2010

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

Follow this and additional works at: http://digitalcommons.unl.edu/researchecondev

Part of the Higher Education Administration Commons

http://digitalcommons.unl.edu/researchecondev/36

This Article is brought to you for free and open access by the Research and Economic Development, Office of at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Office of Research and Economic Development--Publications by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.
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
<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Awards of $3 million or more</td>
</tr>
<tr>
<td>18</td>
<td>Awards of $1 million to $2,999,999</td>
</tr>
<tr>
<td>26</td>
<td>Awards of $200,000 to $999,999</td>
</tr>
<tr>
<td>64</td>
<td>American Recovery and Reinvestment Act Awards</td>
</tr>
<tr>
<td>70</td>
<td>Early Career Awards</td>
</tr>
<tr>
<td>73</td>
<td>Arts and Humanities Awards of $50,000 or more</td>
</tr>
<tr>
<td>78</td>
<td>Arts and Humanities Awards of $5,000 to $49,999</td>
</tr>
<tr>
<td>80</td>
<td>Startups</td>
</tr>
<tr>
<td>82</td>
<td>License Agreements</td>
</tr>
<tr>
<td>83</td>
<td>Option Agreements</td>
</tr>
<tr>
<td>84</td>
<td>Creative Activity</td>
</tr>
<tr>
<td>85</td>
<td>Books</td>
</tr>
<tr>
<td>93</td>
<td>Recognitions and Honors</td>
</tr>
</tbody>
</table>

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
AWARDS OF $3 MILLION OR MORE
Active awards in 2009
* Indicates new in 2009

Allen, Craig
Natural Resources
* IGERT: Resilience and Adaptive Governance in Stressed Watersheds

$3,116,173
8/15/09 – 7/31/10
Fritz, Sherilyn Geosciences
Samal, Ashok Computer Science and Engineering
Tyre, Richard Natural Resources
Tomkins, Alan Public Policy Center

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

Allen, David
Engineering
Blast Wave Absorbing Structures: An Experimental & Modeling Program

$7,500,000
6/25/04 – 6/24/09

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

Namam 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  
10/1/04 – 12/31/11  
National Association of State Universities and Land-Grant Colleges  
eXtension: The Transformation of Cooperative Extension  
$5,702,400  
8/15/07 – 8/14/11  
Department of Agriculture-CSREES

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

DeKraai, Mark  
* Child Mental Health State Infrastructure Grant  
$3,129,313  
4/1/05 – 9/30/10  
Gallagher, Kenneth  
Public Policy Center  
Nebraska Department of Health and Human Services  
Special Education and Communication Disorders

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

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.

**AWARDS OF $3 MILLION OR MORE**

Ells, Mark
Center on Children, Families and the Law
Midwest Child Welfare Technical Assistance Implementation Center
$8,695,645
9/1/08 – 8/31/13

Graef, Michelle
Center on Children, Families and the Law

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

The North Central Risk Management Education Center provides program leadership and coordination for risk management education in the North Central Region (Kansas, Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Nebraska, Ohio, North Dakota, South Dakota and Wisconsin). It is one of four risk management education centers in the United States. They were established in 2001 to provide risk management education for agricultural producers to help them develop knowledge, skills and tools needed to make informed risk management decisions for their operations.
Lewis, Jim  
Mathematics/Center for Science, Mathematics and Computer Education  
NebraskaMATH

$9,235,407  
1/1/09 – 12/31/13

Heaton, Ruth  
Teaching, Learning and Teacher Education/CSMCE

McGowan, Thomas  
Teaching, Learning and Teacher Education

Stroup, Walter  
Statistics

Edwards, Carolyn  
Psychology/Child, Youth and Family Studies

Papick, Ira  
Mathematics/CSMCE

Jacobson, Barbara  
Lincoln Public Schools

Jim Lewis, professor of mathematics; Ruth Heaton, associate professor of teaching, learning and teacher education; Tom McGowan, professor of teaching, learning and teacher education; Carolyn Edwards, professor of psychology; Ira Papick, professor of mathematics; and Barbara Jacobson, curriculum director for Lincoln Public Schools, are directing NebraskaMATH, a statewide program aimed at improving mathematics achievement for all students and narrowing the achievement gap for at-risk students in kindergarten through third grade. The program is supported by a $9.2 million grant from the National Science Foundation. NebraskaMATH is a partnership of UNL, public school districts in Omaha, Lincoln, Grand Island, and Papillion-La Vista and Nebraska’s Educational Service Units. It builds on the success of UNL’s Math in the Middle Institute, by initiating new programs that focus on enhancing teachers’ knowledge of mathematics and teaching methods.

Math in the Middle Institute Partnership

$5,900,000  
8/1/04 – 7/31/11

Heaton, Ruth  
Teaching, Learning and Teacher Education/CSMCE

McGowan, Thomas  
Teaching, Learning and Teacher Education

Jacobson, Barbara  
Lincoln Public Schools

Drs. Lewis, Heaton, McGowan and Jacobson are co-leaders of a $5.9 million project titled the Math in the Middle Institute Partnership. The goal is to create the next set of leaders in middle school mathematics who will mentor peers and offer challenging courses to their students. With support from the grant, 156 teachers from across Nebraska will take 12 challenging math and pedagogy courses and earn master’s degrees from UNL. Middle school is a gateway to high school success, and efforts to improve middle school learning, especially in mathematics, show benefits at later stages in students’ academic careers.
AWARDS OF $3 MILLION OR MORE

Lu, Yongfeng  Electrical Engineering
* Multi-Energy Processing for Novel Coating Technologies
$4,138,000  DOD-Office of Naval Research
4/10/09 – 4/9/11

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.

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.

Kevin Pope, assistant unit leader-Fisheries of the Nebraska Cooperative Fish and Wildlife Research Unit and associate professor in the School of Natural Resources, with support from the Nebraska Game and Parks Commission, will document the current participation levels of anglers in Nebraska’s lentic systems. In particular, participation levels of generic angling groups will be quantified among specific water bodies, and a model will be developed to describe generic angler participation.
(spatial and temporal) within a region. Such a model will help managers better determine appropriate lake-specific management objectives, given the dynamic nature of angler participation, and will be important for increased effectiveness of angler recruitment and retention activities throughout the Midwest.

**Rilett, Laurence**

Civil Engineering/Nebraska Transportation Center

Region 7 University Transportation Center

$6,225,000 Department of Transportation-Research and Innovative Technology Administration

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...
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  DHHS-NIH-NICHD
9/26/03 – 7/31/10
Edwards, Carolyn  Psychology/Child, Youth and Family Studies

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

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  
Chemical and Biomolecular Engineering

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  
Chemical and Biomolecular Engineering

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

International Sorghum/Millet 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/Program</th>
<th>Project Title</th>
<th>Funding Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfano, James</td>
<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>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,815,504</td>
<td></td>
</tr>
<tr>
<td>Azizinamini, Atorod</td>
<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>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,999,637</td>
<td>Civil Engineering</td>
</tr>
<tr>
<td>Tadros, Maher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barker, Bradley</td>
<td>4-H Youth Development</td>
<td>Scale-UP: National Robotics in 4-H: Workforce Skills for the 21st Century</td>
<td>NSF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$2,498,908</td>
<td></td>
</tr>
<tr>
<td>Nugent, Gwen</td>
<td></td>
<td></td>
<td>Nebraka Center for Research on Children, Youth, Families and Schools</td>
</tr>
<tr>
<td>Adamchuk, Viacheslav</td>
<td></td>
<td></td>
<td>Biological Systems Engineering</td>
</tr>
<tr>
<td>Barycki, Joseph</td>
<td>Biochemistry</td>
<td>Structural Insights into Redox Homeostasis</td>
<td>DHHS-NIH-NIGMS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,067,922</td>
<td></td>
</tr>
<tr>
<td>Becker, Donald</td>
<td>Biochemistry</td>
<td>Role of Proline in Redox Homeostasis and Apoptosis</td>
<td>DHHS-NIH-NIGMS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,097,641</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mechanistic Studies of Functional Switching in the PutA Flavoprotein</td>
<td>DHHS-NIH-NIGMS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,218,025</td>
<td></td>
</tr>
<tr>
<td>Bellows, Laurie</td>
<td>Graduate Studies</td>
<td>McNaIr Scholars Project and the University of Nebraska-Lincoln</td>
<td>Department of Education</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,125,000</td>
<td></td>
</tr>
<tr>
<td>Blum, Paul</td>
<td>Biological Sciences</td>
<td>Value-Added Products from Renewable Biofuels</td>
<td>Department of Energy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,968,000</td>
<td>Agronomy and Horticulture/Nebraska Center for Energy Sciences Research</td>
</tr>
<tr>
<td>Bond, Alan</td>
<td>Biological Sciences</td>
<td>Mechanisms of Social Cognition</td>
<td>DHHS-NIH-NIMH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,465,500</td>
<td>Biological Sciences</td>
</tr>
<tr>
<td>Kamil, Alan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulling, Denise</td>
<td>Public Policy Center</td>
<td>* Nebraska Youth Suicide Prevention and Early Intervention</td>
<td>Nebraska Department of Health and Human Services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,500,000</td>
<td></td>
</tr>
</tbody>
</table>
Cady, Daniel
Development of Tools for Rating Bridges & Application to State Bridges
$1,097,005
Nebraska Department of Roads
Azizinamini, Atorod
Civil Engineering

Cerutti, Heriberto
Biological Sciences/Center for Plant Science Innovation
RNA-Mediated Silencing: Mechanisms and Biological Roles in Chlamydomonas
$1,020,169
DHHS-NIH-NIGMS

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

Cupp, Andrea
Animal Science
Role of VEGF in Testis Morphogenesis
$1,066,625
DHHS-NIH-NICHD
Weber, John
Animal Science
White, Brett
Animal Science

Diamond, Judy
University of Nebraska State Museum
Omaha Science Media Project: Improving Science Literacy through Media Experiences
$1,471,768
Omaha Public Schools
Struthers, Amy
Journalism and Mass Communications
Angeletti, Peter
Biological Sciences

World of Viruses
$1,266,290
DHHS-NIH-NCRR
Wood, Charles
Biological Sciences/Nebraska Center for Virology

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

Eisloeffel, Deborah
Student Involvement
Midwest Consortium for Service-Learning in Higher Education
$1,411,709
Corporation for National Service
Major, Linda
Student Involvement

Epstein, Michael
Special Education and Communication Disorders
On the Way Home: A Family-Centered Academic Reintegration Intervention Model
$1,443,284
Department of Education
Torkelson-Trout, Alexandra
Special Education and Communication Disorders
Espy, Kimberly Andrews  Psychology/Research and Economic Development
* Prenatal Smoking and the Substrates of Disruptive Behavior in Early Life
$2,130,842  DHHS-NIH-NIDA
Wiebe, Sandra  Psychology/Research and Economic Development

Farrell, Michael  University Television
IPY: Engaging Antarctica
$1,246,068  NSF
Diamond, Judy  University of Nebraska State Museum

Green, Jordan  Special Education and Communication Disorders
* Bulbar Motor Deterioration in ALS
$2,389,340  DHHS-NIH-NIDCD
$1,754,412  DHHS-NIH-NIDCD

Hoagland, Kyle  Natural Resources
DNR Ground Water Management and Protection Act Service Agreement
$1,500,000  Nebraska Department of Natural Resources

Hubbard, Kenneth  Natural Resources
Regional Climate Services Support in the High Plains Region: The High Plains Regional Climate Center
$1,644,816  Department of Commerce-NOAA

Jones, David  Biological Systems Engineering
Strengthening Transitions into Engineering Program
$1,648,354  NSF
Ballard, John  Engineering
Perez, Lance  Electrical Engineering

Josiah, Scott  Nebraska State Forest Service
Cooperative Forestry Program
$2,043,842  Department of Agriculture-FS

Kirby, Roger  Physics and Astronomy
Track 2, GK-12: Project Fulcrum: Phase II
$1,987,732  NSF
Claes, Daniel  Physics and Astronomy

Knoche, Lisa  Nebraska Center for Research on Children, Youth, Families and Schools
Rural Language and Literacy Connections (Rural LLC)
$2,741,563  Department of Education
Raikes, Helen  Child, Youth and Family Studies
Koszewski, Wanda  
Nutrition and Health Sciences  
Food Stamp Nutrition Education Program  
$1,385,681  
Nebraska Department of Health & Human Services Extension  
Nutritional and Health Sciences

Birnstihl, Elizabeth  
Schnepf, Marilynn  
Lee, Jaekwon  
Biochemistry  
* Mechanistic Insights into Cellular Metal Detoxification  
$1,405,457  
DHHS-NIH-NIEHS

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  
Biological Sciences  
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

USAMRAA CGMP Production Contract #1  
$2,164,301  
DOD-Army Medical Research  
Chemical and Biomolecular Engineering

Van Cott, Kevin  
Process Research and Development of Antibodies as Countermeasures for C. Botulinum Neurotoxin  
$2,877,000  
DOD-Army Space and Missile Defense Command

Therapeutic Agents & Vaccines against Biological Warfare  
$2,905,899  
DOD-Army Medical Research

Process Development & cGMP Production  
$1,228,735  
Targepeutics Inc.

Mendoza-Gorham, Joan  
Student Affairs  
Classic Upward Bound  
$1,250,000  
Department of Education

Upward Bound Math/Science Program  
$1,000,000  
Department of Education

$1 MILLION — $2,999,999
<table>
<thead>
<tr>
<th>Name</th>
<th>Department/Program</th>
<th>Agency/Program</th>
<th>Amount</th>
<th>Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paul, Prem</td>
<td>Research and Economic Development</td>
<td>DOD-National Geospatial Intelligence Agency</td>
<td>$1,200,000</td>
<td>* Great Plains National Security (GP-NSEC)</td>
</tr>
<tr>
<td>Adenwalla, Shireen</td>
<td>Physics and Astronomy</td>
<td>DOD-National Geospatial Intelligence Agency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LeSueur, James</td>
<td>History</td>
<td>DOD-National Geospatial Intelligence Agency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>McMahon, Patrice</td>
<td>Political Science</td>
<td>DOD-National Geospatial Intelligence Agency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wedeman, Andrew</td>
<td>Political Science</td>
<td>DOD-National Geospatial Intelligence Agency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood, Simon</td>
<td>Classics and Religious Studies</td>
<td>DOD-National Geospatial Intelligence Agency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weissinger, Ellen</td>
<td>Graduate Studies</td>
<td>DOD-National Geospatial Intelligence Agency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Redepenning, Jody</td>
<td>Chemistry</td>
<td>DOD-Army Medical Research</td>
<td>$1,358,000</td>
<td>* Bioceramic Bones for Battlefield Traumas</td>
</tr>
<tr>
<td>Robertson Jr., Vaughn</td>
<td>Student Affairs</td>
<td>UNL Educational Talent Search</td>
<td>$2,091,823</td>
<td>Department of Education</td>
</tr>
<tr>
<td>Rutenbeck, Kathy</td>
<td>Student Affairs</td>
<td>Upward Bound-Northeast Nebraska</td>
<td>$1,458,320</td>
<td>Department of Education</td>
</tr>
<tr>
<td>Schaefer, Matthew</td>
<td>Law</td>
<td>University of Nebraska College of Law</td>
<td>$1,717,370</td>
<td>NASA</td>
</tr>
<tr>
<td>Scott, Stephen</td>
<td>Computer Science and Engineering</td>
<td>University of Nebraska State Museum</td>
<td>$1,367,121</td>
<td>NSF</td>
</tr>
<tr>
<td>Shapiro, Charles</td>
<td>Northeast Research and Extension Center</td>
<td>University of Nebraska State Museum</td>
<td>$1,419,710</td>
<td>Department of Agriculture-CSREES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Natural Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agronomy and Horticulture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Food Science and Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Entomology</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agronomy and Horticulture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Panhandle Research and Extension Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agronomy and Horticulture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Natural Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Panhandle Research and Extension Center</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Project Description</th>
<th>Funding</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Van Etten, James</td>
<td>Plant Pathology</td>
<td>DNA Replication &amp; Gene Expression of Chlorella Viruses</td>
<td>$1,215,694</td>
<td>DHHS-NIH-NIGMS</td>
</tr>
<tr>
<td>Dunigan, David</td>
<td>Plant Pathology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kang, Ming</td>
<td>Plant Pathology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agarkova, Irina</td>
<td>Plant Pathology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gurnon, James</td>
<td>Plant Pathology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verma, Shashi</td>
<td>Natural Resources</td>
<td>Carbon Sequestration in Dryland &amp; Irrigated Agroecosystems</td>
<td>$2,265,000</td>
<td>Department of Energy</td>
</tr>
<tr>
<td>Cassman, Kenneth</td>
<td>Agronomy and Horticulture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knops, Johannes</td>
<td>Biological Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hubbard, Kenneth</td>
<td>Natural Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arkebauer, Timothy</td>
<td>Agronomy and Horticulture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walters, Daniel</td>
<td>Agronomy and Horticulture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suyker, Andrew</td>
<td>Natural Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ginting, Daniel</td>
<td>Agronomy and Horticulture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vljoen, Hendrik</td>
<td>Chemical and Biomolecular Engineering</td>
<td>A Rational Design of a Platform for de novo Gene Synthesis</td>
<td>$1,315,289</td>
<td>DHHS-NIH-NCRR</td>
</tr>
<tr>
<td>Subramanian, Anu</td>
<td>Chemical and Biomolecular Engineering</td>
<td>Vortex-Tube Based Thermocycler w/Intelligent Software</td>
<td>$1,068,925</td>
<td>DHHS-NIH-NCRR</td>
</tr>
<tr>
<td>Gogos, George</td>
<td>Mechanical Engineering</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weeks, Donald</td>
<td>Biochemistry</td>
<td>Development of Dicamba-Resistant Crops</td>
<td>$2,500,000</td>
<td>Monsanto Co.</td>
</tr>
<tr>
<td>Whitbeck, Les</td>
<td>Sociology</td>
<td>Resilience through the High School Years</td>
<td>$2,654,155</td>
<td>DHHS-NIH-NIMH</td>
</tr>
<tr>
<td>Wilcke, William</td>
<td>IANR-Research</td>
<td>North Central Regional Sustainable Agriculture Research &amp; Education Program – SARE</td>
<td>$2,707,719</td>
<td>Department of Agriculture-CSREES</td>
</tr>
<tr>
<td>Wilcox, Brian</td>
<td>Center on Children, Families and the Law</td>
<td>Midwest Child Care Research Consortium</td>
<td>$1,200,000</td>
<td>DHHS-ACF</td>
</tr>
<tr>
<td>Wilhite, Donald</td>
<td>Natural Resources</td>
<td>Rangeland and Forage Geospatial Decision Support System for Drought Risk Management</td>
<td>$1,023,038</td>
<td>Department of Agriculture-RMA</td>
</tr>
</tbody>
</table>
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
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Grant Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anderson, Mark</strong></td>
<td>Geosciences</td>
<td>Development of Northern Hemisphere Snow &amp; Ice Climate Data Records</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$213,461</strong> Rutgers University</td>
</tr>
<tr>
<td><strong>Asgarpour, Sohrab</strong></td>
<td>Electrical Engineering</td>
<td>Reliability Modeling and Maintenance Optimization of Aging Substations</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$206,082</strong> NSF</td>
</tr>
<tr>
<td><strong>Atkin, Audrey</strong></td>
<td>Biological Sciences</td>
<td>Wild-Type PPR1 mRNA Decay by Yeast Nonsense-Mediated mRNA Decay Pathway</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$403,219</strong> NSF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moriyama, Etsuko Biological Sciences/Center for Plant Science Innovation</td>
</tr>
<tr>
<td><strong>Avramov, Luchezar</strong></td>
<td>Mathematics</td>
<td>Cohomology and Structure of Commutative Algebras</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$260,667</strong> NSF</td>
</tr>
<tr>
<td><strong>Avramova, Zoya</strong></td>
<td>Biological Sciences</td>
<td>Lipid-Signaling and Epigenetic Regulations in Arabidopsis: Are Myotubularins the Link?</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$450,000</strong> NSF</td>
</tr>
<tr>
<td><strong>Azizinamini, Atorod</strong></td>
<td>Civil Engineering</td>
<td>* NaBRO-POSCO Cooperative Research Plan in Bridge and Material Research</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$225,204</strong> Research Institute of Industrial Science &amp; Technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Comprehensive Evaluation of Fracture Critical Bridges</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$286,348</strong> Nebraska Department of Roads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Simple for Dead-Continuous for Live Load System with Partial Pre-Fabricated Deck System</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$242,038</strong> Nebraska Department of Roads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Development of Design Tools for Steel Bridge Systems, Simple for Dead Loads &amp; Continuous for Superimposed Dead Load &amp; Live Loads</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$226,306</strong> Nebraska Department of Roads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Steel Box System Monitoring of N-2 over I-480 Bridge</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$292,244</strong> Nebraska Department of Roads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IBRC 2002 Project</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$240,000</strong> Nebraska Department of Roads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Folded Plate Technology: Research, Design &amp; Monitoring</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$445,000</strong> Nebraska Department of Roads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Development of Field Data for Effective Implementation of Mechanistic-Empirical Pavement Design Procedure</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>$315,252</strong> Nebraska Department of Roads</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negahban, Mehrdad Engineering Mechanics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$200,000 – $999,999</td>
</tr>
</tbody>
</table>
Baenziger, P. Stephen  Agronomy and Horticulture
Developing Winter Wheat with Improved Fusarium Head Blight Tolerance by Conventional and Transgenic Approaches
$354,437  Department of Agriculture-ARS
Wegulo, Stephen  Plant Pathology
Clemente, Thomas  Agronomy and Horticulture
Baltensperger, David  Panhandle Research and Extension Center

Developing Small Grains Cultivars Optimally Suited for Organic Production
$755,937  Department of Agriculture-NRICGP
Flores, Rolando  Food Science and Technology
Wegulo, Stephen  Plant Pathology
Russell, William  Agronomy and Horticulture
Shapiro, Charles  Agronomy and Horticulture
Schlegel, Vicki  Food Science and Technology
Wehling, Randy  Food Science and Technology
Knezevic, Stevan  Northeast Research and Extension Center
Hein, Gary  Panhandle Research and Extension Center
Lyon, Drew  Panhandle Research and Extension Center

Balkir, Sina  Electrical Engineering
All Solid-State Wireless Sensor Network for Nuclear Proliferation Detection
$417,191  Department of Energy
Hoffman, Michael  Electrical Engineering

Barker, Bradley  4-H Youth Development
* 4-H Robotics: Engineering for Today and Tomorrow
$400,000  Department of Agriculture-CSREES-National 4-H Headquarters
Robotics & GPS/GIS in 4-H: Workplace Skills for the 21st Century
$864,139  NSF
Adamchuk, Viacheslav  Biological Systems Engineering

Basolo, Alexandra  Biological Sciences
Behavioral Plasticity in Preexisting Receiver Bias
$384,000  NSF

Basset, Gilles  Agronomy and Horticulture/Biochemistry/Center for Plant Science Innovation
* Phylloquinone Biosynthesis in Plants: Enzyme Discovery and Pathway Flux Control
$440,356  NSF

Batelaan, Herman  Physics and Astronomy
Matter Optics with Intense Laser Light
$467,590  NSF

Becker, Donald  Biochemistry
* REU Site: Training in Redox Biology
$252,250  NSF
Stone, Julie  Biochemistry/Center for Plant Science Innovation
MRI: Acquisition of Beckman XL-I Analytical Ultracentrifuge
$284,160  NSF
Belli, Robert  Psychology/Gallup Research Center
Verbal Behaviors in Computerized Lifecourse Surveys  $409,889  DHHS-National Institute on Aging

Benson, Andrew  Food Science and Technology
Pyrosequencing and Community Profiling for Risk Assessment in Leafy Greens  $370,927  Department of Agriculture-NRICGP
Walter, Jens  Food Science and Technology
Hutkins, Robert  Food Science and Technology

Berens, Charlyne  Journalism and Mass Communications
Carnegie-Knight Initiative on the Future of Journalism Education  $250,000  Carnegie Corporation of New York

Berkowitz, David  Chemistry
Stereocontrolled Total Synthesis of (-)-Picropodophyllin Analogues  $500,000  Stockbridge Pharmaceuticals Inc.
New Approaches to Catalyst Screening & Development  $435,000  NSF

Beukelman, David  Special Education and Communication Disorders
Rehabilitation Engineering Research Center on Communication Enhancement  $392,328  Duke University Medical Center

Bevins, Rick  Psychology
Altering Nicotine Reward through Conditioning  $339,446  DHHS-NIH-NIDA
Acquired Appetitive Properties of Nicotine  $881,371  DHHS-NIH-NIDA

Bilder, Christopher  Statistics
Disease Detection and Prevalence Estimation through Informative Group Testing  $713,250  DHHS-NIH-NIAID

Billesbach, David  Biological Systems Engineering
Development & Field Testing of a Rapidly Deployable Carbon Dioxide Flux Management System  $607,405  Department of Energy-Berkeley National Lab

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

$200,000 – $999,999
Blum, Paul  
**Biological Sciences**

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

* REU Site: Integrated Development of Bioenergy Systems  
  NSF  
  Cerutti, Heriberto  
  Biological Sciences  
  North Carolina State University  
  $269,592

Bobaru, Florin  
**Engineering Mechanics**

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

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

Novel Rare-Earth Semiconductors for Solid-State Neutron Detectors  
  DOD-Defense Threat Reduction Agency  
  Belashchenko, Kirill  
  Physics and Astronomy  
  Dowben, Peter  
  Physics and Astronomy  
  Direct Energy Conversion with Heteroisomeric Boron Carbide Diode Devices  
  Central Intelligence Agency  
  $238,398

Brisson, Jennifer  
**Biological Sciences**

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

Brown, Mary  
**Natural Resources**

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

Bulling, Denise  
**Public Policy Center**

*Development of Nebraska’s Homeland Security Planning Capacity  
  Nebraska Military Department-NEMA  
  Hospital Preparedness – Bioterrorism  
  Nebraska Department of Health and Human Services  
  Critical Incidence Stress Management Program Coordination  
  $309,812

Burbach, Mark  
**Natural Resources**

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

Cady, Daniel  
**Extension**

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

$200,000 – $999,999
Cahoon, Edgar  
Biochemistry/  
Center for Plant Science Innovation  
* Probing the Metabolic and Physiological Significance of Sphingolipid Long-Chain Base Desaturation in Plants  
$550,500  
NSF  

$200,000 — $999,999

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

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

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

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

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

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

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

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

Cejda, Brent  
Educational Administration  
*Enrollment Management Journal  
$210,000  
Texas Guaranteed  
LaCost, Barbara  
Educational Administration
Cerutti, Heriberto  
**Biological Sciences/Center for Plant Science Innovation**  
Histone Modifications & Transcriptional Silencing in Chlamydomonas  
$448,235  
NSF

Chen, Xun-Hong  
**Natural Resources**  
Development of Groundwater Flow Model in the Lower Platte North NRD Area  
$220,458  
Lower Platte North NRD

Cheung, Chin Li  
**Chemistry**  
*B* 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  
Dominguez, 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

Functional Analysis of Soybean Genes through Transposon Mutagenesis  
$532,229  
United Soybean Board/SmithBucklin

Specht, James  
Agronomy and Horticulture

Enhancing Disease Resistance in Soybean through Biotechnology  
$456,000  
North Central Soybean Research Program

Alfano, James  
Plant Pathology/Center for Plant Science Innovation  
Morris, T. Jack  
Biological Sciences

Comfort, Steven  
**Natural Resources**  
Field-Scale Demonstrations of Innovative Remediation Techniques for Contaminated Soil and Water  
$994,100  
Environmental Protection Agency

Costello, Don  
**Computer Science and Engineering**  
GAANN Fellowships for Computer Science & Engineering  
$500,000  
Department of Education
Daly, Edward  
**Educational Psychology**  
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 Eidgenössische 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  
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
Dzenis, Yuris  Engineering Mechanics  
Nanoengineered Interfaces  
$250,002  NSF  
Modeling-Based Control of Electrospinning Process  
$275,000  NSF  

Eccarius, Malinda  Special Education and Communication Disorders  
Mountain Prairie Upgrade Partnership - Early Childhood  
$781,642  Department of Education  
Marvin, Chris  Special Education and Communication Disorders  

Eckhardt, Craig  Chemistry  
Experimental Investigation of the Role of Defects in Detonation Sensitivity of Energetic Materials  
$600,000  DOD-Office of Naval Research  
A Study of the Mechanochemistry of Carbamazepine Polymorphs  
$227,200  Pfizer Inc./PGRD Groton Labs  

Elbaum, Sebastian  Computer Science and Engineering  
* Enhancing the Dependability of Complex Missions through Automated Analysis  
$548,852  DOD-Air Force Office of Scientific Research  
Dwyer, Matthew  Computer Science and Engineering  
* T2T: A Framework for Amplifying Testing Resources  
$491,688  NSF  
Dwyer, Matthew  Computer Science and Engineering  
ITR: Dependable End-User Software  
$253,573  NSF  

Engen-Wedin, Nancy  Teaching, Learning and Teacher Education/Lied Center for Performing Arts  
Indigenous Roots Teacher Education Program  
$704,730  Department of Education  
McGowan, Thomas  Teaching, Learning and Teacher Education  

Epstein, Michael  Special Education and Communication and Disorders  
Evaluation of Family Reunification Program  
$219,454  Father Flanagan’s Boys’ Home  
Leadership Training in Emotional Disturbance Disorders  
$601,733  Department of Education  
Duppong Hurley, Kristin  Special Education and Communication and Disorders  
Torkelson-Trout, Alexandra  Special Education and Communication and Disorders  

Fabrikant, Ilya  Physics and Astronomy  
Electron-Molecule Collisions in Different Environments  
$240,001  NSF  

$200,000 – $999,999
Faller, Ronald  Civil Engineering/ Midwest Roadside Safety Center  
$601,736  Nebraska Department of Roads  
Sicking, Dean  Civil Engineering/ Midwest Roadside Safety Center  
Reid, John  Mechanical Engineering  

Dynamic Evaluation of Box Beam End Terminal Using the MASH 2008 Guidelines  
$204,533  Nebraska Department of Roads  
Sicking, Dean  Civil Engineering/ Midwest Roadside Safety Center  
Reid, John  Mechanical Engineering  

Development of a New Precast Concrete Bridge Railing System  
$229,820  Nebraska Department of Roads  
Bielenberg, Robert  Civil Engineering  
Reid, John  Mechanical Engineering  
Tadros, Maher  Civil Engineering  

Development of an Economical Guardrail System for Use on Gabion Walls  
$450,000  Department of Transportation-FHWA  
Sicking, Dean  Civil Engineering/ Midwest Roadside Safety Center  
Rohde, John  Civil Engineering/ Midwest Roadside Safety Center  
Reid, John  Mechanical Engineering  

Flores, Rolando  Food Science and Technology  
Midwest Advanced Food Manufacturing Alliance  
$319,775  Department of Agriculture-CSREES  

Franti, Thomas  Biological Systems Engineering  
* Heartland Regional Water Coordination Initiative  
$273,046  Iowa State University  
Wortmann, Charles  Agronomy and Horticulture  

Fromm, Michael  Agronomy and Horticulture/ Center for Biotechnology  
MRI: Acquisition of High Capacity DNA Sequencing System  
$714,750  NSF  

Gardner, Scott  Biological Sciences/ University of Nebraska State Museum  
Mongolia Vertebrate Parasite Project  
$627,491  NSF  

Enabling Access to Priority Taxa for Biodiversity Studies in the Manter Laboratory of Parasitology  
$523,847  NSF  
Jimenez-Ruiz, Francisco  University of Nebraska State Museum
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Project</th>
<th>Funding Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gay, Timothy</td>
<td>Physics and Astronomy</td>
<td>MRI: Development of a Rubidium Spin Filter as a Source of Polarized Electrons</td>
<td>$285,000 NSF</td>
</tr>
<tr>
<td>Batelaan, Herman</td>
<td>Physics and Astronomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uiterwaal, Kees</td>
<td>Physics and Astronomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polarized Electron and Photon Physics</td>
<td></td>
<td>$385,000 NSF</td>
</tr>
<tr>
<td>Gibson, Robert</td>
<td>Biological Sciences</td>
<td>GAANN Fellowship for Ecology, Evolution &amp; Behavior at UNL</td>
<td>$625,000 Dept. of Ed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giesler, Loren</td>
<td>Plant Pathology</td>
<td>Improving Management of Soybean Cyst Nematode through Extension Demonstration and Outreach</td>
<td>$292,000 North Central Soybean Research Program</td>
</tr>
<tr>
<td>Gitelson, Anatoly</td>
<td>Natural Resources</td>
<td>A Satellite-Based Quantification of Carbon Exchange of the Dominant Ecosystem (Maize-Soybean) in the NACP Mid-Continent Intensive (MCI) Region</td>
<td>$496,124 NASA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Responses of Coastal Waters to Terrestrial Inputs of Elemental CNP in Urbanizing Coastal Regions</td>
<td>$264,990 Univ. of Maryland</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Land Cover Land Use Change Effects on Surface Water Quality: Integrated MODIS &amp; SeaWiFS Assessment of Dnieper &amp; Don River Basins</td>
<td>$598,130 NASA</td>
</tr>
<tr>
<td>Goddard, Stephen</td>
<td>Computer Science and Engineering</td>
<td>CRI: IAD: Towards Cyber-Physical Computing at Scale: A Life-Size Experimental Facility for Applied Sensor Networks Research</td>
<td>$200,000 NSF</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ci, Song</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peng, Dongming</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sharif-Kashani, Hamid</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hudgins, Jerry</td>
<td></td>
</tr>
</tbody>
</table>

$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

Food Allergen Database
$679,742  Various Industries

Assessing the Potential Allergenicity of Proteins Introduced by Genetic Engineering
$450,000  Environmental Protection Agency
Schlegel, Vicki  Food Science and Technology
Taylor, Stephen  Food Science and Technology

Gosselin, David  Natural Resources
Earth Science Institute for Elementary Educators
$356,094  NASA
Bonnstetter, Ronald  Teaching, Learning and Teacher Education

Online Master's Degree in Applied Science Education
$540,345  Toyota USA Foundation
Bonnstetter, Ronald  Teaching, Learning and Teacher Education
Strand, Billie  Extended Education and Outreach

Graef, George  Agronomy and Horticulture
Quality Traits Regional Tests
$225,535  United Soybean Board/Smith/Bucklin

Soybean Breeding and Genetic Research for Nebraska
$203,596  Nebraska Soybean Board
Specht, James  Agronomy and Horticulture

Gursoy, Mustafa  Electrical Engineering
* Energy Efficiency in Wireless Communications under Queuing Constraints
$335,856  NSF
Velipasalar, Senem  Electrical Engineering

Hage, David  Chemistry
Chromatographic Automation of Immunoassays
$946,982  DHHS-NIH-NIGMS

Chromatographic Studies of Functional Proteomics
$756,640  DHHS-NIH-NIDDK

Hallbeck, M. Susan  Industrial and Management Systems Engineering
* VA Engineering Research Center
$371,804  VA Medical Center-Omaha
Savory, Paul  Industrial and Management Systems Engineering
Hanna, Milford  
Food Science and Technology/  
Industrial Agricultural Products Center  
* Pine Ridge Stewardship and Legacy Project: Ferguson Property Acquisition  
$240,000  
Nebraska Environmental Trust

Harris, Steven  
Plant Pathology/  
Center for Plant Science Innovation  
Autophagy in Fungal Hyphae: Functional  
Genomic & Mechanical Strength Studies  
$417,852  
University of Maryland-Baltimore

Harshman, Lawrence  
Biological Sciences  
Comparative Functional Genomics of Drosophila Obesity  
$516,548  
Cornell University  
Molecular Evolution of Genes Expressed in D. melanogaster Sperm Storage Structures  
$295,213  
NSF  
Moriyama, Etsuko  
Biological Sciences/  
Center for Plant Science Innovation

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

$200,000 — $999,999
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hayes, Michael</td>
<td>Natural Resources</td>
</tr>
<tr>
<td>$437,243</td>
<td>Drought Mitigation, Nebraska Project</td>
</tr>
<tr>
<td>Svoboda, Mark</td>
<td>Natural Resources</td>
</tr>
<tr>
<td>Knutson, Cody</td>
<td>Natural Resources</td>
</tr>
<tr>
<td>Wardlow, Brian</td>
<td>Natural Resources</td>
</tr>
<tr>
<td>Developed Seasonal Predictive Capability for Drought Mitigation Decision Support System</td>
<td></td>
</tr>
<tr>
<td>$311,000</td>
<td>University of Illinois, Urbana-Champaign</td>
</tr>
<tr>
<td>Svoboda, Mark</td>
<td>Natural Resources</td>
</tr>
<tr>
<td>Knutson, Cody</td>
<td>Natural Resources</td>
</tr>
<tr>
<td>Sittler, Megan</td>
<td>Natural Resources</td>
</tr>
<tr>
<td>Developed a Drought Preparedness Framework for Tribal Governments: Moving from Crisis to Risk-Based Management</td>
<td></td>
</tr>
<tr>
<td>$609,539</td>
<td>Department of Interior-BIA</td>
</tr>
<tr>
<td>Knutson, Cody</td>
<td>Natural Resources</td>
</tr>
<tr>
<td>Svoboda, Mark</td>
<td>Natural Resources</td>
</tr>
<tr>
<td>Hebets, Eileen</td>
<td>Biological Sciences</td>
</tr>
<tr>
<td>$240,000</td>
<td>Searle Scholar: Exploring Neural Basis of Complex Behavior in Amblypygids</td>
</tr>
<tr>
<td>Heemstra, Jill</td>
<td>Northeast Research and Extension Center</td>
</tr>
<tr>
<td>$644,408</td>
<td>* Engaging Young Farmers and Ranchers in Environmental Management Education</td>
</tr>
<tr>
<td>Hein, Gary</td>
<td>Entomology</td>
</tr>
<tr>
<td>$234,000</td>
<td>* National Needs Fellow: Integrated Practitioners for Tomorrow’s Sustainable Agricultural Systems</td>
</tr>
<tr>
<td>Lagrimini, Mark</td>
<td>Agronomy and Horticulture</td>
</tr>
<tr>
<td>Steadman, James</td>
<td>Plant Pathology</td>
</tr>
<tr>
<td>Brewer, Gary</td>
<td>Entomology</td>
</tr>
<tr>
<td>Henry, Christopher</td>
<td>Biological Systems Engineering</td>
</tr>
<tr>
<td>$600,000</td>
<td>Livestock Producer Environmental Assistance Project</td>
</tr>
<tr>
<td>Development of Alternative Technologies for Small Livestock Producers</td>
<td></td>
</tr>
<tr>
<td>$221,881</td>
<td>Nebraska Department of Environmental Quality</td>
</tr>
<tr>
<td>Gross, Jason</td>
<td>Biological Systems Engineering</td>
</tr>
</tbody>
</table>
Hergert, Gary  Panhandle Research and Extension Center
Enhancing Irrigation Management Tools & Developing a Decision Support System for Managing Limited Irrigation Supplies for the High Plains
$249,999  Department of Agriculture-RMA-FCIC
Burgener, Paul  Panhandle Research and Extension Center
Lyon, Drew  Panhandle Research and Extension Center
Martin, Derrel  Biological Systems Engineering
Pavlista, Alexander  Panhandle Research and Extension Center
Santra, Dipak  Panhandle Research and Extension Center
Supalla, Raymond  Agricultural Economics

Demonstrate & Adapt Remote Sensing Technology to Produce Consumptive Water Use Maps for the Nebraska Panhandle
$239,951  Department of Agriculture-NRCS
Baltensperger, David  Panhandle Research and Extension Center
Berger, Aaron  Panhandle Research and Extension Center
DeBoer, Karen  Panhandle Research and Extension Center
Hla, Aung  Panhandle Research and Extension Center
Lyon, Drew  Panhandle Research and Extension Center
Pavlista, Alexander  Panhandle Research and Extension Center
Yonts, C. Dean  Panhandle Research and Extension Center

Hibbing, John  Political Science
DHB: Identifying the Biological Underpinnings of Political Temperaments
$587,068  NSF
Espy, Kimberly Andrews  Psychology/Research and Economic Development
Smith, Kevin  Political Science
Dodd, Michael  Psychology
Wiebe, Sandra  Psychology/Research and Economic Development

Hoffman, Lesa  Psychology
Visual Attention in Aging: Bridging Experimental and Psychometric Approaches
$322,745  DHHS-NIH-NIA

Hogan, Tiffany  Special Education and Communication Disorders
The Lexicon and Phoneme Awareness
$430,591  DHHS-NIH-NIDCD

Holmes, Mary Anne  Geosciences
Building a Community of Women Geoscience Leaders
$228,774  NSF

Holz, Aris  Natural Resources
Fremont Lake #20 Alum Treatment Evaluation Project
$201,700  Nebraska Department of Environmental Quality
Barrow, Tadd  Natural Resources
Haagland, Kyle  Natural Resources

$200,000 – $999,999
Horn, Christy  
**Equity, Access and Diversity Programs**  
Building Accepting Campus Communities  
$993,398  
Department of Education  
Bruning, Roger  
**Educational Psychology**  
Sydik, Jeremy  
**Equity, Access and Diversity Programs**

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

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

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

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

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

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

**Iyengar, Srikanth**  
**Mathematics**  
* Derived Categories of Complete Intersections and Hochschild Cohomology  
$210,528  
NSF
Jiang, Hong  
Computer Science and Engineering  
* CSR: Small: Flashtube: A Semantic-Aware, Highly Reliable Flash Memory SSD  
$474,739  NSF  
* HECURA: A New Semantic-Aware Metadata Organization for Improved File-System Performance and Functionality in High-End Computing  
$344,552  NSF  
SAM*2 Toolkit: Scalable & Adaptive Metadata Management for High-End Computing  
$602,326  NSF  

Jones, Clinton  
Veterinary and Biomedical Sciences  
* Analysis of Viral Factors that Regulate the Bovine Herpesvirus 1 (BHV-1) Latency Reactivation Cycle  
$375,000  Department of Agriculture-CSREES  
Functional Analysis of biCPO  
$375,000  Department of Agriculture-NRICGP  
Functional Analysis of Proteins Encoded by the Bovine Herpesvirus 1 Latency Related Gene  
$374,475  Department of Agriculture-CSREES  
Does HSV-1 Latency Associated Transcript (LAT) Encode a Protein?  
$402,122  DHHS-NIH-NIAID  

Jones, Erick  
Industrial and Management Systems Engineering  
RFID License Plate System Feasibility Study for Commercial Vehicle Operators  
$250,000  Nebraska Department of Roads  

Josiah, Scott  
Nebraska State Forest Service  
* Forest Legacy Program: Pine Ridge Project  
$500,000  Department of Agriculture-FS  
* Expansion of Hazelnut Production, Feedstock and Biofuel Potential Through Breeding for Disease Resistance and Climatic Adaption  
$389,224  Oregon State University  
Adams, Dennis  
Natural Resources  
NRCS-Technical Service Provider Project  
$407,426  Department of Agriculture-NRCS  
Hazardous Fuels Reduction: Pine Ridge  
$250,000  Department of Agriculture-FS  

Kamil, Alan  
Biological Sciences  
* Operant Research on Episodic Memory in an Animal Model  
$383,500  DHHS-NIH-NIMH  
Bond, Alan  
Biological Sciences
Kim, Yong Rak  
Civil Engineering  
Asphalt Research Consortium  
Texas A & M Research Foundation  
Engineering Mechanics  
$350,000  
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  
Natural Resources  
Svoboda, Mark  

Koelsch, Richard  
Biological Systems Engineering/Extension  
* Nebraska EIPM-CS Coordination Program  
$235,725  
Department of Agriculture-CSREES  
Entomology  
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  
Agronomy and Horticulture  
Wortmann, Charles  

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

Lackey, Susan  
Natural Resources  
Eastern Nebraska Water Resources Assessment LPNRD  
$476,668  
Lower Platte North NRD  
Natural Resources  
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  

$200,000 — $999,999
Ledder, Glenn  
Mathematics  
UBM: Research for Undergraduates in Theoretical Ecology (RUTE)  
$905,000 NSF

Deng, Bo  
Mathematics  
$200,000 — $999,999

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 DHHS-NCCAM

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

Schmidt, Edward  
Physics and Astronomy

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

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

Lewis, Charlotte  
Center on Children, Families and the Law  
Answers4Families/NRRS Database  
$307,011 Nebraska Department of Health and Human Services

Li, Haorong  
Architectural Engineering  
* Intelligent Controls for Net-Zero Energy Buildings  
$475,750 Department of Energy

Cho, Yong Kwon  
Construction Systems

Peng, Dongming  
Computer and Electronics Engineering

Goedert, James  
Construction Systems

Cogdill, Robert  
Engineering

Li, Ming  
Psychology  
Anxiolytic Property of Atypical Antipsychotics  
$362,145 DHHS-NIH-NIMH

Lindquist, John  
Agronomy and Horticulture  
Contribution of Fusarium lateritium to Weed Suppressive Soils & Weed Abundance  
$366,186 Department of Agriculture-NRICGP

Drijber, Rhae  
Agronomy and Horticulture

Yuen, Gary  
Plant Pathology
Liou, Sy-Hwang  Physics and Astronomy
Advanced Probes for Characterizations of Magnetic Nanostructures  
$539,998  DOD-DEPSCoR
Sellmyer, David  Physics and Astronomy/Nebraska Center for Materials and Nanoscience
Skomski, Ralph  Physics and Astronomy

Liu, Mingsheng  Architectural Engineering
CC Implementation of VA Medical Center at Omaha  
$414,963  Omaha Public Power District

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  NSF
Alexander, Dennis  Electrical Engineering
Ducharme, Stephen  Physics and Astronomy
Tunable Photonic Bandgap Crystals with Integrated Functionalities  
$330,000  DOD-Air Force Office of Scientific Research
Near-Field-Controlled Nanoscale Coating of Functional Thin Films for Nanodevices  
$240,000  NSF
Mackenzie, Sally  Biological Sciences/ Agronomy and Horticulture/ Center for Plant Science Innovation
Nuclear Mechanisms that Influence Mitochondrial Genome Stability
$450,000  NSF
Christensen, Alan  Biological Sciences
Montiel, Maria Arrieta  Center for Plant Science Innovation
Nuclear-Organellar Interactions Involving AtMSH1 in Arabidopsis
$810,000  Department of Energy
Training Graduate Students in Plant Breeding Using Crop Drought Tolerance Improvement as a Model
$599,999  Department of Agriculture-NRICGP
Fromm, Michael  Center for Plant Science Innovation

Martin, Derrel  Biological Systems Engineering
Modeling and Field Experimentation to Determine Effects of Land Terracing-Republican River Basin (CESU)
$515,775  Department of Interior-BR

McCurdy, Merilee  Educational Psychology
* Training School Psychologists in Response-to-Intervention Implementation and System Change
$799,981  Department of Education
Daly, Edward  Educational Psychology
Ihlo, Tanya  Nebraska Center for Research on Children, Youth, Families and Schools
Kunz, Gina  Nebraska Center for Research on Children, Youth, Families and Schools

McNulty, Lawrence  Educational Administration
* IREX End of Conference Program/ TEA Professional Development
$259,920  International Research & 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

Manufacture of a Next Generation Vaccine for Clinical Trial and Toxicity Testing
$725,993  Industry client

$200,000 — $999,999
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melvin, Steven</td>
<td>West Central Research and Extension Center</td>
<td>Irrigation Management with Limited Water: A Farm Education Program</td>
</tr>
<tr>
<td>Martin, Derrel</td>
<td>Biological Systems Engineering</td>
<td>Department of Interior-BR</td>
</tr>
<tr>
<td>Corr, Alan</td>
<td>West Central Research and Extension Center</td>
<td></td>
</tr>
<tr>
<td>van Donk, Simon</td>
<td>West Central Research and Extension Center</td>
<td></td>
</tr>
<tr>
<td>Merchant, James</td>
<td>Natural Resources</td>
<td>Initial Design and Implementation of the Nebraska Geospatial Data Sharing and Web Services Network</td>
</tr>
<tr>
<td>Martin, Derrel</td>
<td>Biological Systems Engineering</td>
<td>Department of Interior-BR</td>
</tr>
<tr>
<td>Corr, Alan</td>
<td>West Central Research and Extension Center</td>
<td></td>
</tr>
<tr>
<td>van Donk, Simon</td>
<td>West Central Research and Extension Center</td>
<td></td>
</tr>
<tr>
<td>Merchant, James</td>
<td>Natural Resources</td>
<td>Initial Design and Implementation of the Nebraska Geospatial Data Sharing and Web Services Network</td>
</tr>
<tr>
<td>Martín, Derrel</td>
<td>Biological Systems Engineering</td>
<td>Department of Interior-BR</td>
</tr>
<tr>
<td>Corr, Alan</td>
<td>West Central Research and Extension Center</td>
<td></td>
</tr>
<tr>
<td>van Donk, Simon</td>
<td>West Central Research and Extension Center</td>
<td></td>
</tr>
<tr>
<td>Mitra, Amit</td>
<td>Plant Pathology</td>
<td>Functional Map of Tomato Genome Using Direct Repeat Induced Gene Silencing</td>
</tr>
<tr>
<td>Moore, Raymond</td>
<td>Engineering</td>
<td>Students United in Classes, Community, Engineering, Service and Study Abroad</td>
</tr>
<tr>
<td>Moriyama, Etsuko</td>
<td>Biological Sciences/Center for Plant Science Innovation</td>
<td>Efficient and Sensitive Mining System for G-Protein Coupled Receptors</td>
</tr>
<tr>
<td>Nelson, J. Ron</td>
<td>Special Education and Communication Disorders</td>
<td>Effects of a Supplementary Vocabulary Intervention for Students with Limited English Proficiency</td>
</tr>
<tr>
<td>Newman, Ian</td>
<td>Educational Psychology</td>
<td>Department of Education</td>
</tr>
<tr>
<td>Nickerson, H. Doak</td>
<td>Nebraska State Forest Service</td>
<td>Restoring the Pine Ridge Forest Ecosystem</td>
</tr>
</tbody>
</table>

$200,000 – $999,999
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/Antenuation
$375,000  Department of Agriculture-NRICGP
Pattnaik, Asit  Veterinary and Biomedical Sciences

Pattnaik, Asit  Veterinary and Biomedical Sciences
* Glycoproteins of Porcine Reproductive and
Respiratory Syndrome Virus in Infection and Immunity
$371,230  Department of Agriculture-AFRI
Osorio, Fernando  Veterinary and Biomedical Sciences

Pegg, Mark  Natural Resources
* Environmental Flows in the Niobrara River for Fish and Wildlife
$726,754  Nebraska Game and Parks Commission

* Missouri River Sportfish Ecology and Management
$401,210  Nebraska Game and Parks Commission
Sturgeon Management in the Platte River
$801,000  Nebraska Game and Parks Commission

Perez, Lance  Electrical Engineering
Self-Configuration & Localization in
Ad Hoc Wireless Sensor Networks
$548,807  DOD-DEPSCoR
Goddard, Stephen  Computer Science and Engineering

GAANN in Engineering & Assistive Technology
$387,165  Department of Education
Goddard, Stephen  Computer Science and Engineering
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Title</th>
<th>Funding Agency</th>
<th>Grant Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterson, Daniel</td>
<td>Food Science and Technology</td>
<td>* Adaptive Immune Response to Symbiotic Bacteria as a Mediator of Gut Homeostasis</td>
<td>DHHS-NIH-NIAID</td>
<td>$379,890</td>
</tr>
<tr>
<td>Pickard, Gary</td>
<td>Veterinary and Biomedical Sciences</td>
<td>* Retinal Neurons Afferent to the Circadian System</td>
<td>DHHS-NIH-National Eye Institute</td>
<td>$852,035</td>
</tr>
<tr>
<td>Sollars, Patricia</td>
<td>Veterinary and Biomedical Sciences</td>
<td>* 5HT Presynaptic Inhibition of Retinal Input to the SCN</td>
<td>DHHS-NIH-NINDS</td>
<td>$317,718</td>
</tr>
<tr>
<td>Pilson, Diana</td>
<td>Biological Sciences</td>
<td>Transgenic Virus Resistant Squash: Ecological Effect</td>
<td>Department of Agriculture-CSREES</td>
<td>$314,877</td>
</tr>
<tr>
<td>Pope, Kevin</td>
<td>Natural Resources</td>
<td>Recruitment of Walleye and White Bass in Irrigation Reservoirs</td>
<td>Nebraska Game and Parks Commission</td>
<td>$484,448</td>
</tr>
<tr>
<td>Sollars, Patricia</td>
<td>Veterinary and Biomedical Sciences</td>
<td>5HT Presynaptic Inhibition of Retinal Input to the SCN</td>
<td>DHHS-NIH-NINDS</td>
<td>$317,718</td>
</tr>
<tr>
<td>Risk, Diana</td>
<td>Biological Sciences</td>
<td>Transgenic Virus Resistant Squash: Ecological Effect</td>
<td>Department of Agriculture-CSREES</td>
<td>$314,877</td>
</tr>
<tr>
<td>Rajca, Andrzej</td>
<td>Chemistry</td>
<td>High-Spin Nitroxide Diradical for Biomedical Imaging Applications</td>
<td>DHHS-NIH-NIBIB</td>
<td>$421,174</td>
</tr>
<tr>
<td>Powell, Larkin</td>
<td>Natural Resources</td>
<td>Assessing Local &amp; Regional Variability in Productivity &amp; Fidelity of Grassland Birds on National Park Service Units in the Great Plains</td>
<td>Department of Interior-GS</td>
<td>$212,122</td>
</tr>
<tr>
<td>Rajca, Suchada</td>
<td>Chemistry</td>
<td>Stable High-Spin Polyradicals &amp; Chiral Pi-Conjugated Systems</td>
<td>NSF</td>
<td>$570,715</td>
</tr>
<tr>
<td>Huffman, Louise</td>
<td>Antarctic Geological Drilling Program</td>
<td>* Promoting Environmental Literacy through Teacher Professional Development Workshops and Climate Change Student Summits (C2S2)</td>
<td>Department of Commerce-NOAA</td>
<td>$694,095</td>
</tr>
<tr>
<td>Rajca, Andrzej</td>
<td>Chemistry</td>
<td>High-Spin Nitroxide Diradical for Biomedical Imaging Applications</td>
<td>DHHS-NIH-NIBIB</td>
<td>$421,174</td>
</tr>
<tr>
<td>Rajca, Suchada</td>
<td>Chemistry</td>
<td>Stable High-Spin Polyradicals &amp; Chiral Pi-Conjugated Systems</td>
<td>NSF</td>
<td>$570,715</td>
</tr>
<tr>
<td>Name</td>
<td>College/Discipline</td>
<td>Project Title</td>
<td>Funding Agency</td>
<td>Amount</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Rajurkar, Kamlakar</td>
<td>Industrial and Management Systems Engineering</td>
<td>* Theoretical and Experimental Study of Debris Removal &amp; Tool Wear in Micro-EDM</td>
<td>NSF</td>
<td>$250,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Modeling and Analysis of Material Removal and Tool Wear in Micro Ultrasonic Machining</td>
<td>NSF</td>
<td>$247,760</td>
</tr>
<tr>
<td>Ramamurthy, Byrav</td>
<td>Computer Science and Engineering</td>
<td>* Dynamic Optimized Advance Scheduling of Bandwidth Demands</td>
<td>Department of Energy-EPSCoR</td>
<td>$449,976</td>
</tr>
<tr>
<td>Ratcliffe, Brett</td>
<td>Entomology/University of Nebraska State Museum</td>
<td>Faunistic Survey of Dynastinae of Mexico, Guatemala, &amp; Belize</td>
<td>NSF</td>
<td>$481,493</td>
</tr>
<tr>
<td>Reddy, N.R. Jayagopala</td>
<td>Veterinary and Biomedical Sciences</td>
<td>* Delineating Autoimmunity in Post-Infectious Myocarditis (National Center, Scientist Development Grant)</td>
<td>American Heart Association</td>
<td>$308,000</td>
</tr>
<tr>
<td>Redepenning, Jody</td>
<td>Chemistry/Nebraska Center for Materials and Nanoscience</td>
<td>Chemically Modified Nano-Electrodes for Magnetoelectronics Applications</td>
<td>NSF</td>
<td>$390,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Binek, Christian</td>
<td>Physics and Astronomy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sokolov, Andrei</td>
<td>Physics and Astronomy</td>
<td></td>
</tr>
<tr>
<td>Reichenbach, Stephen</td>
<td>Computer Science and Engineering</td>
<td>SEI: Information Modeling for Comparative Visualizations &amp; Analyses</td>
<td>NSF</td>
<td>$389,228</td>
</tr>
<tr>
<td>Reid, John</td>
<td>Mechanical Engineering</td>
<td>Midwest States Regional Pooled Fund Program</td>
<td>Nebraska Department of Roads</td>
<td>$600,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sicking, Dean</td>
<td>Civil Engineering/Midwest Roadside Safety Facility</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Faller, Ron</td>
<td>Midwest Roadside Safety Facility</td>
<td></td>
</tr>
<tr>
<td>Reid, Robert</td>
<td>Special Education and Communication Disorders</td>
<td>Leadership Training in Attention Deficit Hyperactivity Disorder</td>
<td>Department of Education</td>
<td>$620,006</td>
</tr>
</tbody>
</table>
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  
$222,896  
Jones, Elizabeth  
Civil Engineering  
Nebraska Department of Roads  
Intelligent Transportation System Deployment Project  
$831,942  
Jones, Elizabeth  
Civil Engineering  
Khattak, Aemal  
Civil Engineering  
Robertson, Brian  
Mechanical Engineering/Nebraska Center for Materials and Nanoscience  
Spintronic Devices Enabled by Semiconducting Boron Carbide  
$299,998  
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  
Elbaum, Sebastian  
Computer Science and Engineering  
Dwyer, Matthew  
Computer Science and Engineering  
Samal, Ashok  
Computer Science and Engineering  
Building Knowledge Discovery & Information Fusion  
Tools for Collaborative Systems to Adaptively Manage Uncertain Hydrological Resources  
$601,816  
Chen, Xun-Hong  
Natural Resources  
Soh, Leen-Kiat  
Computer Science and Engineering  
Tomkins, Alan  
Public Policy Center  
Zellmer, Sandra  
Law  
Saraf, Ravi  
Chemical and Biomolecular Engineering  
* Electronic Interfacing between a Living Cell and a Nanodevice: A Bio-Nano Hybrid System  
$900,000  
Department of Energy  
Nanodevice for Digital Imaging of Palpable Structure at Human-Finger Resolution for Clinical Breast Examination  
$377,552  
DHHS-NIH-NIBIB  
Scalora, Mario  
Psychology  
* Post-Secondary Institutions Safety Threat Assessment Technical Assistance Center  
$357,037  
Nebraska Military Department-NEMA  
Yardley, Owen  
UNL Police  
Bulling, Denise  
Public Policy Center
Scheffler, Marilyn  Special Education and Communication Disorders
Project RTI: Building Capacity Together to Implement Response to Intervention
$800,000  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
Feenham, 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  
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  
Zhang, Tian  
Kranz, William  
Mader, Terry  
Shapiro, Charles  
Shelton, David  
Northeast Research and Extension Center  
Northeast Research and Extension Center  
Northeast Research and Extension Center

Snow, Gregory  
Physics and Astronomy  
The Luminosity Measurement for the DZERO Experiment at Fermilab  
$410,352  
Department of Energy-EPSCoR  
Bloom, Kenneth  
Claes, Daniel  
Dominguez, Aaron  
Uiterwall, Cornelis  
Batelaan, Herman  
Gay, Timothy  
Adenwalla, Shireen  
Physical and Astronomy  
Physical and Astronomy  
Physical and Astronomy  
Physical and Astronomy  
Physical and Astronomy  
Physical and Astronomy

$653,280  
Department of Education  
Claes, Daniel  
Dominguez, Aaron  
Uiterwall, Cornelis  
Batelaan, Herman  
Gay, Timothy  
Adenwalla, Shireen  
Physical and Astronomy  
Physical and Astronomy  
Physical and Astronomy  
Physical and Astronomy  
Physical and Astronomy  
Physical and Astronomy

$200,000 – $999,999
**Soh, Leen-Kiat**  
Computer Science and Engineering  
*iLOG: Embedding & Validating Empirical Usage Intelligence in Learning Objects*  
$409,705  
NSF

**Samal, Ashok**  
Computer Science and Engineering  
Nebraska Center for Research on Children, Youth, Families and Schools  
$409,705  
NSF

**Nugent, Gwen**  
Nebraska Center for Research on Children, Youth, Families and Schools  
$409,705  
NSF

**Soukup, Rodney**  
Electrical Engineering  
*A Novel Variable Wide Bandgap Material for High Power, High Frequency Devices*  
$368,008  
DOD-DEPSCoR

**Hudgins, Jerry**  
Electrical Engineering  
$368,008  
DOD-DEPSCoR

**Ianno, Natale**  
Electrical Engineering  
$368,008  
DOD-DEPSCoR

**Spaulding, Roy**  
Agronomy and Horticulture  
*Effectiveness of Irrigated Crop Management Practices in Reducing Groundwater Nitrate Contamination*  
$630,768  
Department of Agriculture-CSREES

**Ferguson, Richard**  
Agronomy and Horticulture  
$630,768  
Department of Agriculture-CSREES

**Marx, David**  
Statistics  
$630,768  
Department of Agriculture-CSREES

**Spalding, Mary**  
Natural Resources  
$630,768  
Department of Agriculture-CSREES

**Spaulding, William**  
Psychology  
*Decision Science in Rehabilitation*  
$860,775  
DHHS-NIH-NIMH

**Garbin, Calvin**  
Psychology  
$860,775  
DHHS-NIH-NIMH

**Specht, James**  
Agronomy and Horticulture  
*Genetic Mapping & Application of SNP DNA Markers in Soybean*  
$389,391  
Department of Agriculture-ARS

**Spreitzer, Robert**  
Biochemistry  
*Rubisco Phylogenetic Engineering*  
$202,383  
Department of Agriculture-NRICGP

**Srisa-an, Witawas**  
Computer Science and Engineering  
*CSR-PDOS: Memory Efficient Garbage Collection Framework for Java Server Applications*  
$300,000  
NSF

**Stansbury, John**  
Civil Engineering  
*Feasibility of Integrating Natural and Constructed Wetlands in Roadway Drainage System Design*  
$255,562  
Nebraska Department of Roads

**Moussavi, Massom**  
Civil Engineering  
$255,562  
Nebraska Department of Roads

**Zhang, Tian**  
Civil Engineering  
$255,562  
Nebraska Department of Roads

**Starace, Anthony**  
Physics and Astronomy  
*Strong Field & Ultrafast Atomic and Molecular Processes*  
$240,000  
NSF

**Staswick, Paul**  
Agronomy and Horticulture  
*Deciphering Novel Signaling Roles for Amino Acid Conjugates of Jasmonic Acid*  
$249,969  
NSF
Stentz, Terry  Construction Management  Human Factors in Railway Operation  $344,575  Department of Transportation-FRA
Jones, Elizabeth  Civil Engineering  $200,000 — $999,999
Rilett, Laurence  Civil Engineering
Khattak, Aemal  Civil Engineering
Riley, Michael  Industrial and Management Systems Engineering
Jones, Erick  Industrial and Management Systems Engineering

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

Stockton, Matthew  West Central Research and Extension Center
Whole-Farm Economic Biological Stochastic Simulation Model of Small to Medium Cow-calf Firms with Research, Teaching and Extension Modules  $499,740  Department of Agriculture-NRICGP

Storz, Jay  Biological Sciences
Test of Adaptive Divergence across Altitudinal Gradients: Population Genomics of Deer Mice  $492,000  NSF

Stowell, Richard  Biological Systems Engineering
Air Quality Extension & Education: Enhanced Learning Opportunities for Addressing Air Quality Issues in Animal Agriculture  $498,562  Department of Agriculture-NRICGP

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

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

$200,000 — $999,999
Svoboda, Mark  
Natural Resources  
* NIDIS Portal Content Development and Help Desk Support  
$497,497  
Department of Commerce-NOAA

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

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

Swanson, David  
Computer Science and Engineering  
* Open Science Grid Consortium  
$205,000  
University of Wisconsin-Madison

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

Tadros, Maher  
Civil Engineering  
Class C Fly Ash in Concrete Pavement  
$321,379  
Nebraska Department of Roads

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

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

Takacs, James  
Chemistry  
Ligand Scaffold Optimization for Catalytic Asymmetric Hydroboration  
$420,000  
NSF

Tan, Li  
Engineering Mechanics  
Self-Organized Nanolayers for Organic Thin-Film Transistors  
$387,463  
NSF
Zeng, Xiao Cheng  
Chemistry

Bi-Functional Pentacene Monolayer for Organic Field-Effect Transistors  
$299,410  
DOD-DEPSCoR
Zeng, Xiao Cheng  
Chemistry
Taylor, Steve  Food Science and Technology
  * Determination of Minimal Elicitation Dose for Almond in Almond-Allergic Individuals
  $261,000  Almond Board of California

Allergenicity Evaluation of Isinglass
$555,035  Various Industries

Thippareddi, Harshavardhan  Food Science and Technology
  Understanding and Controlling Listeria Monocytogenes Transmission through Ready-to-Eat Meat Products
  $222,270  Colorado State University

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

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

Thomas, Steven  Natural Resources
  FIBR: Linking Genes to Ecosystems
  $341,084  University of California-Riverside

Trainin, Guy  Teaching, Learning and Teacher Education
  Arts Linc
  $261,674  Lake Elsinore USD

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

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

Uiterwaal, Kees  Physics and Astronomy
  * Molecules and Intense Light in a Photodynamical Test Tube
  $440,000  NSF

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

$200,000 — $999,999
Umstadter, Donald  Physics and Astronomy
* Research and Development of High Power Laser Driven Electron Accelerator, Phase II
$899,823  DOD-DARPA
Banerjee, Sudeep  Physics and Astronomy
Shadwick, Bradley  Physics and Astronomy
   Laser Produced Coherent X-Ray Sources
$645,000  Department of Energy
Banerjee, Sudeep  Physics and Astronomy

Van Etten, James  Plant Pathology
Center for Innovation in Membrane Protein Production
$553,105  University of California, San Francisco
Dunigan, David  Plant Pathology

Variyam, Vinodchandran  Computer Science and Engineering
* AF: Small: Studies in Nonuniformity, Completeness and Reachability
$272,031  NSF

Velipasalar, Senem  Electrical Engineering
CSR-DMSS, SM: Cooperative Activity Analysis in Wireless Smart-Camera Networks (Wi-SCaNs)
$300,000  NSF
Gursoy, Mustafa  Electrical Engineering

Wagner, William  Biological Sciences
Effects of Predation by a Phonotactic Parasitoid on Male and Female Reproductive Behavior in a Field Cricket
$505,414  NSF
Communication of Direct Mating Benefits to Females
$313,283  NSF

Waller, Steven  Agricultural Sciences and Natural Resources
Agriculture in the Classroom
$302,366  Nebraska Foundation for Agricultural Awareness

Walstad, William  Economics
Interactive Teaching in Undergraduate Economic Courses
$674,928  NSF

Wang, Dong  Statistics
* Expanding the Scope of Association Mapping in Important Crop Species with Methodology Development in Statistics
$282,000  Department of Agriculture-AFRI
Eskridge, Kent  Statistics
Baenziger, P. Stephen  Agronomy and Horticulture
Dweikat, Ismail  Agronomy and Horticulture

Wang, Jun  Geosciences
Regional Air Quality and Climate Impact of Biomass-Burning Aerosols from Central America: An Analysis with EOS Data and Numerical Models
$300,676  NASA
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Source and Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weisz, Victoria</td>
<td>Center on Children, Families and the Law</td>
<td>Nebraska State Court Improvement Supreme Court of Nebraska</td>
</tr>
<tr>
<td>Wiebe, Sandra</td>
<td>Psychology/Research and Economic Development</td>
<td>$403,781 DHHS-NIH-NIDA</td>
</tr>
<tr>
<td>Espy, Kimberly Andrews</td>
<td>Psychology/Research and Economic Development</td>
<td>$403,781 DHHS-NIH-NIDA</td>
</tr>
<tr>
<td>Wiegand, Roger</td>
<td>Mathematics</td>
<td>GAANN Fellowship Program: Mathematics at UNL Department of Education</td>
</tr>
<tr>
<td>Lewis, Jim</td>
<td>Mathematics</td>
<td>$522,624 Department of Education</td>
</tr>
<tr>
<td>Walker, Judy</td>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td>Meakin, John</td>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td>Bellows, Laurie</td>
<td>Graduate Studies</td>
<td></td>
</tr>
<tr>
<td>Wiener, Richard</td>
<td>Psychology</td>
<td>REU Site: Psychology and Law NSF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-referencing, Social Identity &amp; Judgments of Sexual Harassment NSF</td>
</tr>
<tr>
<td>Wilson Jr., Robert</td>
<td>Panhandle Research and Extension Center</td>
<td>$880,000 Monsanto Co.</td>
</tr>
<tr>
<td>Woldt, Wayne</td>
<td>Biological Systems Engineering</td>
<td>Advancing Onsite Wastewater Treatment in Nebraska</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$259,742 Nebraska Department of Environmental Quality</td>
</tr>
<tr>
<td>Skipton, Sharon</td>
<td>Southeast Research and Extension Center</td>
<td></td>
</tr>
<tr>
<td>Wood, Charles</td>
<td>Biological Sciences/Nebraska Center for Virology</td>
<td>$273,363 DHHS-NIH-NIMH</td>
</tr>
<tr>
<td></td>
<td>Research and Training on HIV/AIDS Neuropathogenesis in Zambia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vaccination against Mucosal HIV Clade C Transmission Dana-Farber Cancer Institute</td>
<td></td>
</tr>
</tbody>
</table>

$200,000 — $999,999
Woodward, Gordon  
Mathematics  
Increasing Participation in Computer Science, Engineering, & Mathematics through NSF Scholarships at UNL  
$400,000 NSF  
Ballard, John  
Engineering  
Ramamurthy, Byrav  
Computer Science and Engineering  
Goddard, Steve  
Computer Science and Engineering  
Lee, Kevin  
Arts & Sciences  

Nebraska REU in Applied Mathematics  
$251,823 NSF  
Rebarber, Richard  
Mathematics  

Wortmann, Charles  
Agronomy and Horticulture  
Integrated Approach to Reduced Risk of Phosphorus Pollution of Surface Waters in Crop-Livestock Based Managed Ecosystems of the Midwest  
$235,839 Nebraska Corn Board  
Erickson, Galen  
Animal Science  
Schulte, Dennis  
Biological Systems Engineering  
Franti, Tom  
Biological Systems Engineering  
Jose, H. Douglas  
Agricultural Economics  

Yang, Yiqi  
Textiles, Clothing and Design  
Resistance of Sulfur Dyed Fabrics to Oxidative Bleaching & Acidic Tendering: Improvement & Application  
$300,618 Procter & 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  

Zeng, Xiao Cheng  
Chemistry  
ITR: Multiscale Treatment of Systems with Strong Heterogeneities  
$715,121 NSF  
Diestler, Dennis  
Agronomy and Horticulture  
Feng, Ruqiang  
Engineering Mechanics  

Zera, Anthony  
Biological Sciences  
Enzymatic and Molecular Bases of Trade-Offs in Lipid Metabolism that Underlie Life History Trade-Off  
$441,682 NSF  
Harshman, Lawrence  
Biological Sciences
Zlotnik, Vitaly  Geosciences
Mechanisms Producing Variation in Lake Salinity in Dune Environments: Nebraska Sand Hills

$219,958  NSF
Fritz, Sherilyn  Geosciences
Swinehart, James  Natural Resources
American Recovery and Reinvestment Act (ARRA) Awards

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

Alfano, James  
Plant Pathology/Center for Plant Science Innovation  
* ARRA: EAGER: Plant Chromatin Remodeling in Response to the Bacterial Pathogen Pseudomonas syringae  
$299,929  NSF

Avalos, George  
Mathematics  
* ARRA: Analysis, Computation and Control of Coupled Partial Differential Equation Systems  
$182,898  NSF

Barletta, Raul  
Veterinary and Biomedical Sciences  
* ARRA: Isolation and Verification of Mycobacterium tuberculosis Mutant Strains  
$67,497  Texas A & M University
Barletta-Chacon, Ofelia  Veterinary and Biomedical Sciences

Barycki, Joseph  
Biochemistry  
* ARRA: Structural Insights into Redox Homeostasis: Supplement  
$333,085  DHHS-NIH-NIGMS
Simpson, Melanie  Biochemistry

Benson, Andrew  
Food Science and Technology  
* ARRA: Genetic Control over the Gut Microbiome Composition  
$997,732  DHHS-NIH-NIDDK
Walter, Jens  Food Science and Technology
Moriyama, Etsuko  Biological Sciences/Center for Plant Science Innovation

Berkowitz, David  
Chemistry  
* ARRA: Antibiotic Properties of Artificial Agonists for a Bacterial Riboswitch  
$38,950  Creighton University

Bevins, Rick  
Psychology  
* ARRA: Acquired Appetitive Properties of Nicotine  
$533,413  DHHS-NIH-NIDA

Black, Paul  
Biochemistry  
* ARRA: Fatty Acid Transport in Eukaryotes  
$627,878  DHHS-NIH-NIGMS
DiRusso, Concetta  Nutrition and Health Sciences/Biochemistry

Blum, Paul  
Biological Sciences  
* ARRA: Metabolic Engineering Studies of Extreme Thermoacidophily  
$130,220  North Carolina State University
Chandra, Namas  Engineering
  * ARRA: Factors that Facilitate or Inhibit Enrollment of Domestic Engineering PhD Students: A Mixed Methods Study
  $149,851  NSF
  Weissinger, Ellen  Graduate Studies
  Smith, Michelle Howell  Graduate Studies

Crabtree, Kay  Biological Sciences/Nebraska Center for Virology
  * ARRA: Epidemiology of HHV-8 Transmission in Lusaka, Zambia
  $31,734  DHHS-NIH-NIAID
  Wood, Charles  Biological Sciences/Nebraska Center for Virology

Curto, Carina  Mathematics
  * ARRA: Stimulus Representation and Spontaneous Activity in Recurrent Networks
  $109,635  NSF

Diamond, Judy  University of Nebraska State Museum
  * ARRA: World of Viruses Supplement to NIH-NCCR Grant
  $200,000  DHHS-NIH-NCCR
  Cottingham, Ian  Computer Science and Engineering
  Dugas, William  University Television
  Wagler, Adam  Journalism and Mass Communications
  Angeletti, Anisa  Biological Sciences

Du, Liangcheng  Chemistry
  * ARRA: Biosynthesis of HSAF, an Antifungal Natural Product with a Novel Mode of Action
  $49,028  DHHS-NIH-NIAID

Frank, Tracy  Geosciences
  * ARRA: Acquisition of a Carbon Analyzer to Support Research in Sedimentary Systems
  $31,036  NSF

Gay, Timothy  Physics and Astronomy
  * ARRA: Polarized Electron Physics
  $610,000  NSF

Green, Jordan  Special Education and Communication Disorders
  * ARRA: Early Speech Motor Development – Equipment
  $98,000  DHHS-NIH-NIDCD

Hanson, Paul  Natural Resources
  * ARRA: REU Site: Dune Undergraduate Geomorphology and Geochronology Project in Wisconsin
  $45,331  NSF
  * ARRA: Linking Loess Landforms and Eolian Processes
  $45,730  NSF
<table>
<thead>
<tr>
<th>Name</th>
<th>Department/Center</th>
<th>ARRA Project</th>
<th>Amount</th>
<th>Funding Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris, Steven</td>
<td>Plant Pathology/Center for Plant Science Innovation</td>
<td>* ARRA: Evolutionary Genetics of Morphogenetic Regulatory Systems in Fungi</td>
<td>$392,796</td>
<td>NSF</td>
</tr>
<tr>
<td>Hartke, Stephen</td>
<td>Mathematics</td>
<td>* ARRA: Computerized Search for Combinatorial Objects</td>
<td>$220,000</td>
<td>NSF</td>
</tr>
<tr>
<td>Hogan, Tiffany</td>
<td>Special Education and Communication Disorders</td>
<td>* ARRA: The Lexicon and Phoneme Awareness</td>
<td>$73,738</td>
<td>DHHS-NIH-NIDCD</td>
</tr>
<tr>
<td>Kaul, Robert</td>
<td>University of Nebraska State Museum</td>
<td>* ARRA: Development of a Multi-Herbarium Web-Accessible Database of the Vascular Plants from the Missouri Plateau, U.S.A.</td>
<td>$26,003</td>
<td>Black Hills State University</td>
</tr>
<tr>
<td>Kravchenko, Ilya</td>
<td>Physics and Astronomy</td>
<td>* ARRA: Upgrade of CMS Level 1 Trigger by Addition of Pixel Detector Data, and Search for SM Higgs Boson at CMS</td>
<td>$140,000</td>
<td>NSF</td>
</tr>
<tr>
<td>Li, Yusong</td>
<td>Civil Engineering</td>
<td>* ARRA: Fate and Transport of Metal-Based Nanoparticles in the Subsurface</td>
<td>$27,279</td>
<td>Tufts University</td>
</tr>
<tr>
<td>Meagher, Michael</td>
<td>Chemical and Biomolecular Engineering</td>
<td>* ARRA: Recombinant Protein-based Adjuvant for Cellular Immunity</td>
<td>$1,593,822</td>
<td>PharmaReview Corporation, Chemical and Biomolecular Engineering</td>
</tr>
<tr>
<td>Moriyama, Etsuko</td>
<td>Biological Sciences/Center for Plant Science Innovation</td>
<td>* ARRA: Efficient and Sensitive Mining System for G-Protein Coupled Receptors</td>
<td>$95,017</td>
<td>DHHS-NIH-NLM</td>
</tr>
<tr>
<td>Nowak, Andrzej</td>
<td>Civil Engineering</td>
<td>* ARRA: IRES Poland: Experience in Civil Infrastructure Systems</td>
<td>$144,108</td>
<td>NSF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rilett, Laurence</td>
<td>Civil Engineering</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Szerszen, Maria</td>
<td>Civil Engineering</td>
<td></td>
</tr>
<tr>
<td>Othman, Shadi</td>
<td>Biological Sciences</td>
<td>* ARRA: Regenerative Elastography: Monitoring Soft Tissue Reconstruction</td>
<td>$144,900</td>
<td>DHHS-NIH-NIBIB</td>
</tr>
</tbody>
</table>
Paul, Prem  Research and Economic Development  
* ARRA: Nebraska Center for Virology Facility Expansion  
$8,000,000  
Wood, Charles  Biological Sciences/Nebraska Center for Virology

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

Qiao, Wei  Electrical Engineering  
* ARRA: Online Noninvasive Condition Monitoring and Fault Detection for Wind Turbines  
$380,398  
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  
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  
Schubert, Mathias  Electrical Engineering  
* ARRA: Effects of Polarization Fields and Surface Charge Layers on p-type Conductivity in In(Ga)N  
$231,857  
Shield, Jeffrey  Mechanical Engineering  
ARRA: REU Site:  
* Undergraduate Research Opportunities in Nanomaterials and Nanoscience at the University of Nebraska–Lincoln  
$360,000  
Enders, Susan  Engineering Mechanics

Simpson, Melanie  Biochemistry  
* ARRA: Nebraska Center for Cellular Signaling  
$69,985
Somerville, Greg  Veterinary and Biomedical Sciences
  * ARRA: Antibiotic Pressure and Selection of TCA Cycle Mutants in Staphylococcus Epidermidis
  $82,497  UNMC-University of Nebraska Medical Center

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

Moriyama, Hideaki  Biological Sciences

Subramanian, Anuradha  Chemical and Biomolecular Engineering
  * ARRA: Design and Evaluation of Ultrasound Stimulation-Aided Bioreactor Configurations
  $533,941  DHHS-NIH-NCRR

Turner, Joseph  Engineering Mechanics

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

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

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
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Description</th>
<th>Award (in USD)</th>
<th>Funding Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood, Charles</td>
<td>Biological Sciences/Nebraska Center for Virology</td>
<td>* ARRA: Immunofocusing for Kaposi’s Sarcoma-Associated Herpesvirus Neutralizing Epitopes</td>
<td>$990,796</td>
<td>DHHS-NIH-National Cancer Institute</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* ARRA: Nebraska Center for Virology T1</td>
<td>$499,826</td>
<td>DHHS-NIH-NCRR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* ARRA: Vaccination Against Mucosal HIV Clade C Transmission</td>
<td>$251,363</td>
<td>Dana-Farber Cancer Institute</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* ARRA: Nebraska Center for Virology</td>
<td>$199,000</td>
<td>DHHS-NIH-NCRR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* ARRA: Programs in HIV and AIDS-Associated Diseases/Malignancies</td>
<td>$172,800</td>
<td>DHHS-NIH-Fogarty International Center</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* ARRA: Kaposi’s Sarcoma and Human Herpesvirus in Africa</td>
<td>$149,600</td>
<td>DHHS-NIH-National Cancer Institute</td>
</tr>
<tr>
<td>Zempleni, Janos</td>
<td>Nutrition and Health Sciences</td>
<td>* ARRA: Novel Histone Biotinylation Sites and Relationships to Other Epigenetic Marks</td>
<td>$535,463</td>
<td>DHHS-NIH-NIDDK</td>
</tr>
<tr>
<td>Zhang, Shunpu</td>
<td>Statistics</td>
<td>* ARRA: A Computational Genotyping System for Improved Influenza Surveillance</td>
<td>$203,488</td>
<td>UNO-University of Nebraska-Omaha</td>
</tr>
<tr>
<td>Zhang, Luwen</td>
<td>Biological Sciences/Nebraska Center for Virology</td>
<td>* ARRA: Modulation of Apoptosis by IRF-4 in EBV Transformation</td>
<td>$545,682</td>
<td>DHHS-NIH-National Cancer Institute</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* ARRA: Oncogenic Properties of Interferon Regulatory Factor 7</td>
<td>$25,724</td>
<td>DHHS-NIH-National Cancer Institute</td>
</tr>
</tbody>
</table>
**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>
</tr>
</thead>
<tbody>
<tr>
<td>Binek, Christian</td>
<td>Physics and Astronomy</td>
<td>Education &amp; Research on Nanoscale Spintronic Systems &amp; Heterostructures</td>
<td>$500,000</td>
<td>NSF</td>
</tr>
<tr>
<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>
<td>NSF</td>
</tr>
<tr>
<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>
<td>NSF</td>
</tr>
<tr>
<td>Dominguez, Aaron</td>
<td>Physics and Astronomy</td>
<td>Superior Silicon Tracking &amp; Discovery as CMS &amp; D0</td>
<td>$550,000</td>
<td>NSF</td>
</tr>
<tr>
<td>Elbaum, Sebastian</td>
<td>Computer Science and Engineering</td>
<td>Leveraging Field Data to Test Pervasive Systems</td>
<td>$412,594</td>
<td>NSF</td>
</tr>
<tr>
<td>Enders, Axel</td>
<td>Physics and Astronomy</td>
<td>Self-Assembled Magnetic Nanostructures</td>
<td>$400,000</td>
<td>NSF</td>
</tr>
<tr>
<td>Name</td>
<td>Department</td>
<td>Project Title</td>
<td>Award Amount</td>
<td>Funding Agency</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Frank, Tracy</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>
<td>NSF</td>
</tr>
<tr>
<td>Gursoy, Mustafa</td>
<td>Electrical Engineering</td>
<td>CAREER: Energy-Efficient Wireless Communications under Channel Uncertainty</td>
<td>$400,000</td>
<td>NSF</td>
</tr>
<tr>
<td>Hebets, Eileen</td>
<td>Biological Sciences</td>
<td>Evolution and Function of Complex Signaling in Wolf Spider Genus Schizocosa</td>
<td>$680,351</td>
<td>NSF</td>
</tr>
<tr>
<td>Kim, Yong Rak</td>
<td>Civil Engineering</td>
<td>Research &amp; Education on Advanced Multiscale Modeling-Analysis of Roadway Materials, Mixtures, &amp; Infrastructure Systems</td>
<td>$402,044</td>
<td>NSF</td>
</tr>
<tr>
<td>Schubert, Eva</td>
<td>Electrical Engineering</td>
<td>* Chiral Nanostructure Hybrid Materials for Application in Terahertz Resonator and Magnetic Storage Devices</td>
<td>$400,000</td>
<td>NSF</td>
</tr>
<tr>
<td>Xu, Lisong</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>
<td>NSF</td>
</tr>
</tbody>
</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
**Arts and Humanities Awards**

**$50,000 or more**

*Active awards in 2009*  
*Indicates new in 2009*

---

**Awakuni-Swetland, Mark**  
**Anthropology/Ethnic Studies**  
Omaha and Ponca Digital Dictionary  
$348,800  
National Endowment for the Humanities  
9/1/08 – 8/31/11  
Walter, Katherine  
Center for Digital Research in the Humanities/Libraries

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

---

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

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

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

Received 6/23/09

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

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

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

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

Kooser, Ted  English

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

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

With support from the National Endowment for the Humanities, history professor William Thomas plans to develop useful tools for spatio-temporal visualization of data on the railroad system and the relationships among them. Because the railroad “system” and its spatio-temporal configuration appear differently from locality to locality and region to region, it’s important to adjust how the system is “located” and “seen.” By applying data mining and pattern recognition techniques, software systems can be created that dynamically redefine the way spatial data are represented. Utilizing processes common to analysis in computer science, researchers will develop a software framework that allows these embedded concepts to be visualized and further studied.
Walter, Katherine  
University Libraries/Center for Digital Research in the Humanities

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

Katherine Walter, professor of libraries, with support from the National Endowment of the Humanities, is building a technical infrastructure and institutional framework that will enable centerNet, a nascent international network of digital humanities centers, to play a vital role in developing both national and international cyberinfrastructure and become a stable, self-supporting organization. Included in the plan are a one-time worldwide summit of digital humanities centers and funders to discuss possible emergent programs. Through centerNet, digital humanities centers can collaborate and maximize their capacity for sparking further innovation in the digital humanities.

National Digital Newspaper Program: Nebraska

$563,012  
National Endowment for the Humanities  
7/1/07 – 6/30/11

Wunder, John  Journalism and Mass Communications
Mering, Margaret  Center for Digital Research in the Humanities
Pytlik Zillig, Brian  Center for Digital Research in the Humanities

Walter, who co-directs UNL’s Center for Digital Research in the Humanities, leads the Nebraska Digital Newspapers Project, through which about 100,000 pages of Nebraska newspapers from 1880 through 1910 will be digitized for inclusion in the Library of Congress’ national “Chronicling America” Web site. UNL’s University Libraries is partnering with the College of Journalism and Mass Communications and the Nebraska State Historical Society on the two-year, “We the People” grant. Nebraska is one of nine states selected in the early phases of this project, which eventually will include all 50 states. “We the People” grants recognize model projects that advance the study, teaching and understanding of American history and culture.
Arts and Humanities Awards
$5,000—$49,999
Active awards in 2009
* Indicates new in 2009

Dreher, Kwakiutl  English/Ethnic Studies
* Blacks in Film Festival 2009
$5,000  Woods Charitable Fund

Elias Rowley, Kristen  University of Nebraska Press
Literary Publishing at the University of Nebraska Press
$20,000  National Endowment for the Arts

Engen-Wedin, Nancy  Teaching, Learning and Teacher Education/Lied Center for Performing Arts
* Lied Center Community Engagement Touring Grant – MAAA
$10,819  Mid-America Arts Alliance
Nebraska’s Rural Arts Education Initiative
$25,000  National Endowment for the Arts
ArtsReach
$50,000  Nebraskans for the Arts

Umo‘ho‘ Cultural Arts Program
$15,000  Kennedy Center for Performing Arts

Jewell, Andrew  University Libraries/Center for Digital Research in the Humanities
The Crowded Page
$49,577  National Endowment for the Humanities
Mapping a Writer’s World: A Geographic Chronology of Willa Cather’s Life
$7,800  Nebraska Humanities Council

Richmond, John  Music
2009 Honors Jazz Weekend & Summer Camp
$10,000  Berman Music Foundation
Haar, Ora  Music

Stubbendieck, James  Agronomy and Horticulture/Center for Great Plains Studies
Celebrating Darwin’s Legacy
$8,960  Nebraska Humanities Council

Wahlqvist, Petra  Lied Center for Performing Arts
Loop Divers by Troika Ranch
$35,000  Woods Charitable Fund/Lincoln Community Foundation
Weiss, Wendy  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
Fischer, Rebecca
Beaver, Gregory
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: Effective Combinations with 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
P. Stephen Baenziger, Agronomy and Horticulture
Technology: ‘Camelot’ Hard Red Winter Wheat
Technology: ‘Mace’ Hard Red Winter Wheat (licensed to three companies)
Technology: ‘Settler CL’ Hard Red Winter Wheat (licensed to two companies)
Technology: NE01643 (Overland) Hard Red Winter Wheat (licensed to two companies)

P. Stephen Baenziger and Mary Shipman, both Agronomy and Horticulture; Drew Lyon, Panhandle Research and Extension Center; Alexander Martin, Agronomy and Horticulture
Technology: ‘Infinity’ Hard Red Winter Wheat, formerly NH01046

CALMIT
Technology: Supplemental Type Certificate for Piper Saratoga Camera Ports

George Graef, Leslie Korte and Dennis White, all Agronomy and Horticulture
Technology: U98-311442 Soybean

Dale Lindgren, Agronomy and Horticulture
Technology: Clematis Groundcover Hybrid 26045

Fernando Osorio, Veterinary and Biomedical Sciences
Technology: mAb Anti-peptide 201 Hybridoma Cell Line

Jody Redepenning, Chemistry
Technologies: Electrolytic Deposition of Coatings for Prosthetic Metals and Alloys; Bioreparable Composites and Method of Formation Thereof; Bioreparable Polymer Reconstituted Bone and Methods of Formation Thereof; Chemical Vapor Deposition (CVD) Polymerization onto Nucleophilic Surfaces; Bioreparable 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  
Conductor, *International Flute Orchestra*, Krakow, Zakopane, Warsaw and Gdansk, Poland

Chris Ford  

Dana Fritz  

Xia Gao  
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  

Karen Kunc  
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  
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  Computer and Electronics Engineering  
Author, with Haohong Wang, Lisimachos Kondi and Ajay Luthra.  
4G Wireless Video Communications. West Sussex, UK: Wiley.

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

Rochelle L. Dalla  Child, Youth and Family Studies  

Rafael J. de Ayala  Educational Psychology  

Robert C. Denicola  Law  

Judy Diamond  University of Nebraska State Museum  

Wheeler Winston Dixon  English  

Beth Doll  Educational Psychology  

Allan P. Donsig  Mathematics  

Peter A. Dowben  Physics and Astronomy  

Judy A. Driskell  Nutrition and Health Sciences  

Editor. Nutrition and Exercise Concerns of Middle Age. Boca Raton, FL: Taylor and Francis Group, CRC Press.
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
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
Author. *Lights on a Ground of Darkness: An Evocation of a Place and Time.* Lincoln, NE: University of Nebraska Press.

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

Stephen E. Lahey  
Classics and Religious Studies  

Brian D. Lepard  
Law  

Carole Levin  
History/Medieval & Renaissance Studies  


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  

David L. Olson  
Management  

Tom Osborne  
Athletics  
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.

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

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
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 1 Fellowship, Alexander S. Onassis Public Benefit Foundation, Athens, Greece

Bruce I. Dvorak  
Civil Engineering/Biological Systems Engineering  
2009 Samuel Arnold Greeley Award, American Society of Civil Engineers

Carolyn P. Edwards  
Psychology/Child, Youth and Family Studies  
Lifetime Achievement Award, North American Reggio Emilia Alliance

Galen E. Erickson  
Animal Science  
Early Career Achievement Award, American Society of Animal Science
Kelly A. Feehan  
Northeast Research and Extension Center  
Blue Ribbon Award, American Society of Agricultural and Biological Engineers

Ruqiang Feng  
Engineering Mechanics  
Fellow, American Society of Mechanical Engineers

Chris T. Ford  
Architecture Program  
2009 AIA Upjohn Research Initiative Award, American Institute of Architects (AIA) Board Knowledge Committee and the AIA College of Fellows

David P. Forsythe  
Political Science  
Fulbright Scholar, Denmark, Council for the International Exchange of Scholars  

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
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Recognition and Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alice C. Henneman</td>
<td>Southeast Research and Extension Center</td>
<td>Helen Denning Ullrich Annual Award of Excellence, Society for Nutrition Education</td>
</tr>
<tr>
<td>Kyle D. Hoagland</td>
<td>Natural Resources</td>
<td>Outstanding Service Award, National Institutes for Water Resources</td>
</tr>
<tr>
<td>Laurie Hodges</td>
<td>Agronomy and Horticulture</td>
<td>Outstanding Horticultural Education Publication, American Society for Horticultural Science</td>
</tr>
<tr>
<td>Lesa R. Hoffman</td>
<td>Psychology</td>
<td>Elected member, Society for Multivariate Experimental Psychology</td>
</tr>
<tr>
<td>Tiffany P. Hogan</td>
<td>Special Education and Communication Disorders</td>
<td>Fellow, American Speech Language Hearing Association</td>
</tr>
<tr>
<td>Debra Anne Hope</td>
<td>Psychology</td>
<td>President, Association of Behavioral and Cognitive Therapies</td>
</tr>
<tr>
<td>Terry J. Housh</td>
<td>Nutrition and Health Sciences</td>
<td>Terry J. Housh Young Investigator Award, National Strength and Conditioning Association</td>
</tr>
<tr>
<td>Roger M. Hoy</td>
<td>Biological Systems Engineering</td>
<td>Standards Developer Award, American Society of Agricultural and Biological Engineers</td>
</tr>
<tr>
<td>Thomas E. Hunt</td>
<td>Northeast Research and Extension Center</td>
<td>National Excellence in Multistate Research Award, Association of Public and Land-Grant Universities</td>
</tr>
<tr>
<td>Scott H. Hutchins</td>
<td>Entomology</td>
<td>Fellow, Entomological Society of America</td>
</tr>
<tr>
<td>Suat Irmak</td>
<td>Biological Systems Engineering</td>
<td>Innovative Extension Methods and Impact Assessment-Educational Programs Competition, American Society of Agricultural and Biological Engineers</td>
</tr>
<tr>
<td>David D. Jones</td>
<td>Biological Systems Engineering</td>
<td>Presidential Citation, Institute of Biological Engineering</td>
</tr>
<tr>
<td>Scott J. Josiah</td>
<td>Nebraska State Forest Service</td>
<td>Two Chiefs Partnership Award, U.S. Forest Service and USDA Natural Resources Conservation Service</td>
</tr>
<tr>
<td>Shripat T. Kamble</td>
<td>Entomology</td>
<td>Honorary Member, Entomological Society of America</td>
</tr>
<tr>
<td>Deepak R. Keshwani</td>
<td>Biological Systems Engineering</td>
<td>Boyd-Scott Graduate Research Award, American Society of Agricultural and Biological Engineers</td>
</tr>
</tbody>
</table>
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


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


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

RECOCITIONS AND HONORS
Kenneth M. Price  
President, Association for Documentary Editing  
English/Center for Digital Research in the Humanities

Helen H. Raikes  
Comprehensive Members Book Selection, National Association for the Education of Young Children (NAEYC)  
Child, Youth and Family Studies

Kamlakar P. Rajurkar  
SME Gold Medal, Society of Manufacturing Engineers  
Industrial and Management Systems Engineering

Richard J. Rasby  
Award for Excellence in Extension, National Association of State Universities and Land-Grant Colleges  
Animal Science

Brett C. Ratcliffe  
Outstanding Paper Presentation at the SOLA Symposium, Entomological Society of America  
Entomology

Bryan A. Reiling  
Fellow Award, North American Colleges and Teachers of Agriculture  
Animal Science

Sheila E. Scheideler  
Certificate of Achievement, International Poultry Scientific Forum  
Animal Science

James W. Schneider  
Innovative Extension Methods and Impact Assessment, American Society of Agricultural and Biological Engineers  
Southeast Research and Extension Center

David P. Shelton  
Blue Ribbon Award, American Society of Agricultural and Biological Engineers  
Biological Systems Engineering/Northeast Research and Extension Center

Janice E. Stauffer  
Gold Medallion Award, Kennedy Center American College of Theater Festival  
Johnny Carson School of Theatre and Film

James R. Steadman  
Outstanding Career Service Award, American Phytopathological Society  
Plant Pathology

David J. Steffen  
Distinguished Service Award, American Association of Veterinary Laboratory Diagnosticians  
Veterinary and Biomedical Sciences

Paul A. Steger  
Invited Member, National Theatre Conference  
Johnny Carson School of Theatre and Film
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.

The University of Nebraska-Lincoln does not discriminate based on gender, age, disability, race, color, religion, marital status, veteran’s status, national or ethnic origin, or sexual orientation. © 2010, The Board of Regents of the University of Nebraska. All rights reserved.