
 Riley, Michael Industrial and Management Systems Engineering  
 Jones, Erick Industrial and Management Systems Engineering

Analytic Study of Acute Extremity Lacerations in Meat Packing  
 Harvard School of Public Health  
 \$593,333

**Stockton, Matthew****West Central Research and Extension Center**

Whole-Farm Economic Biological Stochastic Simulation  
 Model of Small to Medium Cow-calf Farms with Research,  
 Teaching and Extension Modules  
 Department of Agriculture-NRICGP  
 \$499,740

**Storz, Jay****Biological Sciences**

Test of Adaptive Divergence across Altitudinal  
 Gradients: Population Genomics of Deer Mice  
 NSF  
 \$492,000

**Stowell, Richard****Biological Systems Engineering**

Air Quality Extension & Education:  
 Enhanced Learning Opportunities for Addressing  
 Air Quality Issues in Animal Agriculture  
 Department of Agriculture-NRICGP  
 \$498,562

**Subbiah, Jeyamkondan****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  
 Department of Agriculture-CSREES  
 Biological Systems Engineering  
 Food Science and Technology  
 \$599,985  
 Jones, David  
 Thippareddi, Harshavardhan

**Subramanian, Anuradha****Chemical and  
Biomolecular Engineering**

Biomimetic Nanofibrillar Scaffolds for Tissue Engineering  
 DHHS-NIH-NIBIB  
 Chemical and Biomolecular Engineering  
 \$390,720  
 Larsen, Gustavo

**Svoboda, Mark****Natural Resources**

\* NIDIS Portal Content Development and Help Desk Support  
 \$497,497 Department of Commerce-NOAA

Development of a "Drought Ready Communities" Program  
 \$288,670 Department of Commerce-NOAA  
 Sittler, Meghan Natural Resources  
 Smith, Kelly Natural Resources  
 Knutson, Cody Natural Resources  
 Woudenberg, Donna Natural Resources

Integrating Enhanced GRACE Water Storage Data  
 into the U.S. and North American Drought Monitors  
 \$224,991 NASA-Goddard Space Flight Center  
 Wardlow, Brian Natural Resources  
 Fuchs, Brian Natural Resources  
 Scott, Soren Natural Resources

**Swanson, David****Computer Science and Engineering**

\* Open Science Grid Consortium  
 \$205,000 University of Wisconsin-Madison

MRI: Acquisition of Affordable Shared-Memory  
 Computing & Scalable Storage for Scientists & Engineers  
 \$300,000 NSF

**Tadros, Maher****Civil Engineering**

Class C Fly Ash in Concrete Pavement  
 \$321,379 Nebraska Department of Roads

Evaluation & Repair Procedures for Precast/Prestressed  
 Concrete Girders w/Longitudinal Cracking in the Web  
 \$300,000 National Cooperative  
 Highway Research Program  
 Tuan, Christopher Civil Engineering

Impact of Large 0.7 inch Strand on NU-I Girder and NUDeck  
 \$244,408 Nebraska Department of Roads  
 Morcous, George Construction Systems

**Takacs, James****Chemistry**

Ligand Scaffold Optimization for  
 Catalytic Asymmetric Hydroboration  
 \$420,000 NSF

**Tan, Li****Engineering Mechanics**

Self-Organized Nanolayers for Organic Thin-Film Transistors  
 \$387,463 NSF  
 Zeng, Xiao Cheng Chemistry

Bi-Functional Pentacene Monolayer  
 for Organic Field-Effect Transistors  
 \$299,410 DOD-DEPSCoR  
 Zeng, Xiao Cheng Chemistry

**Taylor, Steve** **Food Science and Technology**

\* Determination of Minimal Elicitation Dose for  
Almond in Almond-Allergic Individuals  
Almond Board of California  
\$261,000

Allergenicity Evaluation of Isinglass  
Various Industries  
\$555,035

**Thippareddi, Harshavardhan** **Food Science and Technology**

Understanding and Controlling Listeria Monocytogenes  
Transmission through Ready-to-Eat Meat Products  
Colorado State University  
\$222,270

HACCP Assistance for Small & Very Small Processors with  
Development & Validation of Safe Meat Chilling Processes  
Department of Agriculture-CSREES  
Wang, Lijun Biological Systems Engineering  
Weller, Curtis Biological Systems Engineering  
Burson, Dennis Animal Science  
\$599,916

Improving Safety of Shell Eggs & Egg Products  
by Addressing Critical Research Needs for  
Salmonella Enteritidis & Salmonella spp  
Department of Agriculture-NRICGP  
Froning, Glenn Food Science and Technology  
Subbiah, Jeyamkondan Biological Systems Engineering  
\$599,951

**Thomas, Steven** **Natural Resources**

FIBR: Linking Genes to Ecosystems  
University of California-Riverside  
\$341,084

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

Arts Linc  
Lake Elsinore USD  
\$261,674

**Tyler, Kimberly** **Sociology**

Social Networks, HIV Risk Behaviors & Homeless Youth  
DHHS-NIH-NIDA  
\$356,771

**Tyre, Drew** **Natural Resources**

\* Quantifying Uncertainty in Missouri River  
Adaptive Management Processes  
Department of Interior-GS  
Istanbulluoglu, Erkan Natural Resources  
Allen, Craig Natural Resources  
\$247,104

**Uiterwaal, Kees** **Physics and Astronomy**

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

Inside a Focused Laser Beam: Molecular Dynamics  
NSF  
\$477,001

- Umstadter, Donald** **Physics and Astronomy**  
 \* Research and Development of High Power  
 Laser Driven Electron Accelerator, Phase II  
 \$899,823 DOD-DARPA  
 Banerjee, Sudeep Physics and Astronomy  
 Shadwick, Bradley Physics and Astronomy
- Laser Produced Coherent X-Ray Sources  
 \$645,000 Department of Energy  
 Banerjee, Sudeep Physics and Astronomy
- Van Etten, James** **Plant Pathology**  
 Center for Innovation in Membrane Protein Production  
 \$553,105 University of California, San Francisco  
 Dunigan, David Plant Pathology
- 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 NSF  
 Gursoy, Mustafa Electrical Engineering
- Wagner, William** **Biological Sciences**  
 Effects of Predation by a Phonotactic Parasitoid on Male  
 and Female Reproductive Behavior in a Field Cricket  
 \$505,414 NSF
- Communication of Direct Mating Benefits to Females  
 \$313,283 NSF
- Waller, Steven** **Agricultural Sciences  
 and Natural Resources**  
 Agriculture in the Classroom  
 \$302,366 Nebraska Foundation for Agricultural Awareness
- Walstad, William** **Economics**  
 Interactive Teaching in Undergraduate Economic Courses  
 \$674,928 NSF
- Wang, Dong** **Statistics**  
 \* Expanding the Scope of Association Mapping in Important  
 Crop Species with Methodology Development in Statistics  
 \$282,000 Department of Agriculture-AFRI  
 Eskridge, Kent Statistics  
 Baenziger, P. Stephen Agronomy and Horticulture  
 Dweikat, Ismail Agronomy and Horticulture
- Wang, Jun** **Geosciences**  
 Regional Air Quality and Climate Impact of  
 Biomass-Burning Aerosols from Central America:  
 An Analysis with EOS Data and Numerical Models  
 \$300,676 NASA

**Weisz, Victoria** **Center on Children, Families and the Law**  
Nebraska State Court Improvement  
\$264,030 Supreme Court of Nebraska

**Wiebe, Sandra** **Psychology/Research and Economic Development**  
\* Prenatal Tobacco Exposure, Self Regulation,  
and Externalizing Behaviors in Early Childhood  
\$403,781 DHHS-NIH-NIDA  
Espy, Kimberly Andrews Psychology/Research and Economic Development

**Wiegand, Roger** **Mathematics**  
GAANN Fellowship Program: Mathematics at UNL  
\$522,624 Department of Education  
Lewis, Jim Mathematics  
Walker, Judy Mathematics  
Meakin, John Mathematics  
Bellows, Laurie Graduate Studies

**Wiener, Richard** **Psychology**  
REU Site: Psychology and Law  
\$200,000 NSF  
Self-referencing, Social Identity &  
Judgments of Sexual Harassment  
\$302,364 NSF

**Wilson Jr., Robert** **Panhandle Research and Extension Center**  
Assessing the Long Term Viability of Roundup Ready  
Technology as a Foundation for Cropping Systems  
\$880,000 Monsanto Co.

**Woldt, Wayne** **Biological Systems Engineering**  
Advancing Onsite Wastewater Treatment in Nebraska  
\$259,742 Nebraska Department of Environmental Quality  
Skipton, Sharon Southeast Research and Extension Center

**Wood, Charles** **Biological Sciences/ Nebraska Center for Virology**  
Research and Training on HIV/AIDS  
Neuropathogenesis in Zambia  
\$273,363 DHHS-NIH-NIMH  
Vaccination against Mucosal HIV Clade C Transmission  
\$768,718 Dana-Farber Cancer Institute

**Woodward, Gordon****Mathematics**

Increasing Participation in Computer Science, Engineering,  
& Mathematics through NSF Scholarships at UNL

\$400,000

NSF

Ballard, John

Engineering

Ramamurthy, Byrav

Computer Science and Engineering

Goddard, Steve

Computer Science and Engineering

Lee, Kevin

Arts &amp; Sciences

Nebraska REU in Applied Mathematics

\$251,823

NSF

Rebarber, Richard

Mathematics

**Wortmann, Charles****Agronomy and Horticulture**

Integrated Approach to Reduced Risk of Phosphorus  
Pollution of Surface Waters in Crop-Livestock Based  
Managed Ecosystems of the Midwest

\$235,839

Nebraska Corn Board

Erickson, Galen

Animal Science

Schulte, Dennis

Biological Systems Engineering

Franti, Tom

Biological Systems Engineering

Jose, H. Douglas

Agricultural Economics

**Yang, Yiqi****Textiles, Clothing and Design**

Resistance of Sulfur Dyed Fabrics to Oxidative  
Bleaching & Acidic Tendering: Improvement & Application

\$300,618

Procter &amp; Gamble

**Yoder, Ronald****Biological Systems Engineering**

Enhancing the Value of Water through Management Education

\$225,000

Nebraska Department of Natural Resources

Nebraska AgrAbility

\$797,000

Department of Agriculture-CSREES

Baquet, Alan

Agricultural Economics

**Zempleni, Janos****Nutrition and Health Sciences**

\* Biotin Sensing and Chromatin Remodeling by  
Holocarboxylase Synthetase

\$808,542

DHHS-NIH-NIDDK

Biotin Affects Cytokine Metabolism

\$409,586

Department of Agriculture-NRICGP

**Zeng, Xiao Cheng****Chemistry**

ITR: Multiscale Treatment of Systems with Strong Heterogeneities

\$715,121

NSF

Diestler, Dennis

Agronomy and Horticulture

Feng, Ruqiang

Engineering Mechanics

**Zera, Anthony****Biological Sciences**

Enzymatic and Molecular Bases of Trade-Offs in  
Lipid Metabolism that Underlie Life History Trade-Off

\$441,682

NSF

Harshman, Lawrence

Biological Sciences



**Zlotnik, Vitaly**

**Geosciences**

Mechanisms Producing Variation in Lake Salinity in  
Dune Environments: Nebraska Sand Hills

\$219,958

NSF

Fritz, Sherilyn

Geosciences

Swinehart, James

Natural Resources

# 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 the ARRA awards UNL faculty received through competitive grants from federal agencies in 2009.

## Alfano, James

### Plant Pathology/ Center for Plant Science Innovation

\* ARRA: EAGER: Plant Chromatin Remodeling in Response to the Bacterial Pathogen *Pseudomonas syringae*

\$299,929

NSF

## Avalos, George

### Mathematics

\* ARRA: Analysis, Computation and Control of Coupled Partial Differential Equation Systems

\$182,898

NSF

## Barletta, Raul

### Veterinary and Biomedical Sciences

\* ARRA: Isolation and Verification of *Mycobacterium tuberculosis* Mutant Strains

\$67,497

Barletta-Chacon, Ofelia

Texas A & M University

Veterinary and Biomedical Sciences

## Barycki, Joseph

### Biochemistry

\* ARRA: Structural Insights into Redox Homeostasis: Supplement

\$333,085

Simpson, Melanie

DHHS-NIH-NIGMS

Biochemistry

## Benson, Andrew

### Food Science and Technology

\* ARRA: Genetic Control over the Gut Microbiome Composition

\$997,732

Walter, Jens

Moriyama, Etsuko

DHHS-NIH-NIDDK

Food Science and Technology

Biological Sciences/

Center for Plant Science Innovation

## Berkowitz, David

### Chemistry

\* ARRA: Antibiotic Properties of Artificial Agonists for a Bacterial Riboswitch

\$38,950

Creighton University

## Bevins, Rick

### Psychology

\* ARRA: Acquired Appetitive Properties of Nicotine

\$533,413

DHHS-NIH-NIDA

## Black, Paul

### Biochemistry

\* ARRA: Fatty Acid Transport in Eukaryotes

\$627,878

DiRusso, Concetta

Nutrition and Health Sciences/Biochemistry

DHHS-NIH-NIGMS

## Blum, Paul

### Biological Sciences

\* ARRA: Metabolic Engineering Studies of Extreme Thermoacidophily

\$130,220

North Carolina State University

<b>Chandra, Namas</b>	<b>Engineering</b>
* ARRA: Factors that Facilitate or Inhibit Enrollment of Domestic Engineering PhD Students: A Mixed Methods Study	
\$149,851	NSF
Weissinger, Ellen	Graduate Studies
Smith, Michelle Howell	Graduate Studies
<b>Crabtree, Kay</b>	<b>Biological Sciences/ Nebraska Center for Virology</b>
* ARRA: Epidemiology of HHV-8 Transmission in Lusaka, Zambia	
\$31,734	DHHS-NIH-NIAID
Wood, Charles	Biological Sciences/ Nebraska Center for Virology
<b>Curto, Carina</b>	<b>Mathematics</b>
* ARRA: Stimulus Representation and Spontaneous Activity in Recurrent Networks	
\$109,635	NSF
<b>Diamond, Judy</b>	<b>University of Nebraska State Museum</b>
* ARRA: World of Viruses Supplement to NIH-NCRR Grant	
\$200,000	DHHS-NIH-NCRR
Cottingham, Ian	Computer Science and Engineering
Dugas, William	University Television
Wagler, Adam	Journalism and Mass Communications
Angeletti, Anisa	Biological Sciences
<b>Du, Liangcheng</b>	<b>Chemistry</b>
* ARRA: Biosynthesis of HSAF, an Antifungal Natural Product with a Novel Mode of Action	
\$49,028	DHHS-NIH-NIAID
<b>Frank, Tracy</b>	<b>Geosciences</b>
* ARRA: Acquisition of a Carbon Analyzer to Support Research in Sedimentary Systems	
\$31,036	NSF
<b>Gay, Timothy</b>	<b>Physics and Astronomy</b>
* ARRA: Polarized Electron Physics	
\$610,000	NSF
<b>Green, Jordan</b>	<b>Special Education and Communication Disorders</b>
* ARRA: Early Speech Motor Development – Equipment	
\$98,000	DHHS-NIH-NIDCD
<b>Hanson, Paul</b>	<b>Natural Resources</b>
* ARRA: REU Site: Dune Undergraduate Geomorphology and Geochronology Project in Wisconsin	
\$45,331	NSF
* ARRA: Linking Loess Landforms and Eolian Processes	
\$45,730	NSF

- Harris, Steven** **Plant Pathology/  
Center for Plant Science Innovation**  
\* ARRA: Evolutionary Genetics of  
Morphogenetic Regulatory Systems in Fungi  
\$392,796 NSF
- Hartke, Stephen** **Mathematics**  
\* ARRA: Computerized Search for Combinatorial Objects  
\$220,000 NSF
- Hogan, Tiffany** **Special Education and  
Communication Disorders**  
\* ARRA: The Lexicon and Phoneme Awareness  
\$73,738 DHHS-NIH-NIDCD
- Kaul, Robert** **University of Nebraska State Museum**  
\* ARRA: Development of a Multi-Herbarium Web-Accessible  
Database of the Vascular Plants from the Missouri Plateau, U.S.A.  
\$26,003 Black Hills State University
- Kravchenko, Ilya** **Physics and Astronomy**  
\* ARRA: Upgrade of CMS Level 1 Trigger by Addition of Pixel  
Detector Data, and Search for SM Higgs Boson at CMS  
\$140,000 NSF
- Li, Yusong** **Civil Engineering**  
\* ARRA: Fate and Transport of Metal-Based  
Nanoparticles in the Subsurface  
\$27,279 Tufts University
- Meagher, Michael** **Chemical and Biomolecular Engineering**  
\* ARRA: Recombinant Protein-based  
Adjuvant for Cellular Immunity  
\$1,593,822 PharmaReview Corporation  
Van Cott, Kevin Chemical and Biomolecular Engineering
- Moriyama, Etsuko** **Biological Sciences/  
Center for Plant Science Innovation**  
\* ARRA: Efficient and Sensitive Mining System  
for G-Protein Coupled Receptors  
\$95,017 DHHS-NIH-NLM
- Nowak, Andrzej** **Civil Engineering**  
\* ARRA: IRES Poland: Experience in Civil Infrastructure Systems  
\$144,108 NSF  
Rilett, Laurence Civil Engineering  
Szerszen, Maria Civil Engineering
- Othman, Shadi** **Biological Sciences**  
\* ARRA: Regenerative Elastography:  
Monitoring Soft Tissue Reconstruction  
\$144,900 DHHS-NIH-NIBIB

**Paul, Prem** **Research and Economic Development**  
\* ARRA: Nebraska Center for Virology Facility Expansion  
\$8,000,000 DHHS-NIH-NCRR  
Wood, Charles Biological Sciences/  
Nebraska Center for Virology

**Powers, Robert** **Chemistry**  
\* ARRA: Revealing Functions for  
Newly Discovered Proteins by FAST-NMR  
\$375,670 DHHS-NIH-NIAID  
Cerny, Ronald Chemistry  
Hage, David Chemistry

**Qiao, Wei** **Electrical Engineering**  
\* ARRA: Online Nonintrusive Condition Monitoring  
and Fault Detection for Wind Turbines  
\$380,398 Department of Energy  
Hudgins, Jerry Electrical Engineering

**Rack, Frank** **Geosciences/  
Antarctic Geological Drilling Program**  
\* ARRA: ANDRILL Coulman High Project –  
Investigating Antarctica’s Role in Cenozoic  
Global Environmental Change Phase 1 (Site Surveys)  
\$2,684,370 NSF  
Harwood, David Geosciences  
Fischbein, Steven Antarctic Geological Drilling Program

**Rilett, Laurence** **Civil Engineering**  
\* ARRA: National Clean Diesel Funding  
Assistance Program Region 7 (1)  
\$1,000,000 Environmental Protection Agency

**Saraf, Ravi** **Chemical and Biomolecular Engineering**  
\* ARRA: Regulating Current through a  
Nanoparticle Necklace by Microorganism:  
A Transformative Technology for Biofuel Cells and Biosensors  
\$391,056 NSF

**Schubert, Mathias** **Electrical Engineering**  
\* ARRA: Effects of Polarization Fields and  
Surface Charge Layers on p-type Conductivity in In(Ga)N  
\$231,857 NSF

**Shield, Jeffrey** **Mechanical Engineering**  
ARRA: REU Site:  
\* Undergraduate Research Opportunities in Nanomaterials  
and Nanoscience at the University of Nebraska–Lincoln  
\$360,000 NSF  
Enders, Susan Engineering Mechanics

**Simpson, Melanie** **Biochemistry**  
\* ARRA: Nebraska Center for Cellular Signaling  
\$69,985 UNMC-University of Nebraska Medical Center

**Somerville, Greg** **Veterinary and Biomedical Sciences**

\* ARRA: Antibiotic Pressure and Selection  
of TCA Cycle Mutants in Staphylococcus Epidermidis  
\$82,497 UNMC-University of Nebraska Medical Center

**Storz, Jay** **Biological Sciences**

\* ARRA: Mechanisms of Hemoglobin Adaptation  
to Hypoxia in High Altitude Rodents  
\$220,774 DHHS-NIH-NHLBI  
Moriyama, Hideaki Biological Sciences

**Subramanian, Anuradha** **Chemical and  
Biomolecular Engineering**

\* ARRA: Design and Evaluation of Ultrasound  
Stimulation-Aided Bioreactor Configurations  
\$533,941 DHHS-NIH-NCRR  
Turner, Joseph Engineering Mechanics

**Tan, Li** **Engineering Mechanics**

\* ARRA: Free-Standing All-Nanoparticle Thin Fibers:  
A Novel Building Block for Organic Photovoltaic Applications  
\$300,002 NSF

**Toundykov, Daniel** **Mathematics**

\* ARRA: Stabilization and Control in Nonlinear  
Structural-Acoustics, Magnetic Imaging, and Elasticity  
\$96,436 NSF

**Tsymbol, Evgeny** **Physics and Astronomy**

\* ARRA: FRG: Switchable Two-Dimensional Materials  
at Oxide Hetero-Interfaces  
\$210,000 University of Wisconsin-Madison

**Van Etten, James** **Plant Pathology**

\* ARRA: DNA Replication  
and Gene Expression of Chlorella Viruses  
\$144,281 DHHS-NIH-NIGMS

**Whitbeck, Les** **Sociology**

\* ARRA: Novel Approaches to Understanding Mental Disorder,  
Substance Abuse and HIV-Risk Among Homeless Women  
\$400,715 DHHS-NIH-NICHD

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

\* ARRA: Immunofocusing for Kaposi's Sarcoma-Associated Herpesvirus Neutralizing Epitopes  
\$990,796 DHHS-NIH-National Cancer Institute

\* ARRA: Nebraska Center for Virology T1  
\$499,826 DHHS-NIH-NCRR

\* ARRA: Vaccination Against Mucosal HIV Clade C Transmission  
\$251,363 Dana-Farber Cancer Institute

\* ARRA: Nebraska Center for Virology  
\$199,000 DHHS-NIH-NCRR

\* ARRA: Programs in HIV and AIDS-Associated Diseases/Malignancies  
\$172,800 DHHS-NIH-Fogarty International Center

\* ARRA: Kaposi's Sarcoma and Human Herpesvirus in Africa  
\$149,600 DHHS-NIH-National Cancer Institute

**Zempleni, Janos****Nutrition and Health Sciences**

\* ARRA: Novel Histone Biotinylation Sites and Relationships to Other Epigenetic Marks  
\$535,463 DHHS-NIH-NIDDK

**Zhang, Shunpu****Statistics**

\* ARRA: A Computational Genotyping System for Improved Influenza Surveillance  
\$203,488 UNO-University of Nebraska-Omaha

**Zhang, Luwen****Biological Sciences/  
Nebraska Center for Virology**

\* ARRA: Modulation of Apoptosis by IRF-4 in EBV Transformation  
\$545,682 DHHS-NIH-National Cancer Institute

\* ARRA: Oncogenic Properties of Interferon Regulatory Factor 7  
\$25,724 DHHS-NIH-National Cancer Institute

## Early Career Awards

Active awards in 2009

\* Indicates new in 2009

### NSF CAREER Grants

National Science Foundation CAREER grants are awarded only to untenured junior faculty. NSF emphasizes that the 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.



#### **Adams, Stephanie**

Industrial and Management Systems Engineering  
Designing Effective Teams in the Engineering  
Classroom for the Enhancement of Learning  
\$643,418 NSF



#### **Binek, Christian**

Physics and Astronomy  
Education & Research on Nanoscale Spintronic  
Systems & Heterostructures  
\$500,000 NSF



#### **Bloom, Kenneth**

Physics and Astronomy  
Top-Quark Physics, Computing & Software at  
Large Hadron Collider  
\$550,000 NSF



#### **Cohen, Myra**

Computer Science and Engineering  
Configuration-Aware Testing Through Intelligent  
Sampling to Improve Software Dependability  
\$400,000 NSF



#### **Dominguez, Aaron**

Physics and Astronomy  
Superior Silicon Tracking & Discovery as CMS &  
D0  
\$550,000 NSF



#### **Elbaum, Sebastian**

Computer Science and Engineering  
Leveraging Field Data to Test Pervasive Systems  
\$412,594 NSF



#### **Enders, Axel**

Physics and Astronomy  
Self-Assembled Magnetic Nanostructures  
\$400,000 NSF





**Frank, Tracy**

Geosciences  
Exploring the Geologic Record of Major Climate Transitions: Causes, Consequences, & Impacts on the Evolution of Earth Systems  
\$583,816

NSF



**Gursoy, Mustafa**

Electrical Engineering  
CAREER: Energy-Efficient Wireless Communications under Channel Uncertainty  
\$400,000

NSF



**Hebets, Eileen**

Biological Sciences  
Evolution and Function of Complex Signaling in Wolf Spider Genus Schizocosa  
\$680,351

NSF



**Kim, Yong Rak**

Civil Engineering  
Research & Education on Advanced Multiscale Modeling-Analysis of Roadway Materials, Mixtures, & Infrastructure Systems  
\$402,044

NSF



**Schubert, Eva**

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

NSF



**Xu, Lisong**

Computer Science and Engineering  
Stochastic TCP Friendliness: Exploring the Design Space of TCP-Friendly Traffic Control in Best-Effort Internet  
\$400,000

NSF

## K Awards

National Institutes of Health K Awards support intensive development experiences leading to research independence in one of the biomedical, behavioral or clinical sciences. The proposed career-development experience must be in a research area new to the applicant and/or one in which an additional supervised research experience will substantially add to the applicant's research capabilities. Candidates must provide a plan for achieving independent research support by the end of the award, and must be willing to spend a minimum of .75 FTE on research and career development during the award project period.



### **Angeletti, Peter**

Biological Sciences

Maintenance of Human Papilloma Virus Genes

\$613,512

DHHS-NIH-NCI



### **DiLillo, David**

Psychology

Family Functioning of Adults Maltreated as Children

\$670,286

DHHS-NIH-NIMH



### **Peterson, Daniel**

Food Science and Technology

Adaptive Immune Response to Symbiotic Bacteria as a Mediator of Gut Homeostasis

\$379,890

DHHS-NIH-NIAID



### **Sayood, Khalid**

Electrical Engineering

Identification of Biological Materials of Unknown Origin

\$764,005

DHHS-NIH-NIAID

## Young Investigator Research Program (YIP)

The Department of Defense bestows its Young Investigator Research Program (YIP) award on scientists and engineers at research institutions across the United States who have received Ph.D. or equivalent degrees in the last five years and show exceptional ability and promise for conducting basic research. The objective of the program is to foster creative basic research in science and engineering, and enhance early career development of outstanding young investigators. Those selected receive the grants over a three-year period.



### **Cohen, Myra**

Computer Science and Engineering

Just-Enough-Testing: Adaptive Targeted Testing of Software Product Lines

\$316,551

DOD-Air Force Office of Scientific Research

# Arts and Humanities Awards \$50,000 or more

Active awards in 2009

\* Indicates new in 2009

## **Awakuni-Swetland, Mark**

## **Anthropology/Ethnic Studies**

Omaha and Ponca Digital Dictionary  
National Endowment for the Humanities  
\$348,800  
9/1/08 – 8/31/11  
Walter, Katherine  
Center for Digital Research  
in the Humanities/Libraries



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.

## **Behrendt, Stephen**

## **English**

\* The Aesthetics of British Romanticism, Then and Today  
National Endowment for the Humanities  
\$124,498  
10/1/09 – 9/30/10



Stephen Behrendt, professor of English, has received support from the National Endowment for the Humanities to offer a five-week summer seminar for college teachers called “the Aesthetics of British Romanticism, Then and Today.” Participants will examine the factors that influenced literary judgments in Romantic-era Britain (c. 1780-1835) leading to the marginalization or exclusion of women, working-class writers and others, and ultimately sanctioning a limited and unrepresentative “canon” of writers. The seminar will explore the complex relations among art, culture, class, and socio-political rhetoric through historical and modern perspectives that consider “art” as a negotiated ground among its producers, consumers and commentators.

## Crews, Patricia

## Textiles, Clothing and Design/ International Quilt Study Center

\* Byron and Sara Rhodes Dillow Quilt Collection  
\$1,268,550 David Dillow, Jeffrey Dillow  
& Ann Dillow Crowley

Received 6/23/09



This gift to the International Quilt Study Center from the estate of collectors Sara Rhodes Dillow and Dr. Byron Dillow is the second-largest gift of quilts to the center, following only that of the center's original quilt collection gift from Robert and Ardis James. The collection includes examples of early 19th-century antique chintz and 18th-century French quilting. Many other quilts of note include Baltimore Album quilts and rare palampores. The Dillows also collected the works of contemporary studio quilters, including Michael James and Ruth McDowell.

## Engen-Wedin, Nancy

## Teaching, Learning and Teacher Education/Lied Center for Performing Arts

\* The Teaching Artist Initiative (Nebraska)  
\$50,000 Dana Foundation  
1/1/09 - 6/30/10



Nancy Engen-Wedin, lecturer in the Department of Teaching Learning and Teacher Education and ArtsREACH coordinator with the Lied Center for Performing Arts, is using funding from the Dana Foundation to support the Nebraska Teaching Artist Initiative. This program helps community and teaching artists plan artist residencies for K-12 students in Nebraska's rural school districts.

## Kooser, Ted

## English

American Life in Poetry Project  
\$171,800 Poetry Foundation  
1/1/05 - 12/31/09



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

## Price, Kenneth

## English/Center for Digital Research in the Humanities

Walt Whitman Archive

\$500,000

National Endowment for the Humanities

8/1/05 – 3/31/09



Ken Price, professor of English and Hillegass chair of 19th Century American Literature, is principal investigator for a \$500,000 We the People Challenge Grant from the National Endowment for the Humanities. The award is contingent on UNL acquiring a 3-1 match of \$1.5 million in the next four years. When

fundraising is completed, the \$2 million establishes an endowment at the University of Nebraska Foundation, the proceeds of which provide permanent annual operating funding for the Walt Whitman Archive. The Whitman Archive is an electronic research and teaching tool that makes Whitman's huge body of work easily and conveniently accessible. Whitman amassed a huge volume of work during his life. Some 70,000 manuscripts are housed in about 80 locations, although the bulk is known to be in just five libraries. But the logistics of finding these various documents, let alone assessing and comparing their relevance and content, are daunting. The archive allows scholars to search the entire body of Whitman's writings and scholarship on those works and offers scholarly analysis.

Walt Whitman's Civil War Writings

\$300,000

National Endowment for the Humanities

7/1/08 – 6/30/11

Walt Whitman's Civil War Writings

\$80,000

American Council of Learned Societies

7/1/08 – 12/31/09

Walt Whitman and the Civil War

\$75,000

National Historical Publications  
and Records Commission

10/1/08 – 9/30/09

With grants from the National Endowment for the Humanities, the American Council of Learned Societies and the National Historical Publications and Records Commission, the Walt Whitman Archive will create a comprehensive edition of the Civil War writings of Walt Whitman. The War profoundly shaped *Leaves of Grass*, the first masterpiece of American poetry, and Whitman extensively depicted and analyzed the Civil War in journals, notebooks, letters, essays, journals, memoirs and manuscript drafts. The hundreds of documents that give voice to Whitman's experience of the war will be electronically edited, arranged and published. In addition to making these documents freely available, this work will help to model for other scholars best practices in creating, publishing and sustaining electronic editions. The project will provide scholars and students—of the Civil War, of Whitman and of American history in general—a site where they can read, evaluate and experience a set of texts that provide unique insight into the American experience of the Civil War.

## Seefeldt, William

## History/Center for Digital Research in the Humanities

\* William Cody Research Project

Buffalo Bill Historical Center

\$131,374

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.

## Thomas, William

## History/Center for Digital Research in the Humanities

\* Railroads and the Making of Modern America—

Tools for Spatio-Temporal Correlation, Analysis and Visualization

\$99,493

National Endowment for the Humanities

1/1/10 – 3/31/11

Ian Cottingham

Computer Science and Engineering

Stephen Scott

Computer Science and Engineering



With support from the National Endowment for the Humanities, history professor William Thomas plans to develop useful tools for spatio-temporal visualization of data on the railroad system and the relationships among them. Because the railroad "system" and its spatio-temporal configuration appear

differently from locality to locality and region to region, it's important to adjust how the system is "located" and "seen." By applying data mining and pattern recognition techniques, software systems can be created that dynamically redefine the way spatial data are represented. Utilizing processes common to analysis in computer science, researchers will develop a software framework that allows these embedded concepts to be visualized and further studied.

**Walter, Katherine**

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

\* centerNet: Cyberinfrastructure for Digital Humanities  
\$50,000 National Endowment for the Humanities  
9/1/09 - 8/31/10



Katherine Walter, professor of libraries, with support from the National Endowment of the Humanities, is building a technical infrastructure and institutional framework that will enable centerNet, a nascent international network of digital humanities centers, to play a vital role in developing both

national and international cyberinfrastructure and become a stable, self-supporting organization. Included in the plan are a one-time worldwide summit of digital humanities centers and funders to discuss possible emergent programs. 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 National Endowment for the Humanities  
7/1/07 - 6/30/11  
Wunder, John Journalism and Mass Communications  
Mering, Margaret Center for Digital Research in the Humanities  
Pytlik Zillig, Brian Center for Digital Research in the Humanities

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” Web site. UNL’s University Libraries is partnering with the College of Journalism and Mass Communications and the Nebraska State Historical Society on the two-year, “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.

# Arts and Humanities Awards

## \$5,000-\$49,999

Active awards in 2009

\* Indicates new in 2009

### Dreher, Kwakiuti

### English/Ethnic Studies

\* Blacks in Film Festival 2009

\$5,000

Woods Charitable Fund

### Elias Rowley, Kristen

### University of Nebraska Press

Literary Publishing at the University of Nebraska Press

\$20,000

National Endowment for the Arts

### Engen-Wedin, Nancy

### Teaching, Learning and Teacher Education/Lied Center for Performing Arts

\* Lied Center Community Engagement Touring Grant – MAAA

\$10,819

Mid-America Arts Alliance

Nebraska's Rural Arts Education Initiative

\$25,000

National Endowment for the Arts

ArtsReach

\$50,000

Nebraskans for the Arts

Umo<sup>o</sup>ho<sup>o</sup> Cultural Arts Program

\$15,000

Kennedy Center for Performing Arts

### Jewell, Andrew

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

The Crowded Page

\$49,577

National Endowment for the Humanities

Mapping a Writer's World: A Geographic  
Chronology of Willa Cather's Life

\$7,800

Nebraska Humanities Council

### Richmond, John

### Music

2009 Honors Jazz Weekend & Summer Camp

\$10,000

Berman Music Foundation

Haar, Ora

Music

### Stubbendieck, James

### Agronomy and Horticulture/ Center for Great Plains Studies

Celebrating Darwin's Legacy

\$8,960

Nebraska Humanities Council

### Wahlqvist, Petra

### Lied Center for Performing Arts

Loop Divers by Troika Ranch

\$35,000

Woods Charitable Fund/  
Lincoln Community Foundation



**Weiss, Wendy**

\$12,635  
James, Michael

**Textiles, Clothing and Design**

Hillestad Textiles Gallery  
Friends of the Hillestad Textiles Gallery  
Textiles, Clothing and Design

**Yoon, Hye Yung**

\$10,000  
Sirota, Jonah  
Fischer, Rebecca  
Beaver, Gregory

\* Commissioning/USA Meet the Composer: Amerindia

Meet the Composer  
Music  
Music  
Music

**Music**



Pioneering Partnerships for Innovation™

NUtech Ventures is the newly established nonprofit corporation that helps move university research into the marketplace through innovative partnerships with the private sector. If you are 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. We're not the same old technology transfer office. 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 UNL startup companies and commercialization agreements with our industry partners in 2009.

## 2009 STARTUPS

**Chris Calkins**, Animal Science; **Jeyamkondan Subbiah**, Biological Systems Engineering; **Ashok Samal**, Computer Science and Engineering

**Technologies:** Algorithms to Analyze Hyperspectral Images to Predict Beef Tenderness; Methodologies to Identify Key Wavelengths for Developing Multispectral Imaging to Predict Material Properties (Beef Tenderness)

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**Bing Chen, Roger Sash, Herb Detloff** and **Alisa Gilmore**, all Computer and Electronics Engineering

**Technology:** CEENBoT™

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**Shane Farritor**, Mechanical Engineering

**Technology:** Measurement of Vertical Track Modulus Using Space Curves

**Shane Farritor, Richard Arnold** and **Chris Norman**, all Mechanical Engineering

**Technology:** Method and Apparatus for Noncontact Relative Rail Displacement, Track Modulus and Stiffness Measurement by a Moving Rail Vehicle

**Shane Farritor** and **Sheng Lu**, both Mechanical Engineering

**Technology:** Vertical Track Modulus Trending

**Shane Farritor**, Mechanical Engineering; **Joseph Turner**, Engineering Mechanics  
*Technology:* System and Methods to Determine and Monitor Changes in Rail Conditions over Time

**Joseph Turner**, Engineering Mechanics  
*Technology:* Systems and Methods to Determine and Monitor Changes in Microstructural Properties

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**Michael Fromm**, Agronomy and Horticulture  
*Technology:* Drug Combination Formulation for Reducing Fat

**Michael Fromm**, Agronomy and Horticulture; **Shan Jiang** and **Jess Miner**, both Animal Science  
*Technologies:* Method for Fat Loss in Mammals; Method for Fat Loss in Mammals: Effective Combinations Using Receptors; Method for Fat Loss in Mammals: Effective Combinations with Statins

**Michael Fromm**, Agronomy and Horticulture; **Jess Miner**, Animal Science  
*Technology:* Method for Fat Loss in Mammals Using a Combination Including Prostaglandins

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**George Gogos**, Mechanical Engineering; **Stevan Knezevic**, Agronomy and Horticulture; **Christopher Bruening**, Mechanical Engineering  
*Technology:* A Hood/Torch Propane Flaming Device for Weed Control in Early-season Corn

## 2009 LICENSE AGREEMENTS

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

*Technology:* 'Camelot' Hard Red Winter Wheat

*Technology:* 'Mace' Hard Red Winter Wheat (licensed to three companies)

*Technology:* 'Settler CL' Hard Red Winter Wheat (licensed to two companies)

*Technology:* NE01643 (Overland) Hard Red Winter Wheat (licensed to two companies)

**P. Stephen Baenziger** and **Mary Shipman**, both Agronomy and Horticulture; **Drew Lyon**, Panhandle Research and Extension Center; **Alexander Martin**, Agronomy and Horticulture

*Technology:* 'Infinity' Hard Red Winter Wheat, formerly NH01046

### CALMIT

*Technology:* Supplemental Type Certificate for Piper Saratoga Camera Ports

**George Graef**, **Leslie Korte** and **Dennis White**, all Agronomy and Horticulture

*Technology:* U98-311442 Soybean

**Dale Lindgren**, Agronomy and Horticulture

*Technology:* Clematis Groundcover Hybrid 26045

**Fernando Osorio**, Veterinary and Biomedical Sciences

*Technology:* mAb Anti-peptide 201 Hybridoma Cell Line

**Jody Redepinning**, Chemistry

*Technologies:* Electrolytic Deposition of Coatings for Prosthetic Metals and Alloys; Bioresorbable Composites and Method of Formation Thereof; Bioresorbable Polymer Reconstituted Bone and Methods of Formation Thereof; Chemical Vapor Deposition (CVD) Polymerization onto Nucleophilic Surfaces; Bioresorbable Polymer/Calcium Sulfate Composites and Method of Formation Thereof; Electrolytic Deposition of Coatings for Prosthetic Metals and Alloys

**Blair Siegfried**, Entomology

*Technology:* European Corn Borer Displaying Resistance to Cry1Ab Bt Toxin

**Blair Siegfried** and **Andre Crespo**, both Entomology

*Technology:* A Cry1Ab Resistant Strain of the European Corn Borer, *Ostrinia nubilalis* (Lepidoptera: Crambidae)

**Maher Tadros**, Civil Engineering; **Terence Foster**, Construction Systems; **Audra Hansen** and **Sherif Yehia**, both Civil Engineering

*Technology:* Pre-cast Post-tensioned Segmental Concrete Pole System

**Carlos Urrea Florez**, Panhandle Research and Extension Center;

**Dale Lindgren**, Agronomy and Horticulture; **James Steadman**,

Plant Pathology; **Dermot Coyne**, Agronomy and Horticulture

*Technology:* Great Northern Common Bean Cultivar 'Coyne'

## 2009 OPTION AGREEMENTS

**David Berkowitz** and **Sylvain Broussy**, both Chemistry  
*Technology:* Analogues of (-)-Picropodophyllin, Synthesis and Uses Thereof

**Haorong Li**, Architectural Engineering  
*Technology:* Optimal Coordination Control and Soft Repair of Multi-RTU

**Yiqi Yang** and **Narendra Reddy**, both Textiles, Clothing and Design  
*Technology:* Natural Cellulosic Fiber Bundles from Cellulosic Sources and a Method for Making the Same

## CREATIVE ACTIVITY

Faculty who created, exhibited, performed or produced creative works in fine and performing arts and architecture, nationally or internationally, in 2009

*Submitted by faculty, chairs/heads or deans*

### **John Bailey**

### **Music**

Conductor, *International Flute Orchestra*, Krakow, Zakopane, Warsaw and Gdansk, Poland

### **Chris Ford**

### **Architecture**

Artist, architecture, *REIs: Renewable Energy Infrastructures*, AIA Kansas City Young Architects Forum – 2009 “Monsters of Design” Awards, Kansas City, MO

### **Dana Fritz**

### **Art and Art History**

Artist, photographs, *Terraria Gigantica: The World Under Glass*, Toyota Municipal Museum of Art, Toyota, Aichi, Japan

Artist, photographs, *Terraria Gigantica: The World Under Glass*, Griffin Museum of Photography, Winchester, MA

Artist, photographs, *Terraria Gigantica: The World Under Glass*, 516 Arts, Albuquerque, NM

### **Xia Gao**

### **Textiles, Clothing and Design**

Artist, textile installation, *Relocation, Connection, In a Different Light*, Spaces Gallery, Cleveland, OH

Artist, textile surface design, *Cycle*, Belger Arts Center, Kansas City, MO

### **Michael James**

### **Textiles, Clothing and Design**

Artist, textiles - wall quilts, *Material Response: New and Recent Quilts*, Center for Art & Culture, Ste. Marie-aux-Mines, Alsace, France

### **Karen Kunc**

### **Art and Art History**

Artist, prints, *Solo Exhibition*, Kaiku Gallery, Finnish Academy of Fine Art, Helsinki, Finland

Artist, print, *The Wanting Pool*, International Print Triennial-Krakow, Contemporary Art Gallery, Krakow, Poland

### **Wendy Weiss**

### **Textiles, Clothing and Design**

Artist, handwoven fabrics with triggered sound and movement, *Landscape with Floating Biology*, The Cocoon Gallery at the Arts Incubator, Kansas City, MO

Artist, handwoven fabrics with triggered sound and movement, *Landscape with Floating Biology*, Living Arts of Tulsa, Tulsa, OK

## BOOKS

Faculty who wrote or edited books published in 2009

UNL authors in red

Submitted by faculty, chairs/heads or deans

**Douglas A. Abbott**

**Child, Youth and Family Studies**

Author, with A. Dean Byrd. *Encouraging Heterosexuality*. Orem, UT: Millennial Press.

**Bradley Barker**

**4-H Youth Development**

Author. *Evaluating Adult Distributed Training Programs: A Comparison Research Model*. Beau Bassin, Mauritius: VDM Publishing House Ltd.

**Stephen C. Behrendt**

**English**

Editor. *Percy Bysshe Shelley: A Longman Cultural Edition*. New York, NY: Longman.

Author. *British Women Poets and the Romantic Writing Community*. Baltimore, MD, and London, UK: Johns Hopkins University Press.

**Susan Belasco**

**English**

Editor. *Stowe in Her Own Time*. Iowa City, IA: University of Iowa Press.

**Robert F. Belli**

**Psychology/Gallup Research Center**

Editor, with Frank P. Stafford and Duane F. Alwin. *Calendar and Time Diary Methods in Life Course Research*. Thousand Oaks, CA: Sage Publications.

**David R. Beukelman**

**Special Education and Communication Disorders**

Author, with Mark E. Hakel, *Special Education and Communication Disorders*, Kathryn M. Yorkston and Edythe A. Strand. *Clinical Management of Speakers With Motor Speech Disorders*. Austin, TX: Pro-Ed.

**Rick A. Bevins**

**Psychology**

Editor, with Anthony R. Caggiula. *Volume 55 of the Nebraska Symposium on Motivation: The Motivational Impact of Nicotine and its Role in Tobacco Use*. New York, NY: Springer.

**Brian H. Bornstein**

**Psychology**

Author, with Monica K. Miller. *God in the Courtroom: Religion's Role at Trial*. New York, NY: Oxford University Press.

**Charles Braithwaite**

**Communication Studies/  
Center for Great Plains Studies**

Editor, with Bruce Glasrud. *African-Americans on the Great Plains*. Lincoln, NE: University of Nebraska Press.

**Gustavo Carlo**

**Psychology**

Editor, with Francisco Villaruel, Margarita Azmitia, Josefina Grau, Natasha Cabrera and Jaime Chahin. *Handbook of U.S. Latino Psychology*. Thousand Oaks, CA: Sage Publications.

**Song Ci** **Computer and Electronics Engineering**

Author, with Haohong Wang, Lisimachos Kondi and Ajay Luthra. *4G Wireless Video Communications*. West Sussex, UK: Wiley.

**Patricia C. Crews** **Textiles, Clothing and Design/  
International Quilt Study Center**

Editor, with Marin F. Hanson, *Textiles, Clothing and Design/  
International Quilt Study Center*. *American Quilts in the Modern  
Age, 1870-1940*. Lincoln, NE: University of Nebraska Press.

**Rochelle L. Dalla** **Child, Youth and Family Studies**

Editor, with John DeFrain, *Child, Youth and Family Studies*; Julie M. Johnson, *Child, Youth and Family Studies*; and Douglas A. Abbott, *Child, Youth and Family Studies*. *Strengths and Challenges of New Immigrant Families in the U.S.* Lanham, MD: Lexington Books.

**Rafael J. de Ayala** **Educational Psychology**

Author. *The Theory and Practice of Item Response Theory*. New York, NY: The Guilford Press.

**Robert C. Denicola** **Law**

Author. *Cases on Copyright: Unfair Competition, and Related Topics Bearing on the Protections of Works of Authorship*. Eagan, MN: Foundation Press.

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

Author, with Jessica J. Luke and David H. Uttal. *Practical Evaluation Guide: Tools for Museums and Other Informal Educational Settings*. Lanham, MD: AltaMira Press.

**Wheeler Winston Dixon** **English**

Author. *Film Noir and The Cinema of Paranoia*. Edinburgh, Scotland and New Brunswick, NJ: Edinburgh University Press; Rutgers University Press.

Author, with Gwendolyn Audrey Foster, *English*. *Breve Historia del Cine*. Barcelona, Spain: Robinbook.

**Beth Doll** **Educational Psychology**

Author, with Katherine Brehm. *Resilient Playgrounds*. New York, NY: Routledge (Taylor and Francis Group).

**Allan P. Donsig** **Mathematics**

Author, with Kenneth R. Davidson. *Real Analysis and Applications: Theory in Practice*. New York, NY: Springer-Verlag.

**Peter A. Dowben** **Physics and Astronomy**

Editor, with David Ferry and John Inglesfield. *Celebrating 20 Years of Journal of Physics: Condensed Matter*. Bristol, England: Institute of Physics Publishing.

**Judy A. Driskell** **Nutrition and Health Sciences**

Author, with Ira Wolinsky. *Nutritional Concerns in Recreation, Exercise and Sport*. Boca Raton, FL: Taylor and Francis Group, CRC Press.

Editor. *Nutrition and Exercise Concerns of Middle Age*. Boca Raton, FL: Taylor and Francis Group, CRC Press.



**Bruce I. Dvorak** **Biological Systems Engineering**  
Author, with Stacey A. Hawkey, *Biological Systems Engineering/Extension. Partners In Pollution Prevention Source Reduction and Recycling Success Stories*. Lincoln, NE: University of Nebraska Printing and Publications.

**Carolyn Pope Edwards** **Psychology/  
Child, Youth and Family Studies**  
Author, with Wen Zhao. *Chinese Teachers in Transformation: A Mixed Methods Study of Reggio-Inspired Practice with Orphaned Children in Welfare Institutions*. Koln, Germany: Lambert Academic Publishers.

**Michael H. Epstein** **Special Education and  
Communication Disorders**  
Author, with Lori Synhorst, *Special Education and Communication Disorders. Preschool Behavioral and Emotional Rating Scale*. Austin, TX: Pro-Ed.

**Robert G. Fuller** **Physics and Astronomy**  
Editor, with Dewey I. Dykstra, Jr., Scott M. Stevens and Thomas C. Campbell. *College Teaching and the Development of Reasoning*. Charlotte, NC: Information Age Publishing Inc.

**Russell Ganim** **Modern Languages and Literature**  
Editor, with Thomas M. Carr, Jr., *Modern Languages and Literature. Origines*. Tübingen, Germany: Gunter Narr Verlag.

**Thomas C. Gannon** **English/Ethnic Studies**  
Author. *Skyllark Meets Meadowlark: Reimagining the Bird in British Romantic and Contemporary Native American Literature*. Lincoln, NE: University of Nebraska Press.

**Joan R. Giesecke** **University Libraries**  
Author, with Beth McNeil. *Fundamentals of Library Supervision*. Chicago, IL: American Library Association.

**Iker Gonzalez-Allende** **Modern Languages and Literature**  
Editor. *Pilar de Zubiaurre. Evocaciones: Articulos y Diario (1909-1958)*. Donostia-San Sebastian, Basque Country, Spain: Saturrarán.

**Marilyn L. Grady** **Educational Administration**  
Author, with Barbara Brock. *From Difficult Teachers to Dynamic Teams*. Thousand Oaks, CA: Corwin Press.

**William M. Grange** **Johnny Carson School of Theatre and Film**  
Author. *Historical Dictionary of Postwar German Literature*. Lanham, MD: Scarecrow Press.

**Mark A. Griep** **Chemistry**  
Author, with Marjorie L. Mikasen. *ReAction! Chemistry in the Movies*. New York, NY: Oxford University Press.

**Edmund T. Hamann** **Teaching, Learning and Teacher Education**  
Author, with Victor Zuniga and Juan Sanchez Garcia. *Alumnos Transnacionales: Las Escuelas Mexicanas Frente a la Globalización*. Mexico City, Mexico, DF: Secretaria de Educación Pública.

**Robert M. Harveson****Panhandle Research and Extension Center**

Author, with Linda E. Hanson and Gary L. Hein, *Entomology/IANR-Research. Compendium of Beet Diseases and Pests*. St. Paul, MN: APS Press.

**Mark Hinchman****Interior Design Program**

Author. *History of Furniture: A Global View*. New York, NY: Fairchild Books.

**Margaret D. Jacobs****History/Women's and Gender Studies**

Author. *White Mother to a Dark Race: Settler Colonialism, Maternalism, and the Removal of Indigenous Children in the American West and Australia, 1880-1940*. Lincoln, NE: University of Nebraska Press.

**Kerry John-Elsen****4-H Youth Development**

Author, with Patricia Fairchild, *4-H State Office/Extension. Insectigator - Bug or Insect - Do You Know the Difference?* Lincoln, NE: University of Nebraska Printing and Publications.

**Ron J. Johnson****4-H Youth Development**

Author, with Linda Ulrich, *Communications and Information Technology/Extension. Wildlife Conservation 1: The Worth of Wild Roots; Wildlife Conservation 2: Living Wild in an Ecosystem; Wildlife Conservation 3: Managing In A World With You and Me*. Lincoln, NE: University of Nebraska Printing and Publications.

**Erick C. Jones****Industrial and Management Systems Engineering**

Author, with Christopher A. Chung. *RFID in Logistics: A Practical Introduction*. Boca Raton, FL: CRC Press.

**Patrick D. Jones****History/Ethnic Studies**

Author. *The Selma of the North: Civil Rights Insurgency in Milwaukee*. Cambridge, MA: Harvard University Press.

**Chantal Kalisa****Modern Languages and Literature/  
Women's and Gender Studies**

Author. *Violence in Francophone African and Caribbean Literature*. Lincoln, NE: University of Nebraska Press.

**Kenneth Kiewra****Educational Psychology**

Author. *Teaching How to Learn*. New York, NY: Corwin Press.

**Ted Kooser****English**

Author. *Lights on a Ground of Darkness: An Evocation of a Place and Time*. Lincoln, NE: University of Nebraska Press.

**Marjorie J. Kostelnik****Education and Human Sciences**

Author, with Marilyn L. Grady, *Educational Administration. Getting It Right From the Start*. Thousand Oaks, CA: Corwin Press.

Author, with Alice Whiren, Anne Soderman and Kara Gregory. *Guiding Children's Social Development & Learning*. Clifton Park, NY: Delmar Cengage Learning.

**Karen S. Kunc** **Art and Art History**

Author, with Robert Pinsky. *Ephemera*. Avoca, NE: Blue Heron Press.

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

Author. *John Wyclif*. New York, NY: Oxford University Press.

**Brian D. Lepard** **Law**

Author. *Customary International Law: A New Theory with Practical Applications*. Cambridge, UK: Cambridge University Press.

**Carole Levin** **History/Medieval & Renaissance Studies**

Author, with John Watkins. *Shakespeare's Foreign Worlds*. Ithaca, NY: Cornell University Press.

Editor, with Garrett Sullivan. *To Sleep, Perchance to Dream: a Commonplace Book*. Washington, DC: Folger Shakespeare Library.

Editor, with Robert Bucholz. *Queens and Power in Medieval and Early Modern England*. Lincoln, NE: University of Nebraska Press.

**Peter Maslowski** **History**

Author, with Don Winslow. *Looking for a Hero: Staff Sergeant Joe Ronnie Hooper and the Vietnam War*. Lincoln, NE: University of Nebraska Press.

**Colleen E. Medill** **Law**

Author. *Acing Property*. Eagan, MN: West.

**Amelia M.L. Montes** **English/Ethnic Studies**

Editor. *Who Would Have Thought It?* New York, NY: Penguin Classics.

**David Moshman** **Educational Psychology**

Author. *Liberty and Learning: Academic Freedom for Teachers and Students*. Portsmouth, NH: Heinemann.

**Yunwoo Nam** **Community and Regional Planning Program**

Author. *Spatial Variation of Land Consumption Patterns in a Metropolitan Area: Residential and Employment Land Use Intensity*. Germany: VDM Publishing.

**Shirley Niemeyer** **Textiles, Clothing and Design**

Author, with Patricia Fairchild, 4-H State Office/Extension. *Design Decisions*. Lincoln, NE: University of Nebraska Printing and Publications.

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

Author, with Subodh Kesharwani. *Enterprise Information Systems: Contemporary Trends and Issues*. Hackensack, NJ: World Scientific.

**Tom Osborne** **Athletics**

Author, with John Roberts. *More than Winning: The Story of Tom Osborne*. Lincoln, NE: University of Nebraska Press.

**Jon E. Pedersen**                      **Teaching, Learning and Teacher Education**

Author, with Kevin D. Finson. *Visual Data: Understanding and Applying Visual Data to Research in Education*. The Netherlands: Sense Publishing Inc.

**E. Wesley F. Peterson**                      **Agricultural Economics**

Author. *A Billion Dollars a Day: The Economics and Politics of Agricultural Subsidies*. Malden, MA: Wiley-Blackwell, John Wiley and Sons.

**Mary Kay Quinlan**                      **News-Editorial**

Author, with Barbara W. Sommer. *The Oral History Manual, Second Edition*. Lanham, MD: AltaMira Press.

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

Author, with Carolyn P. Edwards, *Psychology/Child, Youth and Family Studies*. *Extending the Dance in Infant and Toddler Caregiving: Enhancing Attachment and Relationships*. Baltimore, MD: Paul H. Brookes Publishing Co.

**Hilda Raz**                      **English**

Author. *Loren Eiseley: Commentary, Biography, and Remembrance*. Lincoln, NE: University of Nebraska Press.

Author. *What Happens*. Lincoln, NE: University of Nebraska Press.

**Guy Reynolds**                      **English**

General editor, with Mark J. Madigan, Willa Cather Scholarly Edition Series. Co-editors **Frederick M. Link, English**; **Charles W. Mignon, English**; **Kari A. Ronning, English**; and Judith Boss. *Youth and the Bright Medusa*. Lincoln, NE: University of Nebraska Press.

General Editor. Willa Cather Scholarly Edition Series. Co-editors **Charles W. Mignon, English**; **Kari A. Ronning, English**; **Frederick M. Link, English**; and Ann Romines. *Sapphira and the Slave Girl*. Lincoln, NE: University of Nebraska Press.

**Lowell Sandell**                      **Agronomy and Horticulture**

Author. *Guide for Weed Management with Insecticide and Fungicide Information*. Lincoln, NE: University of Nebraska Printing and Publications.

**Khalid Sayood**                      **Electrical Engineering**

Author, with **Michael W. Hoffman, Electrical Engineering**, and Dongsheng Bi. *Joint Source Channel Using Arithmetic Codes*. San Rafael, CA: Morgan & Claypool Publishers.

**Robert F. Schopp**                      **Law**

Editor. *Mental Disorder and Criminal Law*. New York, NY: Springer.

**Anthony Schutz**                      **Law**

Author, with Robert D. Miewald and Peter J. Longo. *The Nebraska State Constitution: A Reference Guide, Second Edition*. Lincoln, NE: University of Nebraska Press.

**David J. Sellmyer**

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

Editor, with J. Ping Liu, Eric Fullerton and Oliver Gutfleisch.  
*Nanoscale Magnetic Materials and Applications*. Berlin, Germany:  
Springer.

**Keng L. Siau**

**Management**

Editor, with John Erickson. *Principle Advancements in Database  
Management Technologies: New Applications and Frameworks*.  
Hershey, PA: IGI Global.

Editor, with Bill Hardgrave and Roger Chiang. *Systems Analysis  
and Design: Techniques, Methodologies, Approaches, and  
Architectures*. Armonk, NY: M.E. Sharpe.

**Victoria Smith**

**History/Ethnic Studies**

Author. *Captive Arizona, 1851-1900*. Lincoln, NE: University of  
Nebraska Press.

**Susan M. Swearer**

**Educational Psychology**

Author, with Dorothy L. Espelage and Scott A. Napolitano. *Bullying  
Prevention and Intervention: Realistic Strategies for Schools*. New  
York, NY: Guilford Press.

**Steve L. Taylor**

**Food Science and Technology**

Editor. *Advances in Food & Nutrition Research*. London, England:  
Elsevier/Academic Press.

**Elizabeth Theiss-Morse**

**Political Science**

Author. *Who Counts as an American? The Boundaries of National  
Identity*. New York, NY: Cambridge University Press.

**Hendrik Van Den Berg**

**Economics**

Author, with Orn B. Bodvarsson. *The Economics of Immigration:  
Theory and Policy*. Berlin & Heidelberg: Springer-Verlag.

**James L. Van Etten**

**Plant Pathology/  
Nebraska Center for Virology**

Editor. *Lesser Known Large dsDNA Viruses*. Berlin, Germany:  
Springer-Verlag.

**Jerry D. Volesky**

**West Central Research  
and Extension Center**

Editor. *Range Judging Handbook and Contest Guide*. Lincoln, NE:  
University of Nebraska Printing and Publications.

**Frans G. von der Dunk**

**Law**

Editor. *Studies in Space Law, Vol. 4, The Exploitation of Natural  
Resources of the Moon and Other Celestial Bodies* by Fabio  
Tronchetti. The Netherlands: Brill.

**Michael W. Wagner**

**Political Science**

Author. *Instructor's Manual: American Politics Today*. New York,  
NY: W.W. Norton.

**William Walstad**

**Economics**

Author. *Study Guide for Use with Economics*. Burr Ridge, IL:  
McGraw-Hill.

**Elaine L. Westbrooks****University Libraries**

Editor, with Keith Jenkins. *Metadata and Digital Collections: A Festschrift in Honor of Thomas P. Turner (Online)*. Ithaca, NY: Cornell University Libraries.

**Les B. Whitbeck****Sociology**

Author. *Mental Health and Emerging Adulthood Among Homeless Young People*. New York, NY: Psychology Press.

**Donald A. Wilhite****Natural Resources**

Editor, with Ana A. Iglesias, Antonino Cancelliere, Francisco Cubillo and Luis Garrote. *Coping with Drought Risk in Agriculture and Water Supply Systems. Drought Management and Policy Development in the Mediterranean*. Dordrecht, The Netherlands: Springer Publishers.

**Rachelle Winkle-Wagner****Educational Administration**

Author. *The Unchosen Me: Race, Gender, and Identity Among Black Women in College*. Baltimore, MD: Johns Hopkins Press.

Editor, with Cheryl A. Hunter and Debora Hinderliter Ortloff. *Bridging the Gap Between Theory and Practice in Educational Research: Methods at the Margins*. New York, NY: Palgrave MacMillan.

Editor, with M.F. Howard-Hamilton, C. Morelon-Quaino, S.D. Johnson and L. Santiago. *Standing on the Outside Looking In: Underrepresented Students' Experiences in Advanced Degree Programs*. Sterling, VA: Stylus Publishing.

**Tian C. Zhang****Civil Engineering**

Editor, with Song-Kai Yan, Rao Yadagiri Surampalli, R.D. Tyagi, Chih-Ming Kao and B.N. Lohani. *Sustainable Sludge Management: Production of Value Added Products*. Reston, VA: ASCE.

Editor, with Say Kee Ong, Rao Yadagiri Surampalli, Rajeshwar Dayal Tyagi, Pascale Champagne, Craig David Adams and Alok Bhandari. *Contaminants of Emerging Environmental Concern*. Reston, VA: ASCE.

Editor, with Zhiqiang Hu, Rao Yadagiri Surampalli, Rajeshwar Dayal Tyagi, Keith C.K. Lai and Irene Man-Chi Lo. *Nanotechnologies for Water Environment Applications*. Reston, VA: ASCE.

# RECOGNITIONS AND HONORS

Faculty who have been elected to honor academies or who received competitive national or international honors or awards in 2009

*Submitted by faculty, chairs/heads or deans*

**Brian Larkins**

**Agronomy and Horticulture/  
Research and Economic Development**

National Academy of Science

**William Splinter**

**Biological Systems Engineering, Emeritus/  
Larsen Tractor Test and Power Museum**

National Academy of Engineers

**James Van Etten**

**Plant Pathology**

National Academy of Science

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## Department of Mathematics

Exemplary Program or Achievement in a Mathematics Department, American Mathematical Society

## University of Nebraska Press

Independent Publisher of the Year, *ForeWord Magazine*

**Viacheslav I. Adamchuck**

**Biological Systems Engineering**

Blue Ribbon Award, American Society of Agricultural and Biological Engineers

**Kathleen P. Anderson**

**Animal Science**

Outstanding Community of Practice Award, National eXtension Web-based Education

**Cheryl P. Bailey**

**Biochemistry**

Teacher Fellow, North American Colleges and Teachers of Agriculture

**Bradley S. Barker**

**4-H State Office**

Blue Ribbon Award, American Society of Agricultural and Biological Engineers

ITEST PI Emeritus Honor, National Science Foundation

**Dawn O. Braithwaite**

**Communication Studies**

President, National Communication Association

**David W. Brooks**

**Teaching, Learning  
and Teacher Education**

Fellow, American Education Research Association

**Roger H. Bruning**

**Educational Psychology**

Fellow, American Educational Research Association

**Miles T. Bryant**

**Educational Administration**

Fulbright Scholar, Georgia, Council for International Exchange of Scholars

**Stephen G. Burnett**

**Classics and Religious Studies/  
History**

Member, Institute for Advanced Studies, Princeton, N.J.

- Amy N. Burnett** **History**  
Sabbatical Fellowship, American Philosophical Society
- Roger B. Butters** **Economics**  
2009 Rising Star Award, National Council for Economic Education
- Chris R. Calkins** **Animal Science**  
Harry L. Rudnick Educator's Award, North American Meat Processors Association
- Les C. Carlson** **Marketing**  
2009 Outstanding Contribution to Research Award, American Academy of Advertising
- Scott E. Cotton** **Panhandle Research and Extension Center**  
Partnership Award for Effective Communication, USDA National Institute of Food and Agriculture
- Patricia C. Crews** **Textiles, Clothing and Design/ International Quilt Study Center**  
MUSE Award, American Association of Museums, Media and Technology
- Jeffrey L. Day** **Architecture**  
Design Vanguard 2009, *Architectural Record Magazine*  
AIA Small Project Award 2009, American Institute of Architects  
Urbanized Fabrics-Visiting Scholar Position, Virginia Commonwealth University, Qatar
- Rafael J. De Ayala** **Educational Psychology**  
Fellow, American Educational Research Association
- John D. DeFrain** **Child, Youth and Family Studies**  
Certificate for an Educational Curriculum Package, Central Region Winner, National Extension Association of Family and Consumer Sciences  
Class 1 Fellowship, Alexander S. Onassis Public Benefit Foundation, Athens, Greece
- Bruce I. Dvorak** **Civil Engineering/ Biological Systems Engineering**  
2009 Samuel Arnold Greeley Award, American Society of Civil Engineers
- Carolyn P. Edwards** **Psychology/ Child, Youth and Family Studies**  
Lifetime Achievement Award, North American Reggio Emilia Alliance
- Galen E. Erickson** **Animal Science**  
Early Career Achievement Award, American Society of Animal Science



**Kelly A. Feehan****Northeast Research  
and Extension Center**

Blue Ribbon Award, American Society of Agricultural and Biological Engineers

**Ruqiang Feng****Engineering Mechanics**

Fellow, American Society of Mechanical Engineers

**Chris T. Ford****Architecture Program**

2009 AIA Upjohn Research Initiative Award, American Institute of Architects (AIA) Board Knowledge Committee and the AIA College of Fellows

**David P. Forsythe****Political Science**

Fulbright Scholar, Denmark, Council for the International Exchange of Scholars

Dartmouth Award for Best Reference Source, *The Encyclopedia of Human Rights*, American Library Association

**Terence Foster****Construction Systems**

Klinger Construction Education Award, American Institute of Constructors

**Charles A. Francis****Agronomy and Horticulture**

Education Award, Sustainable Agriculture Education Association

**Kurt F. Geisinger****Educational Psychology**

Fellow, American Educational Research Association

**James W. Gentry****Marketing**

People's Choice Award for Best Research Video, Association for Consumer Research Conference

**Loren J. Giesler****Plant Pathology**

Top Educational Crop Production Program in the Nation, National Association of County Agricultural Agents

**James D. Goedert****Construction Systems**

Fellow, National Society of Professional Engineers

**Andrew R. Graybill****History**

Faculty Fellowship, National Endowment for the Humanities

**Mustafa Cenk Gursoy****Electrical Engineering**

Best Paper Award, *Journal of Wireless Communications and Networking*

**Susan A. Hansen****Northeast Research  
and Extension Center**

Grace Frysinger Fellowship, National Extension Association of Family and Consumer Sciences

**Jeffrey G. Hart****Southeast Research  
and Extension Center**

Program of Distinction and MetLife Award of Excellence, National 4-H Headquarters, MetLife

**Alice C. Henneman**

**Southeast Research  
and Extension Center**

Helen Denning Ullrich Annual Award of Excellence, Society for Nutrition Education

**Kyle D. Hoagland**

**Natural Resources**

Outstanding Service Award, National Institutes for Water Resources

**Laurie Hodges**

**Agronomy and Horticulture**

Outstanding Horticultural Education Publication, American Society for Horticultural Science

**Lesia R. Hoffman**

**Psychology**

Elected member, Society for Multivariate Experimental Psychology

**Tiffany P. Hogan**

**Special Education  
and Communication Disorders**

Fellow, American Speech Language Hearing Association

**Debra Anne Hope**

**Psychology**

President, Association of Behavioral and Cognitive Therapies

**Terry J. Housh**

**Nutrition and Health Sciences**

Terry J. Housh Young Investigator Award, National Strength and Conditioning Association

**Roger M. Hoy**

**Biological Systems Engineering**

Standards Developer Award, American Society of Agricultural and Biological Engineers

**Thomas E. Hunt**

**Northeast Research  
and Extension Center**

National Excellence in Multistate Research Award, Association of Public and Land-Grant Universities

**Scott H. Hutchins**

**Entomology**

Fellow, Entomological Society of America

**Suat Irmak**

**Biological Systems Engineering**

Innovative Extension Methods and Impact Assessment-Educational Programs Competition, American Society of Agricultural and Biological Engineers

**David D. Jones**

**Biological Systems Engineering**

Presidential Citation, Institute of Biological Engineering

**Scott J. Josiah**

**Nebraska State Forest Service**

Two Chiefs Partnership Award, U.S. Forest Service and USDA Natural Resources Conservation Service

**Shripat T. Kamble**

**Entomology**

Honorary Member, Entomological Society of America

**Deepak R. Keshwani**

**Biological Systems Engineering**

Boyd-Scott Graduate Research Award, American Society of Agricultural and Biological Engineers

**Robert N. Klein**      **West Central Research and Extension Center**  
Fellow, North Central Weed Science Society

**Terry J. Klopfenstein**      **Animal Science**  
Morrison Award, American Society of Animal Science

**Wanda M. Koszewski**      **Nutrition and Health Sciences**  
Nutrition Education Award, USDA Food and Nutrition Services

**Karen S. Kunc**      **Art and Art History**  
Fulbright Scholar, Finland, Council for International Exchange of  
Scholars

Purchase Prize, 2nd Bangkok Triennale International Print and  
Drawing Exhibition, Thailand

Leavin/Maynard Prize, 184th Annual Exhibition, National Academy  
Museum, New York

**Yijia Lin**      **Finance**  
Annual Prize for the Best Paper Published in 2007, *North American  
Actuarial Journal*

**Dale T. Lindgren**      **West Central Research  
and Extension Center**  
Extension Materials Award, American Society for Horticultural  
Science

**Marjorie F. Lou**      **Veterinary and Biomedical Sciences**  
Kinoshita Lectureship, National Foundation for Eye Research

**Thomas P. Lynch**      **English**  
Thomas J. Lyon Award in Western American Literary and Cultural  
Studies, Western Literature Association

**Darrell R. Mark**      **Agricultural Economics**  
Teacher Fellow, North American Colleges and Teachers of  
Agriculture

**George E. Meyer**      **Biological Systems Engineering**  
Blue Ribbon Award, American Society of Agricultural and  
Biological Engineers

**Nancy J. Miller**      **Textiles, Clothing and Design**  
Family Firm Institute Conference Best Research Paper,  
International Family Enterprise Research Academy

**Glenn E. Nierman**      **Music**  
President, North Central Division, MENC: The National Association  
for Music Education

**Terri R. Norton**      **Construction Systems**  
National Alumni Extension Mentor of the Year, National Society of  
Black Engineers

**Larkin A. Powell**      **Natural Resources**  
Fulbright Scholar, Namibia, Council for the International Exchange  
of Scholars

**Kenneth M. Price** **English/Center for Digital Research in the Humanities**

President, Association for Documentary Editing

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

Comprehensive Members Book Selection, National Association for the Education of Young Children (NAEYC)

**Kamlakar P. Rajurkar** **Industrial and Management Systems Engineering**

SME Gold Medal, Society of Manufacturing Engineers

**Richard J. Rasby** **Animal Science**

Award for Excellence in Extension, National Association of State Universities and Land-Grant Colleges

**Brett C. Ratcliffe** **Entomology**

Outstanding Paper Presentation at the SOLA Symposium, Entomological Society of America

Charles E. Bessey Award for Best Natural Science Article Published in Great Plains Research in 2008, Center for Great Plains Studies

**Bryan A. Reiling** **Animal Science**

Fellow Award, North American Colleges and Teachers of Agriculture

**Sheila E. Scheideler** **Animal Science**

Certificate of Achievement, International Poultry Scientific Forum

**James W. Schneider** **Southeast Research and Extension Center**

Innovative Extension Methods and Impact Assessment, American Society of Agricultural and Biological Engineers

**David P. Shelton** **Biological Systems Engineering/  
Northeast Research and Extension Center**

Blue Ribbon Award, American Society of Agricultural and Biological Engineers

**Janice E. Stauffer** **Johnny Carson School of Theatre and Film**

Gold Medallion Award, Kennedy Center American College of Theater Festival

**James R. Steadman** **Plant Pathology**

Outstanding Career Service Award, American Phytopathological Society

**David J. Steffen** **Veterinary and Biomedical Sciences**

Distinguished Service Award, American Association of Veterinary Laboratory Diagnosticians

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

Invited Member, National Theatre Conference

- Alison G. Stewart** **Art and Art History**  
Visiting Scholar at NEH Summer Seminar: German Exile Culture in California, Professor Russell Berman, Stanford University
- Stephen L. Taylor** **Food Science and Technology**  
Babcock-Hart Award, Institute of Food Technologists
- Kim A. Todd** **Agronomy and Horticulture**  
Outstanding Extension Publication, American Society for Horticultural Science
- Christopher Y. Tuan** **Civil Engineering**  
2009 Best Journal Paper Award (2006-2008), ASCE Cold Regions Engineering Technical Council  
ASCE Fellow, American Society of Civil Engineers (ASCE)
- Judy L. Walker** **Mathematics**  
George Polya Lecturer, Mathematical Association of America
- Steven S. Waller** **Agricultural Sciences and Natural Resources**  
Distinguished Educator Award, North American Colleges and Teachers of Agriculture
- Sergio Wals** **Political Science/Ethnic Studies**  
Paul Lazarsfeld Award for Best Paper on Political Communications, American Political Science Association
- William Walstad** **Economics**  
Best Research Paper Award (with Ken Rebeck & Richard MacDonald), National Association of Economic Educators
- Clarence E. Waters** **Architectural Engineering**  
Fellow, Architectural Engineering Institute
- Donald P. Weeks** **Biochemistry**  
Fellow, American Association for the Advancement of Science
- Stephen N. Wegulo** **Plant Pathology**  
Outstanding Extension Publication Award, American Society for Horticultural Science
- Wendy R. Weiss** **Textiles, Clothing and Design**  
Fulbright Scholar, India, Council for International Exchange of Scholars
- Timothy Wentz** **Construction Management**  
Distinguished Service Award 2009, Mechanical Contractors Association of America
- Tyler G. White** **Music**  
Commission for the National Symphony Orchestra, John F. Kennedy Center for the Performing Arts
- Mary S. Willis** **Anthropology**  
Fellow, Society for Applied Anthropology

**Ronald E. Yoder**

**Biological Systems Engineering**

Fellow, American Society of Agricultural and Biological Engineers

President, American Society of Agricultural and Biological Engineers

**Gary L. Zoubek**

**Southeast Research  
and Extension Center**

Blue Ribbon Award, American Society of Agricultural and Biological Engineers

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