2006 Major Sponsored Program and Faculty Awards for Research & Creative Activity

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2006 MAJOR SPONSORED PROGRAM AND FACULTY AWARDS FOR RESEARCH & CREATIVE ACTIVITY

OFFICE OF RESEARCH & GRADUATE STUDIES AT THE UNIVERSITY OF NEBRASKA–LINCOLN
On the Cover: A photo illustration of UNL's Diocles Laser, a 100-terawatt, ultra-fast laser with the highest combination of peak and average power of any laser in the United States.
This is the fifth annual “Major Sponsored Program and Faculty Awards for Research and Creative Activity” report. This booklet highlights the successes of University of Nebraska–Lincoln faculty during 2006. The funding sources, projects and investigators on major grants and sponsored program awards received during the year are listed, as well as patents issued; published books and scholarship; fellowships and other recognitions; intellectual property licenses; and performances and exhibitions in the fine and performing arts. This impressive list grows each year and I am pleased to present evidence of our faculties’ accomplishments.

During FY2005-06, we achieved a funding milestone — UNL faculty attracted $104.6 million in external funding to the institution. This is the first time we exceeded $100 million and this in fact tripled the comparable figure achieved ten years ago.

How have we reached this success? We have worked to closely integrate our research priorities with our established programs of excellence building on each success. We zealously foster interdisciplinary research and collaborations with public and private partnerships, thus expanding our economic development efforts by working with business and industry. And we celebrate our achievements and recognize that excellence attracts excellence.

This booklet reports only the largest dollar amounts as reported through our Office of Sponsored Programs. However, the majority of our research and creative activity is conducted by single investigators and scholars who are pioneering new frontiers across all fields. Many faculty obtain funding at levels below the significantly high thresholds set for inclusion in this report. This in no way diminishes their scholarly contributions and we are proud of all faculty achievement.

Thank you for your interest and support of research at UNL. We are on the move!

Prem S. Paul
Vice Chancellor for Research and Dean of Graduate Studies
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Project Title</th>
<th>Award Amount</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen, David</td>
<td>Engineering</td>
<td>Blast Wave Absorbing Structures: an Experimental &amp; Modeling Program</td>
<td>$7,500,000</td>
<td>DOD-Army Research Laboratory</td>
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<td></td>
<td>6/25/04 – 6/24/09</td>
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<td></td>
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<td>David Allen, dean of the College of Engineering and professor of engineering</td>
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<td>mechanics, with funding from the Army Research Laboratory-Weapons and Materials</td>
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<td>Research Directorate, directs a collaborative effort focused on development</td>
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<td>of new materials and technologies relevant to blast mitigation and weapons</td>
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<td>detection. The program includes 24 UNL faculty from six different departments—</td>
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<td></td>
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<td>civil engineering, structural engineering, chemical and biomolecular</td>
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<td></td>
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<td>engineering, electrical engineering, engineering mechanics and mechanical</td>
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<td>engineering—working on 15 multidisciplinary projects. The projects have the</td>
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<td></td>
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<td>common objective of providing new materials and technologies for blast</td>
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<td></td>
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<td>mitigation, mine detection and pathogen detection.</td>
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<td>Banerjee, Ruma</td>
<td>Biochemistry</td>
<td>Redox Biology Center</td>
<td>$10,190,697</td>
<td>DHHS-NIH-NCRR</td>
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<td></td>
<td>9/30/02 – 8/31/07</td>
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<td>Ruma Banerjee, George Holmes University professor of biochemistry in the</td>
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<td>Institute of Agriculture and Natural Resources, is the director of the Redox</td>
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<td>Biology Center. The center was established in 2002 with a grant from the</td>
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<td>National Institutes of Health as a Center of Biomedical Research Excellence.</td>
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<td>The center’s researchers investigate how cells maintain a reduction-oxidation</td>
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<td>balance, a process called redox homeostasis, and study links between redox</td>
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<td></td>
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<td>homeostasis and diseases such as cancer, cardiovascular disease, Alzheimer’s</td>
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<td>disease and cataracts. The center’s research will provide important advances</td>
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<td>in the understanding of redox regulation, comprising aspects of cellular</td>
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<td>aging and controlled cell death.</td>
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<td>Cassman, Kenneth</td>
<td>Nebraska Center for Energy</td>
<td>* Nebraska Center for Energy Sciences</td>
<td>$5,000,000</td>
<td>Nebraska Public Power District</td>
</tr>
<tr>
<td></td>
<td>Sciences, Agronomy and</td>
<td>Kenneth Cassman directs the Nebraska Center for Energy Sciences Research,</td>
<td></td>
<td>Vice Chancellor for Research and Dean of</td>
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<td></td>
<td>Horticulture</td>
<td>a collaboration between UNL and the Nebraska Public Power District. The</td>
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<td>Graduate Studies</td>
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<td>center was established in April 2006 with NPPD’s five-year, $5 million</td>
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<td>commitment to support energy research that produces new technologies,</td>
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<td>processes and systems that provide new or</td>
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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.

**Cotton, Dan**  
Cooperative Extension  
eXtension—The Transformation of Cooperative Extension  
$6,800,000 (through 12/31/07) National Association of State Universities and Land-Grant Colleges

Dan Cotton directs the eXtension Initiative, an Internet-based land-grant university education and information system. UNL is the lead institution in this multi-year project, which partners with the University of Kentucky and North Carolina State 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.

**Epstein, Michael**  
Special Education and Communication Disorders  
Center for Behavior and Reading  
Dept. of Education

Michael Epstein, William Barkley Professor of special education and communication disorders, and co-investigator Ron Nelson, associate research professor of special education and communication disorders, have established the Center for Behavior and Reading in the Center for At-Risk Children’s Services to focus on implementing and evaluating reading and behavior intervention programs for school-aged children. The aim of their research is to assess the overall and intervention-specific effects of various programs on school, staff, child and family levels. The project is funded by the U.S. Department of Education and involves seven participating schools in Lincoln’s public school system.

**Fromm, Michael**  
Metabolite Signaling Center  
A Protein Interaction Database for Rice Protein Kinases  
$6,057,747  
9/1/02 – 8/31/07

Michael Fromm, director of the Center for Biotechnology and a professor of agronomy and horticulture in the Institute of Agriculture and Natural Resources, is the Plant Genome Research Center’s principal investigator. The center was established in 2002 with a grant from the National Science Foundation and involves scientists from six universities. Research at the center focuses on protein kinases of plants, in particular those of cereal crops. Protein kinases are enzymes that affect the way plants react to their environments. Manipulating kinases could provide a means of regulating the tolerance of plants to disease and environmental stresses, such as drought and temperature extremes.

**Goddard, Stephen**  
Drought Risk, Impact and Mitigation Information System  
$6,407,473  
2/1/02 – 1/31/07

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

Harwood, David
Geosciences
ANDRILL: Investigating Antarctica’s Role in Cenozoic Global Environmental Change
$12,978,160 NSF
6/1/05 – 5/31/10
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, Ohio State University and the University of Massachusetts Amherst. The project also includes scientists from Germany, Italy and New Zealand.

Jose, H. Douglas
Agricultural Economics
North Central Risk Management Education Center
$3,600,000 Dept. of Agriculture-CSREES
9/15/04 – 9/14/08
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
Math in the Middle Institute Partnership
$5,000,000 NSF
Ruth Heaton
Teaching, Learning and Teacher Education
Thomas McGowan
Teaching, Learning and Teacher Education
Barbara Jacobson
Lincoln Public Schools
8/1/04 – 7/31/09
Jim Lewis, professor of mathematics; Ruth Heaton, associate professor of teaching, learning and teacher education; Tom McGowan, professor of teaching, learning and teacher education; and Barbara Jacobson, curriculum director for Lincoln Public Schools, are co-leaders of a $5 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. During the five years of the project, about 120 teachers will participate in three in-residence summer sessions, four non-resident academic semesters and take 10 courses created by math and pedagogy experts. 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.

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 – 2/10/07
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.

Meagher is also collaborating with DynPort Vaccine Co., the University of Colorado, and the U.S. Army Medical Research Institute of Infectious Disease to develop a vaccine that protects against botulinum neurotoxin, a lethal agent that could be used for bioterrorism. The goal is to develop vaccines that protect against five subtypes of the toxin within the next one to two years and to develop a vaccine for the other two types within five years. The new vaccines could eliminate the threat of botulism as a weapon of mass destruction.
<table>
<thead>
<tr>
<th>Laurence Rilett</th>
<th>Civil Engineering</th>
<th>$6,225,000</th>
<th>2007 – 2010</th>
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</thead>
<tbody>
<tr>
<td>* Region 7 University Transportation Center</td>
<td>Department of Transportation—Research and Innovative Technology Administration</td>
<td></td>
<td>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 centers 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.</td>
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<tr>
<td>Sellmyer, David</td>
<td>Center for Materials Research</td>
<td>$5,491,000</td>
<td>9/1/02 – 8/31/08</td>
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<td>Materials Research Science &amp; Engineering Center; Nanomagnetic Structures</td>
<td>NSF</td>
<td>David Sellmyer, George Holmes Distinguished Professor in the department 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.</td>
</tr>
<tr>
<td>Sheridan, Susan</td>
<td>Parent Engagement and Learning Birth to Five</td>
<td>$5,087,110</td>
<td>9/26/03 – 9/30/08</td>
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<tr>
<td>Edwards, Carolyn</td>
<td>DHHS-NIH-NICHD Psychology</td>
<td></td>
<td>Susan M. Sheridan, Willa Cather professor of educational psychology, and co-investigator Carolyn Edwards, Willa Cather professor of psychology and family and consumer sciences, 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.</td>
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<tr>
<td>Tomkins, Alan</td>
<td>Community-Based &amp; Faith-Based Organization Partners in an Integrated System of Behavioral Health Care in Nebraska</td>
<td>$3,504,226</td>
<td>9/30/02 – 3/31/06</td>
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<tr>
<td>Edwards, Carolyn</td>
<td>DHHS-Admin for Children &amp; Families</td>
<td></td>
<td>Alan Tomkins, director of the Public Policy Center and professor of psychology and law, is leading a project funded by the U.S. Department of Health and Human Services. The goal is to enhance and expand the capacity of community- and faith-based organizations to provide high-quality services as part of an integrated system of behavioral health care to rural and urban communities. Among the hoped-for outcomes is to address the problem of insufficient resources by tapping into the extensive network of community- and faith-based organizations who offer behavioral health care services. The project will be a model for other states to emulate in coordinating and integrating these groups into an effective delivery system.</td>
</tr>
<tr>
<td>Velander, William</td>
<td>Chemical and Biomolecular Engineering</td>
<td>$9,794,346</td>
<td>9/6/05 – 8/31/10</td>
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<tr>
<td>Edwards, Carolyn</td>
<td>DHHS-NIH-NHLBI</td>
<td></td>
<td>William Velander, Donald R. Voelte Jr. and Nancy A. Keegan Endowed Chair in engineering, is principal investigator in a partnership funded by a $9.9 million grant from the National Institutes of Health/National Heart, Lung and Blood Institute. The goal is to develop an abundant, pure, safe and effective therapy for Hemophilia B using recombinant human coagulation proteins produced in the milk of transgenic pigs. The project builds on innovative bioengineering technologies.</td>
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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
Meagher, Michael  Chemical and Biomolecular Engineering
Van Cott, Kevin  Chemical and Biomolecular Engineering
Inan, Mehmet  Chemical and Biomolecular Engineering
8/1/05 – 10/31/08

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

Whitbeck, Les  Sociology
Cultural Resilience of Rural & Remote Ojibwe Families
$3,138,960  DHHS-NIH-NIMH
Hoyt, Dan  Sociology
7/1/02 – 6/30/07

Ojibwe Pathways Through the High School Years
$3,262,793  DHHS-NIH-NIDA
Johnson, Kurt  Sociology
Park, Mingue  Sociology
Hoyt, Dan  Sociology
9/3/05 – 6/30/12

Les Whitbeck, professor of sociology, is coordinating two major projects. The National Institute of Mental Health is funding a five-year project to identify precursors of mental disorders and to evaluate cultural risks and protective factors among a population of pre-teen Native children in the Upper Midwest area. A second project, funded by the National Institute on Drug Abuse, is a five-year project to investigate risk and resilience for early onset substance use and abuse among pre-teen Native children in the same region.

Wood, Charles  Biological Sciences
Nebraska Center for Virology
$10,354,057  DHHS-NIH-NCRR
9/26/05 – 4/30/10

Charles Wood, Lewis Lehr/3M University Professor of biological sciences, is the director of the Nebraska Center for Virology. The center, funded by the National Institutes of Health, combines the expertise and facilities of Nebraska’s leading biomedical research institutions: UNL, the University of Nebraska Medical Center and Creighton University. Center research addresses pathogenic and therapeutic aspects of some of the most devastating viral and neuroimmune disorders facing the global community, including AIDS, HIV-associated cancers, Alzheimer’s disease and chronic infections caused by herpes viruses and a new class of infectious agents called prions.

Kaposi’s Sarcoma & Human Herpesvirus in Africa
$3,036,741  DHHS-NIH-Nat Cancer Institute
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  IANR-Intl Programs
International Sorghum/Millet Collaborative Research Support Program (INTSORMIL)
$36,990,000  U.S. Agency for International Development
7/1/96 – 6/30/06
$9,000,000
* 9/30/06 – 9/29/11

John Yohe, associate professor in the department of agronomy and horticulture, directs the International Sorghum/Millet (INTSORMIL) Collaborative Research Support Program. INTSORMIL is a collaborative international organization that supports research focused on improving nutrition and increasing income in developing countries and the United States. Scientists from U.S. land grant universities collaborate with scientists in host countries in the development of technology to improve production and utilization of sorghum and millet and facilitate natural resource management. Their work is done in Africa, Eurasia, Latin America and the United States.
### Awards of $1 Million to $2,999,999

**Active awards in 2006**

* Indicates new in 2006

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Description</th>
<th>Funding Agency</th>
<th>Grant Amount</th>
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</thead>
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<tr>
<td>Banerjee, Ruma</td>
<td>Biochemistry</td>
<td>Cystathionine Beta Synthase &amp; Hyperhomocysteinemia</td>
<td>DHHS-NIH-NHLBI</td>
<td>$1,177,264</td>
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<td>Mechanism of Methylmalonyl-CoA Mutase: A Radical Enzyme</td>
<td>DHHS-NIH-NIDDK</td>
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<td>Regulation of Homocysteine-dependent Redox Homeostasis</td>
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<td>Barycki, Joseph</td>
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<td>Structural Insights into Redox Homeostasis</td>
<td>DHHS-NIH-NIGMS</td>
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<td>Buckendahl, Chad</td>
<td>Educational Psychology</td>
<td>Evaluation of the National Assessment of Educational Progress</td>
<td>Dept. of Education</td>
<td>$2,398,258</td>
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<td>Caldwell, Robert</td>
<td>School of Natural Resources</td>
<td>Thematic Soil Mapping for Site-Specific Management</td>
<td>Dept. of Agriculture-IFAFS</td>
<td>$1,025,000</td>
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<td>Dobermann, Achim</td>
<td>Agronomy and Horticulture</td>
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<td>Adamchuk, Viacheslav</td>
<td>Biological Systems Engineering</td>
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<td>Ferguson, Richard</td>
<td>Agronomy and Horticulture</td>
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<td>Cerutti, Heriberto</td>
<td>Plant Science Initiative</td>
<td>RNA-Mediated Silencing: Mechanisms and Biological Roles in Chlamydomonas</td>
<td>DHHS-NIH-NIGMS</td>
<td>$1,042,852</td>
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<td>Chen, Bing</td>
<td>School of Engineering Technology</td>
<td>SPIRIT: Silicon Prairie Initiative on Robotics in IT</td>
<td>NSF</td>
<td>$1,170,488</td>
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<td>Cotton, Dan</td>
<td>Cooperative Extension</td>
<td>* New Technologies for Ag Extension (eXtension)</td>
<td>Department of Agriculture-CSREES</td>
<td>$1,425,600</td>
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<td>Public Policy Center</td>
<td>Child Mental Health SIG</td>
<td>Nebraska Dept. Health and Human Services</td>
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<td>University of Nebraska State Museum</td>
<td>Explore Evolution</td>
<td>NSF</td>
<td>$2,851,409</td>
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<td>Doll, Elizabeth</td>
<td>Educational Psychology</td>
<td>Inspiring Inquiry: Science Instruction Model for Teachers in Rural, Culturally Diverse Schools</td>
<td>Dept. of Education</td>
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<td>Brunning, Roger</td>
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**Total Funding:** $11,882,754
Awards of $200,000 - $999,999

Active awards in 2006

* Indicates new in 2006

**Weeks, Donald**
Biochemistry
Development of Dicamba-Resistant Crops
Monsanto Co.
$2,500,000

**Whitbeck, Les**
Sociology
Great Plains Cultural Ways Mental Health Careers Program
$1,514,284
Moore, Helen
DHHS-NIH-NIMH

**White, Lynn**
Sociology
Infertility: Pathways & Psychosocial Outcomes
$2,559,414
McQuillan, Julia
DHHS-NIH-NICHD

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

**Wilcox, Brian**
Center on Children, Families and the Law
Midwest Child Care Research Consortium
$1,200,000
Torquati, Julia
DHHS-Admin for Child & Families

**Wihite, Donald**
School of Natural Resources
Rangeland and Forage Geospatial Decision Support System for Drought Risk Management
$1,023,038
Dept. of Agriculture-RMA

**Wood, Charles**
Biological Sciences
Programs in HIV & AIDS Assoc Diseases/Malignancies
$2,130,669
Evolution of Clade C HIV-1 in Infected Children
DHHS-NIH-Fogarty Intl Center

**Yamamoto, Catherine**
Student Affairs
Upward Bound Program–Northeast Nebraska
$1,338,496
Dept. of Education

**Zempleni, Janos**
Nutrition and Health Sciences
Vitamin-Dependent Modifications of Histones
$1,000,877
DHHS-NIH-NIDDK

**Zhang, Luwen**
Center for Virology
* Oncogenic Properties of Interferon Regulatory Factor 7
$1,145,961
DHHS-NIH-Nat Cancer Institute

**Admiraal, David**
Civil Engineering
Low-Cost Energy Dissipation at Culvert Exits
Ne Dept. of Roads
$201,856

**Albrecht, Julie**
Nutrition and Health Sciences
Entrepreneurial Center Development for Food & Textile Small Scale Business in Tajikistan
Dept. of State-BECA
$256,000
Prochaska-Cue, Kathy
Family and Consumer Sciences

**Alfano, James**
Plant Pathology
Isolation & Characterization of Pseudomonas Type III Effectors that Suppress Programmed Cell Death in Eukaryotes
NSF
$375,000

**Alexander, Dennis**
Electrical Engineering
* Ultrafast Laser Interaction Processes for Libs & Other Sensing Technologies
University of Central Florida
$600,000

**Alfano, James**
Plant Science Initiative/Plant Pathology
* Secretion Signals & Type III Chaperones in Pseudomonas Syringae Type III Secretion System
NSF
$430,000

**Allen, Craig**
School of Natural Resources
* Monitoring, Mapping & Risk Assessment for Non-Indigenous Invasive Species in Nebraska
Nebraska Environmental Trust
$325,081
Merchant, James
School of Natural Resources

**Allen, David**
Engineering Mechanics
* U.S.-Brazil Dual-Degree in Infrastructure & Sustainability Engineering Program
Dept. of Education-FIPSE
$208,211

**Anderson, Mark**
Geosciences
* Atmospheric Conditions Associated with Sea Ice Characteristics over Arctic Ocean during Melt Season
NASA
$208,699

**Asard, Han**
Biochemistry
Physiological Functions & Biochemical Properties of Plant Cytochromes b561
NSF
$386,084
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Biological Sciences  
Gene Silencing & Catabolite Repression in the Archaeon Sulfolobus Solfataricus  
$413,380  
NSF

Bobaru, Florin  
Engineering Mechanics  
* Adaptivity in Peridynamics for Composite Plates  
$203,965  
Dept. of Energy–Sandia National Laboratories

Bond, Alan  
Biological Sciences  
Mechanisms of Social Cognition  
$540,260  
DHHS-NIH-NIMH

Kamil, Alan  
Biological Sciences  
Virtual Ecology: Experimental Tests of Evolution in Predator-Prey Systems  
$461,000  
NSF

Brand, Jennifer  
Center for Materials Research  
Boron Carbide Semiconductor Films  
$347,826  
DOD-Battelle

* Novel Rare-Earth Semiconductors for Solid-State Neutron Detectors  
$450,000  
DOD-Defense Threat Reduction Agency

Belashchenko, Kirill  
Physics and Astronomy  
Dowben, Peter  
Physics and Astronomy

Buckendahl, Chad  
Educational Psychology  
Consulting Services/Assist Oklahoma Commission for Teacher Preparation  
$367,160  
Oklahoma Office of Public Affairs

Bulling, Denise  
Public Policy Center  
Hospital Preparedness — Bioterrorism  
$250,000  
Ne Dept. of Health and Human Services

Burbach, Mark  
School of Natural Resources  
Integrated Real-Time Groundwater-Level Monitoring Network to Support Drought Impact Assessment and Mitigation Programs  
$403,293  
Dept. of Agriculture-RMA

Ramamurthy, Byrav  
Computer Science and Engineering

Burson, Dennis  
Animal Science  
Listeria Monocytogenes Controls in Ready to Eat Meat Products  
$599,732  
Dept. of Agriculture-CSREES

Thippareddi, Harshavardhan  
Food Science and Technology

Cady, Daniel  
Cooperative Extension  
Nebraska Technology Transfer Center at UNL  
$377,100  
Ne Dept. of Roads

* Development of Tools for Rating Bridges & Application to State Bridges  
$414,421  
Ne Dept. of Roads

Azizinamini, Atorod  
Civil Engineering

Cantrell, Randolph  
Center for Applied Rural Innovation  
* Relocation to the Buffalo Commons: Marketing Approach to Understand Residential Decisions among Migrants  
$220,387  
Dept. of Agriculture-NRICGP

Burkhardt-Kriesel, Cheryl  
Panhandle Research and Extension Center  
Johnson, Bruce  
Agricultural Economics

Carlo, Gustavo  
Psychology  
Parenting & Sociocognitive Correlates of Prosocial Behaviors in Mexican American & European American Children  
$339,283  
NSF

Carr, Timothy  
Nutrition and Health Sciences  
* Method for Enhancing the Cholesterol-Lowering Property of Plant Sterol & Stanol Esters  
$500,000  
Beef Products Inc

Cerutti, Heriberto  
Biochemical Investigations of PEPC (and its novel ser/thr-Kinase) and SuSy (Nodulin-100), 2 Phosphorylated Metabolic Enzymes in Plants  
$400,000  
NSF

Chollet, Raymond  
Biochemistry  
Molecular/Biochemical Investigations of PEPC and its novel ser/thr-Kinase and SuSy (Nodulin-100), 2 Phosphorylated Metabolic Enzymes in Plants  
$448,235  
NSF

Claes, Daniel  
Physics and Astronomy  
Experimental High Energy Physics  
$573,000  
NSF

Snow, Gregory  
Physics and Astronomy

Clemente, Thomas  
Biotechnology/Plant Science Initiative/Agronomy and Horticulture  
Agrobacterium-Mediated Genetic Transformation of Wheat & Soybeans  
$345,537  
Dept. of Agriculture-ARS-BRDC

From Proplastid to Chloroplast: Understanding Plastid Differentiation in Maize by Microarray & Proteome Analysis  
$389,225  
Cornell University

Specht, James  
United Soybean Board/Smith/Bucklin Agronomy and Horticulture

Comfort, Steven  
School of 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  
Dept. of Education

**Daly, Edward**  
Educational Psychology  
School Psychology Leadership Specialization in  
Response-to-Intervention Research & Systems Change  
$800,000  
Dept. of Education

**McCurdy, Merilee**  
Educational Psychology  
Sheridan, Susan  
Kunz, Gina  
Educational Psychology

**DiMagno, Stephen**  
Chemistry  
Hydrogen for Fuel Cells  
$966,000  
DOD-Office of Naval Research

**Takacs, James**  
Chemistry  
Berkowitz, David  
Hydrogenase and Alkane Functionalization Catalysts  
$599,748  
DOD-Office of Naval Research

**Redepenning, Jody**  
Chemistry  
$690,000  
NSF

**Drummond, Wayne**  
Architecture  
Neighborhoods in Transition: Community Outreach Partnerships  
$388,914  
Dept. of Housing & Urban Development

**Parsons, Gerald**  
Agricultural Leadership/Education  
Carranza, Miguel  
Community and Regional Planning  
Cantarero, Rodrigo  
Chancellor’s Office  
Waite, Michelle  
Architecture  
Larrick, Steven  
Fritz, Susan  
Agricultural Leadership/Education

**Du, Liancheng**  
Chemistry  
* Biosynthesis of Mycotoxin Fumonisins: Characterization of Enzymes for Vicinal Diol & Tricarballylic Ester Formation  
$284,667  
NSF

**Ducharme, Stephen**  
Center for Materials and Nanoscience/Physics and Astronomy  
* Nanostructure-Designed Dielectric Material for High-Energy-Density Capacitors  
$586,000  
DOD-DEPSCoR

**Dwyer, Matthew**  
Computer Science and Engineering  
Software Model Checking for Embedded Systems  
$239,560  
Kansas State University

**Dwyer, Matthew**  
Computer Science and Engineering  
Program Analysis Techniques to Support Dependable RTSJ Applications  
$207,519  
NSF

**Eccarius, Malinda**  
Special Education and Communication Disorders  
Mountain Prairie Upgrade Partnership - Early Childhood  
$781,642  
Dept. of Education

**Eckhardt, Craig**  
Chemistry  
* Experimental Investigation of the Role of Defects in Detonation Sensitivity of Energetic Materials  
$600,000  
DOD-Office of Naval Research

**Eckhardt, Craig**  
Chemistry  
* A Study of the Mechanochemistry of Carbamazepine Polymorphs  
$227,200  
Pfizer Inc/PGRD Groton Labs

**Engen-Wedin, Nancy**  
Teaching, Learning and Teacher Education  
Indigenous Roots Teacher Education Program  
$704,730  
Dept. of Education

**Elbaum, Sebastian**  
Computer Science and Engineering  
ITR/SW: Collaborative Research: A New Generation of Scalable, Cost-Effective Regression Testing Techniques  
$251,018  
NSF

**Elbaum, Sebastian**  
Computer Science and Engineering  
ITR: Dependable End-User Software  
$211,294  
NSF

**Engen-Wedin, Nancy**  
Teaching, Learning and Teacher Education  
Indigenous Roots Teacher Education Program  
$704,730  
Dept. of Education

**Elbaum, Sebastian**  
Computer Science and Engineering  
Finite-State Verification for High-Performance Computing  
$300,000  
NSF

**Dzenis, Yuriis**  
Engineering Mechanics  
Fundamentals of Fabrication of Nanofiber Assemblies by Electrospinning  
$372,000  
NSF

**Dzenis, Yuriis**  
Engineering Mechanics  
Novel Continuous Carbon Nanofibers for the Next Generation Lightweight Structural Nanocomposites  
$258,543  
DOD-Air Force Off of Sci Rsch

**Redepenning, Jody**  
Chemistry  
* Next Generation Super Carbon Fiber  
$317,127  
Hexcel Corporation

**Du, Liancheng**  
Chemistry  
* Nanoengineered Interfaces  
$250,002  
NSF

**Du, Liancheng**  
Chemistry  
* Modeling-Based Control of Electrospinning Process  
$275,000  
NSF
Epstein, Michael  
Special Education and Communication and Disorders  
Leadership Training in Emotional Disturbance Disorders  
$590,854  
Dept. of Education  
Postdoctoral Training in Emotional & Behavioral Disorders  
$471,512  
Dept. of Education  
Randomized Clinical Trial of Wraparound Services for Elementary School Students in School Settings  
$538,266  
Dept. of Education  

Espy, Kimberly  
Vice Chancellor for Research and Graduate Studies  
* Executive Function Development in Preschool Children  
$962,343  
DHHS-NIH-NIMH  
Wiebe, Sandra  
Office of Research  

Fabrikant, Ilya  
Physics and Astronomy  
Collision Processes Involving Low-Energy Electrons  
$215,000  
NSF  

Faller, Ronald  
Civil Engineering  
* Development of a New Precast Concrete Bridge Railing System (2006-2008)  
$229,820  
Ne Dept. of Roads  
Bielenberg, Robert  
Civil Engineering  
Reid, John  
Mechanical Engineering  
Tadros, Maher  
Civil Engineering  

Franco, Juan  
Vice Chancellor for Student Affairs  
NU Directions: Program to Reduce High-Risk Drinking  
$468,000  
Robert Wood Johnson Foundation  
Major, Linda  
Student Affairs  

Fritz, Sherilyn  
Geosciences  
Lake Titicaca Drilling Project  
$314,167  
NSF  

Gardner, Scott  
School of Biological Sciences  
Worm-Web: Georeferencing Computerized Data & Linking Databases in the Manter Laboratory of Parasitology  
$420,107  
NSF  
Hosier, Aaron  
Information Services  

Gaskell, C. Martin  
Physics and Astronomy  
Variability of Active Galactic Nuclei  
$435,611  
NSF  

Gay, Timothy  
Physics and Astronomy  
Polarized Electron Physics  
$662,002  
NSF  

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

Gitelson, Anatoly  
School of Natural Resources  
* Land Cover Land Use Change Effects on Surface Water Quality: Integrated MODIS & SeaWiFS Assessment of Dnieper & Don River Basins  
$597,799  
NASA  

Gladyshev, Vadim  
Biochemistry  
Identity of Terminator & Selenocysteine UGA Codons  
$789,237  
DHHS-NIH-NIGMS  

Glover, Todd  
Center on Children, Youth, Families and Schools  
* Establish a State-Wide Response-to-Intervention Consortium for Training & Evaluation  
$253,864  
Ne Dept. of Education  
Daly, Edward  
Center on Children, Youth, Families and Schools/Educational Psychology  
McCurdy, Merilee  
Center on Children, Youth, Families and Schools/Educational Psychology  

Goddard, Stephen  
Computer Science and Engineering  
Energy-Aware CPU & I/O Scheduling for Embedded, Real-Time Systems  
$200,000  
NSF  

Goedert, James  
Construction Systems  
* Rebuilding New Orleans  
$293,660  
Construction Systems  
Bernstein, Stuart  
Construction Systems  
Holmes, William  
Construction Systems  
Morcous, George  
Construction Systems  
Schwer, Avery  
Construction Systems  

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

Gosselin, David  
School of Natural Resources  
* Earth Science Institute for Elementary Educators  
$233,606  
NASA  
Bonnstetter, Ronald  
Teaching, Learning and Teacher Education  

Graef, George  
Agronomy and Horticulture  
Sclerotinia Resistance Enhanced by Accumulation of QTL Transgenic Approaches  
$301,142  
Dept. of Agriculture-ARS  
Clemente, Thomas  
Agronomy and Horticulture  
Steadman, James  
Plant Pathology  

Greve, Vickie  
Northeast Research and Extension Center  
Communities Together Can  
$523,000  
Dept. of Agriculture-CSREES  
Swanson, Douglas  
Cooperative Extension
Hage, David  Chemistry  
Chromatographic Automation of Immunoassays  
$959,749  DHHS-NIH-NIGMS  
* Chromatographic Studies of Functional Proteomics  
$779,787  DHHS-NIH-NIDDK

Harbison, Gerard  Chemistry  
Structure & Dynamics of DNA Hairpins  
$845,363  DHHS-NIH-NIGMS

Harnisch, Delwyn  Teaching, Learning and Teacher Education  
Nebraska Assessment Cohorts (NAC05/06) & Nebraska Leadership for Learning Cohorts (NLL05/06)  
$200,000  Ne Dept. of Education

Harris, Steven  Plant Science Initiative/Plant Pathology  
* Autophagy in Fungal Hyphae: Functional Genomic & Mechanical Strength Studies  
$201,907  University of Maryland-Baltimore

Harshman, Lawrence  Biological Sciences  
Identification of Genes & Proteins that Regulate Stress Resistance  
$505,985  DOD-DEPSCoR  
* Comparative Functional Genomics of Drosophila Obesity  
$516,548  Cornell University  
* Molecular Evolution of Genes Expressed in D. melanogaster Sperm Storage Structures

Harris, Steven  Plant Science Initiative/Plant Pathology  
* Autophagy in Fungal Hyphae: Functional Genomic & Mechanical Strength Studies  
$201,907  University of Maryland-Baltimore

Harshman, Lawrence  Biological Sciences  
Identification of Genes & Proteins that Regulate Stress Resistance  
$505,985  DOD-DEPSCoR  
* Comparative Functional Genomics of Drosophila Obesity  
$516,548  Cornell University  
* Molecular Evolution of Genes Expressed in D. melanogaster Sperm Storage Structures

Hebels, Kyle  School of Natural Resources  
* Solving Complex Issues in Nebraska: Modeling the Western Platte River Valley-Phase II  
$347,200  Environmental Protection Agency  
Fritz, Sherilyn  Geosciences

Holman, John  School of Natural Resources  
Classification of Nebraska Streams and Rivers: Phase I Data Assessment, Collection and Analysis  
$287,853  Nebraska Dept. of Environmental Quality  
Hoagland, Kyle  School of Natural Resources

Horn, Christy  Educational Psychology  
Building Accepting Campus Communities  
$945,171  Dept. of Education

Hu, Qi (Steve)  School of Natural Resources  
Engaging Agricultural Communities in Great Plains of US with Applications & Development of Climate Prediction & Information  
$436,424  Dept. of Commerce-NOAA

Hunt, Robert  University of Nebraska State Museum  
* Renovation & Computerization of University of Nebraska Vertebrate Paleontology Collection  
$315,839  NSF  
Voorhies, Michael  University of Nebraska State Museum
<table>
<thead>
<tr>
<th>Name</th>
<th>Department/Program</th>
<th>Title</th>
<th>Funding Source</th>
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<tbody>
<tr>
<td>Hutkins, Robert</td>
<td>Food Science and Technology</td>
<td>Food Safety: Life-Long Learning through Teacher Training</td>
<td>Dept. of Agriculture-NRICGP</td>
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<td>Durso, Lisa</td>
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<td>Hygnstrom, Scott</td>
<td>School of Natural Resources</td>
<td>Development of Spatially Explicit Models of Wildlife Diseases</td>
<td>Dept. of Agriculture-APHIS</td>
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<td>Durso, Lisa</td>
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<td>Inan, Natale</td>
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<td>* Nano-Material Science</td>
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<td>Chemical and Biomolecular Engineering</td>
<td>Expression of Chimeric Antibody in Pichia pastoris</td>
<td>Research Corporation</td>
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<td>Inderbitzen-Nolan, Heidi</td>
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<td>Physics and Astronomy</td>
<td>Mass Dependent Effects in Correlated Motion of Massive Coulomb Interacting Particles</td>
<td>NSF</td>
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<td>Jameson, Mary Liz</td>
<td>University of Nebraska State Museum</td>
<td>Monograph &amp; Phylogeny of New World Scarabaeoid Beetles</td>
<td>Ne Dept. of Roads</td>
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<td>Ratcliffe, Brett</td>
<td>Entomology</td>
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<td>Jiang, Hong</td>
<td>Computer Science and Engineering</td>
<td>* SAM^2 Toolkit: Scalable &amp; Adaptive Metadata Management for High-End Computing</td>
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<td>Common Sense Conservation of Endangered Species-Tern and Plover</td>
<td>Nebraska Environmental Trust</td>
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<td>Dept. of Agriculture-CSREES</td>
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<td>Zhang, Yang</td>
<td>Veterinary and Biomedical Sciences</td>
<td>Regulation of the Latency-Reactivation Cycle by the Bovine Herpesvirus 1 (BHVL-1) Latency Related (LR) Gene</td>
<td>Dept. of Agriculture-CSREES</td>
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<td>Keown, Jeff</td>
<td>Animal Science</td>
<td>Trilateral Curriculum Modification &amp; Rural Community Information Delivery</td>
<td>Dept. of Education-FIPSE</td>
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<td>Jones, Clinton</td>
<td>Veterinary and Biomedical Sciences</td>
<td>Functional Analysis of Proteins Encoded by the Bovine Herpesvirus 1 Latency Related Gene</td>
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<td>Koelsch, Richard</td>
<td>Biological Systems Engineering</td>
<td>* Heartland Integrated Water Quality Coordination Initiative</td>
<td>Iowa State University</td>
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<td>Kostelnik, Marjorie</td>
<td>Education and Human Sciences</td>
<td>Osher Lifelong Learning Institute</td>
<td>Bernard Osher Foundation</td>
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$200,000 – $999,999

$200,000 – $999,999
**Agronomy and Horticulture**

- **Krull, Dean**
  - Managing Irrigation Systems Today & Tomorrow
  - $501,671
  - Central Platte NRD
  - Agronomy and Horticulture
- **Benham, Brian**
  - Agronomy and Horticulture
- **Ferguson, Richard**
  - Agronomy and Horticulture

**Chemistry**

- **Langell, Marjorie**
  - Surface Chemistry of Rock Salt & Spinel 3D Transition Metal Oxides Tailored by Structural & Compositional Methods
  - $425,000
  - NSF

**Mathematics**

- **Ledder, Glenn**
  - UBM: Research for Undergraduates in Theoretical Ecology (RUTE)
  - $905,000
  - NSF
- **Deng, Bo**
  - Mathematics
- **Gibson, Robert**
  - Biological Sciences
- **Lojadze, Irakli**
  - Mathematics
- **Louda, Svata**
  - Biological Sciences

**Physics and Astronomy**

- **Lee, Kevin**
  - ClassAction: Model Rapid-Feedback & Dynam Formative Assess System
  - $359,768
  - NSF
- **Schmidt, Edward**
  - Physics and Astronomy
  - Development of Interactive Simulation Environments for Inquiry Astronomy Teaching
  - $336,572
  - NSF
- **Leslie-Pelecky, Diandra**
  - Magnetic Properties of Disordered Rare-Earth Nanostructures
  - $420,000
  - NSF
  - Mechanical Engineering
  - $450,000
  - Dept. of Energy-EPSCoR
- **Li, Jiangyu**
  - Engineering Mechanics
  - Ferroelectric Polymer Nanocomposite Film/Langmuir-Blodget
  - $267,335
  - NSF
- **Ducharme, Stephen**
  - Physics and Astronomy

**Agronomy and Horticulture**

- **Lindquist, John**
  - Contribution of Fusarium Lateritium to Weed Suppressing Soils & Weed Abundance
  - $366,186
  - Dept. of Agriculture-NRICGP
  - Agronomy and Horticulture
  - Plant Pathology

**Physics and Astronomy**

- **Liu, Sy-Hwang**
  - Nanometer-Size Magnetic Devices
  - $236,000
  - DOD-DEPSCoR

**Architectural Engineering**

- **Liu, Mingsheng**
  - CC at Mutual of Omaha - Phase III
  - $210,319
  - Omaha Public Power District

**Geosciences**

- **Loope, David**
  - Paleometeorological Records from Sand Dunes & Eolian Sand Stones
  - $262,570
  - NSF

**Biological Sciences**

- **Louda, Svata**
  - Single vs. Multiple Insect Herbivore Guild Interactions in Canada Thistle Dynamics
  - $408,760
  - Dept. of Agriculture-NRICGP
  - Insect Herbivore Guild Interactions & Tall Thistle Population Dynamics
  - $369,999
  - NSF

**Electrical Engineering**

- **Lu, Yongfeng**
  - Laser-Assisted Fabrication of Large-Scale 3-D Photonic Bandgap Structures
  - $350,000
  - DOD-DEPSCoR
  - Mechanical Engineering
  - Fabrication of Photonic Bandgap Structures in Si & Ge Substrates Using Laser-Assisted Nanomolding of Self-Assembled Nanoparticles
  - $210,238
  - DOD-Air Force Off of Sci Rsch
  - Magnetic Confinement of Plasmas in Laser-Induced Breakdown Spectroscopy for Improved Sensitivity & Accuracy
  - $249,306
  - Dept. of Energy
  - Self-Integration of Carbon-Nanotube Sensors in Functional Integrated Circuits
  - $240,000
  - NSF
  - MRI: Development of Multifunctional Nanoscale Measurement System
  - $220,000
  - NSF

**Plant Science Initiative**

- **Mackenzie, Sally**
  - Machinery of Mitochondrial Recombination in Higher Plants
  - $494,080
  - NSF
  - Biological Sciences
  - Mitochondrial Sorting & Inheritance in Arabidopsis
  - $303,000
  - NSF
  - Nuclear-Organellar Interactions Involving AtMSH1 in Arabidopsis
  - $360,000
  - Dept. of Energy
  - Strategy for the Transgenic Induction of Cytoplasmic Male Sterility in Crop Plants
  - $404,858
  - Dept. of Agriculture-NDRC
  - Training Graduate Students in Plant Breeding using Crop Drought Tolerance Improvement as a Model
  - $200,000
  - Dept. of Agriculture-NRICGP
  - Plant Science Initiative
Mamo, Martha  Agronomy and Horticulture  
Pollution & Economic Decision Support Tool for Impaired Watershed Management Plans in Eastern Nebraska  
$335,000  Dept. of Agriculture-CSREES

Helmers, Glenn  Agricultural Economics  
Ginting, Daniel  Agronomy and Horticulture  
Wortman, Charles  Agronomy and Horticulture

Martin, Alex  Agronomy and Horticulture  
IWM Implementation: A Regional Approach  
$766,718  Dept. of Agriculture-CSREES

Martin, Derrel  Biological Systems Engineering  
Modeling and Field Experimentation to Determine Effects of Land Terracing-Republican River Basin (CESU)  
$359,800  Dept. of Interior-BR

McQuillan, Julia  Sociology  
* Infertility: Pathways & Psychosocial Outcomes  
$229,420  Pennsylvania State University

Meagher, Michael  Chemical and Biomolecular Engineering  
Recombinant Type E Botulinum Neurotoxin Vaccine  
$345,756  DynPort Vaccine Company

Swanson, Todd  Chemical and Biomolecular Engineering  
* Optimization of Phytase Production in Pichia Pastoris  
$372,874  Syngenta

Inan, Mehmet  Chemical and Biomolecular Engineering  
* Protein Fermentation Protocol Selection  
$351,091  Proteon Therapeutics

Miller, Nancy  Textiles, Clothing and Design  
Collaborative Research on Small Business Network Creation and Outcomes for Change and Innovation  
$230,011  NSF

Mitra, Amit  Plant Pathology  
Efficient Gene Silencing by Intrinsic Direct Repeats: Mechanism & Utilization  
$390,000  NSF

Morris, T. Jack  Biological Sciences  
The Role of a Host Protein (TIP) in the Resistance Response of Arabidopsis to Turnip Crinkle Virus Infection  
$360,000  Dept. of Energy

Qu, Feng  Biological Sciences

Moxley, Rodney  Veterinary and Biomedical Sciences  
Influence of Enterotoxins on Virulence and Colonization of Porcine Intestine by E.coli  
$270,000  Dept. of Agriculture-NRICGP

Role of A/E Proteins in E.Coli:0157:H7 in Intestinal Colonization of Adult Cattle  
$370,000  Dept. of Agriculture-NRICGP

Nickerson, H. Doak  NE State Forest Service  
* Restoring the Pine Ridge Forest Ecosystem  
$300,000  Ne Environmental Trust

Noureddini, Hossein  Chemical and Biomolecular Engineering  
* Reduction of Phosphorus from Ethanol By-Product used as Livestock Feed  
$210,781  Nebraska Corn Board

Oglesby, Robert  Geosciences  
* Evaluating the Role of Global Snow Cover on Seasonal to Interannual Predictability of Temperature & Precipitation  
$598,216  NASA

Orr, John  Mathematics  
Evolution of Advanced Electronic Educational Support Material  
$408,752  Brownstone Research Group

Orti, Guillermo  Biological Sciences  
RCN: DeepFin Will Advance the Phylogeny of “Fishes”  
$500,000  NSF

Pattnaik, Asit  Veterinary and Biomedical Sciences  
Analyses of Virulence & Attenuation Determinants of PRRSV using Reverse Genetics  
$320,000  Dept. of Agriculture-NRICGP

Osorio, Fernando  Veterinary and Biomedical Sciences  
VSV RNA Transcription and Replication  
$996,128  DHHS-NIH-NIAID

Perez, Lance  Electrical Engineering  
* Self-Configuration & Localization in Ad Hoc Wireless Sensor Networks  
$548,807  DOD-DEPScOR

Goddard, Stephen  Computer Science and Engineering

Peters, Ed  Nebraska Statewide Stream Inventory  
$329,967  Ne Game & Parks Commission

Pilson, Diana  Biological Sciences  
Transgenic Virus Resistant Squash: Ecological Effect  
$314,877  Dept. of Agriculture-CSREES

Morris, T. Jack  Biological Sciences

Platt, Stephen  Mechanical Engineering  
* In Vivo Robotic Camera System for Laparoscopic Surgery  
$394,550  DHHS-NIH-NIBIB

Farritor, Shane  Mechanical Engineering

Powell, Larkin  School of Natural Resources  
* Productivity and Biology of Ducks Nesting in the Sandhills of Nebraska  
$824,969  Ne Game & Parks Commission
Ragsdale, Stephen  
Biochemistry  
Enzymology of Methanogenesis: Mechanism of Methyl-Coenzyme M Reductase  
$420,000  
Dept. of Energy  
Biochemistry of the Anaerobic Dehalogenation of Chlorinated Aromatics  
$435,000  
NSF  

Rajca, Andrzei  
Chemistry  
Organic Polymers with Magneto-Dielectric Properties  
$308,608  
DOD-Air Force Off of Sci Rsch  
Ducharme, Stephen  
Physics & Astronomy  
Very High-Spin Polyradicals & Chiral Pi-Conjugated Systems  
$555,000  
NSF  

Rajurkar, Kamlakar  
Industrial and Management Systems Engineering  
Analysis & Gap Monitoring for Improving Micro EDM Performance-Supplement  
$202,500  
NSF  
Yu, Zuyuan  
Industrial and Management Systems Engineering  

Ramamurthy, Byrav  
Computer Science and Engineering  
Secure Group Communication over Wired & Wireless Networks  
$349,990  
NSF  
Varyiam, Vinod  
Computer Science and Engineering  

Ratcliffe, Brett  
Entomology  
A Faunistic Survey of the Dynastinae of Honduras, Nicaragua & El Salvador  
$342,842  
NSF  

Redepenning, Jody  
Center for Materials Research  
Chemically Modified Nano-Electrodes for Magneto-electronics Applications  
$390,000  
NSF  
Binek, Christian  
Physics and Astronomy  
Sokolov, Andrei  
Physics and Astronomy  

Reichenbach, Stephen  
Computer Science and Engineering  
SEI: Information Modeling for Comparative Visualizations & Analyses  
$351,428  
NSF  

Reid, John  
Mechanical Engineering  
Investigating the Use of Small Diameter Softwood as Guardrail Posts  
$280,000  
Dept. of Agriculture-FS  
Faller, Ronald  
Civil Engineering  

Reid, Robert  
Special Education and Communication Disorders  
Leadership Training in Attention Deficit Hyperactivity Disorder  
$620,006  
Dept. of Education  

Rilette, Laurence  
Civil Engineering  
Development of State of the Art Traffic Micro-Simulation Model for Nebraska  
$222,896  
Ne Dept. of Roads  
Jones, Elizabeth  
Civil Engineering  
* Intelligent Transportation System Deployment Project  
$831,942  
Ne Dept. of Roads  
Jones, Elizabeth  
Civil Engineering  
Khattak, Aemal  
Civil Engineering  

Robertson, Brian  
Mechanical Engineering  
Development of a Novel Inorganic Dielectric Barrier Layer for Magneto-Resistive Junctions  
$400,000  
NSF  
Doudin, Bernard  
Physics and Astronomy  
Dowben, Peter  
Physics and Astronomy  

Rohde, John  
Civil Engineering  
Midwest States Regional Pooled Fund Program-Yr 16  
$535,000  
Ne Dept. of Roads  
Sicking, Dean  
Civil Engineering  
Reid, John  
Mechanical Engineering  
Faller, Ron  
Civil Engineering  

Rothermel, Gregg  
Computer Science and Engineering  
CRI: Community Resource to Support Controlled Experimentation with Program Analysis and Testing Techniques  
$874,636  
NSF  
Elbaum, Sebastian  
Computer Science and Engineering  
Dwyer, Matthew  
Computer Science and Engineering  
* ITR: Dependable End-User Software  
$345,933  
Oregon State University  

Rupp, Gary  
Veterinary and Biomedical Sciences  
* Biosecurity Practices/Wholesome Food  
$249,792  
Dept. of Agriculture-CSREES  
Griffin, Dee  
Veterinary and Biomedical Sciences  
Smith, David R  
Veterinary and Biomedical Sciences  

Samal, Ashok  
Computer Science and Engineering  
* Building Knowledge Discovery & Information Fusion Tools for Collaborative Systems to Adaptively Manage Uncertain Hydrological Resources  
$552,100  
NSF  
Chen, Xun-Hong  
School of Natural Resources  
Soh, Leen-Kiat  
Computer Science and Engineering  
Tomkins, Alan  
Public Policy Center  
Zellmer, Sandra  
College of Law  

Saraf, Ravi  
Chemical and Biomolecular Engineering  
Nanodevice for Imaging Normal Stress Distribution with Application in Sensing Texture and Feel by Touching  
$272,156  
NSF  

Schacht, Walter  
Agronomy and Horticulture  
Grasslands Ecological Monitoring System  
$608,880  
Dept. of Agriculture-RMA-FCIC
Scheffler, Marilyn  Special Education and Communication Disorders  
Project PROMOTE  Dept. of Education  
$797,184

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

Scheffler, Marilyn  Special Education and Communication Disorders  
* Project Re-entry: Preparing Speech-Language Pathologists to Serve Students with Traumatic Brain Injury  Dept. of Education  
$800,000

Scheffler, Marilyn  Special Education and Communication Disorders  
$200,000

Sanger, Dixie  Special Education and Communication Disorders  
$200,000

Hux, Karen  Special Education and Communication Disorders  
$200,000

Scheffler, Marilyn  Special Education and Communication Disorders  
Project PROMOTE  Dept. of Education  
$797,184

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

Scheffler, Marilyn  Special Education and Communication Disorders  
* Project Re-entry: Preparing Speech-Language Pathologists to Serve Students with Traumatic Brain Injury  Dept. of Education  
$800,000

Hux, Karen  Special Education and Communication Disorders  
$200,000

Sellmyer, David  Physics and Astronomy  
* Fundamental & Magnetic-Hardening Studies of Advanced Nanocomposite Magnets  Dept. of Energy  
$270,000

Shank, Nancy  Public Policy Center  
Bridging the Gap: Information & Referral Database Interoperability  Dept. of Commerce-NTIA  
$600,000

Shapiro, Charles  Northeast Research and Extension Center  
Improving Organic Farming Systems across Nebraska Agroecosystems  Dept. of Agriculture-CSREES  
$762,949

Baltsenperger, David  Panhandle Research and Extension Center  
Brandle, James  School of Natural Resources  
Francis, Charles  Agronomy/Horticulture  
Knezevic, Stevan  Northeast Research and Extension Center  
Wright, Robert  Entomology  
Johnson, Ron  School of Natural Resources  

Shea, Patrick  School of Natural Resources  
* Targeting Watershed Vulnerability & Behaviors Leading to Adoption of Conservation Management Practices  Dept. of Agriculture-CSREES  
$570,000

Sheridan, Susan  Educational Psychology  
Leadership Training in Interdisciplinary Collaboration  Dept. of Education  
$800,000

Sheild, Jeffrey  Mechanical Engineering  
The Effect of Long-Range Dumbbell Ordering on the Properties & Microstructures of Rare Earth Permanent Magnets  NSF  
$340,000

Selling, Dean  Civil Engineering  
Identification of Vehicular Impact Conditions Associated with Serious Ran-Off-Road Crashes  Natl Coop Hwy Rsch Prog  
$634,521

Khattak, Aemal  Civil Engineering  
Jones, Elizabeth  Civil Engineering  

Siegfried, Blair  Entomology  
A Site Specific Field Corn IPM Program that Incorporates Transgenic Technology  Pennsylvania State University  
$283,913

Siegfried, Blair  Entomology  
* Quantifying Risk Factors for Evolution of European Corn Borer Resistance to Cry1F Expressing Corn Hybrids  Dept. of Agriculture-CSREES  
$346,845

Simpson, Melanie  Biochemistry  
Role of Hyaluronan in Prostate Cancer Progression  DOD-Army Medical Research  
$326,250

Sincovec, Richard  Computer Science and Engineering  
MRI: Acquisition of High Performance Computing & DataVisualization for Scientists & Engineers  NSF  
$500,000

Sincovec, Richard  Computer Science and Engineering  
Jiang, Hong  Computer Science and Engineering  
Ramamurthy, Byrav  Computer Science and Engineering  
Seth, Sharad  Computer Science and Engineering  
Swanson, David  Computer Science and Engineering  

Smith, Andrew  University of Nebraska State Museum  
Scarab Biodiversity of Southern South America  NSF  
Ocampo, Federico  University of Nebraska State Museum  
$300,000

Smith, David R.  Veterinary and Biomedical Sciences  
Intervention Strategies to Reduce Escherichia Coli 0157:H7 in Beef Feedyards  Dept. of Agriculture-NRICGP  
$500,000

Smith, David R.  Veterinary and Biomedical Sciences  
Erickson, Galen  Animal Science  
Hinkley, Susanne  Veterinary and Biomedical Sciences  
Klopfeinstein, Terry  Animal Science  
Moxley, Rodney  Veterinary and Biomedical Sciences  

Snow, Gregory  Veterinary and Biomedical Sciences  
* GAANN Fellowships for Physics at UNL  Dept. of Education  
$380,016

Snow, Gregory  Veterinary and Biomedical Sciences  
* Environmental Regulation of Staphylococcus epidermidis PIA Synthesis  DHHS-NIH-NIGMS  
$367,000
Soukup, Rodney  
Electrical Engineering  
Electronic Devices of Germanium Carbide  
$270,000  
Ianno, Natale  
Electrical Engineering

Specht, James  
Agronomy and Horticulture  
Elevating Protein Content in the North Central USA Soybean-Growing States  
$642,199  
Graef, George  
Agronomy and Horticulture  
* Genetic Mapping & Application of SNP DNA Markers in Soybean  
$291,391

Spreitzer, Robert  
Biochemistry  
Role of the Rubisco Small Subunit  
$748,000  
* Rubisco Phylogenetic Engineering  
$202,383

Srissa-an, Witawas  
Computer Science and Engineering  
Building Scalable & Adaptive Garbage Collector for Server Systems  
$281,000  
Elbaum, Sebastian  
Computer Science and Engineering

Starace, Anthony  
Physics and Astronomy  
Dynamics of Few-Body Atomic Processes  
$996,337  
* Strong Field & Ultrafast Atomic and Molecular Processes  
$210,000

Steadman, James  
Plant Pathology  
Bean/Cowpea Collaborative Research Support Program  
$394,481  
* Resistance Improvement of Bean thru Multi-Site Screening & Pathogen Characterization  
$204,650

Steffen, David  
Veterinary and Biomedical Sciences  
* Johne’s Disease Testing  
$208,000

Stentz, Terry  
Construction Management  
Human Factors in Railway Operation  
$301,250  
Jones, Elizabeth  
Civil Engineering  
Rilett, Laurence  
Civil Engineering  
Khattak, Aemal  
Civil Engineering  
Riley, Michael  
Industrial and Management Systems Engineering  
Jones, Erick  
Industrial and Management Systems Engineering  
* Analytic Study of Acute Extremity Lacerations in Meat Packing  
$293,690  
Harvard School of Public Health

Stone, Julie  
Plant Science Initiative/Biochemistry  
* Role of Transcriptional Regulator in Programmed Cell Death & Plant Development  
$240,000

Storz, Jay  
Biological Sciences  
$492,000

Stubbendieck, James  
Great Plains Studies  
Farm Viability, Farmland Preservation and Smart Growth  
$308,000  
Esseks, J. Dixon  
Great Plains Studies

Subramanian, Anu  
Chemical and Biomolecular Engineering  
Prep Zirconia Aggregates/Adsorbents in Bioseparations  
$270,131

Swanson, David  
Computer Science and Engineering  
US CMS Tier 2 Center  
$761,000  
Bloom, Kenneth  
Physics and Astronomy  
Dominguez, Aaron  
Physics and Astronomy  
* MRI: Acquisition of Affordable Shared-Memory Computing & Scalable Storage for Scientists & Engineers  
$300,000

Tadros, Maher  
Civil Engineering  
* Class C Fly Ash in Concrete Pavement  
$321,379  
Ne Dept. of Roads

Takacs, James  
Chemistry  
Novel Cyclization Reactions for Organic Synthesis  
$422,500

Taylor, Steve  
Food Science and Technology  
* Food Allergen Database  
$346,406  
Midwest Advanced Food Manufacturing Alliance  
$462,110  
Various Industries  
Allergenicity Evaluation of Isinglass  
$417,610  
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  
Various Industries  
Wang, Lijun  
Biological Systems Engineering  
Weller, Curtis  
Biological Systems Engineering  
Burson, Dennis  
Animal Science  
HACCP Training & Research to Assist Meat Processors with Process Deviations for Lethality & Stabilization  
$495,640  
Various Industries  
* Improving Safety of Shell Eggs & Egg Products by Addressing Critical Research Needs for Salmonella Enteritidis & Salmonella spp  
$599,951  
Various Industries  
Froning, Glenn  
Food Science and Technology  
Subbiah, Jeyamkondan  
Biological Systems Engineering
Thomas, Steven  School of Natural Resources
$307,189  University of California-Riverside
* FIBR: Linking Genes to Ecosystems

Tiller, Dale  School of Engineering Technology
Converging Redundant Sensor Network
Information for Improved Building Control
$327,000  Dept. of Energy-Natl Energy Tech
Henze, Gregor  School of Engineering Technology

Torquati, Julia  Family and Consumer Sciences
Evaluation of Promising Models and Delivery
Approaches to Child Care Provider Training
$305,393  Iowa State University
Wilcox, Brian  Center on Children, Families and the Law
Raikes, Helen  Center on Children, Families and the Law

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

Tsymbal, Evgeny  Physics and Astronomy
Theory of Electronic Magnetic & Transport
Properties of Nanoscale Magnetic Junctions
$300,000  NSF
Jaswal, Sitaram  Physics and Astronomy
* Multiscale Modeling of Magnetic Nanocontacts
$200,751  Seagate Technology

Uiterwaal, Kees  Physics and Astronomy
Inside a Focused Laser Beam: Molecular Dynamics
$424,001  NSF

Umstadter, Donald  Physics and Astronomy
Ion Acceleration with High Intensity Lasers
* Laser Produced Coherent X-Ray Sources
$401,277  NSF
$270,000  Dept. of Energy

Van Etten, James  Plant Pathology
Center for Innovation in Membrane Protein Production
$428,684  Univ of California-San Francisco
Dunigan, David  Plant Pathology

Variyam, Vinod  Computer Science and Engineering
Studies in Computational Complexity Theory
$200,000  NSF

Vasa, Stanley  Special Education and Communication Disorders
Project NETS: Nebraska Educational Transition Specialists
$798,624  Dept. of Education
Scheffler, Marilyn  Special Education and Communication Disorders

Verma, Shashi  School of Natural Resources
$941,161  Dept. of Energy-EPSCoR
Knops, Johannes  Biological Sciences
Cassman, Kenneth  Agronomy and Horticulture
* Carbon Sequestration and Global Climate Change

Vidaver, Anne  Plant Pathology
Molecular Characterization of
Clavibacter iranicus & Related Species
$318,742  Dept. of Agriculture-ARS

Viljoen, Hendrik  Chemical and Biomolecular Engineering
Vortex-Tube Based Thermocycler w/Intelligent Software
$350,636  DHHS-NIH-Nat Ctr Rsch Resources
Gogos, George  Mechanical Engineering

Wagner, William  Biological Sciences
Communication of Direct Mating Benefits to Females
$301,283  NSF

Waldren, Vernon  Southeast Research and Extension Center
* HUD Omaha Lead Site
$300,000  Dept. of Housing and Urban Development

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

Wang, Jun  Computer Science and Engineering
CSR-PDOS: Energy-Efficient,
High-Performance Storage Array Systems
$260,000  NSF

Wang, Xinwei  Mechanical Engineering
Sub-Surface Structural Damages
in Laser-Assisted Surface Nanostructuring
$249,999  NSF
Lu, Yongfeng  Electrical Engineering

Weeks, Donald  Biochemistry
Development of Herbicide-Resistant Plants for
Environmentally-Safe Production Energy & Biomass Crops
$232,000  Consortium for Plant Biotechnology Research

Weisz, Victoria  Center on Children, Families and the Law
$861,502  Supreme Court of Nebraska
Nebraska State Court Improvement

Weldon, Robert  Biological Sciences
Intracellular Targeting of HIV Gag Proteins
$393,825  DHHS-NIH-NIAID
Weller, Curtis  Biological Systems Engineering
Purification Process Influences on Structural & Nutritional Function of Grain Sorghum
$338,000  Dept. of Agriculture-NRICGP
Carr, Timothy  Nutrition and Health Sciences
Schlegel, Vicki  Food Science and Technology
Cuppett, Susan  Food Science and Technology
Hwang, Keum Taek  Industrial Ag Products Center
Wang, Lijun  Biological Systems Engineering

Whitbeck, Les  Sociology
Shonga Ska: Sacred Horse Society Drug Prevention Program
$433,944  DHHS-NIH-Nat Inst Drug Abuse

White, Brett  Animal Science
Transcriptional Regulation/Porcine GnRH Receptor Gene
$287,193  Dept. of Agriculture-CSREES

White, Joseph  Sociology
Developing an Alcohol Prevention Program with the Dakota
$384,059  DHHS-NIH-NIAAA
Hoyt, Dan  Sociology
Whitbeck, Les  Sociology
Godfrey, Joyzelle  Sociology

Wiegand, Roger  Mathematics
GAANN Fellowship Program: Mathematics at UNL
$633,360  Dept. of Education
Pitts, David  Mathematics
Walker, Judy  Mathematics
Walker, Mark  Mathematics
Bellows, Laurie  Graduate Studies

Wiener, Richard  Psychology
REU Site: Psychology and Law
$269,280  NSF
Jury Bias in Criminal Cases: Sexual Assault, Homicide and Generic Prejudice

Woodward, Gordon  Mathematics
Increasing Participation in Computer Science, Engineering, & Mathematics through NSF Scholarships at UNL
$400,000  NSF
Ballard, John  Engineering & Technology
Ramamurthy, Byrav  Computer Science and Engineering
Goddard, Steve  Computer Science and Engineering
Lee, Kevin  Arts & Sciences
Nebraska REU in Applied Mathematics
$223,987  NSF
Rebarber, Richard  Mathematics

Wilhite, Donald  School of Natural Resources
Drought Monitoring, Planning & Mitigation
$495,371  Dept. of Agriculture-CSREES
Mitigation & Preparedness Technologies for the US
$589,996  Dept. of Agriculture-CSREES
* Estimating the Impacts of Complex Climatic Events: Drought in Colorado, Nebraska & New Mexico
$300,000  Dept. of Commerce-NOAA

Willis, Mary  Anthropology and Geography
Anterior Dentition and Restoration Among Nuer and Dinka Refugees from Sudan
$227,459  The Jacob and Valeria Langeloth Foundation

Wilson, Brent  Mechanical Engineering
Development of Improved Product Performance through Optimization & Modeling of Engineering Materials Processing & Function
$341,179  Brenco/Amsted Industries

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

Witkowski, John  Northeast Research and Extension Center
Integrated Network for Tribal College Community Watershed Natural Resources Education
$237,105  Iowa State University

Woldt, Wayne  Biological Systems Engineering
* Advancing Onsite Wastewater Treatment in Nebraska
$259,742  Ne Dept. of Environmental Quality

Wood, Charles  Biological Sciences
* AIDS and Cancer Specimen Bank
$320,442  George Washington University

Woodward, Gordon  Mathematics
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

Yamamoto, Catherine  Student Affairs
Upward Bound–Lincoln
$938,496  Dept. of Education

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

Active awards in 2006
* Indicates new in 2006

**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>Adams, Stephanie</td>
<td>Industrial and Management Systems Engineering</td>
<td>Designing Effective Teams in the Engineering Classroom for the Enhancement of Learning</td>
<td>$623,918</td>
<td>NSF</td>
</tr>
<tr>
<td>Becker, Donald</td>
<td>Biochemistry</td>
<td>Spectrochemical Studies of Novel PutA Flavoprotein</td>
<td>$314,250</td>
<td>NSF</td>
</tr>
<tr>
<td>Binek, Christian</td>
<td>Physics and Astronomy</td>
<td>* Education &amp; Research on Nanoscale Spintron 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>Choueiry, Berthe</td>
<td>Computer Science and Engineering</td>
<td>Detecting Interchangeability Relations in Constraint Satisfaction Problems and Exploiting them in Problem Solving and Interactions with Users</td>
<td>$600,000</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>
</tbody>
</table>

**Yoder, Ronald**

Biological Systems Engineering

Nebraska AgrAbility

$800,000

Dept. of Agriculture-CSREES

Agricultural Economics

**Zemlenti, Janos**

Nutrition and Health Sciences

*B* Biotin Affects Cytokine Metabolism

$409,586

Dept. of Agriculture-NRICGP

* Epigenetic Effects of Biotin on Activation of Endogenous Viral Sequences

$401,959

DHHS-NIH-NIEHS

**Zeng, Xiao Cheng**

Chemistry

Crystallization and Interfacial Properties of Silicon

$235,000

Dept. of Energy

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

$423,682

NSF

Harshman, Lawrence

Biological Sciences

Morph-Dependent Cyclic JH Titer in a Wing-Polymorphic Insect: Adaptive Significance & Underlying Causes

$321,626

NSF

Harshman, Lawrence

Biological Sciences

Physiological & Molecular Causes of Genetic Variation/Covariation in Endocrine Regulation

$372,000

NSF

**Zhang, Luwen**

Center for Virology

Interferon Regulatory Factor 7 and NPC

$393,855

DHHS-NIH-NIAID

**Zlotnik, Vitaly**

Geosciences

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

$219,958

NSF

Fritz, Sherilyn

Geosciences

Swinehart, James

School of Natural Resources

**Career and K Awards**

* Indicates new in 2006

NSF CAREER Grants

- National Science Foundation CAREER grants are awarded only to untenured junior faculty. NSF emphasizes that the grants recognize research and education “of the highest quality and in the broadest sense.” CAREER grants are unique in requiring a four- to five-year plan for the scientist’s development as both a researcher and an educator.

- Adams, Stephanie
  - Industrial and Management Systems Engineering
  - Designing Effective Teams in the Engineering Classroom for the Enhancement of Learning
  - NSF
  - $623,918

- Becker, Donald
  - Biochemistry
  - Spectrochemical Studies of Novel PutA Flavoprotein
  - NSF
  - $314,250

- Binek, Christian
  - Physics and Astronomy
  - * Education & Research on Nanoscale Spintron Systems & Heterostructures
  - NSF
  - $500,000

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

- Choueiry, Berthe
  - Computer Science and Engineering
  - Detecting Interchangeability Relations in Constraint Satisfaction Problems and Exploiting them in Problem Solving and Interactions with Users
  - NSF
  - $600,000

- Dominguez, Aaron
  - Physics and Astronomy
  - * Superior Silicon Tracking & Discovery as CMS & D0
  - NSF
  - $550,000

- Elbaum, Sebastian
  - Computer Science and Engineering
  - Leveraging Field Data to Test Pervasive Systems
  - NSF
  - $412,594
Gursoy, Mustafa
Electrical Engineering
CAREER: Energy-Efficient Wireless Communications under Channel Uncertainty
$400,000 NSF

Orti, Guillermo
Biological Sciences
Molecular Systematics of Ray-Finned Fishes
$533,295 NSF

Perez, Lance
Electrical Engineering
Channel Coding for Satellite and Mobile Communications
$269,880 NSF

Scott, Stephen
Computer Science and Engineering
Making Exponential-Time Learning Algorithms Efficient
$299,952 NSF

Wang, Lily
School of Engineering Technology
Integrating Time-Variant Source Directivity into Architectural Acoustic Auralizations
$401,376 NSF

K Awards
National Institutes of Health K Awards provide support for intensive development experiences in one of the biomedical, behavioral or clinical sciences leading to research independence. Candidates for these awards normally must have a research or health-professional doctorate and postdoctoral research experience at the time of application. 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 conducting research and career development during the award three-, four-, or five-year 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
$670,826 DHHS-NIH-NIMH

Kiviniemi, Marc
Psychology
Affect & Decision Making for Cancer-Related Behaviors
$535,692 DHHS-NIH-NCI

Sayood, Khalid
Electrical Engineering
Identification of Biological Materials of Unknown Origin
$764,005 DHHS-NIH-NIBIB

Tyler, Kimberly
Sociology
Neglect and Abuse Histories Among Homeless Young Adults
$659,525 DHHS-NIH-NIMH
Cahan, David  
**History**  
A Biography of Hermann von Helmholtz  
$102,868  
1/1/05 – 12/31/07

David Cahan, Charles Bessey Professor and professor of history, is writing a full-scale, definitive biography of Hermann von Helmholtz (1821-1894), one of the major figures of modern science. The biography will provide a fresh account of Helmholtz’s personal life within the context of his family, schooling and friends, and portray and analyze his working life as a scientist—primarily as a physiologist and physicist, but also as a leader in other fields (chemistry, mathematics, psychology and meteorology), all within the context of German science. It will show how he represented the aims, results and image of science to the educated but otherwise non-scientific classes of Europe and America. It also will show the implications of contemporary science that he drew for the fine arts, medicine, industry and society at large. The extensive use of correspondence means the work will be the first new modern biography of Helmholtz as well as one of the most detailed biographies of a scientist ever published.

Kooser, Ted  
**English**  
American Life in Poetry Project  
$125,000  
1/1/05 – 12/31/07

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

Price, Kenneth  
**English**  
Walt Whitman Archive  
$500,000  
8/1/05 – 3/31/09

Ken Price, professor of English and Hillegass Chair of 19th Century American Literature, is principal investigator for a $500,000 We the People Challenge Grant from the National Endowment for the Humanities. The award is contingent on UNL acquiring a 3-1 match of $1.5 million in the next four years. When fundraising is completed, the $2 million establishes an endowment at the University of Nebraska Foundation, the proceeds of which provide permanent annual operating funding for the Walt Whitman Archive. The Whitman Archive is an electronic research and teaching tool that makes Whitman’s huge body of work easily and conveniently accessible. Whitman amassed a huge volume of work during his life. Some 70,000 manuscripts are housed in about 80 locations, although the bulk is known to be in just five libraries. But the logistics of finding these various documents, let alone assessing and comparing their relevance and content, are daunting. The Archive allows scholars to search the entire body of Whitman’s writings and scholarship on those works and offers scholarly analysis.

Walter, Katherine  
**Libraries**  
Interoperability of Metadata Standards for Digital Thematic Research Collections  
$169,651  
11/1/05 – 10/31/07

Katherine Walter, chair of special collections and preservation and professor of libraries, is principal investigator on a team hoping to develop guidelines that will serve as a model for the integration of standards used by scholarly digital projects and could influence future development. Metadata integration is an important but yet unattained goal for digital thematic research collections, which employ standards for transcriptions, digital images, finding aids and administrative records. These standards have been developed by different communities. The Metadata Encoding and Transmission Standard (METS) shows promise as a means of integrating various standards, but no testing of METS has been done using digital thematic research as a model; thus ad hoc and idiosyncratic solutions have sprung up, with various unreliable results. UNL will create a METS profile to test its reliability and also submit the package to two digital library systems at Brown University and the University of Virginia.

Benjamin A. Botkin Collection-Preservation/Access  
$97,435  
7/1/01 – 6/30/06

Walter is also using a National Endowment for the Humanities grant to preserve a vast collection of materials from the Benjamin A. Botkin Collection of Applied American Folklife and microfilming it to improve its accessibility to scholars and the public. Botkin was national folklore editor of the Federal Writers Project and
chief of the Library of Congress Archive of American Folk Song. The collection adds to the understanding of this discipline in development and it consists of 8,000 books, 447 linear feet of archival materials and 700 recordings. The project preserves 291 linear feet on microfilm and also preserves 200 sound recordings made by Botkin himself.

Implementation Grants for Special Projects—
Journals of Lewis and Clark Online Edition

$222,177 National Endowment for the Humanities
Dunham, Gary University Press
9/1/03–8/31/05

Walter and Gary Dunham, University of Nebraska Press director, are using a National Endowment for the Humanities grant to create an on-line edition of the Journals of the Lewis and Clark Expedition, edited by Gary E. Moulton, UNL professor emeritus of history. The interdisciplinary team is drawn from the UNL Libraries, the University of Nebraska Press, and the Center for Great Plains Studies. The site will also feature supplementary texts relating to Euro-American and Native perspectives on the Lewis and Clark expedition, images, and audio files of poet William Kloefkorn reading selected passages. Online searchability will make the website a useful resource for scholars and the general public. The project is timed to coincide with the bicentennial commemoration of Lewis and Clark’s expedition.
PATENTS ISSUED IN 2006
Recognition for faculty who received patents
UNL faculty indicated in red

**Alfano, James**
Biological Sciences
Title: DNA Molecules and Polypeptides of Pseudomonas Syringae HRP Pathogenicity Island and Their Uses
Description: Novel pharmaceutical targets
Date: September 5, 2006
No. 7,102,059
Country: United States

**Jorgensen, James**
Electrical Engineering
Title: Sound Generating Apparatus for Use with Gloves and Similar Articles
Description: Cheer gloves
Date: May 2, 2006
No. 7,038,575
Country: United States

**Klopfenstein, Terry J.**
Animal Science
Title: Rumen Inert Oil
Description: Ruminant feed
Date: 1/3/2006
No. PA9609476-1
Country: Brazil

Oleynikov, Dmitry; **Farritor, Shane Michael;** Hadzialic, Adnan; **Platt, Stephen**
Mechanical Engineering
Title: Microrobot for Surgical Applications
Description: Miniature surgical robot
Date: May 9, 2006
No. 7,042,184
Country: United States

**Redepenning, Jody**
Chemistry
Title: Electrolytic Deposition of Coatings for Prosthetic Metals and Alloys
Description: Bone-like coating for prosthetics
Date: 3/21/2006
No. 7,014,749
Country: United States

**Weeks, Donald**
Biochemistry
Title: Methods and Materials for Making and Using Transgenic Dicamba-Degrading Organisms
Description: Dicamba resistant crops
Date: March 2, 2006
No. 558,838
Country: Republic of Korea

Date: March 9, 2006
No. 528,010
Country: New Zealand

Date: April 4, 2006
No. 7,022,896
Country: United States

Date: September 12, 2006
No. 7,105,724
Country: United States
Licensee: Apath
Description: Influenza plasmids
Inventor: Donis, Rueben
Department: Veterinary and Biomedical Sciences

Licensee: Arrow Seed Co. Inc.
Description: Beefmaker variety of intermediate wheatgrass
Inventors: Baltensperger, David D.; Nicholson, R.A.; Reece, Patrick; Schuman, G.; Vogel, Kenneth
Department: Agronomy and Horticulture

Licensee: Arrow Seed Co. Inc.
Description: Bonanza variety of big bluestem grass
Inventors: Anderson, Bruce; Klopfenstein, Terry; Mitchell, Robert; Vogel, Kenneth
Department: Agronomy and Horticulture, Animal Science

Licensee: Biotechnology Research and Development Corporation
Description: Technology related to male sterility in plants
Inventors: Abdelnoor, Ricardo Vilela; Mackenzie, Sally
Department: NRI Center for Biotechnology

Licensee: Blooms of Bressingham
Description: Sweet Joanne penstemon hybrid
Inventors: Lindgren, Dale Tennis; Todd, Kim
Department: Agronomy and Horticulture

Licensee: Cereplast Inc.
Description: Water resistant degradable foam, biodegradable polymers
Inventors: Biby, Gerald D.; Chinnaswamy, Rangaswamy; Fang, Qi; Hanna, Milford A.
Department: Biological Systems Engineering, Industrial Ag Products Center

Licensee: DTL Controls, LLC
Description: Air flow conductors
Inventor: Liu, Mingsheng
Department: Architecture

Licensee: E-Tech
Description: Conductive concrete overlay for bridge deck de-icing
Inventors: Chen, Bing; Nguyen, Lim; Tuan, Christopher
Department: Civil Engineering, Computer and Electronics Engineering

Licensee: Gayland Ward Seed Co. Inc.
Description: Atlas brm-12 variety of forage sorghum
Inventors: Funnell, Deanna; Grant, Richard; Oliver, Amanda; Pedersen, Jeffrey; Toy, John
Department: Agronomy and Horticulture, Plant Pathology

Licensee: GC Image
Description: Software for processing data from comprehensive two-dimensional gas chromatography
Inventor: Reichenbach, Stephen
Department: Computer Science

Licensee: Intellectual Ventures
Description: Communications, memory and circuitry technologies
Inventors: Algrain, Marcello C.; Bandyopadhyay, Supriyo; Ehlers, Doug; Hardt, Stephen L.; Hoffman, Michael; Nguyen, Lim; Sayood, Khalid; Zhu, Quiming
Department: Computer and Electronics Engineering, Computer Science, Electrical Engineering

Licensee: Laursen, Daniel
Description: Beefmaker variety of intermediate wheatgrass
Inventors: Baltensperger, David D.; Nicholson, R.A.; Reece, Patrick; Schuman, G.; Vogel, Kenneth
Department: Agronomy and Horticulture

Licensee: Nebraska Surgical Solutions, Inc.
Description: Surgical miniature robotic device
Inventors: Oleynikov, Dmitry; Farritor, Shane Michael; Hadzialic, Adnan; Platt, Stephen
Department: Mechanical Engineering

Licensee: The Seed Company
Description: Varieties of high protein soybeans, high sucrose soybeans, and high yield soybeans
Inventor: Graef, George
Department: Agronomy and Horticulture

Licensee: Star Seed Inc.
Description: Bonanza variety of big bluestem grass
Inventors: Anderson, Bruce; Klopfenstein, Terry; Mitchell, Robert; Vogel, Kenneth
Department: Agronomy and Horticulture, Animal Science

Licensee: Star Seed Inc.
Description: Goldmine variety of big bluestem
Inventors: Anderson, Bruce; Klopfenstein, Terry; Mitchell, Robert; Vogel, Kenneth
Department: Agronomy and Horticulture, Animal Science

Licensee: Stock Seed Farm
Description: Bonanza variety of big bluestem grass
Inventors: Anderson, Bruce; Klopfenstein, Terry; Mitchell, Robert; Vogel, Kenneth
Department: Agronomy and Horticulture, Animal Science
Licensee: Todd Valley Farms
Description: NE-KYB-05-001 variety of Kentucky bluegrass
Inventors: Riordan, Terrance P.; Shearman, Robert C.; Wit Jr., Leonard A.
Department: Agronomy and Horticulture

Bailey, John R. 
School of Music

Barnes, Paul E. 
School of Music

Brown, Joann 
Teaching, Learning & Teacher Education
Artist, mixed media image, The Interconnectness Of All, Ink People Gallery, Eureka, Calif.

Bybee, Ariel 
School of Music
Soloist, Thirteenth American Music Festival, Chinese government.

Chang-Barnes, Ann 
School of Music
Performer, piano, world premiere concert, St. Petersburg, Russia, of newly arranged works of Astor Piazzolla for piano and cello quartet, with the Rastrelli Cello Quartet. Performer, piano, International Fortepiano Forum, Poeke, Belgium.

Clinton, Mark K. 
School of Music
Performer, piano, guest soloist with the Prince George’s Philharmonic, College Park, Md. Performer, piano, 2006 Ameropa International Chamber Music Festival, Prague, Czech Republic, with Min Kwon, piano; John Lindsey, violin; Karen Becker, cello; and French mezzo-soprano Anne Donnadieu. Performer, piano, guest artist at the 2006 Illinois Chamber Music Festival, with Julieta Mihai, violin; John Lindsey, violin; Lisa Nelson, viola; Nina Gordon, cello; Amy Flores, cello.

Eklund, Peter A. 
School of Music
Conductor, 200-voice honor choir with performances in Italy, France, Germany, Austria Conductor, international convention in Kuala Lampur, Malaysia.

Fritz, Dana 
Art & Art History

Fuelberth, Rhonda J. 
School of Music
Performer, peer-reviewed performance, University Women’s Chorale appearance, MENC National Convention, Salt Lake City, Utah.
Hanrahan, Kevin  School of Music
Performer, guest artist voice recital, Pune, India, with Priya Palekar, soprano; Roberta Swedien, piano.
Performer, voice recital, Die Schöne Müllerin, Mumbai, India, with Roberta Swedien, piano.

Horvay, Martha  Textiles, Clothing & Design
Artist, collage, Washing Dishes and Gazing West, A.I.R. Gallery, New York, N.Y.

James, Michael F.  Textiles, Clothing & Design
Artist, quilts, Night Sky 1, Fuller Craft Museum, Brockton, Mass.; Material Things, The Sawmill Gallery, James Madison University, Harrisonburg, Va., with Frankie Flood, Denise Pelletier, Laura Strand; Smoke Signals, Indianapolis Museum of Art; Material Difference: Soft Sculpture and Wall Works from Midwest Collections, Chicago Cultural Center, Hanging in the Balance and At or Near the Surface, Fifth International Fiber Biennial, Snyderman-Works Galleries, Philadelphia, Pa.; At or Near the Surface, Explorations II: Quilts by the Faculty of the Quilt Surface Design Symposium, Ohio Craft Museum, Columbus, Ohio; Sky/Wind Variations 2, Studio Art Quilt Associates: The Creative Force, Fall International Quilt Market and International Quilt Festival, Houston, Texas; The Nature of Truth (The Truth of Nature), Tied Together: Textile Art in the 21st Century, Chandler Center for the Arts, Chandler, Ariz.; exhibited quilts using various techniques, Michael James Studio Quilts, La Liguella Cultural Arts Center, Portoferrario, Italy; Quilts from the Collection of Penny Nii, Gualala Arts, Gualala, Calif.; Abstraction No. 6: Afterimage, Embassy of the United States of America, Seoul, South Korea; Recent Work in Digital Textiles, Festival of Quilts, National Exposition Center, Birmingham, U.K.
Solo exhibit, Racine Art Museum, Racine, Wis., included five new works and loaned works from the International Quilt Study Center collection. The exhibition was featured in the June/July 2006 issue of American Craft Magazine. Home Economics, entered into the permanent collection of the Racine Art Museum.

Kendall, Gail M.  Art & Art History
Artist, ceramics, Woodfire Conference Invitational Exhibition, University of Northern Arizona, Flagstaff, Ariz.
Artist, ceramics, Art School At Old Church, pottery exhibition, Demarest, N.J.

Shomos, William H.  School of Music
Artist, stage director for Nevada Opera’s Die Zauberflaute by Wolfgang Amadeus Mozart.
Stage director for Nevada Opera’s Summer Festival production of Così fan tutte by Wolfgang Amadeus Mozart.
Artist, stage director for La Musica Lirica’s production of Il Campanello by Gaetano Donizetti, Novafeltria, Italy.

Trout, Barbara L.  Textiles, Clothing & Design
Artist, silk dress, In the Spirit of the Deertailed Dress, Russell Hill Rogers Galley, Southwest School of Art, San Antonio, Texas.
Artist, exhibited headpiece in multimedia, Empress Bonnet, Creative Grand Crossings, Grand Rapids, Mich.
Artist, multi-component necklace, Priestess Collar, Celebration: Spiritual Exhibit, Grand Rapids, Mich.

Weiss, Wendy R.  Textiles, Clothing & Design
Artist, set for an outdoor performance, Curlers, Smoky Hill River Festival, Salina, Kan.
Artist, textile, sound and movement installation, Ground Shift, Washington D.C., with Jay Kreimer.

White, Darryl A.  School of Music
Artist, panelist adjudicator, National Foundation for Advancement in the Arts, Miami, Fla.
Performer and lecturer, director of the Clifford Brown/Stan Getz All-Stars, Annual Monterey Jazz Festival, Monterey, Calif.
Featured artist in a jazz performance, American Jazz Museum, Blue Room, Kansas City, Missouri.
Performer and lecturer, performances at Lincoln Center and the Conference Main Stage, International Association for Jazz Educators Conference, New York, N.Y.

Williams, Sandra M.  Art & Art History
Artist, The Seven Mysteries, solo exhibition of mixed media, Crystal Lake, Ill. and Ashland, Ore.
Andrews, Larry
Language Exploration and Awareness 3rd Ed.; Mahwah, N.J., Lawrence Erlbaum, 2006. (Teaching, Learning & Teacher Education)

Archer, J. Clark; Lavin, Stephen J.; Martis, Kenneth C.; Shelley, Fred M.

Avolio, Bruce J.; Luthans, Fred

Bauer, Grace; Kane, Julie, eds.
Umpteen Ways of Looking at a Possum: Critical and Creative Responses to Everette Maddox; New Orleans, La., Xavier Review Press, 2006. (English)

Bauer, Grace
Beholding Eye; Cincinnati, Ohio, Custom Words, 2006. (English)

Beaver, Gregory L.
PEAR Installer Manifesto; London, U.K., Packt Publishing, 2006. (School of Music)

Berens, Charlyne
Chuck Hagel: Moving Forward; Lincoln, Neb., University of Nebraska Press, 2006. (Journalism & Mass Communications)

Bicknell-Holmes, Tracy; Logan-Peters, Kay

Bryant, Miles
Horse Smiling and Other Moments Recollected in Nebraska; Lincoln, Neb., B Street Press, 2006. (Educational Administration)

Burnett, Amy N.
Teaching the Reformation: Ministers and Their Message in Basel, 1529-1629; New York, N.Y., Oxford University Press, 2006. (History)

Burnett, Amy N.; Goodburn, Amy; Savory, Paul; Bernstein, Daniel

Burnett, Stephen G; Bell, Dean Phillip, eds.
Carr, Thomas M.  
Voix des abbesses du Grand Siècle: la prédication au féminin à Port-Royal; Tubingen, Germany, Gunter Narr Verlag, 2006. (Modern Languages & Literatures)

Dalla, Rochelle L.  

DeFrain, John D.; Olson, David H.  

DeFrain, John D.; Dahl, Susan; Campbell, John S.  
We Cry Out: Living with Developmental Disabilities; Lincoln, Neb., iUniverse, 2006. (Family & Consumer Sciences)

DeFrain, John D.; Lodl, Kathleen A.; Brand, Gail L.; Fenton, Ann M.; Friesen, Jeanette L.; Hanna, Janet S.  
Family Treasures: Creating Strong Families; Lincoln, Neb., University of Nebraska–Lincoln Extension, 2006. (Family & Consumer Sciences)

Digman, Lester A.  
Strategic Management: Competing in the Global Information Age, 8th Ed.; Mason, Ohio, Thomson Custom Solutions, 2006. (Management)

American Cinema of the 1940s; New Brunswick, N.J., Rutgers University Press, 2006. (English)

Dixon, Wheeler Winston  
Visions of Paradise; New Brunswick, N.J., Rutgers University Press, 2006. (English)

Driskell, Judy A.; Wolinsky, Ira, eds.  

Edwards, Richard, ed.  
Nebraska 1875: Its Advantages, Resources, and Drawbacks; Lincoln, Neb., University of Nebraska Press, 2006. (Economics)

Gladyshев, Vадим N.; Hatfield, Dolph L.; Berry, Marla J., eds.  

Grady, Marilyn L.; Brock, Barbara  

Grady, Marilyn L.; Brock, Barbara  
From First Year to First Rate, 3rd Ed.; Thousand Oaks, Calif., Corwin Press, 2006. (Educational Administration)

Grady, Marilyn L.  

Grange, William  
Historical Dictionary of German Theater; Lanham, Md., The Scarecrow Press, 2006. (Johnny Carson School of Theatre and Film)

Gruhl, John; Welch, Susan; Comer, John; Rigdon, Susan M.  

Hamann, Ted; Meltzer, Julie  
Multi-Party Mobilization for Adolescent Literacy in a Rural Area: A Case Study of Policy Development and Collaboration; Providence, R.I., Education Alliance at Brown University, 2006. (Teaching, Learning & Teacher Education)

Hamann, Ted; Meltzer, Julie  
Meeting the Needs of Adolescent English Language Learners for Literacy Development and Content Area Learning, Part Two: Focus on Classroom Teaching and Learning Strategies; Providence, R.I., Education Alliance at Brown University, 2006. (Teaching, Learning & Teacher Education)

Harnisch, Delwyn L.; Kimpton, P.  

Hefle, Susan L.; Koppelman, Stef J., eds.  

Honey, Maureen  
Shadowed Dreams: Women’s Poetry of the Harlem Renaissance, 2nd Ed., revised and expanded; New Brunswick, N.J., Rutgers University Press, 2006. (English)

Hope, Debra A.; Heimberg, Richard G.; Turk, Cynthia L.  

Housh, Terry J.; Housh, D. J.; DeVries, H.A.  

Hutkins, Robert W.  
Microbiology and Technology of Fermented Foods; Ames, Iowa, Blackwell-IFT Press, 2006. (Food Science & Technology)
Isernhagen, Jody C.
Portraits of Excellence Year Five Report, Comprehensive Evaluation of Nebraska School Based Teacher-Led Assessment and Reporting System (STARS); Lincoln, Neb., Nebraska Department of Education, 2006. (Educational Administration)

Jameson, Mary Liz; Ratcliffe, Brett C., eds.

Kaul, Robert B.; Sutherland, David M.; Rolfsmeier, Steven R.
The Flora of Nebraska; Lincoln, Neb., School of Natural Resources, UNL, 2006. (Museum)

Kooser, Ted; Cox, Steve
Writing Brave and Free; Lincoln, Neb., University of Nebraska Press, 2006. (English)

Krone, Kathleen J.; Putnam, Linda L., eds.

Lee, Sang M.; Olson, David L.

Lepard, Brian

Luthans, Fred; Yousef, Carolyn M.; Avolio, Bruce J.
Psychological Capital; New York, N.Y., Oxford University Press, 2006. (Management)

Moshman, David
The Daughters of the Plaza de Mayo; New York, N.Y., iUniverse, 2006. (Educational Psychology)

Murphy, Linda L.; Spies, Robert A.; Plake, Barbara S., eds.
Tests in Print VII; Lincoln, Neb., Buros Institute of Mental Measurements, 2006. (Educational Psychology)

Olson, David L.; Shi, Yong
Introduction to Business Data Mining; New York, N.Y., McGraw-Hill/Irwin, 2006. (Management)

Rack, Frank R.; Rothwell, R. Guy; Ribes, Alfonso; Tsintzouras, George; Damaskinos, Savas; Dixon, A.E.; Freifeld, Barry; Kneafsey, T.J.; Chen, Q.; Balcom, Bruce

Rader, Benjamin G.

Raikes, Helen H.; Whitmer, Jane M.

Ratcliffe, Brett C.; Cave, Ronald D.
The Dynastine Scarabs of Honduras, Nicaragua, and El Salvador (Coleoptera: Scarabaeidae); Lincoln, Neb., University of Nebraska State Museum, 2006. (Museum, Entomology)

Reid, Robert; Lienemann, Torri
Strategy Instruction for Students with Learning Disabilities; New York, N.Y., Guilford, 2006. (Special Education & Communication Disorders)

Ritchie, Joy S.; Ronald, Kate
Teaching Rhetorica: Theory, Pedagogy, Practice; Portsmouth, N.H., Boynton/Heineman, 2006. (English)

Ruser, Kevin; Lubken, Deanna
Nebraska Chapter 7 Consumer Bankruptcy Manual; Lincoln, Neb., Law College Education Services, 2006. (Law)

Sayood, Khalid

Schniederjans, Marc J.; Schniederjans, Ashlyn M.; Schniederjans, Dara G.

Seefeldt, Douglas; Hantman, Jeffrey L.; Onuf, Peter S., eds.
Across the Continent: Jefferson, Lewis and Clark and the Making of America; Charlottesville, Va., University of Virginia Press, 2006. (History)

Sellmyer, David J.; Skomski, Ralph, eds.
Advanced Magnetic Nanostructures; Berlin, Germany, Springer, 2006. (Physics & Astronomy)

Sellmyer, David J.; Liu, Yi; Shindo, D., eds.
Handbook of Advanced Magnetic Materials; Berlin, Germany, Springer, 2006. (Physics & Astronomy)

Siau, Keng L., ed.
Advanced Topics in Database Research Vol. 5; Hershey, Pa., Idea Group Publishing, 2006. (Management)

Spencer, Nicholas
After Utopia: The Rise of Critical Space in Twentieth Century American Fiction; Lincoln, Neb., University of Nebraska Press, 2006. (English)

Steinweis, Alan E.
Studying the Jew: Scholarly Antisemitism in Nazi Germany; Cambridge, Mass., Harvard University Press, 2006. (History)
Steinweis, Alan E.; Gassert, Philipp, eds.

Taylor, Stephen L., ed.
Advances in Food and Nutrition Research, Volume 51; San Diego, Calif., Academic Press, 2006. (Food Science & Technology)

Woody, Robert H.; Lehmann, Andreas C.; Sloboda, John A.
Psychology for Musicians: Understanding and Acquiring the Skills; New York, N.Y., Oxford University Press, 2006. (School of Music)

Zellmer, Sandra B.; Laitos, Jan; Wood, Mary; Cole, Daniel
Natural Resources Law; St. Paul, Minn., Thomson/West, 2006. (Law)

2006 RECOGNITIONS AND HONORS
Faculty who have been elected to or who have received national or international honors

Braake, Myron
Plant Pathology (Emeritus)
National Academy of Science Membership

Koozer, Ted
English
U.S. Poet Laureate Consultant in Poetry to the Library of Congress

Splinter, William
Larsen Tractor Test and Power Museum; Biological Systems Engineering (Emeritus)
National Academy of Engineers Membership

Van Etten, James
Plant Pathology
Academy of Science Membership

Abbott, Douglas A.
Family & Consumer Sciences
Fulbright Scholar, U.S. Fulbright Foundation

Albrecht, Julie
Nutrition & Health Sciences
President’s Volunteer Service Award, President’s Council on Service and Civic Participation

Anderson, John
Economics
Contributor to the Economic Report of the President, President’s Council of Economic Advisers

Archer, J. Clark
Anthropology & Geography
Lavin, Stephen J.
Anthropology & Geography

Banerjee, Ruma
Biochemistry
Vice-Chair, Gordon Research Conference, Thiol-based Redox Regulation and Signaling

Barnes, Paul E.
School of Music
Best Performance Production for the world premier television production of Phillip Glass Piano Concerto No. 2 (After Lewis and Clark), National Educational Telecommunications Association

Behrendt, Stephen C.
English
Senior Fellowship, American Council of Learned Societies

Bevins, Rick A.
Psychology
Fellow, American Psychological Association

Braithwaite, Dawn O.
Communication Studies
Brommel Award for Family Communication Scholarship, National Communication Association

Bryant, Miles
Educational Administration
2006 Outstanding Reviewer Award, Journal of Research in Leadership Education
RECOGNITIONS AND HONORS

Carr Jr., Thomas M. Modern Languages & Literatures
Chevalier, Ordre des Palmes académiques, French government

Cassman, Kenneth G. Agronomy & Horticulture
2006 Agronomic Research Award, American Society of Agronomy

Coble, Parks M. History
Andrew Mellon Fellowship for Senior Scholars, Institute for Advanced Study, Princeton

Crawford, Sidnie W. Classics & Religious Studies
W.F. Albright Service Award, The American Schools of Oriental Research

Cupp, Andrea S. Animal Science
2006 New Investigator Award, Society for the Study of Reproduction

DeFrain, John D. Family & Consumer Sciences
Research Scientist, Shanghai Academy of Social Sciences, Peoples Republic of China

Digman, Lester A. Management
Paisitianand, Sineenead Management
Lee, Sang M. Management
2006 Best Paper Award, Managing Knowledge Capabilities for Strategy Implementation Effectiveness, 2006 Western Decision Sciences Annual Meeting

Ducey, Mary Ellen Libraries
Price, Kenneth M. English
Walter, Katherine L. Libraries
Barney, Brett Libraries
Pytlak Zillig, Brian L. Libraries
Jewell, Andrew W. Libraries
C.F.W. Coker Award, Society of American Archivists

Eckhardt, Craig J. Chemistry, Physics & Astronomy
Fulbright Senior Fellow, U.S. Fulbright Commission

Eversoll, Duane Natural Resource Sciences
Fellow, Geological Society of America

Gentry, James Marketing
Baker, Stacey Marketing
Rittenberg, Terri Marketing
2006 Charles C. Slater Memorial Award for Best Article, Journal of Macromarketing

Gladyshev, Vadim Biochemistry
Chair, Gordon Research Conference, Thiol-based Redox Regulation and Signaling

Graybill, Andrew R. History
Vernon Carstensen Award, Agricultural History Society
James H. Bradley Fellowship, Montana Historical Society

Harveson, Robert M. Plant Pathology
Blue Ribbon Award, American Society of Agricultural Engineers

Harvey, F. Edwin Natural Resource Sciences
Fellow, Geological Society of America

Hayden-Roy, Priscilla A. Modern Languages & Literatures
Humboldt Fellowship - Continuation Grant, Alexander von Humboldt Foundation

Hefle, Susan L. Food Science & Technology
Special Achievement, Food Allergy and Anaphylaxis Network
Dr. Hefle died in August of 2006.

Hoagland, Kyle D. Natural Resource Sciences
President-Elect, National Institutes for Water Resources

Housh, Terry Nutrition & Health Sciences
Educator of the Year, National Strength and Conditioning Association

Hoy, Roger M. Biological Systems Engineering
President’s Leadership Citation, American Society of Agricultural and Biological Engineering

Hudgins, Jerry L. Electrical Engineering
William M. Portnoy Award, Institute of Electrical and Electronics Engineers Industry Applications Society

Jacobs, Margaret D. History
Arrell Morgan Gibson Prize, Western History Association

Joekel, Ronald G. Educational Administration
International Exemplary Leader, International Chair Academy Phi Delta Kappa International; 20th Century Exemplary Leader, Phi Delta Kappa International

Koelsch, Richard K. Biological Systems Engineering, Animal Science
Presidential Citation, American Society of Agricultural and Biological Engineering
Blue Ribbon Award, American Society of Agricultural and Biological Engineering

Kunc, Karen Art & Art History
Printmaker Emeritus Award, The Southern Graphics Council

Levin, Carole History
NEH Fellowship at the Folger Shakespeare Library, National Endowment for the Humanities

Lyons, William H. Law
Regent, American College of Tax Counsel
Managing Editor, The Tax Lawyer
Mayo, ZB  Agricultural Research Division, Entomology
Honorary Member, Entomological Society of America

Moeller, Aleidine  Teaching, Learning & Teacher Education
Florence Steiner Award for Leadership in Foreign Language Education, American Council for the Teaching of Foreign Languages

Niemeyer, Shirley  Textiles, Clothing & Design
Distinguished Service Award, Housing Education and Research Association

Nierman, Glenn E.  School of Music
Elected President of North Central MENC and Member of the MENC National Executive Board, MENC—The National Association for Music Education

Olson, David L.  Management
Best Enterprise Information Systems Educator Award, International Federation of Information Processing TC8 International Conference on Research and Practical Issues of Enterprise Information Systems

Patterson, Dean J.  Electrical Engineering
Fellow, Institute of Electrical and Electronics Engineers

Prochaska-Cue, M. Kathleen  Family & Consumer Sciences
President’s Volunteer Service Award, President’s Council on Service and Civic Participation

Ragsdale, Stephen W.  Biochemistry
Paper of the Week, Journal of Biological Chemistry
Elected Member, American Academy of Microbiology, American Society of Microbiology

Rajurkar, Kamlakar  Industrial & Management Systems Engineering
Charles F. Carter Jr. Advancing Manufacturing Award, Association of Manufacturing Technology

Ratliffe, Brett C.  Museum, Entomology
Outstanding Paper of the Year Award, Coleopterists Society

Schneiderjans, Marc J.  Management
Fellow, Institute of Decision Sciences

Schubert, Mathias M.  Electrical Engineering
Chair, International Conference Series on Low Energy Electrodynamics in Solids
Ludwig-Genzel-Award, International Conference series on Low Energy Electrodynamics in Solids

Shepard, Neil T.  Special Education & Communication Disorders
Honors of the Association, American Speech-Language-Hearing Association

Siau, Keng L.  Management
 Ranked as one of the top e-commerce researchers, Business Research Yearbook, Vol. 13
Outstanding Service Award, International Federation for Information Processing
Faculty Award, IBM

Smith, Victoria  History, Ethnic Studies
Book Award for No One Ever Asked Me: The World War II Memories of an Omaha Indian Soldier, Army Historical Foundation

Soukup, Rodney J.  Electrical Engineering
Elected to the Administrative Committee, Institute of Electrical and Electronic Engineers Education Society

Souto, Francisco  Art & Art History
International Award, 6th British International Print Exhibition, Gracefield Arts Centre, United Kingdom
Selected Prize, 12th International Biennial Print and Drawing Exhibition, R.O.C. National Taiwan Museum of Fine Arts
Honorable Mention, 7eme Mondial de L’Estampe et de la Gravure Originale Triennale de Chamalieres, France
Ex aequo Prize, 5-a Bienala Internationala de Grafica Mica, Cluj, Romania

Steinweis, Alan E.  History
Finalist, National Jewish Book Awards, Jewish Book Council

Stump, Jordan M.  Modern Languages & Literatures
Chevalier de l’Ordre des Arts et des Lettres, the French government

Trout, Barbara  Textiles, Clothing & Design
Honorable Mention, Handweavers Guild of America

Van Vleck, L. Dale  Animal Science
Distinguished Achievement in Agriculture Award, International Gamma Sigma Delta

Verma, Shashi B.  Natural Resource Sciences
Award for Outstanding Achievement in Biometeorology, American Meteorological Society

Vigna, Diane  Textiles, Clothing & Design
Achievement in Service Award, National Association of Extension 4-H Agents

Wang, Lijun  Biological Systems Engineering
Superior Paper Award, American Society of Agricultural and Biological Engineering

Weller, Curtis L.  Biological Systems Engineering
Superior Paper Award, American Society of Agricultural and Biological Engineering

White, Tyler G.  School of Music
Honorable Mention, Rudolf Nissim Prize Competition, ASCAP Foundation
Willborn, Steven L.  Law
Chair, U.S. Branch, International Society for Labor and Social Security Law

Winkle, Kenneth J.  History
Distinguished Lecturer, 2005-08, Organization of American Historians
Distinguished Book Award for *Atlas of the Civil War*, Society for Military History

Woollam, John A.  Electrical Engineering
Fellow, American Vacuum Society

Center for Digital Research in the Humanities  English
Invited to display information about the *Journals of Lewis and Clark Expedition Online* and the *Walt Whitman Archive for Humanities Advocacy Day*, National Humanities Alliance

Zellmer, Sandra  Law
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Member, World Conservation Union Commission on Environmental Law

Zlotnik, Vitaly A.  Geosciences
Fellow, Geological Society of America

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Glossary of Federal Agency Abbreviations

USAID  United States Agency for International Development
CNS   Corporation for National Service
USDA  United States Department of Agriculture
ARS   Agricultural Research Service
BRDC  Biotechnology Research and Development Corporation
CSREES Cooperative State Research, Education & Extension Service
ERS   Extension Research Service
FAS   Foreign Agriculture Service
FS    Forestry Service
NRCS  Natural Resources Conservation Service
NRICGP National Research Initiative Competitive Grant Program
RMA   Risk Management Agency
SARE  Sustainable Agricultural Research and Education Program
DOC   Department of Commerce
EDA   Economic Development Administration
NOAA  National Oceanic & Atmospheric Administration
DOD   Department of Defense
Army Corps of Engineers
Army Research Office
DEPScOR Defense Experimental Program to Stimulate Cooperative Research
Naval Research Laboratory
Office of Naval Research
U.S. Army Medical Research Acquisition Activity
DEd   Department of Education
FIPSE Fund for the Improvement of Postsecondary Education
GAANN Graduate Assistance in Areas of National Need
DOE   Department of Energy
EPScO R Experimental Program to Stimulate Cooperative Research
NIGEC National Inst for Global Environmental Change
Sandia National Laboratories
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>DHHS</td>
<td>Department of Health and Human Services</td>
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<tr>
<td>ACF</td>
<td>Administration for Children and Families</td>
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<tr>
<td>CDC</td>
<td>Centers for Disease Control</td>
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<tr>
<td>NIH</td>
<td>National Institutes of Health</td>
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<td>NCI</td>
<td>National Cancer Institute</td>
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<tr>
<td>NCRR</td>
<td>National Center for Research Resources</td>
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<tr>
<td>NHLBI</td>
<td>National Heart, Lung and Blood Institute</td>
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<tr>
<td>NIAID</td>
<td>National Institute on Allergy &amp; Infectious Diseases</td>
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<tr>
<td>NICHD</td>
<td>National Institute of Child Health and Human Development</td>
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<tr>
<td>NIDCD</td>
<td>National Institute on Deafness &amp; Communication Disorders</td>
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<tr>
<td>NIDDK</td>
<td>National Institute of Diabetes, Digestive &amp; Kidney Disease</td>
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<tr>
<td>NIDA</td>
<td>National Institute on Drug Abuse</td>
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<tr>
<td>NIGMS</td>
<td>National Institute on General Medical Sciences</td>
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<tr>
<td>NIMH</td>
<td>National Institute of Mental Health</td>
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<tr>
<td>HUD</td>
<td>Department of Housing and Urban Development</td>
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<td>DoI</td>
<td>Department of Interior</td>
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<td>BR</td>
<td>Bureau of Reclamation</td>
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<tr>
<td>FWS</td>
<td>Fish &amp; Wildlife Service</td>
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<tr>
<td>GS</td>
<td>Geological Survey</td>
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<tr>
<td>NPS</td>
<td>National Park Service</td>
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<td>DoT</td>
<td>Department of Transportation</td>
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<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
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<tr>
<td>IMLS</td>
<td>Institute of Museum &amp; Library Services</td>
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<tr>
<td>NASA</td>
<td>National Aeronautics and Space Administration</td>
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<tr>
<td>NCHRP</td>
<td>National Cooperative Highway Research Program</td>
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<tr>
<td>NEA</td>
<td>National Endowment for the Arts</td>
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<tr>
<td>NEH</td>
<td>National Endowment for the Humanities</td>
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<tr>
<td>NSF</td>
<td>National Science Foundation</td>
</tr>
<tr>
<td>EPSCoR</td>
<td>Experimental Program to Stimulate Cooperative Research</td>
</tr>
<tr>
<td>NSA</td>
<td>National Security Agency</td>
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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. Information on major sponsored program awards was gathered by the Office of Sponsored Programs. Reports on patents and intellectual property licenses were produced by the Office of Technology Development. We apologize for any omissions or errors in this report.

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