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

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

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.
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
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.

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.
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.

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.

Namash 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

**National eXtension Project**

$11,070,000 National Association of State Universities and Land-Grant Colleges

10/1/04 – 12/31/11

**eXtension: The Transformation of Cooperative Extension**

$5,702,400 Department of Agriculture-CSREES

8/15/07 – 8/14/11

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.

### DeKraai, Mark

**Public Policy Center**

* Child Mental Health State Infrastructure Grant

$3,129,313 Nebraska Department of Health and Human Services

4/1/05 – 9/30/10

Gallagher, Kenneth

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.
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 systems. The ultimate goal is to ensure all children have safe, stable and permanent homes. Co-leaders of the project are Mark Ells and Michelle Graef of the Center on Children, Families and the Law.

Espy, Kimberly Andrews  Psychology/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  
Department of Transportation-FRA  
$3,534,439  
9/17/04 – 12/31/10  
Turner, Joseph  
Engineering Mechanics  
Nelson, Carl  
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  
Department of Agriculture-RMA-FCIC  
$6,407,473  
9/1/05 – 8/31/10  
Wilhite, Donald  
Natural Resources

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  
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  
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.
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 CSMCE
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.
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  DOD-Office of Naval Research-MURI
3/15/05 – 7/31/10

Zeng, Xiao Cheng  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  DOD-Army Medical Research
3/1/02 – 2/28/09

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  Nebraska Game and Parks Commission
1/1/09 – 12/31/13

Kevin Pope, assistant unit leader-Fisheries of the Nebraska Cooperative Fish and Wildlife Research Unit and associate professor in the School of Natural Resources, with support from the Nebraska Game and Parks Commission, will document the current participation levels of anglers in Nebraska’s lentic systems. In particular, participation levels of generic angling groups will be quantified among specific water bodies, and a model will be developed to describe generic angler participation.
AWARDS OF $3 MILLION OR MORE

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

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

(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.
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)  
Department of Education-IES  
$9,997,852  
7/1/09 – 6/30/14

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

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

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

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  
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.
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.

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.

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

William Velander, Donald R. Vaelte 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

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.
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.

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.

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Department/Center</th>
<th>Title</th>
<th>Funding Agency</th>
<th>Amount</th>
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<td>Plant Pathology/Center for Plant Science Innovation</td>
<td>Suppression of Innate Immunity by ADP Ribosyltransferase Type III Effectors</td>
<td>DHHS-NIH-NIAID</td>
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<td>Civil Engineering/Nebraska Transportation Center</td>
<td>Bridges for Service Life Beyond 100 Years: Innovative Systems</td>
<td>National Academy of Sciences-Transportation Research Board</td>
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<td>McNair Scholars Project and the University of Nebraska–Lincoln</td>
<td>Department of Education</td>
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Extension  
Nutritional and Health Sciences

Birnstihl, Elizabeth  
Schnepf, Marilynn  
Lee, Jaekwon  
Biochemistry  
Mechanistic Insights into Cellular Metal Detoxification  
$1,405,457  
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Mechanistic Insights into Homeostatic Copper Ion Acquisition  
$1,058,638  
DHHS-NIH-NIDDK

Lou, Marjorie  
Veterinary and Biomedical Sciences  
Protein-Thiol Mixed Disulfide in Cataractogenesis  
$2,116,675  
DHHS-NIH-National Eye Institute

Mackenzie, Sally  
Biological Sciences  
Agronomy and Horticulture  
Center for Plant Science Innovation  
TRMS: An Integrative Study of Plant Mitochondrial Biology  
$1,420,753  
NSF

Christensen, Alan  
Elthon, Thomas  
Wang, Dong  
Agronomy and Horticulture  
Statistics

Marley, Tom  
Mathematics  
EMSW21-MCTP: Nebraska Mentoring through Critical Transition Points  
$2,225,689  
NSF

Walker, Judy  
Donsig, Allan  
Mathematics  
Mathematics

Meagher, Michael  
Chemical and Biomolecular Engineering  
* Technical Transfer and cGMP Production of a Trivalent Vaccine  
$2,302,839  
Industry client

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$2,164,301  
DOD-Army Medical Research

Van Cott, Kevin  
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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  
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Mendoza-Gorham, Joan  
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$1,250,000  
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Paul, Prem  
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* Great Plains National Security  
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$1,200,000  
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Adenwalla, Shireen  
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* Bioceramic Bones for Battlefield Traumas  
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Robertson Jr., Vaughn  
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$2,091,823  

Rutenbeck, Kathy  
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Upward Bound-Northeast Nebraska  
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$1,458,320  

Schaefer, Matthew  
Law  
University of Nebraska College of Law  
Space & Telecommunications Law Program: Filling a National Need, Advancing the Field  
$1,717,370  
NASA  
Willborn, Steven  
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Leiter, Richard  
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Scott, Stephen  
Computer Science and Engineering  
An Extensible Semantic Bridge between Biodiversity and Genomics  
$1,367,121  
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Soh, Leen-Kiat  
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Henninger, Scott  
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Jameson, Mary Liz  
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Moriyama, Etsuko  
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  
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Brandle, James  
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Ferguson, Richard  
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Quinn, John  
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Lyon, Drew  
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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

$1 MILLION — $2,999,999
Van Etten, James  
DNA Replication & Gene Expression of Chlorella Viruses  
$1,215,694  
DHHS-NIH-NIGMS

Dunigan, David  
Plant Pathology

Kang, Ming  
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Agarkova, Irina  
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Gurnon, James  
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Verma, Shashi  
Carbon Sequestration in Dryland & Irrigated Agroecosystems  
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Cassman, Kenneth  
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Knops, Johannes  
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Hubbard, Kenneth  
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Arkebauer, Timothy  
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Walters, Daniel  
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Suyker, Andrew  
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Ginting, Daniel  
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Vijoen, Hendrik  
A Rational Design of a Platform for de novo Gene Synthesis  
$1,315,289  
DHHS-NIH-NCRR

Subramanian, Anu  
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Vortex-Tube Based Thermocycler w/Intelligent Software  
$1,068,925  
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Gogos, George  
Mechanical Engineering

Weeks, Donald  
Development ofDicamba-Resistant Crops  
$2,500,000  
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Whitbeck, Les  
Resilience through the High School Years  
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Great Plains Cultural Ways Mental Health Careers Program  
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Moore, Helen  
Sociology

Wilcke, William  
North Central Regional Sustainable Agriculture Research & Education Program – SARE  
$2,707,719  
Department of Agriculture-CSREES

Wilcox, Brian  
Midwest Child Care Research Consortium  
$1,200,000  
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Torquati, Julia  
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Raikes, Helen  
Child, Youth and Family Studies

Wilhite, Donald  
Rangeland and Forage Geospatial Decision Support System for Drought Risk Management  
$1,023,038  
Department of Agriculture-RMA

$1 MILLION – $2,999,999
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
Anderson, Mark  
**Geosciences**  
Development of Northern Hemisphere Snow & Ice Climate Data Records  
$213,461  
Rutgers University

Asgarpoor, Sohrab  
**Electrical Engineering**  
Reliability Modeling and Maintenance Optimization of Aging Substations  
$206,082  
NSF

Atkin, Audrey  
**Biological Sciences**  
Wild-Type PPR1 mRNA Decay by Yeast Nonsense-Mediated mRNA Decay Pathway  
$403,219  
NSF  
Moriyama, Etsuko  
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Avramov, Luchezar  
**Mathematics**  
Cohomology and Structure of Commutative Algebras  
$260,667  
NSF

Avramova, Zoya  
**Biological Sciences**  
Lipid-Signaling and Epigenetic Regulations in Arabidopsis: Are Myotubularins the Link?  
$450,000  
NSF

Azizinamini, Atorod  
**Civil Engineering**  
* 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

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  
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Nebraska Department of Roads

Negahban, Mehrdad  
Engineering Mechanics

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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

$200,000 — $999,999
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<td>Blum, Paul</td>
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<td>Adaptivity in Peridynamics for Composite Plates</td>
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<td>Brand, Jennifer</td>
<td>Chemical and Biomolecular Engineering/Nebraska Center for Materials and Nanoscience</td>
<td>Novel Rare-Earth Semiconductors for Solid-State Neutron Detectors</td>
<td>DOD-Defense Threat Reduction Agency</td>
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<td>* Contrasting Environmental and Genetic Controls of Alternative Phenotypes</td>
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<td>Advancing Tern and Plover Common Sense Conservation into the Future</td>
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<td>*Development of Nebraska’s Homeland Security Planning Capacity</td>
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<td>Burbach, Mark</td>
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<td>Integrated Real-Time Groundwater-Level Monitoring Network to Support Drought Impact Assessment and Mitigation Programs</td>
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**$200,000 – $999,999**
Cahoon, Edgar  
* Probing the Metabolic and Physiological Significance of Sphingolipid Long-Chain Base Desaturation in Plants  
$550,500  
NSF  

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

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

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

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

Cantrell, Randolph  
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  

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

Cassman, Kenneth  
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  
*Enrollment Management Journal  
$210,000  
Texas Guaranteed  

LaCost, Barbara  
Educational Administration  

$200,000 – $999,999
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
Bloom, Kenneth
Domínguez, Aaron
Physics and Astronomy
Physics and Astronomy
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

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  
Department of Education
McCurdy, Merilee  
Educational Psychology
Sheridan, Susan  
Educational Psychology
Kunz, Gina  
Nebraska Center for Research on Children, Youth, Families and Schools

DeKraai, Mark  
Public Policy Center
Evaluation of Public Engagement Demonstration Projects on Pandemic Influenza (E-PEDPPI)
$348,716  
DHHS-Centers for Disease Control
Bulling, Denise  
Public Policy Center

DiMaggio, Stephen  
Chemistry
Anhydrous Fluoride Salts
$420,000  
NSF

DiRusso, Concetta  
Biochemistry/
Nutrition and Health Sciences
* High Throughput Screens for Fatty Acid Uptake Inhibitors
$325,983  
DHHS-NIH-NIDDK
Black, Paul  
Biochemistry

Dominguez, Aaron  
Physics and Astronomy
PIRE: Collaborative Research with the Paul Scherrer Institute and Eidgenoessische Technische Hochschule on Advanced Pixel Silicon Detectors for the CMS Detector
$406,500  
University of Kansas Center for Research
Bloom, Kenneth  
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 Fumonisins: Characterization of Enzymes for Vicinal Diol & Tricarballylic Ester Formation
$284,667  
NSF

$200,000 – $999,999
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  
Takacs, James  Chemistry  
Nanostructure-Designed Dielectric Material for High-Energy-Density Capacitors  
$586,000  DOD-DEPSCoR  
Rational Design of Molecular Ferroelectric Materials and Nanostructures  
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
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<td>* Enhancing the Dependability of Complex Missions through Automated Analysis</td>
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<td>* T2T: A Framework for Amplifying Testing Resources</td>
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<td>Leadership Training in Emotional Disturbance Disorders</td>
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<td>Development of an Economical Guardrail System for Use on Gabion Walls</td>
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<td>&quot;Heartland Regional Water Coordination Initiative&quot;</td>
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<td>Enabling Access to Priority Taxa for Biodiversity Studies in the Manter Laboratory of Parasitology</td>
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<td>MRI: Acquisition of High Capacity DNA Sequencing System</td>
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<td>Mongolia Vertebrate Parasite Project</td>
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Gay, Timothy  
Physics and Astronomy  
MRI: Development of a Rubidium Spin Filter as a Source of Polarized Electrons  
$285,000  
Batelaan, Herman  
Physics and Astronomy  
Uiterwaal, Kees  
Physics and Astronomy  
Polarized Electron and Photon Physics  
$385,000  

Gibson, Robert  
Biological Sciences  
GAANN Fellowship for Ecology, Evolution & Behavior at UNL  
$625,000  

Giesler, Loren  
Plant Pathology  
Improving Management of Soybean Cyst Nematode through Extension Demonstration and Outreach  
$292,000  

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  

Suyker, Andrew  
Natural Resources  
Responses of Coastal Waters to Terrestrial Inputs of Elemental CNP in Urbanizing Coastal Regions  
$264,990  

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  

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  

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  

Ci, Song  
Computer and Electronics Engineering  
Peng, Dongming  
Computer and Electronics Engineering  
Sharif-Kashani, Hamid  
Computer and Electronics Engineering  
Hudgins, Jerry  
Electrical Engineering  

$200,000 – $999,999
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
$679,742  Various Industries
Food Allergen Database

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

$200,000 — $999,999
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 D. 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
$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

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

Svoboda, Mark  Natural Resources
Knutson, Cody  Natural Resources
Sittler, Megan  Natural Resources

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
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<td>Panhandle Research and Extension Center</td>
<td>Enhancing Irrigation Management Tools &amp; Developing a Decision Support System for Managing Limited Irrigation Supplies for the High Plains $249,999 Department of Agriculture-RMA-FCIC</td>
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<td>Demonstrate &amp; Adapt Remote Sensing Technology to Produce Consumptive Water Use Maps for the Nebraska Panhandle $239,951 Department of Agriculture-NRCS</td>
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<td>Visual Attention in Aging: Bridging Experimental and Psychometric Approaches $322,745 DHHS-NIH-NIA</td>
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<td>* Understanding and Predicting Tropical and North Atlantic SST Forcing on Variations in Warm Season Precipitation over North America</td>
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<td>Development of Spatially Explicit Models of Wildlife Diseases</td>
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<td>Quantifying Evaporation, Crop Evapotranspiration, and the Water Balance for Tilled and Untilled Fields</td>
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<td>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</td>
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<td>* Derived Categories of Complete Intersections and Hochschild Cohomology</td>
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<td>* HECURA: A New Semantic-Aware Metadata Organization for Improved File-System Performance and Functionality in High-End Computing</td>
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<td>* Analysis of Viral Factors that Regulate the Bovine Herpesvirus 1 (BHV-1) Latency Reactivation Cycle</td>
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<td>Functional Analysis of Proteins Encoded by the Bovine Herpesvirus 1 Latency Related Gene</td>
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<td>Does HSV-1 Latency Associated Transcript (LAT) Encode a Protein?</td>
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<td>* Expansion of Hazelnut Production, Feedstock and Biofuel Potential Through Breeding for Disease Resistance and Climatic Adaption</td>
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<td>* Operant Research on Episodic Memory in an Animal Model</td>
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Civil Engineering
$350,000  
Asphalt Research Consortium  
Texas A & M Research Foundation
Allen, David  
Civil Engineering
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
$235,725  
Nebraska EIPM-CS Coordination Program
Wright, Robert  
Entomology
Hunt, Thomas  
Northwest 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
$450,000  
Osher Lifelong Learning Institute
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  
**Mathematics**  
UBM: Research for Undergraduates in Theoretical Ecology (RUTE)  
$905,000  
Deng, Bo  
**Mathematics**  
Gibson, Robert  
**Biological Sciences**  
Loladze, Irakli  
**Mathematics**  
Louda, Svata  
**Biological Sciences**  

Lee, Ji-Young  
**Nutrition and Health Sciences**  
* Evaluation of Athero-Protective Role of Blue-Green Algae  
$387,365  

Lee, Kevin  
**Physics and Astronomy**  
ClassAction: Model Rapid-Feedback & Dynam Formative Assess System  
$359,768  
Schmidt, Edward  
**Physics and Astronomy**  

Lenters, John  
**Natural Resources**  
Riparian Vegetation Impacts on Water Quantity, Quality, and Stream Ecology  
$433,960  
Istanbulluoglu, Erkan  
**Geosciences**  

Levis, Donald  
**Northeast Research and Extension Center**  
* Extension and Educational Programs and Materials for Small- and Medium-Sized Pork Operations  
$258,644  

Lewis, Charlotte  
**Center on Children, Families and the Law**  
Answers4Families/NRRS Database  
$307,011  

Li, Haorong  
**Architectural Engineering**  
* Intelligent Controls for Net-Zero Energy Buildings  
$475,750  
Cho, Yong Kwon  
**Department of Energy**  
Peng, Dongming  
**Computer and Electronics Engineering**  
Goedert, James  
**Construction Systems**  
Cogdill, Robert  
**Engineering**  

Li, Ming  
**Psychology**  
Anxiolytic Property of Atypical Antipsychotics  
$362,145  

Lindquist, John  
**Agronomy and Horticulture**  
Contribution of Fusarium Lateritium to Weed Suppressive Soils & Weed Abundance  
$366,186  
Drijber, Rhae  
**Department of Agriculture-NRICGP**  
Yuen, Gary  
**Agronomy and Horticulture**  
**Plant Pathology**  

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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  

Lodl, 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  
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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  

$200,000 – $999,999
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 & Exchanges Board
McQuillan, Julia  Sociology
Infertility: Pathways & 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

$200,000 – $999,999
Melvin, Steven  West Central Research and Extension Center
Irrigation Management with Limited Water: A Farm Education Program
$287,080  Department of Interior-BR
Martin, Derrel  Biological Systems Engineering
Corr, Alan  West Central Research and Extension Center
van Donk, Simon  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  Department of Education
Shell, Duane  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

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
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<td>* Delineating Autoimmunity in Post-Infectious Myocarditis (National Center, Scientist Development Grant)</td>
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<td>Chemically Modified Nano-Electrodes for Magnetoelectronics Applications</td>
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Rilett, Laurence  Civil Engineering  Nebraska Transportation Center Seed Funding  Nebraska Department of Roads
$300,000

Development of State of the Art Traffic Micro-Simulation Model for Nebraska

Jones, Elizabeth  Civil Engineering  Nebraska Department of Roads
$222,896

Intelligent Transportation System Deployment Project

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

$200,000 — $999,999
Scheffler, Marilyn  Special Education and Communication Disorders
Project RTI: Building Capacity Together to Implement Response to Intervention
$800,000  Department of Education
Sanger, Dixie  Special Education and Communication Disorders

Project Support: Speech-Language Pathologists Supporting Literacy Instruction
$800,000  Department of Education
Sanger, Dixie  Special Education and Communication Disorders

Project Re-entry: Preparing Speech-Language Pathologists to Serve Students with Traumatic Brain Injury
$800,000  Department of Education
Hux, Karen  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  NSF
Lu, Yongfeng  Electrical Engineering
Han, Ming  Electrical Engineering
Schubert, Eva  Electrical Engineering
Binek, Christian  Physics and Astronomy
Ducharme, Stephen  Physics and Astronomy
Tsymbal, Evgeny  Physics and Astronomy
Shield, Jeffrey  Mechanical Engineering
Hofmann, Tino  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

$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 Run-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  
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Shapiro, Charles  
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Shelton, David  
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Snow, Gregory  
Physics and Astronomy  
The Luminosity Measurement for the DZERO Experiment at Fermilab  
$410,352  
Department of Energy-EPSCoR  
Bloom, Kenneth  
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Claes, Daniel  
Physics and Astronomy  
Dominguez, Aaron  
Physics and Astronomy  

GAANN Fellowships for Physics at UNL  
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Department of Education  
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* NIDIS Portal Content Development and Help Desk Support  
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Department of Commerce-NOAA

Development of a “Drought Ready Communities” Program  
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Department of Commerce-NOAA

Sittler, Meghan  
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Integrating Enhanced GRACE Water Storage Data into the U.S. and North American Drought Monitors  
$224,991  
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Fuchs, Brian  
Scott, Soren  
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Swanson, David  
* 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  
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  
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Tuan, Christopher  
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Impact of Large 0.7 inch Strand on NU-I Girder and NUDeck  
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Morcous, George  
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Takacs, James  
Ligand Scaffold Optimization for Catalytic Asymmetric Hydroboration  
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NSF

Tan, Li  
Self-Organized Nanolayers for Organic Thin-Film Transistors  
$387,463  
NSF

Zeng, Xiao Cheng  
Chemistry

Bi-Functional Pentacene Monolayer for Organic Field-Effect Transistors  
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* 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  
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$553,105  University of California, San Francisco  
Dunigan, David  Plant Pathology  

Varyiam, 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  
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<td>Neuropathogenesis in Zambia</td>
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<td>Vaccination against Mucosal HIV Clade C Transmission</td>
<td>Dana-Farber Cancer Institute</td>
<td>$768,718</td>
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**Woodward, Gordon**  
*Mathematics*  
Increasing Participation in Computer Science, Engineering, & Mathematics through NSF Scholarships at UNL  
$400,000  
Ballard, John  
Engineering  
Ramamurthy, Byrav  
Computer Science and Engineering  
Goddard, Steve  
Computer Science and Engineering  
Lee, Kevin  
Arts & Sciences

**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  
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 & Gamble

**Yoder, Ronald**  
*Biological Systems Engineering*  
Enhancing the Value of Water through Management Education  
$225,000  
Nebraska Department of Natural Resources

**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

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$200,000 — $999,999
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

$200,000 – $999,999
**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.

<table>
<thead>
<tr>
<th>Alfano, James</th>
<th>Plant Pathology/Center for Plant Science Innovation</th>
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<tr>
<td><em>ARRA: EAGER: Plant Chromatin Remodeling in Response to the Bacterial Pathogen Pseudomonas syringae</em></td>
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<td><em>ARRA: Analysis, Computation and Control of Coupled Partial Differential Equation Systems</em></td>
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<td>$67,497</td>
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<td>$333,085</td>
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<td><em>ARRA: Genetic Control over the Gut Microbiome Composition</em></td>
<td>$997,732</td>
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<td>Moriymama, Etsuko</td>
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<td><em>ARRA: Antibiotic Properties of Artificial Agonists for a Bacterial Riboswitch</em></td>
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<td>Chandra, Namas</td>
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<td>Wood, Charles</td>
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<td>Diamond, Judy</td>
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<td>Angeletti, Anisa</td>
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<td>Du, Liangcheng</td>
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<td>Frank, Tracy</td>
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<td>Gay, Timothy</td>
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<td>Hanson, Paul</td>
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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  
* ARRA: Design and Evaluation of Ultrasound Stimulation-Aided Bioreactor Configurations  
$533,941  
DHHS-NIH-NCRR

Subramanian, Anuradha  Chemical and Biomolecular Engineering  
* ARRA: Free-Standing All-Nanoparticle Thin Fibers: A Novel Building Block for Organic Photovoltaic Applications  
$300,002  
NSF

Tan, Li  Engineering Mechanics  
* ARRA: Stabilization and Control in Nonlinear Structural-Acoustics, Magnetic Imaging, and Elasticity  
$96,436  
NSF

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

Tsymbal, 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.

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Project Description</th>
<th>Amount</th>
<th>Agency</th>
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<td>Binek, Christian</td>
<td>Physics and Astronomy</td>
<td>Education &amp; Research on Nanoscale Spintronic Systems &amp; Heterostructures</td>
<td>$500,000</td>
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<td>Bloom, Kenneth</td>
<td>Physics and Astronomy</td>
<td>Top-Quark Physics, Computing &amp; Software at Large Hadron Collider</td>
<td>$550,000</td>
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<td>Cohen, Myra</td>
<td>Computer Science and Engineering</td>
<td>Configuration-Aware Testing Through Intelligent Sampling to Improve Software Dependability</td>
<td>$400,000</td>
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<td>Superior Silicon Tracking &amp; Discovery as CMS &amp; D0</td>
<td>$550,000</td>
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<td>Leveraging Field Data to Test Pervasive Systems</td>
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<td><strong>Frank, Tracy</strong></td>
<td>Geosciences</td>
<td>Exploring the Geologic Record of Major Climate Transitions: Causes, Consequences, &amp; Impacts on the Evolution of Earth Systems</td>
<td>$583,816</td>
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<td><strong>Gursoy, Mustafa</strong></td>
<td>Electrical Engineering</td>
<td>CAREER: Energy-Efficient Wireless Communications under Channel Uncertainty</td>
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<td><strong>Hebets, Eileen</strong></td>
<td>Biological Sciences</td>
<td>Evolution and Function of Complex Signaling in Wolf Spider Genus Schizocosa</td>
<td>$680,351</td>
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<td><strong>Kim, Yong Rak</strong></td>
<td>Civil Engineering</td>
<td>Research &amp; Education on Advanced Multiscale Modeling-Analysis of Roadway Materials, Mixtures, &amp; Infrastructure Systems</td>
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<td><strong>Schubert, Eva</strong></td>
<td>Electrical Engineering</td>
<td>* Chiral Nanostructure Hybrid Materials for Application in Terahertz Resonator and Magnetic Storage Devices</td>
<td>$400,000</td>
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<td><strong>Xu, Lisong</strong></td>
<td>Computer Science and Engineering</td>
<td>Stochastic TCP Friendliness: Exploring the Design Space of TCP-Friendly Traffic Control in Best-Effort Internet</td>
<td>$400,000</td>
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</table>
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  
$316,551  
DOD-Air Force Office of Scientific Research
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.

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

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  
* The Teaching Artist Initiative (Nebraska)  
Dana Foundation  
$50,000

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  
American Life in Poetry Project  
Poetry Foundation  
$171,800

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.
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
$99,493  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.
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, Kwakiutl**

- **English/Ethnic Studies**
- *Blacks in Film Festival 2009*
- $5,000

**Elias Rowley, Kristen**

- **University of Nebraska Press**
- Literary Publishing at the University of Nebraska Press
- $20,000

**Engen-Wedin, Nancy**

- **Teaching, Learning and Teacher Education/Lied Center for Performing Arts**
- *Lied Center Community Engagement Touring Grant – MAAA*
- $10,819

**Jewell, Andrew**

- **University Libraries/Center for Digital Research in the Humanities**
- The Crowded Page
- $49,577

**Richmond, John**

- **Music**
- 2009 Honors Jazz Weekend & Summer Camp
- $10,000

**Stubbendieck, James**

- **Agronomy and Horticulture/Center for Great Plains Studies**
- Celebrating Darwin’s Legacy
- $8,960

**Wahlqvist, Petra**

- **Lied Center for Performing Arts**
- Loop Divers by Troika Ranch
- $35,000

- **Woods Charitable Fund**
- **National Endowment for the Arts**
- **Nebraska’s Rural Arts Education Initiative**
- **Mid-America Arts Alliance**
- **National Endowment for the Arts**
- **Nebraskans for the Arts**
- **Kennedy Center for Performing Arts**
- **Nebraska Humanities Council**

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**Umo‘ho‘o Cultural Arts Program**

- $15,000

**ArtsReach**

- $50,000

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

- $7,800
Weiss, Wendy  Textiles, Clothing and Design
Hillestad Textiles Gallery
$12,635
James, Michael

Yoon, Hye Yung  Music
* Commissioning/USA Meet the Composer: Amerindia
$10,000
Sirota, Jonah  Music
Fischer, Rebecca  Music
Beaver, Gregory  Music

Meet the Composer
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)

**Bing Chen,** Roger Sash, Herb Detloff and Alisa Gilmore, all Computer and Electronics Engineering
*Technology:* CEENBoT™

**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

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

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 Parts

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 Redepenning, Chemistry
Technologies: Electrolytic Deposition of Coatings for Prosthetic Metals and Alloys; Bioreasurable Composites and Method of Formation Thereof; Bioreasurable Polymer Reconstituted Bone and Methods of Formation Thereof; Chemical Vapor Deposition (CVD) Polymerization onto Nucleophilic Surfaces; Bioreasurable 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

Dana Fritz  
Art and Art History

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

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
Douglas A. Abbott  
Child, Youth and Family Studies  

Bradley Barker  
4-H Youth Development  

Stephen C. Behrendt  
English  


Susan Belasco  
English  
Editor. Stowe in Her Own Time. Iowa City, IA: University of Iowa Press.

Robert F. Belli  
Psychology/Gallup Research Center  

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  

Brian H. Bornstein  
Psychology  

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  
Song Ci

Patricia C. Crews
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

Rafael J. de Ayala

Robert C. Denicola

Judy Diamond

Wheeler Winston Dixon

Beth Doll

Allan P. Donsig

Peter A. Dowben

Judy A. Driskell
Bruce I. Dvorak  Biological Systems Engineering  

Carolyn Pope Edwards  Psychology/Child, Youth and Family Studies  

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  

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  

Joan R. Giesecke  University Libraries  

Iker Gonzalez-Allende  Modern Languages and Literature  

Marilyn L. Grady  Educational Administration  

William M. Grange  Johnny Carson School of Theatre and Film  

Mark A. Griep  Chemistry  

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**  

Mark Hinchman  
**Interior Design Program**  

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

Kerry John-Elsen  
**4-H Youth Development**  
Author, with Patricia Fairchild. *Insectigator - Bug or Insect - Do You Know the Difference?* Lincoln, NE: University of Nebraska Printing and Publications.

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

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

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

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

Kenneth Kiewra  
**Educational Psychology**  

Ted Kooser  
**English**  

Marjorie J. Kostelnik  
**Education and Human Sciences**  
Karen S. Kunc  Art and Art History

Stephen E. Lahey  Classics and Religious Studies

Brian D. Lepard  Law

Carole Levin  History/Medieval & Renaissance Studies
Editor, with Robert Bucholz. *Queens and Power in Medieval and Early Modern England.* Lincoln, NE: University of Nebraska Press.

Peter Maslowski  History

Colleen E. Medill  Law

Amelia M.L. Montes  English/Ethnic Studies

David Moshman  Educational Psychology

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

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

E. Wesley F. Peterson  Agricultural Economics

Mary Kay Quinlan  News-Editorial

Helen H. Raikes  Child, Youth and Family Studies

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

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

Robert F. Schopp  Law

Anthony Schutz  Law
David J. Sellmyer  Physics and Astronomy/Nebraska Center for Materials and Nanoscience

Keng L. Siau  Management

Victoria Smith  History/Ethnic Studies
Author. Captive Arizona, 1851-1900. Lincoln, NE: University of Nebraska Press.

Susan M. Swearer  Educational Psychology

Steve L. Taylor  Food Science and Technology

Elizabeth Theiss-Morse  Political Science

Hendrik Van Den Berg  Economics

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

Frans G. von der Dunk  Law

Michael W. Wagner  Political Science

William Walstad  Economics
Elaine L. Westbrooks  
University Libraries  

Les B. Whitbeck  
Sociology  

Donald A. Wilhite  
Natural Resources  

Rachelle Winkle-Wagner  
Educational Administration  
Author. *The Unchosen Me: Race, Gender, and Identity Among Black Women in College.* Baltimore, MD: Johns Hopkins Press.  

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

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

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 I 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

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

Lesa 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

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
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
Every effort has been made to verify the accuracy and completeness of submissions. Faculty, department chairs and heads and the deans were invited to submit entries online regarding published books, national and international recognitions, and creative works in fine and performing arts and architecture. Information on major sponsored program awards was gathered by the Office of Sponsored Programs. Reports on startups and license agreements were produced by NUtech Ventures.

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