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Chancellor Harvey Perlman and Vice Chancellor Prem Paul

This is the sixth annual "Major Sponsored Programs and Faculty Awards for Research and Creative Activity" report. This booklet highlights the successes of University of Nebraska–Lincoln faculty during 2007. It lists the funding sources, projects and investigators on major grants and sponsored program awards received during the year, 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 faculty's accomplishments.

Researchers at the University of Nebraska–Lincoln have pushed the frontiers in their disciplines in the past year, setting new drilling records in Antarctica, winning the nation's highest honor for technology and building an ultra-fast, high-intensity laser that has the highest combination of peak power and repetition rate of any U.S. laser. Our sponsored funding continues to grow, with awards of \$171.9 million last year alone.

How have we reached this success? We have worked to 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.

These accomplishments exemplify how UNL's emphasis on innovation, interdisciplinarity and international collaborations is propelling our research into new arenas, producing new products and technologies for the marketplace and offering our students intensive research experiences.

Thank you for your interest and support of research at the University of Nebraska-Lincoln!

Frem St

Prem S. Paul Vice Chancellor for Research and Economic Development

AWARDS OF \$3 MILLION OR MORE

Active awards in 2007
* Indicates new in 2007

Allen, David

Engineering

Blast Wave Absorbing Structures: an Experimental & Modeling Program DOD-Army Research Laboratory

\$7,500,000 6/25/04 - 6/24/09



David Allen, dean of the College of Engineering and professor of engineering mechanics, with funding from the Army Research Laboratory-Weapons and Materials Research Directorate, directs a collaborative effort focused on development of new materials and technologies relevant to blast

mitigation and weapons detection. The program includes 24 UNL faculty from six different departments—civil engineering, structural engineering, chemical and biomolecular engineering, electrical engineering, engineering mechanics and mechanical engineering—working on 15 multidisciplinary projects. The projects have the common objective of providing new materials and technologies for blast mitigation, mine detection and pathogen detection.

Cassman, Kenneth

Nebraska Center for Energy Sciences Research, Agronomy and Horticulture

Nebraska Center for Energy Sciences Research \$5,000,000 Nebraska Public Power District Paul, Prem Office of Research 4/1/06 - 3/31/2011



Kenneth Cassman directs the Nebraska Center for Energy Sciences Research, a collaboration between UNL and the Nebraska Public Power District. The center was established in April 2006 with NPPD's five-year, \$5 million commitment to support energy research that produces

new technologies, processes and systems that provide new or significantly enhanced renewable energy sources, improves the quality of life and boosts economic opportunity. The center fosters interdisciplinary collaboration among UNL faculty and with other research institutions, public-sector agencies and private sector companies with similar interests. The center supports both basic and applied research and has a broad mandate to explore a range of renewable energy opportunities (including biofuels, wind and solar energy), as well as opportunities for energy conservation.

Cotton, Dan

Cooperative Extension

\$6,800,000 10/1/04 - 12/31/09



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

Dept. of Education

Communication Disorders
Center for Behavior and Reading

\$4,498,231 10/1/01 - 9/30/07

Michael Epstein, William Barkley professor of special education and communication disorders, and co-investigator Ron Nelson, associate research professor of special education and communciation 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

Center for Biotechnology

A Protein Interaction Database for Rice Protein Kinases \$6,057,747 NSF 9/1/02 – 12/31/07



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.

Metabolite Signaling Center

\$4,057,419 2/1/04 - 1/31/07 NSF-EPSCoR

Metabolite Signaling Center scientists examine the influence of dietary molecules on human biology. They study the molecular response to metabolites using primarily genomic technologies to better understand the influence of chemicals in food on human and animal growth and development, an emerging area of critical importance for Nebraska's economy. One goal of the research is development of agricultural products with value-added compositional changes that have beneficial effects on human health. It is among the first centers in the country to focus on effects of plant metabolites on gene expression and development in the consuming organism. Researchers use genomics technologies such as microarrays, genome sequences, cell-based bioassays and whole animal physiological studies.

Gladyshev, Vadim

Biochemistry

\$10,889,947 8/1/07 - 7/31/12 Redox Biology Center

DHHS-NIH-NCRR



Vadim Gladyshev, Charles Bessey professor of biochemistry in the Institute of Agriculture and Natural Resources, is the director of the Redox Biology Center. Established in 2002 with a grant from the National Institutes of Health as a Center of Biomedical Research Excellence, the center received a

competitive renewal grant in 2007 to support it through 2012. The center's researchers investigate how cells maintain a reduction-oxidation balance, a process called redox homeostasis, and study links between redox homeostasis and diseases such as cancer, cardiovascular disease, Alzheimer's disease and cataracts. The center's research will provide important advances in the understanding of redox regulation, comprising aspects of cellular aging and controlled cell death.

Goddard, Stephen

Computer Science and Engineering

Drought Risk, Impact and Mitigation Information System \$6,407,473 Dept. of Agriculture-RMA-FCIC Wilhite, Donald School of Natural Resources 9/1/05 – 9/30/08



Stephen Goddard





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 Levy, Richard Geosciences 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 9/15/07 - 9/14/10



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

NSF

Math in the Middle Institute Partnership

\$5,000,000 Ruth Heaton Thomas McGowan Barbara Jacobson 8/1/04 – 7/31/09

Teaching, Learning and Teacher Education Teaching, Learning and Teacher Education Lincoln Public Schools



Jim Lewis, professor of mathematics; Ruth Heaton, associate professor of teaching, learning and teacher education; Tom McGowan, professor of teaching, learning and teacher education; 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 - 2/28/09



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

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

Fast-Track Production of a Heptavalent Botulinum Vaccine \$6,799,173 DynPort Vaccine Company 9/1/03 – 2/28/08

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.

Laurence Rilett

Civil Engineering

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



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.

Sheridan, Susan

Educational Psychology

Parent Engagement and Learning Birth to Five \$5,077,441 DHHS-NIH-NICHD Edwards, Carolyn Psychology 9/26/03 – 7/31/08



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.

Tsymbal, Evgeny

Nebraska Center for Materials and Nanoscience

Materials Research Science & Engineering Center; Nanomagnetic Structures

\$5,491,000 9/1/02 - 8/31/08 NSF



Evgeny Tsymbal, professor of physics and astronomy at UNL, leads the Materials Research Science and Engineering Center. The center was established in 2002 with a grant from the National Science Foundation and involves scientists from the Departments of Physics and Astronomy, Chemistry and

Mechanical Engineering, and the School of Biological Sciences. MRSEC projects focus on fabricating and studying new magnetic structures and materials at the nanometer scale. The research has applications in advanced computing and data storage, handheld electronic devices, advanced sensors and future medical technologies.

Velander, William

Chemical and Biomolecular Engineering

cGMP Recombinant FIX and Oral Hemophilia B Therapy \$9,625,045 DHHS-NIH-NHLBI

Meagher, Michael Van Cott, Kevin 9/6/05 - 8/31/10



Chemical and Biomolecular Engineering Chemical and Biomolecular Engineering

William Velander, Donald R. Voelte Jr. and Nancy A. Keegan endowed chair in engineering, is principal investigator in a partnership funded by a \$9.9 million grant from the National Institutes of Health/National Heart, Lung and Blood Institute. The goal is to develop an abundant, pure,

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

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

\$5,398,990 Meagher, Michael Van Cott, Kevin Inan, Mehmet 8/1/05 – 10/31/08 DOD-Army Medical Research Chemical and Biomolecular Engineering Chemical and Biomolecular Engineering Chemical and Biomolecular Engineering

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

Whitbeck, Les Sociology

Cultural Resilience of Rural & Remote Ojibwe Families \$3,243,488 DHHS-NIH-NIMH Hoyt, Dan Sociology 7/1/02 - 12/30/07

Ojibwe Pathways Through the High School Years \$3,262,793 DHHS-NIH-NIDA Johnson Kurt

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 preteen 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 \$3,300,682 DHHS-NIH-National Cancer Institute 9/30/03 - 6/30/08

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)

U.S. Agency for International Development

\$36,990,000 7/1/96 - 9/30/07 \$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.

Interdisciplinary Team

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

\$4,329,877 NSF-EPSCoR

7/1/07 - 6/30/10

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

Awards of \$1 Million to \$2.999.999

Active awards in 2007 * Indicates new in 2007

Adams, Stephanie **Industrial and Management Systems Engineering**

Strengthening Transitions into Engineering Program \$1,648,354 **NSF**

Ballard, John Engineering

Perez. Lance **Electrical Engineering**

Plant Science Initiative/Plant Pathology Alfano, James

Suppression of Innate Immunity by ADP Ribosyltransferase Type III Effectors

DHHS-NIH-NIAID \$1,815,504

Barycki, Joseph **Biochemistry**

Structural Insights into Redox Homeostasis

\$1,067,922 DHHS-NIH-NIGMS

Becker, Donald Biochemistry

Mechanistic Studies of Functional Switching in the PutA Flavoprotein

DHHS-NIH-NIGMS \$1,218,025

Graduate Studies Bellows. Laurie

McNair Scholars Project and the University of Nebraska-Lincoln \$1,125,000 Dept. of Education

Chen, Bing **Computer and Electronics Engineering**

SPIRIT^{2.0} Silicon Prairie Initiative for Robotics in IT \$2,999,963 NSF

Cooperative Extension

Cotton, Dan New Technologies for Ag Extension (eXtension)

Department of Agriculture-CSREES \$1,425,600

Animal Science Cupp. Andrea

* Role of VEGF in Testis Morphogenesis

\$1.083.239 DHHS-NIH-NICHD **Animal Science** Weber, John White, Brett **Animal Science**

DeKraai, Mark **Public Policy Center**

Child Mental Health SIG \$1,629,313 Nebraska Dept. Health and Human Services

University of Nebraska State Museum Diamond, Judy

Explore Evolution \$2,851,409 NSF

* World of Viruses

\$1,286,811 DHHS-NIH-NCRR Wood, Charles Nebraska Center for Virology

Doll, Elizabeth

Educational Psychology

NSF

Evolving Inquiry: Science Instruction Model for Teachers in Rural, Culturally Diverse Schools

\$1,261,684 Dept. of Education

Bruning, Roger Educational Psychology
Bonnstetter, Ron Teaching, Learning and Teacher Education
Horn, Christy Educational Psychology

Dzenis, Yuris Engineering Mechanics

NIRT: Manufacturing of Novel Continuous

Nanocrystalline Čeramic Nanofibers \$1,095,200

Zeng, Xiao Cheng Chemistry
Feng, Ruqiang Engineering Mechanics
Turner, Joseph Engineering Mechanics
Larsen, Gustavo Chemical and Biomolecular Engineering

NIRT: Nanomanufacturing and Analysis of Active Hierarchical Nanofilamentary Nanostructures

\$1,000,000 NSF

Zeng, Xiao Cheng Chemistry
Feng, Ruqiang Engineering Mechanics
Turner, Joseph Engineering Mechanics

Poser, Susan Center for the Teaching and Study of Applied Ethics Tomkins, Alan Public Policy Center

Eccarius, Malinda

Special Education and Communication Disorders

Mountain-Prairie Upgrade Partnership

\$1,155,054 Dept. of Education

Epstein, Michael

Special Education and Communication Disorders

On the Way Home: A Family-Centered Academic Reintegration Intervention Model

Reintegration intervention wode

\$1,443,284 Dept. of Education
Torkelson-Trout, Alexandra Special Education and
Communication Disorder

Espy, Kimberly

Office of Research

Prenatal Tobacco Exposure: Perinatal and Genetic Risks \$1,207,660 DHHS-NIH-NIDA Wiebe, Sandra Office of Research

Executive Function Development in Preschool Children \$1,168,281 DHHS-NIH-NIMH

Wiebe, Sandra Office of Research

Faller, Ronald

Civil Engineering

Evaluation & Field Installation of Steel Tube & Foam Energy Reduction (SAFER) Barrier

\$1,045,913 Indianapolis Racing League
Holloway, Jim Civil Engineering
Reid, John Mechanical Engineering
Civil Engineering
Civil Engineering

Sicking, Dean Civil Engineering

University Television Farrell, Michael IPY: Engaging Antarctica

\$1,246,068 NSF

Diamond, Judy University of Nebraska State Museum

Farritor. Shane **Mechanical Engineering**

Track Stability Assessment & Data Transmission Dept. of Transportation-FRA \$2.531.439 Turner, Joseph **Engineering Mechanics** Nelson, Carl Mechanical Engineering Sharif, Hamid Computer and Electronics Engineering

Gladyshev, Vadim Biochemistry

Functions of Mammalian Thioredoxin Reductases \$1,155,459 **DHHS-NIH-NIGMS**

Selenoprotein as a Target for Cancer Prevention \$1,323,973 DHHS-NIH-NCI

Methionine Sulfoxide Reduction, Selenium and Aging \$1,249,639 DHHS-NIH-NIA

Identity & Functions of Selenoprotein Genes \$1,138,800 DHHS-NIH-NIGMS

Computer Science and Engineering Goddard, Stephen

Climate & Soil Risk Information System

\$1,212,056 Dept. of Agriculture-RMA Wilhite, Donald School of Natural Resources Hubbard, Kenneth School of Natural Resources

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

Early Speech Motor Development

\$1,758,852 DHHS-NIH-NIDCD

Hoagland, Kyle School of Natural Resources

DNR Ground Water Management and Protection Act Service Agreement

Nebraska Dept. of Natural Resources \$1,500,000

Hubbard, Kenneth School of Natural Resources

Services of the NOAA Regional Climate Centers \$2,107,365 Dept. of Commerce-NOAA

* Regional Climate Services Support in the High Plains Region: The High Plains Regional Climate Center Dept. of Commerce-NOAA \$1,000,000

Jones, Vicky **Northeast Research & Extension Center**

Northeast Nebraska Paraprofessional Ladder Project Dept. of Education \$1,976,095

Teaching, Learning and Teacher Education Lopez, William

NE State Forest Service Josiah, Scott

Cooperative Forestry Program

\$1,834,089 Dept. of Agriculture-FS

Kamil, Alan Biological Sciences

Mechanisms of Visual Search and Attention

\$1,029,062 DHHS-NIH-NIMH
Bond. Alan Biological Sciences

Knoche, Lisa Center on Children, Youth, Families and Schools

Rural Language and Literacy Connections (Rural LLC)

\$2,741,563 Dept. of Education
Raikes, Helen Center on Children, Youth, Families
and Schools/Child, Youth and Family Studies

Koszewski, Wanda Nutrition and Health Sciences

Building Nebraska Families

\$2,226,983 Nebraska Dept. of Health & Human Services
Birnstihl, Elizabeth
Schnepf, Marilynn Nutrition and Health Sciences

Nutrition Education Program

\$1,280,914 Nebraska Dept. of Health & Human Services
Birnstihl, Elizabeth
Schnepf, Marilynn Nutritional and Health Sciences

Lee, Jaekwon Biochemistry

Mechanistic Insights into Homeostatic Copper Ion Acquisition \$1,075,850 DHHS-NIH-NIDDK

Leslie-Pelecky, Diandra Physics and Astronomy

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

\$1,987,732 NSF Kirby, Roger Physics and Astronomy

Lou, Marjorie Veterinary and Biomedical Sciences

Protein-Thiol Mixed Disulfide in Cataractogenesis \$1,721,697 DHHS-NIH-National Eye Institute

Lu, Yongfeng Electrical Engineering

Multi-Laser-Beam Open-Atmosphere Surface
Coating Techniques Based on Precursor Excitation,
Photodissociation and Controlled Cooling
\$2,999,970
DOD-Office of Naval Research-MURI

Meagher, Michael Chemical and Biomolecular Engineering

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

Therapeutic Agents & Vaccines against Biological Warfare
\$2,905,899 DOD-Army Medical Research
Schlegel, Vicki Food Science and Technology
Zhang, Wenhui Chemical and Biomolecular Engineering
Wu, Joey Chemical and Biomolecular Engineering

Purification of proPRT-201 and Production of Reference Standard \$2,001,355 Proteon Therapeutics

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

Mendoza-Gorham, Joan

Student Affairs

Classic Upward Bound \$1,250,000 Dept. of Education

Upward Bound Math/Science Program

\$1,000,000 Dept. of Education

Nelson, J. Ron

Special Education and Communication Disorders

Portales a Aprender Leer (PAL)

\$2,687,442 Dept. of Education

Parkhurst, Lawrence

Chemistry

Assembly Mechanisms of TBP-Nucleated Complexes DHHS-NIH-NIGMS \$1,107,318

Robertson Jr., Vaughn

Student Affairs

UNL Educational Talent Search

Dept. of Education \$2,091,823

Rutenbeck, Kathy

Student Affairs

Upward Bound-Northeast Nebraska

\$1,458,320 Dept. of Education

Sheridan, Susan

Center on Children, Youth, **Families and Schools**

Evaluation of Efficacy of CBC for Addressing Disruptive Behaviors of Children-at-Risk for Academic Failure

\$1,368,067 Dept. of Education Center on Children, Youth, Families and Schools Glover, Todd

Simpson, Melanie

Biochemistry

Role of Hyaluronan Matrix in Prostate Cancer Progression \$1,074,629 **DHHS-NIH-National Cancer Institute**

Snow, Greg

Physics and Astronomy

The Cosmic Ray Observatory Project

\$1.374.005 NSF Claes, Daniel Physics and Astronomy

Starace, Anthony

Physics and Astronomy

Dynamics of Few-Body Atomic Processes

\$1,106,337 Dept. of Energy

Umstadter, **Donald**

Physics and Astronomy Research & Development of a High-Power-Laser-Driven

Electron Accelerator Suitable for Applications

\$1,250,029 DOD-DARPA

Banerjee, Sudeep Physics and Astronomy

> High-Energy Laser for Detection, Inspection, & Non-Destructive Testing

DOD-Air Force Office of Scientific Research \$2,596,020

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

Dept. of Homeland Security-DNDO \$1,829,596

Van Etten, James Plant Pathology

DNA Replication & Gene Expression of Chlorella Viruses

\$1,215,694 DHHS-NIH-NIGMS
Dunigan, David Plant Pathology
Kang, Ming Plant Pathology

Kang, Ming Plant Pathology
Zhang, Yuanzheng Plant Pathology
Agarkova, Irina Plant Pathology
Gurnon, James Plant Pathology

Verma, Shashi School of Natural Resources

Great Plains Regional Center for Global Environmental Change \$2,214,769 Dept. of Energy/NIGEC

Carbon Sequestatrian in Dryland & Irrigated Agroecosystems \$1,600,000 Dept. of Energy Cassman, Kenneth Agronomy and Horticulture **Biological Sciences** Knops, Johannes Hubbard, Kenneth School of Natural Resources Arkebauer, Timothy Agronomy and Horticulture Dobermann, Achim Agronomy and Horticulture Yang, Haishun Agronomy and Horticulture Walters, Daniel Agronomy and Horticulture Suyker, Andrew School of Natural Resources Ginting, Daniel Agronomy and Horticulture

Viljoen, Hendrik Chemical and Biomolecular Engineering

A Rational Design of a Platform for de novo Gene Synthesis \$1,335,080 DHHS-NIH-NCRR Subramanian, Anu Chemical and Biomolecular Engineering

Walker, Judy Mathematics

EMSW21-MCTP: Nebraska Mentoring through Critical Transition Points

\$2,500,000 NSF Marley, Tom Mathematics

Wedin, David School of Natural Resources

Sand Hills Biocomplexity: Integrating
Biogeophysical Processes Across Space and Time
\$1,794,730
NSF
Loope, David
Geosciences

20060, 24.1.4

Weeks, Donald Biochemistry

Development of Dicamba-Resistant Crops \$2,500,000 Monsanto Co.

Whitbeck, Les Sociology

Great Plains Cultural Ways Mental Health Careers Program \$1,298,171 DHHS-NIH-NIMH Moore, Helen Sociology

White, Lynn Sociology

Infertility: Pathways & Psychosocial Outcomes \$2,559,414 DHHS-NIH-NICHD McQuillan, Julia Sociology 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 DHHS-Admin. for Child & Families
Torquati, Julia Family and Consumer Sciences

Wilhite, 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 DHHS-NIH-Fogarty International Center

Evolution of Clade C HIV-1 in Infected Children \$1,586,250 DHHS-NIH-NICHD

Research Training in Comparative Viral Pathogenesis \$1,223,242 DHHS-NIH-NIAID

Yamamoto, Catherine Student Affairs

Student Support Services Program

\$1,889,080 Dept. of Education

Zempleni, Janos Nutrition and Health Sciences

Vitamin-Dependent Modifications of Histones

\$1,046,279 DHHS-NIH-NIDDK

Zhang, Luwen Center for Virology

Oncogenic Properties of Interferon Regulatory Factor 7

\$1,126,847 DHHS-NIH-National Cancer Institute

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

Active awards in 2007
* Indicates new in 2007

Admiraal, David Civil Engineering

Low-Cost Energy Dissipation at Culvert Exits

\$201,856 Nebraska Dept. of Roads

Alexander, Dennis Electrical Engineering

Ultrafast Laser Interaction Processes for Libs & Other Sensing Technologies

\$600,000 University of Central Florida

Alfano, James Plant Science Initiative/Plant Pathology

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

\$430,000 NSF

* Dissecting the Function of HrpJ & HrpK – Two Type III Secreted Proteins Required for Injection of Effectors into Plant Cells \$398,500 Dept. of Agriculture-NRICGP

Allen, Craig School of Natural Resources

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

\$325,081 Nebraska Environmental Trust
Merchant, James School of Natural Resources

Cross-Scale Structure & Scale Breaks in Complex Systems \$248,986 James S. McDonnell Foundation

Allen, David Engineering Mechanics

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

\$208,211 Dept. of Education-FIPSE

Inter-University Program for Human Resources Training in Computational Mechanics

\$203,904 Dept. of Education-FIPSE

* EMME: US-EU Transatlantic Degree Program in Engineering

Mechanics/Materials Engineering

\$407,997 Dept. of Education
Chandra, Namas Engineering
Negahban, Mehrdad Engineering Mechanics

Anderson, Mark Geosciences

Atmospheric Conditions Associated with Sea Ice Characteristics over Arctic Ocean during Melt Season \$208,699 NASA

Asard, Han Biochemistry

Physiological Functions & Biochemical Properties of Plant Cytochromes b561

\$386,084 NSF

Atkin, Audrey

Biological Sciences

Wild-Type PPR1 mRNA Decay by

Yeast Nonsense-Mediated mRNA Decay Pathway \$403,219 NSF Moriyama, Etsuko Plant Science Initiative

Avramov, Luchezar Mathematics

Homology & Cohomology over Commutative Rings \$356,322 NSF

Avramova, Zoya Biological Sciences

ATX1, Epigenetic Regulator of Plant Development \$442,500 NSF

Azizinamini, Atorod Civil Engineering

Simple for Dead-Continuous for Live Load System
with Partial Pre-Fabricated Deck System
\$242,038 Nebraska Dept. of Roads

Development of Design Tools for Steel Bridge Systems,
Simple for Dead Loads & Continuous for
Superimposed Dead Load & Live Loads
\$226,306
Nebraska Dept. of Roads

Steel Box System Monitoring of N-2 over I-480 Bridge \$292,244 Nebraska Dept. of Roads

IBRC 2002 Project

\$240,000 Nebraska Dept. of Roads

* Folded Plate Technology: Research, Design & Monitoring \$445,000 Nebraska Dept. of Roads

* Development of Field Data for Effective Implementation of Mechanistic-Empirical Pavement Design Procedure \$315,252 Nebraska Dept. of Roads Negahban, Mehrdad Engineering Mechanics

Baenziger, P. Stephen Agronomy and Horticulture

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

\$306,981 Dept. of Agriculture-ARS
Mitra, Amit Plant Pathology
Watkins, John Plant Pathology
Clemente, Thomas
Baltensperger, David Panhandle Research and Extension Center

Genetic Basis of Agronomic Traits Controlled by Chromosome 3A in Wheat

\$390,000 Dept. of Agriculture-NRICGP
Eskridge, Kent Statistics
Dweikat, Ismail Agronomy and Horticulture

* Developing Small Grains Cultivars Optimally Suited for Organic Production

\$755,937 Dept. of Agriculture-NRICGP Flores, Rolando Food Science and Technology Wegulo, Stephen Plant Pathology Russell, William Agronomy and Horticulture Shapiro, Charles Agronomy and Horticulture Food Science and Technology Schlegel, Vicki Wehling, Randy Food Science and Technology Northeast Research and Extension Center Knezevic, Stevan Hein, Gary Panhandle Research and Extension Center Panhandle Research and Extension Center Lyon, Drew

Balkir, Sina Electrical Engineering

All Solid-State Wireless Sensor Network for Nuclear Proliferation Detection

\$417,191 Dept. of Energy Hoffman, Michael Electrical Engineering

Barker, Bradley Center on Children, Youth, Families and Schools/4-H State Office

Robotics & GPS/GIS in 4-H: Workplace Skills for the 21st Century \$864,139 NSF Adamchuk, Viacheslav Center on Children, Youth, Families and Schools/Biological Systems Engineering

Basolo, Alexandra Biological Sciences

Behavioral Plasticity in Preexisting Receiver Bias \$372,000 NSF

Effects of Sexual Selection & Prediation on a Genetic Polymorphism for Body Size

\$519,721 NSF

Batelaan, Herman Physics and Astronomy

Matter Optics with Intense Laser Light

\$462,590 NSF

Becker, Donald Biochemistry

MRI: Acquisition of Beckman XL-I Analytical Ultracentrifuge \$284,160 NSF

Belli, Robert Gallup Research Center

Verbal Behaviors in Computerized Lifecourse Surveys \$414,430 DHHS-National Institute on Aging

Benson, Andrew Food Science and Technology

Functional Consequences of Genome Evolution in Listeria Monocytogenes

\$261,515 Dept. of Agriculture-NRICGP

Berkowitz, David Chemistry

New Approaches to Catalyst Screening & Development \$423,000 NSF

Beukelman, David Special Education and Communication Disorders

Rehabilitation Engineering Research Center on Communication Enhancement

\$534,990 Duke University Medical Center

Bevins, Rick Psychology

Acquired Appetitive Properties of Nicotine \$884,792 DHHS-NIH-NIDA

Bilder, Christopher Statistics

* Disease Detection and Prevalence Estimation through Informative Group Testing

\$722,666 DHHS-NIH-NIAID

Billesbach, David Biological Systems Engineering

Development & Field Testing of a Rapidly Deployable
Carbon Dioxide Flux Management System

\$517,045 Dept. of Energy-Berkeley National Lab

Blum, Paul 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 Kamil, Alan Biological Sciences

Brand, Jennifer

Center for Materials and Nanoscience

Boron Carbide Semiconductor Films

\$347,826

Dept. of Energy-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

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

Bulling, Denise

\$257,500

Public Policy Center

Hospital Preparedness — Bioterrorism Nebraska Dept. of Health and Human Services

* Critical Incidence Stress Management Program Coordination \$222,120 Nebraska 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 \$430,860 Nebraska Dept. of Roads

> Development of Tools for Rating Bridges & Application to State Bridges

\$893,418 Nebraska 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

Burkhart-Kriesel, Cheryl Panhandle Research
and Extension Center

Johnson, Bruce Agricultural Economics

Carr, Timothy

Nutrition and Health Sciences

Method for Enhancing the Cholesterol-Lowering
Property of Plant Sterol & Stanol Esters
\$500.000
Beef Products Inc.

Beef Products Inc.

* Regulation of Cholesterol Absorption by Plant Sterol & Stanol Esters

\$466,915

Dept. of Agriculture-NRICGP

Cassman, Kenneth

Agronomy and Horticulture

Demonstration/Validation of a Dynamic Real-Time Decision Support System for

Irrigation Management with Limited Water Supply

\$230.537 Nebraska Corn Board Dobermann, Achim Agronomy and Horticulture Walters, Daniel Agronomy and Horticulture Yang, Haishun Agronomy and Horticulture Biological Systems Engineering Irmak, Suat Northeast Research and Extension Center Kranz, William Shapiro, Charles Northeast Research and Extension Center Tarkalson, David West Central Research and Extension Center

Cerutti, Heriberto Biological Sciences/Plant Science Initiative

Histone Modifications & Transcriptional Silencing in Chlamydomonas

\$448,235 NSF

RNA-Mediated Silencing: Mechanisms and Biological Roles in Chlamydomonas

\$969,539 DHHS-NIH-NIGMS

Claes, Daniel Physics and Astronomy

Experimental High Energy Physics
NSF

\$573,000 NSF Snow, Gregory Physics and Astronomy

Clemente, Thomas Biotechnology/Plant Science Initiative/Agronomy and Horticulture

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

> Research in Nebraska on Improved Soybean Oil for Biodiesel Fuel

\$491,000 Dept. of Energy

Functional Analysis of Soybean Genes through Transposon Mutagenesis

\$586,600 United Soybean Board/Smith/Bucklin Specht, James Agronomy and Horticulture

* Enhancing Disease Resistance in Soybean through Biotechnology \$303,000 North Central Soybean Research Program Alfano, James Plant Science Initiative/Plant Pathology Morris, T. Jack Biological Sciences

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 Educational Psychology
Kunz, Gina Educational Psychology

DiMagno, Stephen

Chemistry

Hydrogen for Fuel Cells

\$966,000 DOD-Office of Naval Research
Takacs, James Chemistry
Berkowitz, David Chemistry

* Anhydrous Fluoride Salts

\$420,000 NSF

Dominguez, Aaron

Physics and Astronomy

* PIRE: Collaborative Research with the Paul Scherrer Institute and Eidgenoessische Technische Hochschule on Advanced Pixel Silicon Detectors for the CMS Detector

\$406,500 University of Kansas Center for Research Bloom, Kenneth Physics and Astronomy

Dowben, Peter Center for Materials and Nanoscience

Surface Chemistry of Adsorbates on Crystalline Polymers \$690,000 NSF

Drijber, Rhae Agronomy and Horticulture

* Developing Technologies to Improve Soil & Nutrient Management \$211,000 Dept. of Agriculture-ARS

Du, Liangcheng

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

Ferroelectric Polymer Langmuir-Blodgett Films for Nonvolatile Random-Access Memory Applications \$240,000 NSF

Dwyer, Matthew Computer Science and Engineering

Program Analysis Techniques to Support Dependable RTSJ Applications

\$207,519 NSF
Elbaum, Sebastian Computer Science and Engineering
Goddard, Stephen Computer Science and Engineering

Rothermel, Gregg Computer Science and Engineering

Finite-State Verification for High-Performance Computing \$300,000 NSF

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

\$500,000 NSF
Goddard, Stephen Computer Science and Engineering
Elbaum, Sebastian Computer Science and Engineering

Dzenis, Yuris Engineering Mechanics

Fundamentals of Fabrication of Nanofiber Assemblies by Electrospinning

\$372,000 NSF Farritor, Shane Mechanical Engineering

Next Generation Super Carbon Fiber

\$317,127 Hexcel Corporation

Nanoengineered Interfaces \$250,002 NSF

Modeling-Based Control of Electrospinning Process

\$275,000

Eccarius, Malinda Special Education and Communication Disorders

Mountain Prairie Upgrade Partnership - Early Childhood \$781,642 Dept. of Education Marvin, Chris Special Education and Communication Disorders

Eckhardt, Craig Chemistry

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

A Study of the Mechanochemistry of Carbamazepine Polymorphs \$227,200 Pfizer Inc./PGRD Groton Labs

Elbaum, Sebastian Computer Science and Engineering ITR: Dependable End-User Software

\$253,573 NSF

Engen-Wedin, Nancy Teaching, Learning and Teacher Education

Indigenous Roots Teacher Education Program
\$704,730

Dept. of Education

McGowan, Thomas Teaching, Learning and Teacher Education

NSF

Epstein, Michael

Special Education and Communication and Disorders

Leadership Training in Emotional Disturbance Disorders \$590,854 Dept. of Education

Randomized Clinical Trial of Wraparound Services for Elementary School Students in School Settings \$538,266 Dept. of Education

Fabrikant, Ilya Physics and Astronomy

Collision Processes Involving Low-Energy Electrons \$215,000 NSF

 * Electron-Molecule Collisions in Different Environments $\$240,\!000$ NSF

Faller, Ronald Civil Engineering

Development of a New Precast Concrete Bridge Railing System (2006-2008)

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

* Development of an Economical Guardrail System for Use on Gabion Walls

\$250,000 Dept. of Transportation-FHWA
Sicking, Dean Midwest Roadside Safety
Rohde, John Midwest Roadside Safety
Reid, John Mechanical Engineering

Foley, Brett Educational Psychology

Consulting Services/Assist Oklahoma Commission for Teacher Preparation

\$452,064 Oklahoma Office of Public Affairs

* Conducting Validity Studies for South Dakota Department of Education

\$327,630 South Dakota Dept. of Education Geisinger, Kurt Educational Psychology

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

Gardner, Scott University of Nebraska State Museum/ Biological Sciences

* Mongolia Vertebrate Parasite Project

\$619,991 NSF

* Enabling Access to Priority Taxa for Biodiversity Studies in the Manter Laboratory of Parasitology

\$484,647 NSF Jimenez-Ruiz, Francisco University of Nebraska State Museum

Gay, Timothy Physics and Astronomy

* Polarized Electron and Photon Physics

\$370,000 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

Glover, Todd Center on Children, Youth, Families and Schools

Establish a State-Wide Response-to-Intervention Consortium for Training & Evaluation

\$309,500 Nebraska 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 * CRI: IAD: Towards Cyber-Physical Computing at Scale: A Life-Size

Experimental Facility for Applied Sensor Networks Research
\$200,000 NSF
Ci, Song Computer and Electronics Engineering
Peng, Dongming Computer and Electronics Engineering
Sharif-Kashani, Hamid Computer and Electronics Engineering

Perez, Lance Electrical Engineering

Goedert, James Construction Systems
Rebuilding New Orleans

\$293,660 Dept. of Housing and Urban Development
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 \$356.094 NASA

Bonnstetter, Ronald Teaching, Learning and Teacher Education

* Online Master's Degree in Applied Science Education

\$540,345 Toyota USA Foundation
Bonnstetter, Ronald Strand, Billie Extended Education and Outreach

Graef, George

Agronomy and Horticulture

Sclerotinia Resistance Enhanced by Accumulation of QTL Transgenic Approaches

\$371,120 Dept. of Agriculture-ARS Clemente, Thomas Agronomy and Horticulture Steadman, James Plant Pathology

Greve, Vickie

Northeast Research and Extension Center

Communities Together Can

\$657,000 Dept. of Agriculture-CSREES Swanson, Douglas Cooperative Extension

Hage, David Chemistry

Chromatographic Automation of Immunoassays \$946,982 DHHS-NIH-NIGMS

* Chromatographic Studies of Functional Proteomics DHHS-NIH-NIDDK \$763,414

Teaching, Learning and Teacher Education Harnisch, Delwyn

Nebraska Assessment Cohorts (NAC05/06) & Nebraska Leadership for Learning Cohorts (NLL05/06) \$200.000 Nebraska Dept. of Education

Plant Science Initiative/Plant Pathology Harris, Steven

Autophagy in Fungal Hyphae: Functional Genomic & Mechanical Strength Studies \$308,035 University of Maryland-Baltimore

Harshman, Lawrence

Biological Sciences

Comparative Functional Genomics of Drosophila Obesity \$516,548 Cornell University

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

\$289,213 NSF Moriyama, Etsuko Plant Science Initiative

* Genome Biology of Innate Immunity: Genetic Dissection of Drosophila melanogaster Responses to Bacillus Infection \$452.163 DOD-DEPSCoR Benson, Andrew Food Science and Technology Kachman, Stephen Statistics

Harvey, F. Edwin

School of Natural Resources

* Habitat Conservation Plan for the Salt Creek Tiger Beetle and the Eastern Saline Wetlands of Nebraska \$380,000 Nebraska Game and Parks Commission

Hay, DeLynn **IANR-Cooperative Ext**

North Central Region Sustainable Agriculture Professional Development Program—FY 2005

\$910,283 Dept. of Agriculture-CSREES

School of Natural Resources Hayes, Michael

* Transitioning the Drought Impact Reporter into an Operational System

\$310,137 Dept. of Commerce-NOAA-NCTP

Hebets, Eileen **Biological Sciences**

Searle Scholar: Exploring Neural Basis of Complex Behavior in Amblypygids

Chicago Community Trust/Searle Scholar \$240.000

Henry, Christopher

Biological Systems Engineering

Livestock Producer Environmental Assistance Project

\$600,000 Nebraska Environmental Trust

Development of Alternative Technologies

for Small Livestock Producers \$221,881 Nebraska Dept. of Environmental Quality Gross, Jason **Biological Systems Engineering**

Hergert, Gary Panhandle Research and Extension Center

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

\$885.093 Dept. of Agriculture-RMA-FCIC

Panhandle Research and Extension Center Burgener, Paul Lyon, Drew Panhandle Research and Extension Center Martin, Derrel **Biological Systems Engineering** Panhandle Research and Extension Center Pavlista, Alexander

Supalla, Raymond Agricultural Economics Panhandle Research and Extension Center Urrea Florez, Carlos

Yonts, C. Dean Panhandle Research and Extension Center

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

\$239.951 Dept. of Agriculture-NRCS Panhandle Research and Extension Center Baltensperger, David Berger, Agron Panhandle Research and Extension Center DeBoer, Karen Panhandle Research and Extension Center Panhandle Research and Extension Center Hla, Aung Panhandle Research and Extension Center Lyon, Drew Pavlista, Alexander Panhandle Research and Extension Center

Panhandle Research and Extension Center Yonts, C. Dean

Heusel, Gary Student Involvement Midwest Consortium for Service-Learning in Higher Education \$939,806 Corporation for National Service

School of Natural Resources Hoagland, Kyle

Solving Complex Issues in Nebraska:

Modeling the Western Platte River Valley-Phase II **Environmental Protection Agency** \$347,200

Fritz, Sherilyn Geosciences

Holmes, Mary Anne Geosciences

Building a Community of Women Geoscience Leaders \$228,774 NSF

School of Natural Resources Holz, John

* Fremont Lake #20 Alum Treatment Evaluation Project

\$201,700 Nebraska Dept. of Environmental Quality School of Natural Resources Barrow, Tadd

Hoagland, Kyle School of Natural Resources School of Natural Resources Holz, Aris

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

* Transition of Weather & Climate Forecasts into Effective Decision-Making Tools

\$293,732 Dept. of Commerce-NOAA
Hubbard, Kenneth School of Natural Resources
Lynne, Gary Agricultural Economics
Pytlik Zillig, Lisa Educational Psychology
Bruning, Roger Educational Psychology

Hunt, Robert University of Nebraska State Museum

Renovation & Computerization of University of Nebraska Vertebrate Paleontology Collection

\$498,368 NSF Voorhies, Michael University of Nebraska State Museum

Hudgins, Jerry Electrical Engineering

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

Hutkins, Robert Food Science and Technology

Food Safety: Life-Long Learning through Teacher Training
\$400,000 Dept. of Agriculture-NRICGP
Durso, Lisa Food Science and Technology
Rupnow, John Food Science and Technology
Thippareddi, Harshavardhan Food Science and Technology
Whipple, Georgianna Food Science and Technology

Hygnstrom, Scott School of Natural Resources

Development of Spatially Explicit Models of Wildlife Diseases \$450,930 Dept. of Agriculture-APHIS

lanno, Natale Electrical Engineering

Nano-Material Science

\$531,500 NSF-EPSCoR Turner, Joseph Engineering Mechanics

Irmak, Suat Biological Systems Engineering

* Measurement of Growing Season Actual Crop Evapotranspiration and Crop Coefficients, and Dormant Season Evaporative Losses for Key Vegetation Surfaces in the Central Platte Natural Resources District

\$492,564 Central Platte NRD
Irmak, Ayse Biological Systems Engineering
Martin, Derrel Biological Systems Engineering
van Donk, Simon Biological Systems Engineering
Verma, Shashi School of Natural Resources

Jameson, Mary Liz University of Nebraska State Museum

Monography & Phylogeny of New World Scarabaeoid Beetles \$755,300 NSF Ratcliffe, Brett Entomology

Jiang, Hong Computer Science and Engineering

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

\$602,326 NSF Wang, Jun Computer Science and Engineering

Jones, Clinton Veterinary and Biomedical Sciences

Functional Analysis of biCPO

\$349,500 Dept. of Agriculture-NRICGP
Zhang, Yange Veterinary and Biomedical Sciences

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

\$374,475 Dept. of Agriculture-CSREES

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

\$405,625 DHHS-NIH-NIAID

Jones, Elizabeth Civil Engineering

ITS Resource, Research & Educational Activities at Peter Kiewit Institute

\$921,414 Nebraska Dept. of Roads

Jones, Erick Industrial and Management Systems Engineering

Center for Engineering Logistics and Distribution at UNL \$256,000 NSF

Jose, H. Douglas Agricultural Economics

Trade Adjustment Assistance Program

\$705,000 Dept. of Agriculture-RMA

Josiah, Scott Nebraska State Forest Service

Community Enhancement Program

\$350,000 Nebraska Dept. of Roads

NRCS-Technical Service Provider Project

\$403,694 Dept. of Agriculture-NRCS

Hazardous Fuels Reduction: Pine Ridge Adjacent Landowners 2007 \$250,000 Dept. of Agriculture-FS

Kelling, Clayton Veterinary and Biomedical Sciences

Role of Nonstructural Proteins in Pestivirus Virion Assembly \$289,116 DHHS-NIH-NIAID

Kennedy, Patricia Marketing

Socially Constituted Food Consumption of Adolescents
\$350,000 Dept. of Agriculture-CSREES
McGarvey, Mary Economics
Stanek-Krogstrand, Kaye Nutrition and Health Sciences

Keown, Jeff Animal Science

Trilateral Curriculum Modification & Rural Community Information Delivery

\$209,157 Dept. of Education-FIPSE

Kim, Yong Rak Civil Engineering

Material Selection & Design Consideration for Moisture Damage of Asphalt Pavement

\$225,527 Nebraska Dept. of Roads Azizinamini, Atorod Civil Engineering

* Asphalt Research Consortium

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

* Layer Moduli of Nebraska Pavements for the New Mechanistic-Empirical Pavement Design Guide (MEPDG) \$226,106 Nebraska Dept. of Roads

Knutson, Cody School of Natural Resources

* Development of a Drought Decision Support Portal for the Republican River Basin of Colorado, Nebraska & Kansas

\$223,524 Dept. of Commerce-NOAA
Svoboda, Mark School of Natural Resources
Ryu, Jae School of Natural Resources

Koelsch, Richard Biological Systems Engineering

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

Kostelnik, Marjorie Education and Human Sciences

Osher Lifelong Learning Institute

\$400,000 Bernard Osher Foundation
Eversoll, Deanna Education and Human Sciences
Aguilar, Deanna Education and Human Sciences

Krull, Dean Agronomy and Horticulture

Managing Irrigation Systems Today & Tomorrow

\$594,226 Central Platte NRD
Benham, Brian Agronomy and Horticulture
Ferguson, Richard Agronomy and Horticulture

Lackey, Susan School of Natural Resources

* Eastern Nebraska Water Resources Assessment LPNRD
\$416,000 Lower Platte North NRD
Ayers, Jerry School of Natural Resources
Hanson, Paul School of Natural Resources
Joeckel, Robert School of Natural Resources

* Developing Hydrogeologic Databases to Assist in Water Resources Management — UENRD

\$203,353 Upper Elkhorn NRD

Ledder, Glenn Mathematics

UBM: Research for Undergraduates in Theoretical Ecology (RUTE)

\$905,000 NSF
Deng, Bo Mathematics
Gibson, Robert Biological Sciences
Loladze, Irakli Mathematics
Louda, Svata Biological Sciences

Lee, Kevin

Physics and Astronomy

ClassAction: Model Rapid-Feedback & Dynam Formative Assess System

\$359,768 Schmidt, Edward

NSF Physics and Astronomy

Development of Interactive Simulation Environments

for Inquiry Astronomy Teaching \$336,572

NSF Schmidt, Edward Physics and Astronomy

Leslie-Pelecky, Diandra **Physics and Astronomy**

Magnetic Properties of Disordered Rare-Earth Nanostructures \$420,000 NSF Shield, Jeff Mechanical Engineering

Magnetic Cluster States in Nanostructured Materials \$450,000 Dept. of Energy-EPSCoR

Lindquist, John **Agronomy and Horticulture**

Contribution of Fusarium lateritium to Weed Suppressive Soils & Weed Abundance

\$366,186 Dept. of Agriculture-NRICGP Drijber, Rhae Agronomy and Horticulture Yuen, Gary Plant Pathology

Physics and Astronomy Liou, Sy-Hwang

Nanometer-Size Magnetic Devices

\$236,000 DOD-DEPSCoR

Liu, Mingsheng **Architectural Engineering**

CC at Mutual of Omaha - Phase III

\$210,319 Omaha Public Power District

4-H State Office Lodi, Kathleen

* Health Rocks-Healthy Life Curricula Development \$250,700 National 4-H Council Birnstihl, Elizabeth Cooperative Extension Southeast Research and Extension Center Fox, Marilyn

Louda, Svata **Biological Sciences**

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

NSF \$369,999

Lu, Yongfeng

Electrical Engineering

Laser-Assisted Fabrication of Large-Scale 3-D Photonic Bandgap Structures

\$350,000 DOD-DEPSCoR

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 Alexander, Dennis Electrical Engineering Ducharme, Stephen Physics and Astronomy

> * Tunable Photonic Bandgap Crystals with Integrated Functionalities

DOD-Air Force Office of Scientific Research \$330,000

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

\$240,000 NSF

* Wavelength-Tunable Laser for Resonant Energy Coupling in Multi-Energy Processing

DOD-Office of Naval Research-DURIP \$223,566

Mackenzie, Sally

Plant Science Initiative

Machinery of Mitochondrial Recombination in Higher Plants \$494.080 Christensen, Alan **Biological Sciences**

> Nuclear-Organellar Interactions Involving AtMSH1 in Arabidopsis

\$500,000 Dept. of Energy

Strategy for the Transgenic Induction of Cytoplasmic Male Sterility in Crop Plants

\$466,608 Dept. of Agriculture-BRDC

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

Dept. of Agriculture-NRICGP \$599,999 Plant Science Initiative Fromm, Michael

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, Derrel B

Biological Systems Engineering

Modeling and Field Experimentation to Determine
Effects of Land Terracing-Republican River Basin (CESU)
\$468,667
Dept. of Interior-BR

Food & Agricultural Sciences National Needs Graduate Fellowship Grants Program

\$276,000 Dept. of Agriculture-CSREES

McNulty, Lawrence Educational Administration

* Eurasia/South Asia TEA Program 2007

\$379,187 International Research and Exchanges

McQuillan, Julia Sociology

Infertility: Pathways & Psychosocial Outcomes \$426,907 Pennsylvania State University

Meagher, Michael Chemical and Biomolecular Engineering

Optimization of Phytase Production in Pichia Pastoris

\$372,874 Syngenta
Inan, Mehmet Chemical and Biomolecular Engineering

Melvin, Steven West Central Research and Extension Center

* Irrigation Management with Limited Water:

A Farm Education Program

\$287,080 Dept. of Interior-BR
Martin, Derrel Biological Systems Engineering
Corr, Alan West Central Research and Extension Center
van Donk, Simon West Central Research and Extension Center

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

 * Functional Map of Tomato Genome using Direct Repeat Induced Gene Silencing

\$301,000 Dept. of Agriculture-NRICGP

Moriyama, Etsuko Plant Science Initiative/Biological Sciences

* Efficient and Sensitive Mining System for G-Protein Coupled Receptors

\$591,300 DHHS-NIH-NLM

* Large-Scale Simultaneous Multiple

Alignment & Phylogeny Estimation \$223,215

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

NSF

Veterinary and Biomedical Sciences Moxley, Rodney

Influence of Enterotoxins on Virulence and Colonization of Porcine Intestine by E.coli

Dept. of Agriculture-NRICGP \$270.000

Nelson, J. Ron

Special Education and Communication Disorders

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

Dept. of Education \$694.884

Nickerson, H. Doak Nebraska State Forest Service

Restoring the Pine Ridge Forest Ecosystem \$300,000 Nebraska 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

Biological Sciences Orti, Guillermo

RCN: DeepFin Will Advance the Phylogeny of "Fishes" \$500,000 NSF

*Assembling the Euteleost Tree of Life - Addressing the Major Unresolved Problem in Vertebrate Phylogeny

\$602,956 NSF Li, Chenhong **Biological Sciences** Diamond, Judy University of Nebraska State Museum

Pattnaik, Asit **Veterinary and Biomedical Sciences**

Analyses of Virulence & Attenuation Determinants of PRRSV using Reverse Genetics \$320,000 Dept. of Agriculture-NRICGP

Veterinary and Biomedical Sciences Osorio, Fernando

VSV RNA Transcription and Replication

DHHS-NIH-NIAID \$996,128

Electrical Engineering Perez, Lance

Self-Configuration & Localization in Ad Hoc Wireless Sensor Networks

\$548,807 DOD-DEPSCoR

Goddard, Stephen Computer Science and Engineering

* GAANN in Engineering & Assistive Technology

\$383.643 Dept. of Education Adams, Stephanie Industrial and Management Systems Engineering

Henze, Gregor Architectural Engineering Goddard, Stephen Computer Science and Engineering Pilson, Diana **Biological Sciences**

Transgenic Virus Resistant Squash: Ecological Effect

\$314,877 Dept. of Agriculture-CSREES **Biological Sciences**

Morris, T. Jack

Platt. Stephen **Mechanical Engineering**

In Vivo Robotic Camera System for Laparoscopic Surgery **DHHS-NIH-NIBIB** \$389.358 Farritor, Shane Mechanical Engineering

Pope, Kevin **School of Natural Resources**

Recruitment of Walleye and White Bass in Irrigation Reservoirs \$397,628 Nebraska Game and Parks Commission

Powell, Larkin School of Natural Resources

* Assessing Local & Regional Variability in Productivity & Fidelity of Grassland Birds on National Park Service Units in the Great Plains Dept of Interior-GS \$212,122 Allen, Craig School of Natural Resources

Chemistry Rajca, Andrzej

Stable High-Spin Polyradicals & Chiral Pi-Conjugated Systems \$570,715 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

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

\$247,760 NSF

Ramamurthy, Byrav **Computer Science and Engineering**

Secure Group Communication over Wired & Wireless Networks \$349.990 Computer Science and Engineering Variyam, Vinod

Ratcliffe, Brett University of Nebraska State Museum/ Entomology

* Faunistic Survey of Dynastinae of Mexico, Guatemala, & Belize \$481,493 NSF

Center for Materials and Nanoscience Redepenning, Jody

> Chemically Modified Nano-Electrodes for Magnetoelectronics 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

NSF \$389,228

Reid, John

Mechanical Engineering

Investigating the Use of Small Diameter Softwood as Guardrail Posts

\$280,000 Faller, Ronald Dept. of Agriculture-FS Civil Engineering

Midwest States Regional Pooled Fund Program

\$545,000 Nebraska Dept. of Roads Sicking, Dean Midwest Roadside Safety Rhode, John Midwest Roadside Safety Faller, Ron Midwest Roadside Safety

Reid, Robert Special Education and Communication Disorders

Leadership Training in Attention Deficit Hyperactivity Disorder \$620,006 Dept. of Education

Rilett, Laurence Civil Engineering

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

\$222,896 Nebraska Dept. of Roads Jones, Elizabeth Civil Engineering

Intelligent Transportation System Deployment Project

\$831,942 Nebraska Dept. of Roads
Jones, Elizabeth Civil Engineering
Khattak, Aemal Civil Engineering

Robertson, Brian Center for Materials and Nanoscience

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

Rothermel, Gregg Computer Science and Engineering

CRI: Community Resource to Support Controlled

Experimentation with Program Analysis and Testing Techniques
\$874,636 NSF
Elbaum, Sebastian Computer Science and Engineering
Dwyer, Matthew Computer Science and Engineering

ITR: Dependable End-User Software

\$439,593 Oregon State University

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

\$601,816 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

Chemical and Biomolecular Engineering Saraf, Ravi

Nanodevice for Imaging Normal Stress Distribution with Application in Sensing Texture and Feel by Touching

\$332,156 NSF

Scalora, Mario **Psychology**

* Threat Assessment ManTech International Corporation \$509,111 Bulling, Denise **Public Policy Center**

Schacht, Walter **Agronomy and Horticulture**

Grasslands Ecological Monitoring System

\$608,880 Dept. of Agriculture-RMA-FCIC

Food Science and Technology Scheel, Joan Development, Coordination & Delivery of Information on Food

Defense to Small & Medium Food Manufacturers \$291,123 Dept. of Commerce-NIST

Scheffler, Marilyn

Special Education and **Communication Disorders**

Project PROMOTE

\$797.184 Dept. of Education Sanger, Dixie Special Education and Communication Disorders

> Project Support: Speech-Language Pathologists Supporting Literacy Instruction

\$800,000 Dept. of Education Special Education and Communication Disorders Sanger, Dixie

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

Sellmyer, David

Physics and Astronomy/Center for Materials and Nanoscience

* Studies of Artificially Structured Composite Magnets \$381,000 Dept. of Energy

* Materials Research Science & Engineering Center: Quantum and Spin Phenomena in Nanomagnetic Structures \$200.000 NanoElectronics Research Corporation Belashchenko, Kirill Physics and Astronomy Tsymbal, Evgeny Physics and Astronomy

Shank, Nancy **Public Policy Center**

* HIT Regional Health Records Implementation & Evaluation \$402.186 Rural Nebraska Healthcare Network

Northeast Research and Extension Center Shapiro, Charles

Improving Organic Farming Systems across Nebraska Agroecosystems

Dept. of Agriculture-CSREES \$762,949

Panhandle Research and Extension Center Baltensperger, David Brandle, James School of Natural Resources

Francis, Charles Agronomy/Horticulture Knezevic, Stevan Northeast Research and Extension Center Entomology

Wright, Robert School of Natural Resources Johnson, Ron

School of Natural Resources Shea, Patrick

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

\$570,000 Dept. of Agriculture-CSREES Burbach, Mark School of Natural Resources Lynne, Gary Agricultural Economics Martin, Alexander Agronomy and Horticulture Milner, Maribeth Agronomy and Horticulture

Sheridan, Susan **Educational Psychology**

Leadership Training in Interdisciplinary Collaboration \$800,000 Dept. of Education

Shield, Jeffrey **Mechanical Engineering**

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

Sicking, Dean **Civil Engineering**

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

\$634,521 National Cooperative Highway Research Program Khattak, Aemal Civil Engineering Jones, Elizabeth Civil Engineering

Improved Procedures for Safety Performance Evaluation of Roadside Features

National Cooperative Highway Research Program \$833,940 Reid, John Mechanical Engineering Rohde, John Civil Engineering Faller, Ronald Civil Engineering

Siegfried, Blair Entomology

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

* Evaluating Bioactivity of Insecticidal Proteins against European Corn Borer (Lepidoptera: Crambidae) Pioneer Hi-Bred

\$220,000

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

Smith, Andrew University of Nebraska State Museum

Scarab Biodiversity of Southern South America

\$300,000 NSF

Ocampo, Federico University of Nebraska State Museum

Smith. David R. **Veterinary and Biomedical Sciences**

Intervention Strategies to Reduce Escherichia Coli 0157:H7 in Beef Feedyards

\$500,000 Dept. of Agriculture-NRICGP Erickson, Galen **Animal Science** Hinkley, Susanne Veterinary and Biomedical Sciences Klopfenstein, Terry Animal Science

Moxley, Rodney Veterinary and Biomedical Sciences

> Efficacy of Two & Three Doses of an Experimental Escherichia coli Bacterial Extract

Bioniche Life Sciences \$345,715 Animal Science Erickson, Galen Klopfenstein, Terry Animal Science Moxley, Rodney Veterinary and Biomedical Sciences

Snow. Daniel School of Natural Resources

* Effects of Cattle Manure Handling & Management Strategies on Fate & Transport of Hormones

\$699,607 **Environmental Protection Agency** Bartelt-Hunt, Shannon Civil Engineering Zhang, Tian Civil Engineering Kranz, William Northeast Research and Extension Center

Northeast Research and Extension Center Mader, Terry Northeast Research and Extension Center Shapiro, Charles Shelton, David Northeast Research and Extension Center

Snow, Gregory Physics and Astronomy

GAANN Fellowships for Physics at UNL

\$381,225 Dept. of Education

Soh, Leen-Kiat **Computer Science and Engineering**

* iLOG: Embedding & Validating Empirical Usage Intelligence in Learning Objects

\$397,705 NSF Samal, Ashok Computer Science and Engineering Center on Children, Youth, Families and Schools Nugent, Gwen

Somerville, Greg **Veterinary and Biomedical Sciences**

> Environmental Regulation of Staphylococcus epidermidis PIA Synthesis

\$361,679 **DHHS-NIH-NIGMS**

Soukup, Rodney **Electrical Engineering**

* A Novel Variable Wide Bandgap Material for High Power, High Frequency Devices

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

Ianno, Natale **Electrical Engineering**

Spalding, Roy **Agronomy and Horticulture**

* Effectiveness of Irrigated Crop Management Practices in Reducing Groundwater Nitrate Contamination

\$630,768 Dept. of Agriculture-CSREES Ferguson, Richard Agronomy and Horticulture Marx, David Statistics School of Natural Resources Spalding, Mary

Spaulding, William **Psychology**

* Decision Science in Rehabilitation

\$877,652 DHHS-NIH-NIMH Garbin, Calvin Psychology

Specht, James **Agronomy and Horticulture**

Genetic Mapping & Application of SNP DNA Markers in Soybean \$329,391 Dept. of Agriculture-ARS

Spreitzer, Robert **Biochemistry**

Role of the Rubisco Small Subunit

\$871,500 Dept. of Energy

Rubisco Phylogenetic Engineering

\$202,383 Dept. of Agriculture-NRICGP

Srisa-an, Witawas Computer Science and Engineering

Building Scalable & Adaptive Garbage Collector for Server Systems \$281,000 Elbaum, Sebastian Computer Science and Engineering

> * CSR-PDOS: Memory Efficient Garbage Collection Framework for Java Server Applications

\$ 300,000 NSF

Physics and Astronomy Starace, Anthony

Strong Field & Ultrafast Atomic and Molecular Processes \$250,000 NSF

Steadman, James Plant Pathology

Bean/Cowpea Collaborative Research Support Program \$427,468 Michigan State University

> Resistance Improvement of Bean thru Multi-Site Screening & Pathogen Characterization Dept. of Agriculture-ARS

\$204,650

Steffen, David **Veterinary and Biomedical Sciences**

Johne's Disease Testing

\$208,000 Nebraska Dept. of Agriculture

Stentz, Terry

Construction Management

Human Factors in Railway Operation

\$301,250 Dept. of Transportation-FRA
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

Stockton, Matthew

West Central Research and Extension Center

* Whole-Farm Economic Biological Stochastic Simulation Model of Small to Medium Cow-calf Firms with Research, Teaching and Extension Modules

\$499,740 Dept. of Agriculture-NRICGP

Stone, Julie

Plant Science Initiative/Biochemistry

Role of Transcriptional Regulator in Programmed Cell Death & Plant Development

\$354,000 Dept. of Energy

Storz, Jay

Biological Sciences

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

NSF

Stowell, Richard Biological Systems Engineering

* Air Quality Extension & Education: Enhanced Learning Opportunities for Addressing Air Quality Issues in Animal Agriculture

\$498,562 Dept. of Agriculture-NRICGP

Stubbendieck, James

Great Plains Studies

Farm Viability, Farmland Preservation and Smart Growth \$308,000 Dept. of Agriculture-NRICGP Esseks, J. Dixon Great Plains Studies

Subramanian, Anu Chemical and Biomolecular Engineering

Prep Zirconia Aggregates/Adsorbents in Bioseparations \$270,131 NSF

* Biomimetic Nanofibrillar Scaffolds for Tissue Engineering \$394,370 DHHS-NIH-NIBIB Larsen, Gustavo Chemical and Biomolecular Engineering

Swanson, David

Computer Science and Engineering

US CMS Tier 2 Center

\$761,000 Bloom Kenneth University of California-Los Angeles

Bloom, Kenneth Physics and Astronomy
Dominguez, Aaron Physics and Astronomy

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

* US CMS Operations at the LHC

\$508,000 University of California-Los Angeles
Bloom, Kenneth Physics and Astronomy
Dominguez, Aaron Physics and Astronomy

Tadros, Maher Civil Engineering

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

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

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

Takacs, James Chemistry

Novel Cyclization Reactions for Organic Synthesis \$422,500 NSF

Taylor, Steve Food Science and Technology

Food Allergen Database

\$617,846 Various Industries Goodman, Richard Food Science and Technology

Midwest Advanced Food Manufacturing Alliance \$462,110 Dept. of Agriculture-CSREES

Allergenicity Evaluation of Isinglass

\$555,035 Various Industries

Thippareddi, Harshavardhan Food Science and Technology

Understanding and Controlling Listeria Monocytogenes
Transmission through Ready-to-Eat Meat Products

\$222,270 Colorado State University

HACCP Assistance for Small & Very Small Processors with Development & Validation of Safe Meat Chilling Processes \$599,916 Dept. of Agriculture-CSREES

Wang, Lijun Biological Systems Engineering
Weller, Curtis Biological Systems Engineering
Burson, Dennis Animal Science

Improving Safety of Shell Eggs & Egg Products by Addressing Critical Research Needs for Salmonella Enteritidis & Salmonella spp

\$599,951 Dept. of Agriculture-NRICGP
Froning, Glenn Food Science and Technology
Subbiah, Jeyamkondan Biological Systems Engineering

Thomas, Steven School of Natural Resources

FIBR: Linking Genes to Ecosystems

\$307,189 University of California-Riverside

Tiller, Dale Architectural Engineering

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 Child, Youth and Family Studies

Evaluation of Promising Models and Delivery Approaches to Child Care Provider Training

\$484,658 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 Line

\$261,674 Lake Elsinore USD

Tsymbal, Evgeny Physics and Astronomy

Multiscale Modeling of Magnetic Nanocontacts \$200,751 Seagate Technology

Tyler, Kimberly Sociology

* Social Networks, HIV Risk Behaviors & Homeless Youth \$358,763 DHHS-NIH-NIDA

Uiterwaal, Kees Physics and Astronomy

Inside a Focused Laser Beam: Molecular Dynamics \$447,001 NSF

Umstadter, Donald Physics and Astronomy

Ion Acceleration with High Intensity Lasers
\$401,277 NSF

Laser Produced Coherent X-Ray Sources

\$420,000 Dept. of Energy

Van Etten, James **Plant Pathology**

Center for Innovation in Membrane Protein Production \$524,676 Univ of California-San Francisco

Plant Pathology Dunigan, David

Varivam, Vinod **Computer Science and Engineering**

Studies in Computational Complexity Theory

\$200,000 NSF

Special Education and Vasa, Stanley Communication Disorders

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

School of Natural Resources Verma, Shashi

Carbon Sequestration and Global Climate Change

\$941.161 Dept. of Energy-EPSCoR Biological Sciences Knops, Johannes Cassman, Kenneth Agronomy and Horticulture

Chemical and Biomolecular Engineering Vilioen. Hendrik

Vortex-Tube Based Thermocycler w/Intelligent Software DHHS-NIH-Nat Ctr Rsch Resources \$705.752 Gogos, George Mechanical Engineering

Wagner, William **Biological Sciences**

Communication of Direct Mating Benefits to Females \$307,283 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

Weeks. Donald **Biochemistry**

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

Weisz, Victoria Center on Children, Families and the Law

Nebraska State Court Improvement

\$276,002 Supreme Court of Nebraska

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

Wiegand, Roger Mathematics

GAANN Fellowship Program: Mathematics at UNL

\$635,375 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

\$233,883 NSF

* Self-referencing, Social Identity & Judgments of Sexual Harassment

\$302,364 NSF

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

* Developing a Drought Preparedness Framework for Tribal Governments: Moving from Crisis to Risk-Based Management \$609,539 Dept. of Interior-BIA

Wilson, Brent

Mechanical Engineering

Development of Improved Product Performance through Optimization & Modeling of

Engineering Materials Processing & Function

\$588,028 Brenco/Amsted Industries **Engineering Mechanics** Turner, Joseph

Wilson Ir., 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.

Biological Systems Engineering Woldt, Wayne

Advancing Onsite Wastewater Treatment in Nebraska Nebraska Dept. of Environmental Quality \$259,742 Skipton, Sharon Southeast Research and Extension Center

Wood, Charles Biological Sciences

AIDS and Cancer Specimen Bank \$383,601 George Washington University

> * Research and Training on HIV/AIDS Neuropathogenesis in Zambia

\$273,363 DHHS-NIH-NIMH

* Vaccination against Mucosal HIV Clade C Transmission \$251,710 Dana-Farber Cancer Institute

Woodward, Gordon **Mathematics**

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

\$400,000 NSF Ballard, John Engineering Computer Science and Engineering Ramamurthy, Byrav Goddard, Steve Computer Science and Engineering Arts & Sciences

Nebraska REU in Applied Mathematics

\$251,823 NSF Rebarber, Richard Mathematics

Wortmann, Charles Agronomy/Horticulture

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

\$235,839 Nebraska Corn Board Erickson, Galen Animal Science Schulte, Dennis Biological Systems Engineering Franti, Tom Biological Systems Engineering Jose, H. Douglas Agricultural Economics

Yang, Yiqi Textiles. Clothing and Design

Resistance of Sulfur Dyed Fabrics to Oxidative Bleaching & Acidic Tendering: Improvement & Application \$300.618 Procter & Gamble

Lee, Kevin

Yoder, Ronald Biological Systems Engineering

Nebraska AgrAbility

\$800,000 Dept. of Agriculture-CSREES Baquet, Alan Agricultural Economics

Yohe, John IANR-Intl Programs

* Transfer of Sorghum & Millet Production,
Processing & Marketing Technologies Program in Mali
\$750,000 U.S. Agency for International Development

Zempleni, Janos Nutrition and Health Sciences

Biotin Affects Cytokine Metabolism

\$409,586 Dept. of Agriculture-NRICGP

Epigenetic Effects of Biotin on Activation of Endogenous Viral Sequences

\$395,601 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
Fena, Rugiana Engineering Mechanics

Zera, Anthony Biological Sciences

Enzymatic and Molecular Bases of Trade-Offs in Lipid Metabolism that Underlie Life History Trade-Off \$429,682 NSF

Harshman, Lawrence Biological Sciences

Physiological & Molecular Causes of Genetic Variation/Covariation in Endocrine Regulation \$372,000

Zhang, Luwen Center for Virology

Interferon Regulatory Factor 7 and NPC \$393,855 DHHS-NIH-NIAID

Zlotnik, Vitaly Geosciences

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

\$219,958 NSF
Fritz, Sherilyn Geosciences
Swinehart, James School of Natural Resources

NSF

Career and K Awards

Active awards in 2007

* Indicates new in 2007

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 \$643,418



Binek, Christian

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



Bloom, Kenneth

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



Choueiry, Berthe

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



Dominguez, Aaron

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



Elbaum, Sebastian

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



Frank, Tracy

Geosciences

* Exploring the Geologic Record of Major Climate Transitions: Causes, Consequences, & Impacts on the Evolution of Earth Systems \$583.816 NSF



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



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

NSF



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



Wang, Lily
Architectural Engineering
Integrating Time-Variant Source Directivity into
Architectural Acoustic Auralizations
\$406,376
NSF



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

K Awards

National Institutes of Health K Awards 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



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



Tyler, Kimberly
Sociology
Neglect and Abuse Histories Among Homeless
Young Adults
\$659,525
DHHS-NIH-NIMH

Arts and Humanities Awards \$50,000 or more

Active awards in 2007
* Indicates new in 2007

Cahan, David

History

A Biography of Hermann von Helmholtz

NSF

\$102,868 1/1/05 - 12/31/07



David Cahan, Charles Bessey professor and professor of history, is writing a fullscale, 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—principally 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 Poetry Foundation



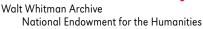
The Poetry Foundation, in partnership with the Library of Congress, supports the American Life in Poetry project, an initiative of Ted Kooser, the Poet Laureate Consultant in Poetry to the Library of Congress. American Life in Poetry is a free weekly column for newspapers and

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

\$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
Institute of Museum and Library Services

\$169,651 11/1/05 - 4/30/08 Price, Kenneth Bolin, Mary

English Libraries Libraries



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.

Implementation Grants for Special Projects— Journals of Lewis and Clark Online Edition National Endowment for the Humanities

\$222,177 9/1/03-8/31/07

Walter is 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 Web site a useful resource for scholars and the general public.

* National Digital Newspaper Program: Nebraska \$271.016 National Endowment for the Humanities Wunder, John Journalism and Mass Communications Center for Digital Research in the Humanities Mering, Margaret Pytlik Žillig, Brian Center for Digital Research in the Humanities Walter, who co-directs UNL's Center for Digital Research in the Humanities, leads the Nebraska Digital Newspapers Project, through which about 100,000 pages of Nebraska newspapers from 1880 through 1910 will be digitized for inclusion in the Library of Congress' national "Chronicling America" Web site. UNL's University Libraries is partnering with the College of Journalism and Mass Communications and the Nebraska State Historical Society on the two-year, "We the People" grant. Nebraska is one of nine states selected in the early phases of this project, which eventually will include all 50 states. "We the People" grants recognize model projects that advance the study, teaching and understanding of American history and culture.

Arts and Humanities Awards \$5,000-\$49,999

Active awards in 2007 * Indicates new in 2007

Anthropology and Geography Bleed, Peter

*Archaeological Investigation of the Battle of El Viso, July 1, 1898 \$30,220 National Geographic Society

Lied Center for Performing Arts Engen-Wedin, Nancy

ArtsReach

\$47,500 Nebraskans for the Arts

Umonhon Cultural Arts Program

\$23,250 Kennedy Center for Performing Arts

Handa, Rumiko **Architecture**

> Spirit of Design: Multidisciplinary, Multimedia Database and Website

\$12,000 Graham Foundation Potter, James Architecture

Textiles, Clothing and Design Hanson, Marin

*International Quilt Study Center New Building Opening Exhibition \$21,274 Cooper Foundation International Quilt Study Center Ducey, Carolyn

Jewell, Andrew **Center for Digital Research in the Humanities**

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

Nebraska Humanities Council \$7,800

Price, Kenneth English

*Walt Whitman Archive \$14,000 Cooper Foundation

University Press Randolph, Ladette

Access to Artistic Excellence: International Translations \$25,000 National Endowment for the Arts

Walter, Katherine **University Libraries**

Quilt Index National Leadership Project

\$20,000 Michigan State University Crews, Patricia Textiles, Clothing and Design

Homestead — Broken Bow Microfilming Project (CESU)

\$20,000 Dept. of Interior-NPS Edwards, Rick **Economics**

Textiles, Clothing and Design Weiss, Wendy

Hillestad Textiles Gallery \$5,535

Friends of the Hillestad Textiles Gallery

PATENTS ISSUED IN 2007

Recognition for faculty who received patents
UNL faculty indicated in red

Terry J. Klopfenstein

Animal Science

Title: Ruminant Feed and Method of Making

Date: November 28, 2007 No. 840554 (European) Country: Ireland

Yiqi Yang

Textiles, Clothing and Design

Title: Sulfur Dye Protection Systems and Compositions and

Methods Employing Same Date: October 8, 2007

No. 210789 Country: India

Adnan Hadzialic; **Stephen Robert Platt**; Dmitry Oleynikov; **Shane**Farritor

Mechanical Engineering

Title: Robot for Surgical Applications

Date: April 3, 2007 No. 7,199,545

Country: United States

Dean Sicking; Keith Kurz; Ronald Faller

Civil Engineering; Midwest Roadside Safety Program

Title: Traffic Noise Barrier System

Date: May 22, 2007 No. 7,220,077

Country: United States

Sally Mackenzie; Zarir Vaghchhipawala

Plant Pathology

Title: Soybean FGAM Synthase Promoters Useful in Parasite

Control

Date: May 29, 2007 No. 7,223,901

Country: United States

Stephen M. Goddard

Computer Science and Engineering
Title: Fault Tolerant Firewall Sandwiches

Date: August 7, 2007 No. 7,254,834

Country: United States

2007 INTELLECTUAL PROPERTY LICENSES

Recognition for faculty who licensed intellectual property
UNL faculty indicated in red

Licensee: Perennial Plant Products, Inc. (dba Blooms of

Bressingham of North America)

Descriptions: Chrysanthemum: 95003a, 94019, Orange Spider, Big

Purple, Blush, Sunsation, 80108, 81126, 84112

Clematis groundcover

Dianthus: Roshish One, Prairie Pink, Sweetheart, 24025, Pixie,

Hearts Desire

Penstemon: Prairie Star, Prairie Flame, Prairie Twilight, Lady Husker,

Norma

Schizachrium: scoparium 1, scoparium 2

Veronica

Inventors: Dale Lindgren; Daniel Schaaf

Department: West Central Research and Extension Center

Licensee: Neogen Corporation

Description: Immunoassay technology for use in detection of

allergens in food

Inventors: **Stephen L. Taylor**; **Susan Hefle** Department: Food Science and Technology

Dr. Hefle died in August of 2006.

Licensee: Sharp Bros. Seed Co.

Description: Goldmine variety of big bluestem

Inventor: Terrance P. Riordan

Department: Agronomy and Horticulture

Licensee: Nebraska Surgical Solutions, Inc.

Descriptions: In vivo robot

Method and robotic device for drug delivery

A display for surgical visualization

Imaging robot

Inventors: **Shane Farritor**; Dmitry Oleynikov Department: Mechanical Engineering

Licensee: Channel Bio Corp.

Description: Roundup-ready soybean varieties with increased

tolerance to glyphosate Inventor: **George Graef**

Department: Agronomy and Horticulture

Licensees: University of North Dakota, University of New Orleans,

Purdue University

Description: CALMIT Data Acquisition Program (CDAP), software for the collection of spectral data using dual field ratiometers

Inventors: **Bryan Leavitt**; **Donald Rundquist**Department: Conservation and Survey Division

Licensee: The Grain Place, Inc.

Description: Yellow hilum, high protein soybeans

Inventor: George Graef

Department: Agronomy and Horticulture

Licensee: CYRO Industries

Description: Crashworthy protection system for roadside sound

barriers (PARAGLAS Barrier)

Inventor: Ron Faller

Department: Midwest Roadside Safety Program

Licensee: Terra Nova Nurseries Description: Penstemon: Dark Towers

Inventor: Dale Lindgren

Department: West Central Research and Extension Center

Licensee: Chrysantis, Inc.

Description: New gene that intensifies purple plant color in pearl

millet

Inventor: David Andrews

Department: Agronomy and Horticulture

Licensee: South Dakota Crop Improvement

Description: Husker Genetics Brand Overland NE01643 (wheat)

Inventor: Stephen Baenziger

Department: Agronomy and Horticulture

Licensee: Sementes Adriana

Description: Pearl millet parent lines NM, hybrids, and other germplasms to include any seeds that are increased or directly

produced using NM, NPM, NE or NFPM lines

Inventor: David Andrews

Department: Agronomy and Horticulture

START UP COMPANIES IN 2007

Recognition for faculty who started companies
UNL faculty indicated in red

Shane Farritor; Dmitry Oleynikov

Mechanical Engineering

Company: Nebraska Surgical Solutions, Inc.

Start Date: April 20, 2007

Hendrick Viljoen; Joel TerMaat

Chemical and Biomolecular Engineering Company: Philisa Technology Corporation

Start Date: August 13, 2007

CREATIVE WORKS IN FINE AND PERFORMING ARTS

Faculty who created, performed or produced creative works in fine and performing arts, nationally or internationally UNL faculty indicated in red

John R. Bailey Mark Clinton

School of Music School of Music

Theodor Blumer Woodwind Music, Vol. 3. Camas, Wash.: Crystal Records, 2007.

Diane C. Barger Mark Clinton Susan Levine School of Music School of Music School of Music

Soloists, performance, Into the Monster's Lair, clarinet with piano and dancer. International Clarinet Association's ClarinetFest, Vancouver, Canada.

Anthony J. Bushard

School of Music

Creative exhibition, Waging the Peace: Bernard Herrmann and The Day the Earth Stood Still, lecture in musicology. College Music Society National Meeting, Salt Lake City, Utah.

Dana Fritz Art and Art History

Artist, exhibit, Villandry et les Jardins du Monde, photography. Chateau de Villandry, France.

Artist, exhibit, Power of Nature: Dana Fritz & Hee Sook Kim, photography. Yavapai College Art Gallery, Prescott, Arizona.

Michael F. lames

Textiles, Clothing and Design

Artist, exhibit, Interference Effect: Betrayed Lover's Knot #2, fabric construction quilt. Touring exhibition co-sponsored by Craft in America Inc., and Curatorial Assistance Traveling exhibitions (CATE) and complementing the PBS production Craft in America that aired nationally in May 2007.

Artist, exhibit, Flights of Fantasy, multiple works, fabric constructions and quilts. Museum of Art, Seoul, South Korea. Invitational exhibit organized by the U.S. State Department's Artin-Embassies Program, the U.S. Embassy, Seoul, and Seoul National University.

Artist, exhibit, solo exhibition. Galerie Jonas, Petit-Cortaillod, Neuchâtel, Switzerland.

Gail M. Kendall

Art and Art History

Artist, exhibit, 32nd Pottery Exhibition. Art School at Old Church, Demarest, New Jersey.

Artist, exhibit, The Akal Exchange, ceramics exhibition & workshop. Amiz-Amiz Tagine Workshop, Marrakech, Morocco.

Artist, exhibit, ceramics invitation. Red Lodge Ceramic Center, Red Lodge, Montana.

Artist, exhibit, St. Croix Pottery Tour. Mayeron Cowles Studio, Shaffer, Minnesota.

Artist, exhibit, earthenware invitation. The Clay Studio, Philadelphia, Pennsylvania.

Karen S. Kunc Art and Art History

Artist, exhibit, solo exhibition, prints. Gallery Piano Nobile, Krakow, Poland.

Artist, exhibit, Lyrical Legacy, prints & artist's books. Leedy-Voulkos Art Center, Kansas City, Missouri.

Artist, exhibit, solo exhibition, prints. Huntington Museum of Art, Huntington, West Virginia.

Barbara Trout Textiles, Clothing and Design

Artist, exhibit, *Trappings Two*, juried exhibition. International Textile and Apparel Association, California State University Art Gallery, Northridge, California.

Wendy R. Weiss Textiles, Clothing and Design

Artist, exhibit, Polka Dot Clouds, textile art. 2007 International exhibition of Natural Dye for I, Daegu Culture and Arts Center, Korea and Ulsan Culture and Arts Center, Korea. Artist, exhibit, Striped Trees, textile art. 2007 International exhibition of Natural Dye for I, Daegu Culture and Arts Center, Korea and Ulsan Culture and Arts Center, Korea.

Sandra Williams Art and Art History

Artist, exhibit, The History of Zero, solo exhibition, mixed media. The Arts Center in Orange, Orange, Virginia.

BOOKS

Recognition for faculty who have written books UNL faculty indicated in red

Marco Abel English

Abel, M. (2007). Violent affect: Literature, cinema, and critique after representation. Lincoln, NE: University of Nebraska Press.

Jonis Agee English

Agee, J. (2007). The river wife. New York: Random House.

Bruce J. Avolio Management

Luthans, F., Youssef, C.M., & Avolio, B.J. (2007). Psychological capital: Developing the human competitive edge. Oxford, UK: Oxford University Press.

Grace Bauer English

Bauer, G. (2007). Retreats & recognitions. Sandpoint, ID: Lost Horse Press.

Donald F. Becker Biochemistry

Banerjee, R., Becker, D.F., Gladyshev, V.N., Ragsdale, S.W., & Dickman, M. (Eds.). (2007). *Redox biochemistry*. Hoboken, NJ: John Wiley & Sons.

Susan Belasco English

Belasco, S., & Johnson, L. (2007). The Bedford anthology of American literature. New York: Bedford/St. Martins.

Belasco, S., Price, K.M., & Folsom, E. (Eds.). (2007). Leaves of Grass: The sesquicentennial essays. Lincoln, NE: University of Nebraska Press.

David Beukelman

Special Education and Communication Disorders

Beukelman, D., Yorkston, K., & Garrett, K. (Eds.). (2007). Augmentative communication strategies for adults with acute or chronic medical conditions. Baltimore, MD: Paul H. Brooks Publishing Co.

Brian H. Bornstein Psychology

Wiener, R. L., Bornstein, B. H., Schopp, R. F., & Willborn, S. L. (Eds.). (2007). Social consciousness in legal decision making: Psychological perspectives. New York: Springer.

Kathy R. Bosch Extension; Child, Youth and Family Studies

Purcell, S.E., Nelson, M.E., Hanna, J.S., DeFrain, J., Krumback, E.M., Schroeder, D.E., Warner, M.K., & Bosch, K.R. (2007). Fun to play, ready to learn activity guide. Lincoln, NE: UNL Communications & Information Technology.

James Bovaird Educational Psychology

Bovaird, J., Little, T.D., & Card, N.A. (2007). Modeling contextual effects in longitudinal studies. Mahwah, NJ: Erlbaum.

Amy N. Burnett History

Savory, P.A., Burnett, A.N., & Goodburn, A.M. (2007). Inquiry into the college classroom: A journey toward scholarly teaching. Boston: Jossey-Bass (Anker Series).

Enrique Martinez Celaya Art and Art History

Celaya, E.M. (2007). Early work. Lincoln, NE: University of Nebraska Press.

Frankie M. Condon English

Condon, F.M., Geller, A.E., Eodice, M., & Carroll, M. (2007). The everyday writing center: A community of practice. Logan, UT: Utah State University Press.

Sidnie White Crawford Classics and Religious Studies

Crawford, S.W. (Ed.). (2007). Up to the Gates of Ekron: Essays on the archaeology and history of the Eastern Mediterranean in honor of Seymour Gitin. Jerusalem, Israel: Israel Exploration Society.

John Creswell Educational Psychology

Creswell, J. (2007). Projecto de pesquisa. Sao Paulo, Brazil: Artmed Editora.

Creswell, J., & Plano Clark, V. (2007). Designing and conducting mixed methods research. Thousand Oaks, CA: Sage.

T. Newell Decker Special Education and Communication Disorders

Ackley, R.S., Decker, T.N., & Limb, C.J. (Eds.). (2007). Essential guide to hearing and balance disorders. Mahwah, NJ: Lawrence Erlbaum Publishers.

John DeFrain Child, Youth and Family Studies

DeFrain, J., Olson, D.H., & Skogrand, L. (2007). Marriages and families: Intimacy, diversity, and strengths (6th ed.). New York: McGraw-Hill Higher Education.

DeFrain, J., Skogrand L., DeFrain, N., & Jones, J. E. (2007). Surviving and transcending a traumatic childhood: The dark thread. London: Haworth Press/Taylor & Francis.

DeFrain, J., & Asay, S.M. (Eds.). (2007). Strong families around the world: Strengths-based research and perspectives. Binghamton, NY: Hawthorn Press.

DeFrain, J., Lodl, K.A., & Ulrich, L. (2007). Family treasures: Creating strong families. Lincoln, NE: iUniverse Publishers.

Purcell, S.E., Nelson, M.E., Hanna, J.S., DeFrain, J., Krumback, E.M., Schroeder, D.E., Warner, M.K., & Bosch, K.R. (2007). Fun to play, ready to learn activity guide. Lincoln, NE: UNL Communications & Information Technology.

Yasar Demirel Chemical and Biomolecular Engineering

Demirel, Y. (2007). Nonequilibrium thermodynamics transport and rate processes in physical, chemical and biological systems. Amsterdam: Elsevier.

Martin Despang Architecture

Despang, M., & Burt, J. (Eds.). (2007). New supermarket design. New York: Collins Design.

Lester A. Digman Management

Digman, L.A. (2007). Strategic management: Cases for the global information age (8th ed.). Mason, OH: Thomson Brooks/Cole.

Wheeler Winston Dixon English

Dixon, W.W. (2007). Film talk: Directors at work. New Brunswick, NJ: Rutgers University Press.

Beth Doll Educational Psychology

 $\label{eq:continuous} \begin{tabular}{ll} Doll, B., \& Cummings, J.A. (2007). Transforming school mental health services. Thousand Oaks, CA: Corwin Press. \end{tabular}$

Judy A. Driskell Nutrition and Health Sciences; Food Science and Technology

Driskell, J. (Ed.). (2007). Sports nutrition: Fats and proteins. Boca Raton, FL: CRC Press, Taylor & Francis Group.

David P. Forsythe Political Science

Forsythe, D.P., & Rieffer-Flanagan, B.A.J. (2007). The International Committee of the Red Cross: A neutral humanitarian actor. New York: Routledge.

Chris W. Gallagher English

Gallagher, C.W. (2007). Reclaiming assessment: A better alternative to the accountability agenda. Portsmouth, NH: Heinemann.

James Alex Garza History; Ethnic Studies

Garza, J.A. (2007). The imagined underworld: Sex, crime and vice in Porfirian Mexico City. Lincoln, NE: University of Nebraska Press.

Norman Geske Art and Art History

Geske, N. (2007). Beyond madness: The art of Ralph Blakelock. Lincoln, NE: University of Nebraska Press.

Joan R. Giesecke Libraries

Giesecke, J.R., Hernon, P., & Alire, C.A. (2007). Academic librarians as emotionally intelligent leaders. Westport, CT: Libraries Unlimited.

Vadim N. Gladyshev Biochemistry

Banerjee, R., Becker, D.F., Gladyshev, V.N., Ragsdale, S.W., & Dickman, M. (Eds.). (2007). *Redox biochemistry*. Hoboken, NJ: John Wiley & Sons.

Amy M. Goodburn English

Savory, P.A., Burnett, A.N., & Goodburn, A.M. (2007). Inquiry into the college classroom: A journey toward scholarly teaching. Boston: Jossey-Bass (Anker Series).

Andrew R. Graybill History

Graybill, A.R. (2007). Policing the Great Plains: Rangers, mounties, and the North American frontier, 1875-1910. Lincoln, NE: University of Nebraska Press.

Janet S. Hanna Extension; Child, Youth and Family Studies

Purcell, S.E., Nelson, M.E., Hanna, J.S., DeFrain, J., Krumback, E.M., Schroeder, D.E., Warner, M.K., & Bosch, K.R. (2007). Fun to play, ready to learn activity guide. Lincoln, NE: UNL Communications & Information Technology.

Glenn J. Hoffman Biological Systems Engineering

Martin, D.L., Hoffman, G.J., Evans, R.G., & Jensen, M.E. (Eds.). (2007). Design and operation of farm irrigation systems (2nd ed.). St. Joseph, MI: American Society of Agricultural and Biological Engineers.

Srikanth B. Iyengar Mathematics

lyengar, S.B., Leuschke, G.J., Leykin, A., Miller, C., Miller, E., Singh, A., & Walther, U. (2007). Twenty-four hours of local cohomology. Providence, RI: American Mathematical Society.

Douglas M. Jackson Architecture

Jackson, D.M., & Jones, W.C. (2007). El segundo. New York: Princeton Architectural Press.

Evelyn M. Jacobson Modern Languages and Literatures

Jacobson, M.R., & Jacobson, E.M. (Trans.). (2007). Max Horkheimer, a life in letters: Selected correspondence. Lincoln, NE: University of Nebraska Press.

Manfred R. Jacobson Modern Languages and Literatures; Judaic Studies

Jacobson, M.R., & Jacobson, E.M. (Trans.). (2007). Max Horkheimer, a life in letters: Selected correspondence. Lincoln, NE: University of Nebraska Press.

Paul A. Johnsgard Biological Sciences

Johnsgard, P.A. (2007). The Niobrara. Lincoln, NE: University of Nebraska Press.

Frances W. Kaye History and Ethnic Studies; English

Vigil, R.H., Kaye, F.W., & Wunder, J.R. (Eds.). (2007). Spain and the plains: Myths and realities of Spanish exploration and settlement of the Great Plains. Boulder, CO: University of Colorado Press.

Ari Kohen Political Science; Judaic Studies

Kohen, A. (2007). In defense of human rights: A non-religious grounding in a pluralistic world. New York: Routledge.

Marjorie J. Kolstelnik College of Education and Human Sciences

Kolstelnik, M.J., Soderman, A.K., & Whiren, A.P. (2007). Developmentally appropriate curriculum: Best practices in early childhood education. Upper Saddle River, NJ: Merrill/Prentice Hall.

Kostelnik, M.J., Onaga, E., Rohde, B., & Whiren, A.P. (2007). Children with special needs: Lessons for early childhood professionals. New York: Teachers College Press.

Ted Kooser English

Kooser, T. (2007). The poetry home repair manual: Practical advice for beginning poets. Lincoln, NE: University of Nebraska Press.

Eileen M. Krumbach

Extension; Child, Youth and Family Studies

Purcell, S.E., Nelson, M.E., Hanna, J.S., DeFrain, J., Krumback, E.M., Schroeder, D.E., Warner, M.K., & Bosch, K.R. (2007). Fun to play, ready to learn activity guide. Lincoln, NE: UNL Communications & Information Technology.

Carole Levin History

Levin, C., Robin, D., & Larsen, A. (Eds.). (2007). Encyclopedia of women in the Renaissance. Santa Barbara, CA: ABC-Clio.

Frederick M. Link English

Reynolds, G.J., Quirk, T., Link, F.M. (2007). Alexander's Bridge, Willa Cather scholarly edition. Lincoln, NE: University of Nebraska Press.

Kathleen A. Lodi 4-H Youth Development

DeFrain, J., Lodl, K.A., & Ulrich, L. (2007). Family treasures: Creating strong families. Lincoln, NE: iUniverse Publishers.

Fred Luthans Management

Luthans, F., Youssef, C.M., & Avolio, B.J. (2007). Psychological capital: Developing the human competitive edge. Oxford, UK: Oxford University Press.

Derrel L. Martin Biological Systems Engineering

Martin, D.L., Hoffman, G.J., Evans, R.G., & Jensen, M.E. (Eds.). (2007). Design and operation of farm irrigation systems (2nd ed.). St. Joseph, MI: American Society of Agricultural and Biological Engineers.

Jennifer McKitrick Philosophy

McKitrick, J. (Ed.). (2007). Establishing medical reality. Berlin: Springer.

Patrice C. McMahon Political Science

McMahon, P. (2007). Taming ethnic hatred: Ethnic cooperation and transnational networks in Eastern Europe. Syracuse, NY: Syracuse University Press.

College of Law

Medill, C. (2007). Introduction to employee benefits law: Policy and practice (2nd ed.). St. Paul, MN: Thomson/West.

Mary E. Nelson Extension; Child, Youth and Family Studies

Purcell, S.E., Nelson, M.E., Hanna, J.S., DeFrain, J., Krumback, E.M., Schroeder, D.E., Warner, M.K., & Bosch, K.R. (2007). Fun to play, ready to learn activity guide. Lincoln, NE: UNL Communications & Information Technology.

David L. Olson Management

Olson, D.L., Shi, Y., & Stam, A. (Eds.). (2007). Advances in multiple criteria decision making and human systems management: Knowledge and wisdom. Amsterdam: IOS Press.

Vicki Plano Clark Psychology

Creswell, J., & Plano Clark, V. (2007). Designing and conducting mixed methods research. Thousand Oaks, CA: Sage.

Kenneth M. Price English

Belasco, S., Price K.M., & Folson, E. (Eds.). (2007). Leaves of Grass: The sesquicentennial essays. Lincoln, NE: University of Nebraska Press.

Sarah E. Purcell Extension; Child, Youth and Family Studies

Purcell, S.E., Nelson, M.E., Hanna, J.S., DeFrain, J., Krumback, E.M., Schroeder, D.E., Warner, M.K., & Bosch, K.R. (2007). Fun to play, ready to learn activity guide. Lincoln, NE: UNL Communications & Information Technology.

Ladette Randolph University of Nebraska Press

Randolph, L., & Shevchuk-Murray, N. (Eds.). (2007). The big empty. Lincoln, NE: University of Nebraska Press.

Hilda Raz English

Raz, H., & Link, A.R. (2007). What becomes you. Lincoln, NE: University of Nebraska Press.

Guy J. Reynolds English

Reynolds, G.J., Quirk, T., Link, F.M. (2007). Alexander's Bridge, Willa Cather scholarly edition. Lincoln, NE: University of Nebraska Press.

Reynolds, G.J. (2007). Cather studies (Vol. 7). Lincoln, NE: University of Nebraska Press.

Paul A. Savory

Industrial and Management Systems Engineering

Savory, P.A., Burnett, A.N., & Goodburn, A.M. (2007). Inquiry into the college classroom: A journey toward scholarly teaching. Boston: Jossey-Bass (Anker Series).

Khalid Sayood

Electrical Engineering

Sayood, K. (2007). Learning programming using MATLAB. New York: Morgan Claypool.

Robert F. Schopp

College of Law

Wiener, R.L., Bornstein, B.H., Schopp, R.F., & Willborn, S.L. (Eds.). (2007). Social consciousness in legal decision making: Psychological perspectives. New York: Springer.

Debra E. Schroeder

Extension; Child, Youth and Family Studies

Purcell, S.E., Nelson, M.E., Hanna, J.S., DeFrain, J., Krumback, E.M., Schroeder, D.E., Warner, M.K., & Bosch, K.R. (2007). Fun to play, ready to learn activity guide. Lincoln, NE: UNL Communications & Information Technology.

Susan M. Sheridan

Educational Psychology

Sheridan, S.M., & Kratochwill, T. (2007). Conjoint behavioral consultation: Promoting family-school connections and interventions. New York: Springer.

Sheridan, S.M., & Erchul, W. (2007). Handbook of research in school consultation: Empirical foundations for the field. Mahwah, NJ: Erlbaum.

Keng Siau Management

Siau, K. (Ed.). (2007). Contemporary issues in database design and information systems development. Hershey, PA: IGI Global.

Siau, K. (Ed.). (2007). Research issues in systems analysis and design, databases, and software development. Hershey, PA: IGI Global.

William D. Spaulding

Psychology

Spaulding, W.D., & Poland, J. (2007). Nebraska symposium on motivation (Vol. 52). Lincoln, NE: University of Nebraska Press.

Jordan Stump

Modern Languages and Literatures

Stump, J., & Queneau, R. (Trans., Eds.). (2007). Letters, numbers, forms. Champaign, IL: University of Illinois Press.

Stump, J., & Ricardou, J. (Trans.). (2007). Place names. Champaign, IL: Dalkey Archive Press.

Iohn D. Turner

Classics and Religious Studies

Turner, J.D. (2007). Ecrits gnostiques. La Bibliothèque de Nag Hammadi, Laval, Canada: Gallimard.

Mary Uhl-Bien Management

Uhl-Bien, M., Shamir, B., & Pillai, R. (2007). Follower-centered perspectives on leadership: A tribute to the memory of James R. Meindl. Greenwich, CT: Information Age Publishing.

Linda Ulrich

IANR Communications and Information Technology

DeFrain, J., Lodl, K.A., & Ulrich, L. (2007). Family treasures: Creating strong families. Lincoln, NE: iUniverse Publishers.

Hendrik van den Berg

Economics

van den Berg, H., & Lewer, J.J. (2007). International trade and economic growth. Armok, NY: M.E. Sharpe.

William B. Walstad

Economics

Walstad, W.B., & Kourilsky, M.L. (2007). The entrepreneur in youth: An untapped resource for economic growth, social entrepreneurship, and education. Northampton, MA: Edward Elgar.

Walstad, W.B. (2007). Study guide for economics. Burr Ridge, IL: McGraw-Hill.

Mary K. Warner

Extension; Child, Youth and Family Studies

Purcell, S.E., Nelson, M.E., Hanna, J.S., DeFrain, J., Krumback, E.M., Schroeder, D.E., Warner, M.K., & Bosch, K.R. (2007). Fun to play, ready to learn activity guide. Lincoln, NE: UNL Communications & Information Technology.

Richard L. Wiener

Psychology

Wiener, R.L., Bornstein, B.H., Schopp, R.F., & Willborn, S.L. (Eds.). (2007). Social consciousness in legal decision making: Psychological perspectives. New York: Springer.

Steven L. Willborn College of Law

Wiener, R.L., Bornstein, B.H., Schopp, R.F., & Willborn, S.L. (Eds.). (2007). Social consciousness in legal decision making: Psychological perspectives. New York: Springer.

Willborn, S.L., Schwab, S.J., Burton, J.F., & Lester, G.L.L. (2007). Employment law: Cases and materials (4th ed.). Charlottesville, VA: LexisNexis.

David J. Wishart

Anthropology and Geography

Wishart, D.J. (Ed.). (2007). Encyclopedia of the Great Plains Indians. Lincoln, NE: University of Nebraska Press.

John R. Wunder

History; College of Journalism and Mass Communications

Hickey, D.R., Wunder, S.A., & Wunder, J.R. (2007). Nebraska moments. Lincoln, NE: Nebraska Press.

Vigil, R.H., Kaye, F.W., & Wunder, J.R. (Eds.). (2007). Spain and the plains: Myths and realities of Spanish exploration and settlement of the Great Plains. Boulder, CO: University of Colorado Press.

Susan A. Wunder Teaching, Learning and Teacher Education

Hickey, D.R., Wunder, S.A., & Wunder, J.R. (2007). Nebraska moments. Lincoln, NE: Nebraska Press.

lanos Zempleni

Nutrition and Health Sciences

Zempleni, J., Rucker, R.B., & McCormick, D.B. (Eds.). (2007). Handbook of vitamins. Boca Raton, FL: Taylor and Francis.

2007 RECOGNITIONS AND HONORS

Faculty who have been elected to honor academmics or who have received national or international honors

UNL faculty indicated in red

Myron Braake

Plant Pathology (Emeritus)

National Academy of Science membership Dr. Braake died June 15, 2007.

Brian Larkins

Office of Research; Agronomy and Horticulture

National Academy of Science membership

William Splinter

Larsen Tractor Test and Power Museum; Biological Systems Engineering (Emeritus)

National Academy of Engineers membership

James Van Etten

Plant Pathology

National Academy of Science membership

Sam Allgood

Economics

Member, American Economic Committee on Economic Education

Diane C. Barger

School of Music

Buffet Crampon Artist/Clinician, Buffet Crampon USA, Inc. Treasurer, International Clarinet Association

Fred P. Baxendale

Entomology

Award for Excellence in Extension, National Association of State Universities and Land-Grant Colleges

Mary M. Beck

Animal Science

Fellow Award, Poultry Science Association

Christopher R. Bilder

Statistics

CAUSEweb Resource of the Year Award, Consortium for the Advancement of Undergraduate Statistics Education

Dawn O. Braithwaite

Communication Studies

Distinguished Service Award, Western States Communication Association

Second vice president, National Communication Association

Chris R. Calkins

Animal Science

K.C. Wong Education Foundation invited lecturer, Nanjing Agricultural University, Nanjing, China Invited presentation at China Congress, International Congress of Meat Science and Technology

Gwendolyn M. Combs

Management

Elected to executive committee, Gender and Diversity in Organizations Division, Academy of Management Vice president, president elect, Management Faculty of Color Association, Inc.

Rochelle Dalla

Child, Youth and Family Studies

Distinguished Publication Award, Association of Women in Psychology

Mary Jo Deegan Sociology

Award for Significant Contributions to the Study and History of Early Women Sociologists, Harriet Martineau Sociological Society

John DeFrain Child, Youth and Family Studies

Honorary appointment, Conjoint Professor of Family Studies, University of Newcastle, New South Wales, Australia

Martin Despang Architecture

Social Motion paper presented at the Urban Transport Conference, Coimbra, Portugal Top nominee, INDEX Award Second place, Im Zentrum zu Hause, Berlin, Germany Top nominee, NIKE BDA Award

Lester A. Digman Management

2007 Distinguished Paper, Decision Sciences Institute

Matthew B. Dwyer Computer Science & Engineering

Distinguished Scientist, Association for Computing Machinery

Calvin L. Ferrell Animal Science

Research Fellow Award, American Society of Animal Science

James Ford English Ariel Bybee School of Music

International Trophy Grand Prize, Waterford International Festival of Light Opera

David P. Forsythe Political Science

Human Rights Scholar of the Year, American Political Science Association, Human Rights Section Senior Fulbright Research Chair, United States and Danish Fulbright Committees

John E. Foster Entomology

International Plant Protection Award of Distinction 2007, International Association for the Plant Protection Sciences

Scott M. Fuess, Jr. Economics

Fellowship, Institute for the Study of Labor (IZA) Bonn, Germany

Russell Ganim Modern Languages and Literatures Thomas Carr Modern Languages and Literatures

Co-organizers, North American Society for Seventeenth Century French Literature Conference

lames A. Garza History and Ethnic Studies

Journal of the West Award for Best Article of the Year, Journal of the West

James A. Gosey Animal Science

Pioneer Award, Beef Improvement Federation

David S. Hage Chemistry

Top 20 Most Cited Review Articles (2002-2007), Journal of Chromatography

David J. Hansen Psychology

Fellow, American Psychological Association

Janet A. Harkness Gallup Research Center

Member, German Youth Institute Advisory Taskforce Member, Social Behavioral and Economic Sciences Advisory Board, National Science Foundation

Jeff G. Hart Extension

National Award for Diversity 2007, USDA/CSREES/ECOP

Leon G. Higley Entomology

2007 Foundation Memorial Award, Entomological Society of America

Terry Housh Nutrition and Health Sciences

Fellow, National Strength and Conditioning Association

Srikanth B. Iyengar Mathematics

Friedrich Wilhelm Bessel Research Award, Alexander von Humboldt Foundation, Germany

Margaret D. Jacobs History

Visiting fellowship, Centre for Indigenous Studies, Australian National University

Michael James Textiles, Clothing & Design

Silver Star Award, Quilts, Inc. and International Quilt Festival

Paul I. lasa Biological Systems Engineering

Outstanding Presentation Award, 2007 National No-Tillage Conference

Jay T. Johnson Anthropology and Geography

Chair, Indigenous Peoples' Knowledges and Rights Commission, International Geographical Union

David D. Jones Biological Systems Engineering

2007 Best Paper Award, Biological and Agricultural Division of the American Society for Engineering Education

leannette E. Iones History and Ethnic Studies

Deutsche Bank Junior Scholar-in-Residence Fellowship, Heidelberg Center for American Studies

Alan C. Kamil Biological Sciences, Psychology

Quest Award for Research Contributions, Animal Behavior Society

Gordon V. Karels Finance

Visiting scholar, Federal Reserve Bank of Atlanta

Karen S. Kunc Art and Art History

2007 Printmaker Emeritus Award, Southern Graphics Council

Stephen Lahey

Classics and Religious Studies

John Nicholas Brown Prize for Best First Book, Medieval Academy of America

Gail F. Latta Libraries

Bobby Knight Dissertation of the Year Award finalist, Association for the Study of Higher Education

Sang M. Lee Management

Keynote speaker, International Conference on Strategic Innovation in Bandung, Indonesia $\,$

Distinguished Global Leadership Award, Pan-Pacific Business Association

Carole Levin History

National Endowment for the Humanities Fellowship, Folger Shakespeare Library

Donald G. Levis Animal Science

Master of the Pork Industry, National Hog Farmer magazine

Yijia Lin Finance

Ernst Meyer Prize, Geneva Association

Yongfeng Lu Electrical Engineering

Fellow, Society of Photo-optical Instrumentation Engineers

Ann Mari May Economics

Member, American Association of University Professors Committee on the Economic Status of the Profession

Allan L. McCutcheon Gallup Research Center; Statistics

Senior statistical director, Exit Polls for the National Election Pool Fellow, Royal Statistical Society

George E. Meyer Biological Systems Engineering

2007 Best Paper Award, Biological and Agricultural Division of the American Society for Engineering Education

Nancy Miller Textiles, Clothing & Design

Best Paper Award, Journal of Small Business Management and the Office Depot

Helen A. Moore Sociology

President, Midwest Sociological Society

Sucheta Nadkarni Management

Outstanding Service Award, Managerial and Organizational Cognition Division of the Academy of Management

Fiona Nah Management

Extra-Outstanding Associate Editor, International Conference on Information Systems

Glenn E. Nierman School of Music

Outstanding Service to the National Association for Music Education, Nebraska Music Educators Association

Andrezej Nowak Civil Engineering

Award of National Professorship, Leach Kaczynski, President of Poland

Edward Nowlin Marketing

Co-winner, American Marketing Association's Sales SIG Dissertation Proposal, American Marketing Association

Alexander D. Pavlista Agronomy and Horticulture

President, Potato Association of America

Allan C. Peterson Mathematics

Euler Prize for Research in Time Scales, Technical University, Munich

Byrav Ramamurthy Computer Science & Engineering

Vice chair, Optical Networking Technical Committee, IEEE Communications Society

Brett C. Ratcliffe Entomology; Museum

Outstanding Paper of the Year Award, Coleopterists Society

Peter Revesz Computer Science & Engineering

Fulbright Senior U.S. Scholar, Fulbright Foundation, Greece

Sheila E. Scheideler Animal Science

Helene Cecil Leadership Award, Poultry Science Association

Marc Schneiderjans Management

Fellow, Decision Sciences Institute

Keng Siau Management

Keynote speaker, Second AIS SIGSAND European Symposium on Systems Analysis and Design, Gdansk, Poland Editor in chief, Journal of Database Management Co-editor-in-chief, Advances in Database Research Series Outstanding Service Award, International Federation for Information Processing

Dean Sicking Civil Engineering;
Midwest Roadside Safety Facility

National Medal of Technology, President George W. Bush

Robert G. Simon Marketing

Outstanding Faculty Adviser, International Collegiate American Marketing Association

Ravipreet S. Sohi Marketing

Track co-chair, American Marketing Association's Winter Educators' Conference

Associate editor, International Journal of Applied Decision Sciences

Robert J. Spreitzer Biochemistry

Chair, North-Central Regional Project NC-1168, Regulation of Photosynthetic Processes, NC-1168 Membership

Alan E. Steinweis History

Finalist, National Jewish Book Award for Studying the Jew, Holocaust Category, Jewish Book Council

William G. Thomas III History

Distinguished Lecturer, Organization of American Historians Digital Innovation Fellowship, American Council of Learned Societies

Harriet S. Turner International Affairs;
Modern Languages and Literatures

Encomieda de la Orden de Isabel la Católica, His Majesty D. Juan Carlos I, King of Spain

Mary Uhl-Bien Management

Best Reviewer Award, Leadership Quarterly

L. Dale Van Vleck Animal Science

Pioneer Award, National Dairy Shrine

Lily M. Wang Architectural Engineering

Fellowship, Acoustical Society of America

Clarence E. Waters Architectural Engineering

Elected to the Board of Governors, Architectural Engineering Institute

Les B. Whitbeck Sociology

Community, Culture, and Prevention Science Award, Society for Prevention Research

Brian L. Wilcox Center on Children, Families and the Law; Psychology

Nicholas Hobbs Award for Distinguished Contributions to Research on Child Policy and Advocacy, American Psychological Association

Ronald E. Yoder Biological Systems Engineering

President's Citation, American Society for Agricultural and Biological Engineers

Xiao Cheng Zeng Chemistry; Physics & Astronomy

Fellow, American Association for the Advancement of Science

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 Resea

E 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

EPSCoR Experimental Program to Stimulate

Cooperative Research

NIGEC National Inst for Global Environmental Change

Sandia National Laboratories

DHHS Department of Health and Human Services

ACF Administration for Children and Families

CDC Centers for Disease Control NIH National Institutes of Health

Fogarty International Center NCI National Cancer Institute

NCRR National Center for Research Resources

National Eye Institute NHLBI National Heart, Lung and Blood Institute

National Institute on Aging

NIAID National Institute on Allergy &

Infectious Diseases

National Institute of Child Health and NICHD **Human Development**

National Institute on Deafness

NIDCD & Communication Disorders

NIDDK National Institute of Diabetes,

Digestive & Kidney Disease NIDA National Institute on Drug Abuse

National Institute on General **NIGMS**

Medical Sciences

HMIN National Institute of Mental Health

HUD Department of Housing and Urban Development

Dol Department of Interior

> Bureau of Reclamation BR **FWS** Fish & Wildlife Service GS Geological Survey NPS National Park Service

DoT Department of Transportation Federal Highway Administration

EPA Environmental Protection Agency

IMLS Institute of Museum & Library Services

NASA National Aeronautics and Space Administration

> Ames Research Center Goddard Space Flight Center Jet Propulsion Laboratory John Stennis Space Center Lewis Research Center Wallops Flight Facility

NCHRP National Cooperative Highway

Research Program

NEA National Endowment for the Arts

NEH National Endowment for the Humanities

NSF National Science Foundation

EPSCoR Experimental Program to

Stimulate Cooperative Research

NSA National Security Agency