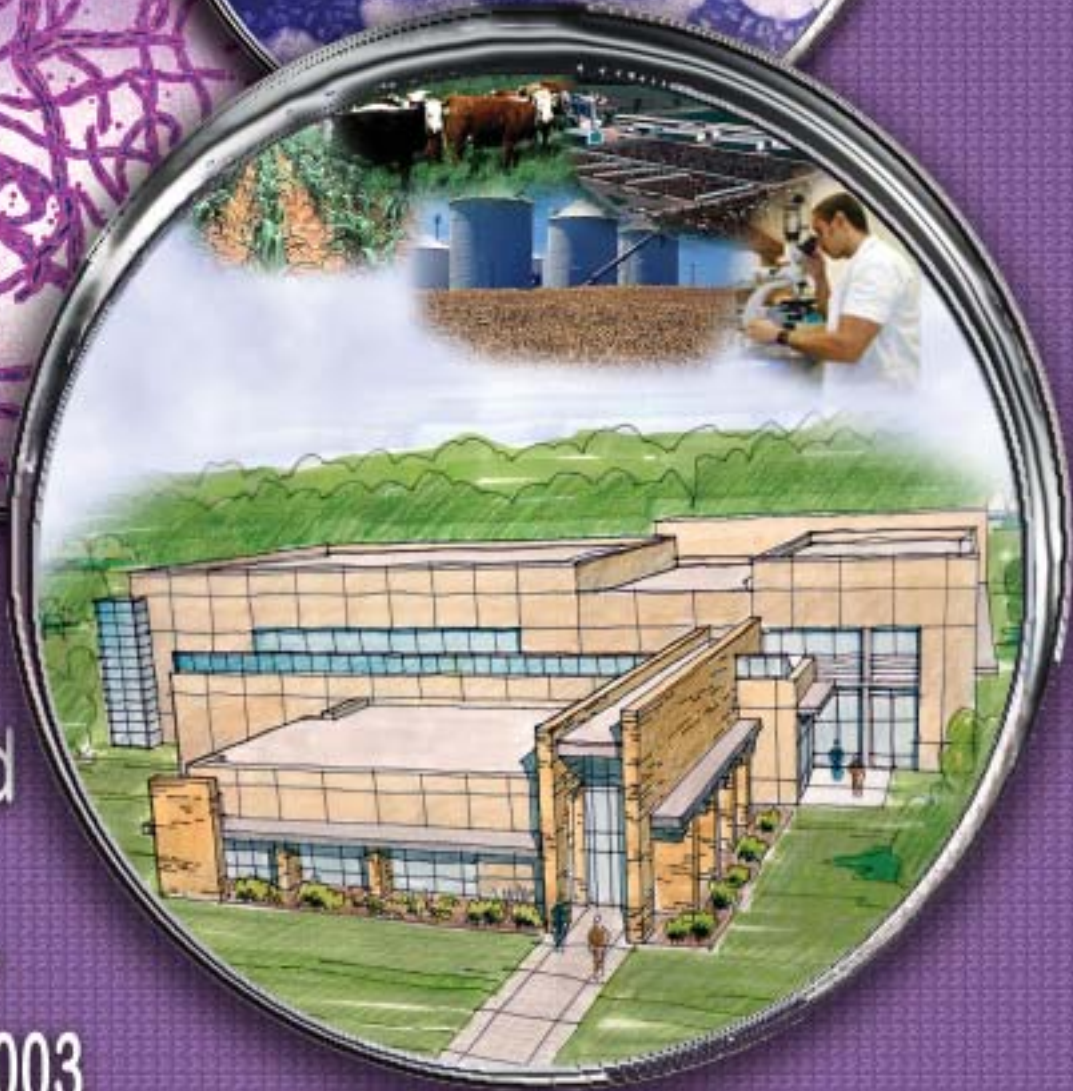
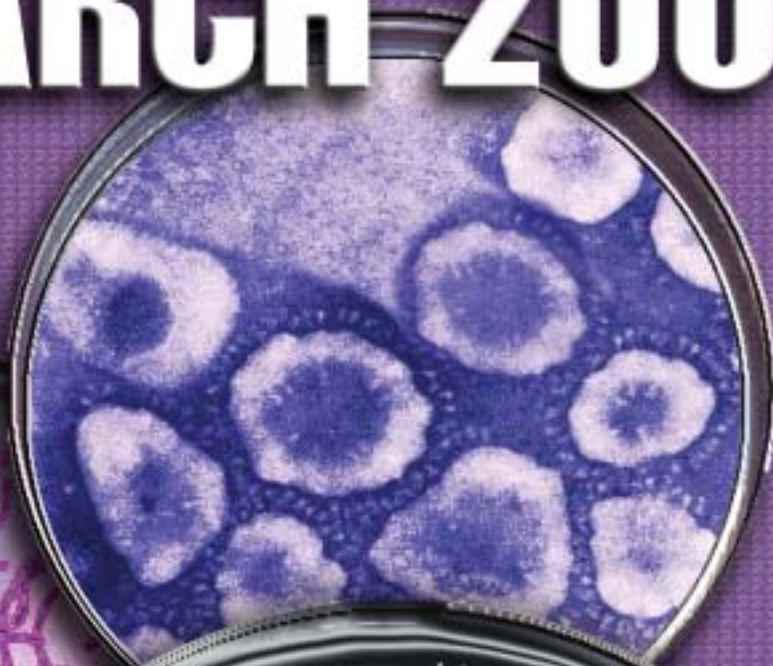


RESEARCH 2003



A Report of
Research and
Sponsored
Programs for
Fiscal Year 2003

Kansas State University

ABOUT THE COVER:

Pathogenic microorganisms pose public health problems and cause livestock, wildlife and plant diseases.

KSU scientists will be able to safely study many such pathogens after construction is completed of the new Biosecurity Research Institute (BRI), depicted here.

The BRI conceptual design sketch was provided by Peckham Guyton Albers and Viets, Inc., architects and HarleyEllis, laboratory planning, and mechanical, electrical, and piping engineers.

Cover design by Yvonne Bachura



**Vice Provost for Research
Dean of Graduate School**

108 Anderson Hall
Manhattan, KS 66506 -0113
785-532-5110
Fax: 785-532-6507

January 2004

K-State Colleagues and Friends,

Kansas State University is fast approaching the \$200 million mark for total research funding. This year, we received over \$180 million for research, including a record \$96 million in extramural funding. Faculty received more than 20 new grants above half a million dollars for their research.

The year was marked by the completion of important new research facilities in the life sciences and with groundbreaking for additional new facilities in several fields.

The completion of Chalmers Hall, a \$15.2 million, 62,000-square-foot wing of the biological sciences center, consolidates various life sciences research programs into one hub.

Chalmers Hall houses 10 research labs and faculty offices, including the Terry Johnson Center for Basic Cancer Research, which supports research of more than 70 faculty members. As interior construction is completed, the department of biochemistry, which occupies space in three separate campus buildings, will move some components into the new quarters.

The university broke ground for the Grain Science Complex, the newest facilities of its world-renowned grain sciences programs. The complex includes the Bioprocessing and Industrial Value-Added Program facility and the International Grains Program executive conference center.

In 2003, the university became the hub for two new entities: the Great Plains Diagnostic Network in the department of plant pathology, and the National Agricultural Biosecurity Center, a collaboration with USDA's Animal and Plant Health Inspection Service. Both are part of the nation's developing web of first detectors and first responders to biological threats.

- * The Great Plains Diagnostic Network is a member of the National Plant Diagnostic Network. The shared diagnostic capability created by the national network will enable the U.S. to quickly identify organisms that could devastate crops and undermine international trade.
- * The National Agricultural Biosecurity Center is helping train state-level and county-level emergency personnel to contain the spread of emerging plant and animal diseases. It is also examining pathways by which pathogens can spread and the issues related to animal carcass disposal after a potentially catastrophic event.

In FY03, the university received approval to begin construction of the Biosecurity Research Institute, a \$50-million facility that will have biosafety level-three lab space for research on plant and animal pathogens that pose a public health or agricultural threat. The BRI, when completed, will add tremendous new research capability to Kansas State University.

Congratulations on another outstanding year.

R.W. Trewyn
Vice Provost and Dean
President, KSU Research Foundation

**KANSAS STATE
UNIVERSITY**
**RESEARCH/SCHOLARLY ACTIVITY
FUNDING BASE**

Fiscal Year 2003

The research funding base at Kansas State University consists of funds appropriated from federal and state sources, gifts from alumni and friends, and awards of extramural funds from federal and state agencies, foundations, and various private and industrial organizations, mainly through the competitive grants process.

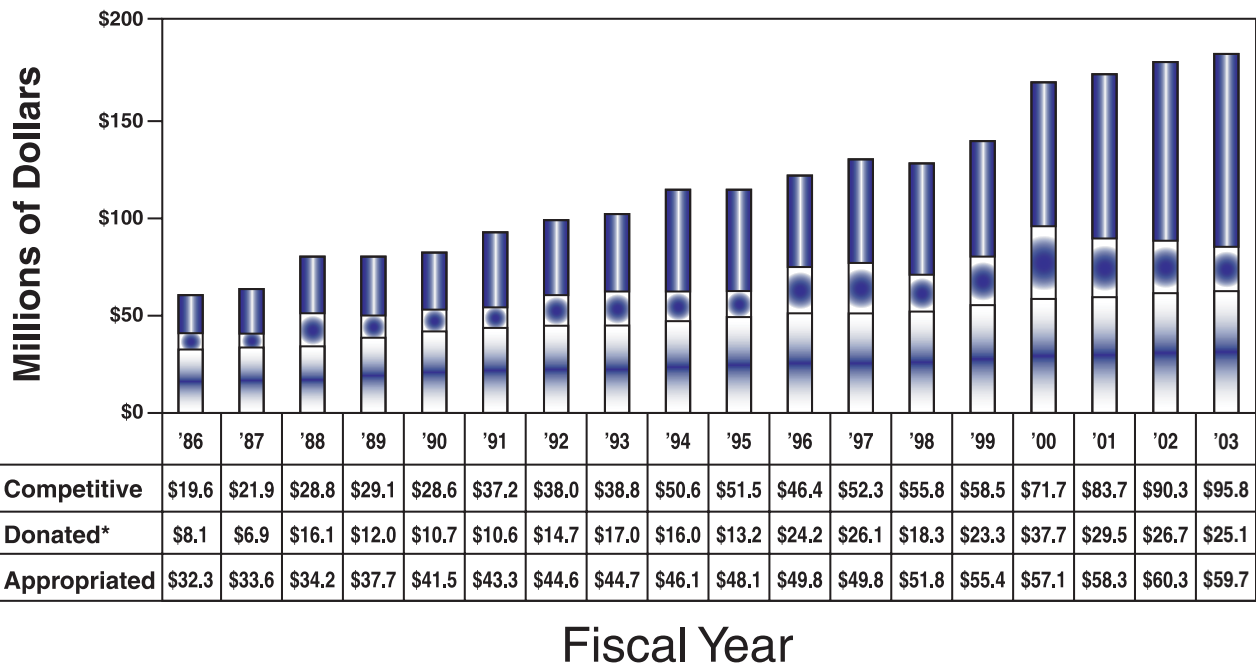
I.	<u>SPONSORED</u>	<u>\$95,754,111</u>
II.	<u>APPROPRIATED</u>	
	Main Campus State Appropriation	\$3,341,006
	Experiment Station Programs and Extension Services	
	Federal Appropriation	\$7,975,261
	State Appropriation	\$47,997,795
	Veterinary Medical Center State Appropriation	\$396,265
	<u>SUBTOTAL</u>	<u>\$59,710,327</u>
III.	<u>DONATED*</u>	<u>\$25,090,609</u>
RESEARCH/SCHOLARLY ACTIVITY BASE GRAND TOTAL		<u>\$180,555,047</u>

*KSU Foundation funds transferred to KSU in support of research/scholarly activity (excludes transfers to Athletics).

SECTION 1: AWARDS

KANSAS STATE UNIVERSITY RESEARCH/SCHOLARLY ACTIVITY FUNDING BASE

Fiscal Years 1986–2003



* Donated = KSU Foundation funds transferred to KSU in support of research/scholarly activity

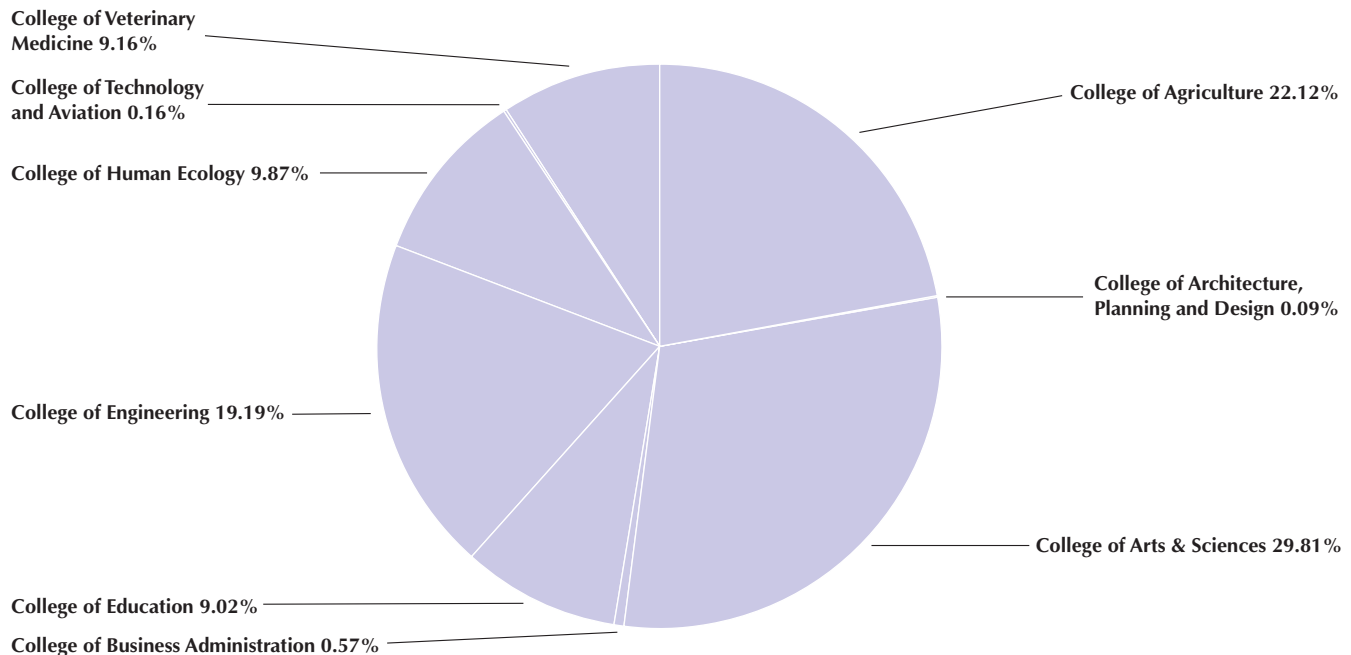
DISTRIBUTION OF NEW AWARDS AMONG COLLEGES AND OFFICES OF THE UNIVERSITY

Fiscal Year 2003

College/Office	Number of Awards	Dollar Value
College of Agriculture	344	\$19,626,161
College of Architecture, Planning, and Design	3	80,766
College of Arts and Sciences	191	26,441,281
College of Business Administration	5	506,433
College of Education	45	8,005,232
College of Engineering	198	17,024,601
College of Human Ecology	65	8,756,021
College of Technology and Aviation	1	141,616
College of Veterinary Medicine	99	8,125,393
Office of the President	7	142,644
Office of the Provost	13	711,095
Vice President for Administration and Finance	4	354,234
Vice President for Institutional Advancement	17	2,223,849
Vice Provost for Academic Services and Instruction	2	15,000
Vice Provost for Research and Dean of Graduate School	10	3,599,785
UNIVERSITY TOTALS	1004	\$95,754,111

AWARDS BY COLLEGE

Fiscal Year 2003



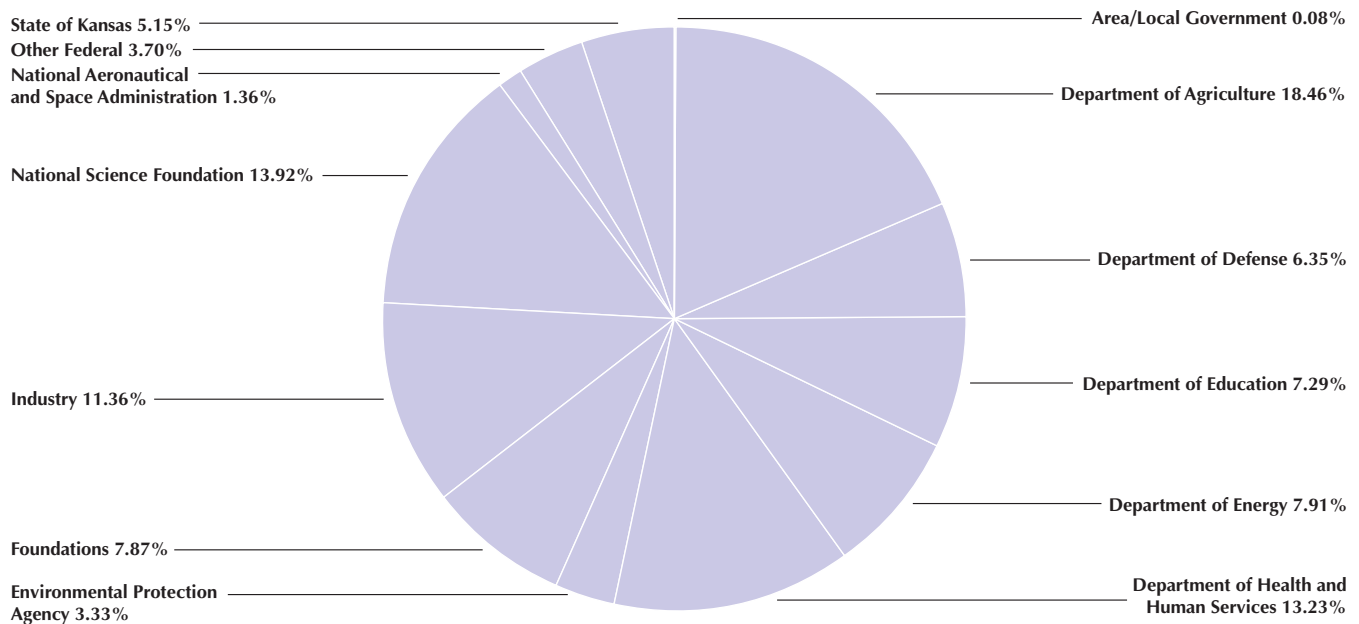
KANSAS STATE UNIVERSITY SOURCES OF AWARDS

Fiscal Year 2003

Source	Number of Awards	Dollar Value
Area/Local Government	5	\$71,897
Department of Agriculture	122	17,674,991
Department of Defense	31	6,082,222
Department of Education	41	6,978,035
Department of Energy	40	7,569,793
Department of Health and Human Services	79	12,671,486
Environmental Protection Agency	35	3,191,895
Foundations	186	7,537,551
Industry	207	10,881,245
National Science Foundation	87	13,325,066
National Aeronautics and Space Administration	21	1,299,211
Other Federal	55	3,539,802
State of Kansas	95	4,930,917
TOTAL	1004	\$95,754,111

SOURCES OF AWARDS

Fiscal Year 2003



EXTRAMURAL AWARDS

Fiscal Year 2003 (July 1, 2002 - June 30, 2003)

COLLEGE OF AGRICULTURE

AGRICULTURAL ECONOMICS

Barton, David G., Multisponsor, \$50,000, "Arthur Capper Cooperative Center."

Bernardo, Daniel J., US Department of Agriculture, \$25,000, "Distance Education Strategies for Agricultural Producers."

Boland, Michael A., US Department of Agriculture, \$8,500, "Economics of Wheat Gluten and Wheat Markets: Demand for Varieties."

Boland, Michael A., US Department of Agriculture, \$382,617 (includes \$20,000 from Montana State University, and \$112,849 from Purdue University), "National Food and Agribusiness Management Commission."

Boland, Michael A., US Department of Agriculture, \$75,000, "USDA Agricultural Marketing Resource Center."

Featherstone, Allen M., and **Kastens, Terry** (Extension Agricultural Economics), US Department of Agriculture, \$82,000, "Improving Farm Competitiveness: Explaining and Forecasting Farm Profitability."

Kastens, Terry, (see **Nechols, James R.**, Entomology).

Kastens, Terry, (see **Dille, Johanna A.**, Agronomy).

Langemeier, Michael R., US Department of the Interior, \$6,400, "Summarization and Analysis of 2001 Small Game Harvest Survey."

Langemeier, Michael R., (see **Herrman, Timothy J.**, Grain Science and Industry).

Langemeier, Michael R., (see **Nelson, Richard G.**, Kansas Industrial Extension Services).

Marsh, Thomas L., US Department of Agriculture, \$17,042, "Determinants of Fast Food Consumption."

Marsh, Thomas L., (see **Nechols, James R.**, Entomology).

Norman, David W., Food & Agriculture Organization of United Nations, \$22,062, "FAO Palau."

Norman, David W., Rockefeller Foundation, \$65,000, "Agricultural Resource Husbandry in Sub-Saharan Africa."

Peterson, Jeffrey M., (see **Lamm, Freddie R.**, Northwest Research Extension Center).

Schurle, Bryan W., (see **Williams, Jeffery R.**, Agricultural Economics).

Williams, Jeffery R., Kansas Conservation Commission, \$14,000, "Net Present Value Analysis of Streambank Stabilization Projects on the Little Blue River in Washington County Kansas."

Williams, Jeffery R., **Albright, Martin L.** (Extension Agricultural Economics), and **Schurle, Bryan W.**, US Department of Agriculture, \$50,000, "Analysis of Income Variability and Stabilization and Development of Risk Management Tool."

Williams, Jeffery R., (see **Nelson, Richard G.**, Kansas Industrial Extension Services).

AGRICULTURAL EXPERIMENT STATION

Chumley, Forrest G., (see **Knapp, Mary C.**, Extension Communications).

Johnson, Marc A., (see **Buchholz, Daryl D.**, Agriculture and Natural Resources).

Kadir, Sorkel M., (see **Ramaswamy, Sonny B.**, Entomology).

Rife, Charles L., US Department of Agriculture, \$129,242, "Development and Management of Canola in the Great Plains Region."

AGRICULTURAL RESEARCH CENTER-HAYS

Kofoed, Kenneth D., Kansas Grain Sorghum Commission, \$15,000, "Sorghum Research - Plot Combine."

Kofoed, Kenneth D., Multisponsor, \$1,000, "Sorghum Research."

Kofoed, Kenneth D., **Harvey, Tom L.** (Entomology), **Reese, John C.** (Entomology), **Seifers, Dallas L.**, and **Tuinstra, Mitchell R.** (Agronomy), Kansas Grain Sorghum Commission, \$72,000, "Breeding Sorghum with Improved Grain Yield, Greenbug and Virus Resistance, and Pre-Flowering Drought Tolerance."

Kofoed, Kenneth D., (see **Tuinstra, Mitchell R.**, Agronomy).

Martin, Terry J., Kansas Crop Improvement Association, \$6,000, "Use of Wheat Canopy Temperature Depression to Predict Yield of Early Generation Breeding Lines in Western Kansas."

Martin, Terry J., **Harvey, Tom L.** (Entomology), and **Seifers, Dallas L.**, Kansas Wheat Commission, \$86,600, "Kansas Dual Purpose Pest Resistant White Wheats."

Martin, Terry J., (see **Fritz, Allan K.**, Agronomy).

Martin, Terry J., (see **Stahlman, Phillip W.**, Agricultural Research Center-Hays).

Martin, Terry J., (see **Thompson, Carlyle A.**, Agricultural Research Center-Hays).

Seifers, Dallas L., (see **Kofoed, Kenneth D.**, Agricultural Research Center-Hays).

Seifers, Dallas L., (see **Martin, Terry J.**, Agricultural Research Center-Hays).

Stahlman, Phillip W., Multisponsor, \$126,800, "Weed Research."

Stahlman, Phillip W., United Agri Products, Inc., \$21,200, "United Agri Products Fellowship."

Stahlman, Phillip W., US Department of Agriculture, \$18,000, "Clearfield Winter Wheat Risk Assessment."

Stahlman, Phillip W., and **Aiken, Robert M.** (Northwest Research Extension Center), National Sunflower Association, \$21,656, "Longspine Sandbur Interference and Control in Sunflower."

Stahlman, Phillip W., **Martin, Terry J.**, and **Martin, Victor L.** (Agronomy), Kansas Wheat Commission, \$11,000, "Risk and Management of Clearfield Winter Wheat."

Stahlman, Phillip W., and **White, Anthony D.**, US Department of Agriculture, \$20,000, "Integrated Management Systems for Jointed Goatgrass in the Central Great Plains."

Stahlman, Phillip W., and **White, Anthony D.**, US Department of Agriculture, \$65,480, "National Jointed Goatgrass Extension Coordinator."

Stahlman, Phillip W., (see **Dille, Johanna A.**, Agronomy).

Thompson, Carlyle A., (see **Gordon, Walter B.**, Agronomy).

Thompson, Carlyle A., and **Martin, Terry J.**, Multisponsor, \$13,550, "Crop Culture."

White, Anthony D., (see **Stahlman, Phillip W.**, Agricultural Research Center-Hays).

AGRONOMY

Brown-Guedira, Gina L., (see **Fritz, Allan K.**, Agronomy).

Brown-Guedira, Gina L., (see **Zeigler, Robert S.**, Plant Pathology).

Claassen, Mark J., (see **Tuinstra, Mitchell R.**, Agronomy).

Devlin, Daniel L., (see **Nelson, Richard G.**, Kansas Industrial Extension Services).

Devlin, Daniel L., (see **Powell, G. Morgan**, Extension Biological and Agricultural Engineering).

Dille, Johanna A., **Kastens, Terry** (Agricultural Economics), **Staggenborg, Scott A.** (Northeast Area Office), **Stahlman, Phillip W.** (Agricultural Research Center-Hays), **Taylor, Randal K.** (Biological and Agricultural Engineering), **Wolf, Robert E.** (Biological and Agricultural Engineering), and **Zhang, Naiqian** (Biological and Agricultural Engineering), US Department of Agriculture, \$87,971, "Implementing Practical and Cost-Effective Approaches to Site-Specific Weed Management."

Dille, Johanna A., **Schmidt, John P.**, **Taylor, Randal K.** (Extension Biological and Agricultural Engineering), and **Thien, Stephen J.**, US Department of Agriculture, \$90,826, "Experiential Learning Integrated Across the Agronomy Curriculum."

Fick, Walter H., Multisponsor, \$12,000, "Range and Pasture Brush and Weed Control."

Fjell, Dale L., Kansas Corn Commission, \$4,000, "Corn Production in Kansas: Extension and Applied Research."

Fjell, Dale L., Kansas Soybean Commission, \$8,000, "Soybean Production in Kansas: Extension and Applied Research."

Fjell, Dale L., (see **Gordon, Walter B.**, Agronomy).

Fjell, Dale L., (see **Nelson, Richard G.**, Kansas Industrial Extension Services).

Fritz, Allan K., and **Brown-Guedira, Gina L.**, Kansas Wheat Commission, \$6,000, "Developing Multiple Pest Resistant Wheat Germplasm."

Fritz, Allan K., and **Gill, Bikram S.** (Plant Pathology), US Department of Agriculture, \$58,642, "Bringing Genomics to the Wheat Fields."

Fritz, Allan K., and **Paulsen, Gary M.**, Kansas Wheat Commission, \$45,000, "Development of Hard White Winter Wheat for Kansas."

Fritz, Allan K., and **Martin, Terry J.** (Agricultural Research Center-Hays), Kansas Wheat Commission, \$97,000, "Improvement of Hard Red Winter Wheat for Kansas."

Fritz, Allan K., (see **MacRitchie, Finlay I.**, Grain Science and Industry).

Fritz, Allan K., (see **Paulsen, Gary M.**, Agronomy).

Fritz, Allan K., (see **Trick, Harold N.**, Plant Pathology).

Fritz, Allan K., (see **Wilde, Gerald E.**, Entomology).

Gordon, Walter B., **Aiken, Robert M.** (Northwest Research Extension Center), **Duncan, Stewart R.** (South Central Area Office), **Fjell, Dale L.**, **Heer, William F.**, **Janssen, Keith A.**, **Kilgore, Gary L.** (Southeast Area Office), **Long, James H.** (Southeast Agricultural Research Center), **Maddux, Larry D.**, **Staggenborg, Scott A.** (Northeast Area Office), **Thompson, Carlyle A.** (Agricultural Research Center-Hays), and **Witt, Merle D.** (Southwest Research Extension Center), Kansas Soybean Commission, \$40,000, "Planting Dates and Maturity Group Effects on Soybean Production in Kansas."

Gordon, Walter B., **Janssen, Keith A.**, **Kilgore, Gary L.** (Southeast Area Office), and **Lamond, Ray E.**, Kansas Corn Commission, \$30,000, "Use of Strip-Tillage for Corn Production in Kansas."

Gordon, Walter B., (see **Mengel, David B.**, Agronomy).

Gordon, Walter B., (see **Tuinstra, Mitchell R.**, Agronomy).

Ham, Jay M., (see **Lamm, Freddie R.**, Northwest Research Extension Center).

Ham, Jay M., (see **Owensby, Clenton E.**, Agronomy).

Heer, William F., (see **Gordon, Walter B.**, Agronomy).

Janssen, Keith A., Four Star Services, Inc., \$5,500, "Evaluation of Agri-SC for Reducing Soil, Nutrient, and Herbicide Losses in Cropland Runoff."

Janssen, Keith A., Multisponsor, \$350, "Double-Crop Soybean Performance Tests - Agronomy."

Janssen, Keith A., (see **Gordon, Walter B.**, Agronomy).

Janssen, Keith A., (see **Regehr, David L.**, Agronomy).

Janssen, Keith A., (see **Tuinstra, Mitchell R.**, Agronomy).

Kulakow, Peter A., US Environmental Protection Agency, \$25,046, "Dredged Material Reclamation Demonstration at the Jones Island Confined Disposal Facility, Milwaukee, Wisconsin."

Lamond, Ray E., **Maddux, Larry D.**, **Marsh, Brian H.**, and **Pierzynski, Gary M.**, Multisponsor, \$27,750, "Soil Fertility and Soil Management Investigations."

Lamond, Ray E., (see **Gordon, Walter B.**, Agronomy).

Lamond, Ray E., (see **Leikam, Dale F.**, Extension Agronomy).

Maddux, Larry D., (see **Gordon, Walter B.**, Agronomy).

Maddux, Larry D., (see **Lamond, Ray E.**, Agronomy).

Marsh, Brian H., (see **Lamond, Ray E.**, Agronomy).

Martin, Victor L., (see **Stahlman, Phillip W.**, Agricultural Research Center-Hays).

Martin, Victor L., (see **Tuinstra, Mitchell R.**, Agronomy).

Mengel, David B., US Department of Agriculture, \$10,000, "Educational Tools for Wind Erosion Control."

Mengel, David B., US Department of Agriculture, \$59,659, "Facilitate Development of Abiotic Stress Resistant Wheat Germplasm."

Mengel, David B., and **Gordon, Walter B.**, US Department of the Interior, \$9,000, "Improved Irrigation Efficiency Demonstration Project."

Owensby, Clenton E., **Ham, Jay M.**, and **Knapp, Alan K.** (Biology), US Department of Energy, \$51,213, "Net Ecosystem Carbon and Water Vapor Exchange of Tallgrass Prairie."

Paulsen, Gary M., and **Fritz, Allan K.**, Kansas Crop Improvement Association, \$8,000, "Improving Resistance to Preharvest Sprouting in Kansas White Wheat."

Paulsen, Gary M., (see **Fritz, Allan K.**, Agronomy).

Paulsen, Gary M., (see **MacRitchie, Finlay I.**, Grain Science and Industry).

Peterson, Dallas E., (see **Regehr, David L.**, Agronomy).

Pierzynski, Gary M., (see **Lamond, Ray E.**, Agronomy).

Regehr, David L., and **Janssen, Keith A.**, Multisponsor, \$185,800, "Field Herbicidal Evaluations."

Regehr, David L., and **Peterson, Dallas E.**, Kansas Corn Commission, \$2,000, "Control of Field Pansy: A 'New' Winter Annual in No-till Crops."

Rice, Charles W., Kansas Technology Enterprise Corporation, \$141,918, "Enhancement of Research on Fate and Impact of Environmental Pollutants."

Rice, Charles W., **Todd, Timothy C.** (Plant Pathology), and **Wilson, Gail T.** (Biology), National Science Foundation, \$250,000, "Grazer-Mycorrhizal Interactions in Tallgrass Prairie: Effects on Carbon and Nitrogen Partitioning and Sequestration."

Rife, Charles L., Kansas Crop Improvement Association, \$4,000, "Aluminum Tolerance in Canola: Developing Canola Varieties Adapted to Low pH Soils."

Rife, Charles L., US Department of Agriculture, \$10,995, "Evaluation of Brassica napus Accessions to Determine Growth Habit and Vernalization Requirement."

Roozeboom, Kraig L., Multisponsor, \$381,075, "Crop Performance."

Schaffer, Vernon A., Multisponsor, \$7,455, "Foundation Seed Maintenance."

Schapaugh, William T., Kansas Crop Improvement Association, \$10,024, "Development of Herbicide Resistant and Special Purpose Varieties for Kansas."

Schapaugh, William T., **Long, James H.** (Southeast Agricultural Research Center), **Todd, Timothy C.** (Plant Pathology), and **Trick, Harold N.** (Plant Pathology), Kansas Soybean Commission, \$400,000, "Enhancing Soybean Germplasm Development."

Schapaugh, William T., (see **Higgins, Randall A.**, Entomology).

Schapaugh, William T., (see **Reese, John C.**, Entomology).

Schapaugh, William T., (see **Sloderbeck, Phillip E.**, Extension Entomology).

Schapaugh, William T., (see **Sun, X. Susan**, Grain Science and Industry).

Schapaugh, William T., (see **Trick, Harold N.**, Plant Pathology).

Schmidt, John P., **Rogers, Danny H.** (Biological and Agricultural Engineering), **Schlegel, Alan J.** (Southwest Research Extension Center), and **Stone, Loyd R.**, Kansas Department of Agriculture, \$25,000, "Quantifying Nitrate Leaching and Improving Current N Recommendations for Sandy Soils Under Irrigated Corn."

Schmidt, John P., (see **Dille, Johanna A.**, Agronomy).

Stone, Loyd R., (see **Lamm, Freddie R.**, Northwest Research Extension Center).

Stone, Loyd R., (see **Schmidt, John P.**, Agronomy).

Stone, Loyd R., (see **Schlegel, Alan J.**, Southwest Research Extension Center).

Thien, Stephen J., and **Gipson, Philip S.** (Biology), US Department of the Interior, \$86,250, "Evaluation of the Impact of Military Training on Soil Quality Indicators."

Thien, Stephen J., (see **Dille, Johanna A.**, Agronomy).

Thien, Stephen J., (see **Starrett, Steven K.**, Civil Engineering).

Tuinstra, Mitchell R., National Grain Sorghum Producers Association, \$35,000, "Elucidation of and Development of Cold Tolerance in Sorghum."

Tuinstra, Mitchell R., **Claassen, Mark J.**, **Claflin, Larry E.** (Plant Pathology), **Gordon, Walter B.**, **Janssen, Keith A.**, **Kofoid, Kenneth D.** (Agricultural Research Center-Hays), and **Martin, Victor L.**, Kansas Grain Sorghum Commission, \$68,000, "Breeding Grain Sorghum for Improved Dryland Production."

Tuinstra, Mitchell R., and **Hancock, Joe D.** (Animal Sciences and Industry), US Agency for International Development, \$98,000, "Enhancing the Utilization of Grain Sorghum and Pearl Millet through the Improvement of Grain Quality via Genetic and Nutrition Research."

Tuinstra, Mitchell R., (see **Kofoid, Kenneth D.**, Agricultural Research Center-Hays).

Welch, Stephen M., (see **Roe, Judith L.**, Biology).

Xia, Kang, (see **Starrett, Steven K.**, Civil Engineering).

ANIMAL SCIENCES AND INDUSTRY

Beyer, R. Scott, **Behnke, Keith C.** (Grain Science and Industry), and **Moritz, Joseph S.**, US Department of Agriculture, \$18,000, "Impact of Feed Moisture, Oil, and Starch Content on Starch Gelatinization, Feed Quality and Broiler Nutrition."

Blasi, Dale A., (see **Robertson, Donald C.**, Dean of Veterinary Medicine).

Boyle, Elizabeth, (see **Getty, Kelly J. K.**, Animal Sciences and Industry).

Boyle, Elizabeth, (see **Herrman, Timothy J.**, Grain Science and Industry).

DeRouchey, Joel M., (see **Tokach, Michael D.**, Animal Sciences and Industry).

Drouillard, James S., Pharmacia and Upjohn Company, \$80,080, "Melengestrol Acetate in Receiving Diets for Feedlot Heifers."

Drouillard, James S., Pioneer Hi-Bred International, Inc., \$57,269, "Effects of Vegetable and Animal Fat Sources on Finishing Cattle Performance, Carcass Characteristics, and Meat Sensory Attributes (Nutritional Bioequivalence for Feedlot Cattle of a Corn Hybrid Containing the Herculex Protein for Insect Resistance)."

Drouillard, James S., and **Johnson, Bradley J.**, North Dakota Oilseed Council, \$22,895, "Flaxseed as Component of Finishing Cattle Diets."

Drouillard, James S., and **Spire, Mark F.** (Diagnostic Medicine/Pathobiology), Pharmacia Corporation, \$96,212, "Evaluation of the Single Treatment Cure Rate of Ceftiofur Crystalline Free Acid Sterile Suspension."

Fung, Daniel Y.C., Hill's Pet Nutrition, Inc., \$6,000, "Microbial Evaluation of Hill's Pet Food Products."

Fung, Daniel Y.C., (see **Kastner, Curtis L.**, Food Science Institute).

Getty, Kelly J. K., **Boyle, Elizabeth**, **Maes, Sue C.** (Regents' Educational Communications Center), **Minshall, Bettie C.** (Conferences and Non-Credit Programs), **Phebus, Randall K.**, and **Retzlaff, Deanna D.** (Food Science Institute), Kansas Office of Attorney General, \$80,800, "Interactive Food Safety Training Modules for Distance Learning."

Goodband, Robert D., (see **DeRouchey, Joel M.**, Northeast Area Office).

Goodband, Robert D., (see **Dritz, Steven S.**, Diagnostic Medicine/Pathobiology).

Goodband, Robert D., (see **Tokach, Michael D.**, Animal Sciences and Industry).

Hancock, Joe D., (see **Tuinstra, Mitchell R.**, Agronomy).

Herald, Thomas J., (see **Aramouni, Fadi M.**, Extension Animal Sciences and Industry).

Herald, Thomas J., (see **MacRitchie, Finlay I.**, Grain Science and Industry).

Hunt, Melvin C., and **Kropf, Donald H.**, National Cattlemen's Beef Association, \$85,800, "Accelerated Chilling Improves Pump Retention, and Packaging in High Oxygen and Ultra-low Oxygen Atmosphere Improves Color, Oxidative Stability, Microbiological Profiles and Yield of Beef Round Muscles."

James, Bradley W., (see **Tokach, Michael D.**, Animal Sciences and Industry).

Jeon, Ike J., (see **Chambers, Delores H.**, Human Nutrition).

Johnson, Bradley J., Lonza, Inc., \$9,894, "Effect of L-Carnitine on Porcine Embryonic Myoblast Proliferation and Differentiation."

Johnson, Bradley J., (see **Drouillard, James S.**, Animal Sciences and Industry).

Kropf, Donald H., (see **Hunt, Melvin C.**, Animal Sciences and Industry).

Kropf, Donald H., (see **Kastner, Curtis L.**, Food Science Institute).

Marsden, James L., and **Phebus, Randall K.**, US Department of Agriculture, \$158,900 (includes \$108,900 from Kansas Beef Council), "Control of Clostridium perfringens and Clostridium botulinum in Cooked, Ready-to-Eat Beef Products by Chemical Antimicrobials during Extended Chilling Process."

Minton, J. Ernest, Biotechnology Research and Development Corporation, \$10,400, "Novel Genes Involved in the Molecular Responses of Pigs to the Effects of Endotoxemia."

Moritz, Joseph S., (see **Beyer, R. Scott**, Animal Sciences and Industry).

Nelssen, Jim L., Hill's Pet Nutrition, Inc., \$56,000, "Effect of Nutrient Enhanced Foods on Joint Development in 25 kg to 115 kg Pigs."

Nelssen, Jim L., (see **DeRouchey, Joel M.**, Northeast Area Office).

Nelssen, Jim L., (see **Tokach, Michael D.**, Animal Sciences and Industry).

Nelssen, Jim L., (see **Dritz, Steven S.**, Diagnostic Medicine/Pathobiology).

Penner, Karen P., (see **Gordon, Joye C.**, School of Journalism and Mass Communications).

Phebus, Randall K., National Cattlemen's Beef Association, \$3,000, "Beef Chain Interventions White Paper."

Phebus, Randall K., (see **Getty, Kelly J. K.**, Animal Sciences and Industry).

Phebus, Randall K., (see **Marsden, James L.**, Animal Sciences and Industry).

Riley, Jack G., Kansas Beef Council, \$125,100, "Support of Regents Distinguished Professorship in Animal Sciences."

Rozell, Timothy G., US Department of Health and Human Services, \$36,323, "PILOT: FSH Receptor Variants in Bovine Follicles."

Schmidt, Karen A., (see **Chambers, Delores H.**, Human Nutrition).

Titgemeyer, Evan C., US Department of Agriculture, \$145,000, "Nutritional Influences on Efficiency of Amino Acid Use by Growing Cattle."

Tokach, Michael D., **DeRouchey, Joel M.** (Northeast Area Office), **Dritz, Steven S.** (Diagnostic Medicine/Pathobiology), **Goodband, Robert D.**, **Nelssen, Jim L.**, and **Young, Malachy G.**, Lonza, Inc., \$15,750, "Influence of Carnichrome on the Energetics of Gestating Sows."

Tokach, Michael D., **DeRouchey, Joel M.**, **Dritz, Steven S.** (Diagnostic Medicine/Pathobiology), **Goodband, Robert D.**, and **Nelssen, Jim L.**, Pipestone Veterinary Clinic, \$16,000, "Pipestone Veterinary Clinic Project."

Tokach, Michael D., **Dritz, Steven S.** (Diagnostic Medicine/Pathobiology), **Goodband, Robert D.**, and **James, Bradley W.**, Lonza, Inc., \$19,152, "Interactive Effects Between Carnitine and Lysine on Growth Performance of Commercial Finishing Pigs."

Tokach, Michael D., (see **DeRouchey, Joel M.**, Northeast Area Office).

Tokach, Michael D., (see **Dritz, Steven S.**, Diagnostic Medicine/Pathobiology).

Young, Malachy G., (see **Tokach, Michael D.**, Animal Sciences and Industry).

COMMUNICATIONS

Boone, Kristina M., (see **Gordon, Joye C.**, School of Journalism and Mass Communications).

Jackson, William L., Corporation for Public Broadcasting, \$6,523, "Radio Community Service Grant."

Jackson, William L., Kansas Department of Administration, \$45,942, "Kansas Public Broadcasters Council Service and Incentive Program."

OFFICE OF THE DEAN OF THE COLLEGE OF AGRICULTURE AND DIRECTOR OF THE AGRICULTURAL EXPERIMENT STATION

Johnson, Marc A., US Department of Agriculture, \$409,826, "USDA/ARS Research Support Agreement" (8 awards).

Johnson, Marc A., USFT Other, \$19,446, "IAP USFT Other."

Schenck-Hamlin, Donna C., (see **Herrman, Timothy J.**, Grain Science and Industry).

Wilson, Ron J., Kansas Agriculture and Rural Leadership, \$16,022, "Secretarial Support - Huck Boyd National Institute for Rural Development."

Wilson, Ron J., Kansas Agriculture and Rural Leadership, \$2,200, "Work-Study Student Hourly Support-Huck Boyd National Institute for Rural Development."

Wilson, Ron J., Self Help Network, \$1,500, "Community Leadership Day."

ENTOMOLOGY

Beeman, Richard W., (see **Denell, Robin E.**, Biology).

Broce, Alberto B., Multisponsor, \$1,300, "Methods for Control of Livestock Insects."

Broce, Alberto B., US Department of Health and Human Services, \$67,900, "West Nile Surveillance in the State of Kansas (ELC Program: West Nile Virus)."

Broce, Alberto B., (see **Hargrove, William L.**, Kansas Center for Agriculture Resources and the Environment/Kansas Water Resources Research Institute).

Buschman, Larry L., Monsanto Company, \$4,000, "Monsanto Product Transfer and Evaluation Agreement."

Buschman, Larry L., Multisponsor, \$21,000, "Insecticide Management of Field Crop Insects in Southwestern Kansas."

Buschman, Larry L., (see **Higgins, Randall A.**, Entomology).

Buschman, Larry L., (see **Sloderbeck, Phillip E.**, Extension Entomology).

Charlton, Ralph E., US Department of Agriculture, \$10,000, "Investigation of Adult Male Gypsy Moth Dispersal Behavior."

Chen, Ming-Shun, (see **Wilde, Gerald E.**, Entomology).

Dobesh, Sharon, (see **Ramaswamy, Sonny B.**, Entomology).

Dobesh, Sharon, (see **Ramaswamy, Sonny B.**, Extension Entomology).

Harvey, Tom L., and **Michaud, John P.**, Multisponsor, \$2,500, "Insecticide Management of Field Crop Insects."

Harvey, Tom L., (see **Kofoid, Kenneth D.**, Agricultural Research Center-Hays).

Harvey, Tom L., (see **Martin, Terry J.**, Agricultural Research Center-Hays).

Higgins, Randall A., **Buschman, Larry L.**, **Jardine, Douglas J.** (Plant Pathology), **Schapaugh, William T.** (Agronomy), **Sloderbeck, Phillip E.** (Southwest Area Office), and **Witt, Merle D.** (Southwest Research Extension Center), Kansas Soybean Commission, \$20,000, "Biology and Management of the Soybean Stem Borer in Kansas."

Higgins, Randall A., (see **Reese, John C.**, Entomology).

Kambhampati, Srinivas, Multisponsor, \$10,000, "Insect Genetics."

Margolies, David C., (see **Nechols, James R.**, Entomology).

Michaud, John P., US Department of Agriculture, \$52,129, "Early Detection of Invasive Plant Pests: Development of Targeted Survey Techniques and Improved Sampling Protocols."

Michaud, John P., and **Sloderbeck, Phillip E.** (Southwest Area Office), National Sunflower Association, \$10,000, "Impact Assessment of Stem-Boring Insects in Sunflower: A Pilot Study."

Michaud, John P., (see **Harvey, Tom L.**, Entomology).

Nechols, James R., **Kastens, Terry** (Agricultural Economics), **Margolies, David C.**, **Marsh, Thomas L.** (Agricultural Economics), and **Williams, Kimberly A.** (Horticulture, Forestry and Recreation Resources), US Department of Agriculture, \$165,803, "Alternative Pest Management for Greenhouse Bedding Plants: Demonstration and Economic Evaluation at a Commercial Level."

Ramaswamy, Sonny B., Tougaloo College, \$13,000, "Tougaloo College Project."

Ramaswamy, Sonny B., US Department of Agriculture, \$15,000, "Determine Physiological Effects of Insect Growth Regulators for Major Pest Species."

Ramaswamy, Sonny B., and **Dobesh, Sharon**, US Department of Agriculture, \$39,890, "Pesticide Applicator Training Program."

Ramaswamy, Sonny B., and **Kadir, Sorkel M.** (Agricultural Experiment Station), US Department of Agriculture, \$90,000, "Kansas Pesticide Usage Survey and Crop Profile Development in the Northern and Central Plains."

Reese, John C., **Higgins, Randall A.**, **Jardine, Douglas J.** (Extension Plant Pathology), **Schapaugh, William T.** (Agronomy), **Sloderbeck, Phillip E.** (Southwest Area Office), **Smith, C. Michael**, and **Wolf, Robert E.** (Extension Biological and Agricultural Engineering), Kansas Soybean Commission, \$35,157, "Management of the Soybean Aphid: A Pro-Active Approach to a New Pest." (2 awards)

Reese, John C., **Schapaugh, William T.** (Agronomy), and **Sloderbeck, Phillip E.** (Southwest Area Office), Pioneer Hi-Bred International, Inc., \$89,151, "Soybean Resistance to the Soybean Aphid."

Reese, John C., (see **Kofoed, Kenneth D.**, Agricultural Research Center-Hays).

Smith, C. Michael, Kansas Crop Improvement Association, \$5,000, "Diagnostic Molecular Genetic Markers to Detect Multi-Gene Greenbug Resistance in Wheat."

Smith, C. Michael, (see **Reese, John C.**, Entomology).

Wilde, Gerald E., Monsanto Company, \$3,000, "Efficacy of Lead Transgenic Corn Rootworm Event Against Western and Northern Corn Rootworm."

Wilde, Gerald E., Multisponsor, \$65,900, "Chemical Control of Insect Pests of Corn and Other Field Crops, Small Grain and Forage."

Wilde, Gerald E., US Department of Agriculture, \$81,100, "Biologically Intensive Areawide IPM of the Russian Wheat Aphid and Greenbug."

Wilde, Gerald E., **Chen, Ming-Shun**, and **Fritz, Allan K.** (Agronomy), US Department of Agriculture, \$99,541, "Predicting the Durability of Host Resistance."

Zolnerowich, Gregory, US Department of Agriculture, \$7,428, "Systematics of Native and Exotic Species of *Eretmocerus*."

Zurek, Ludek, National Science Foundation, \$67,808, "Microbial and Population Ecology of House Flies."

Zurek, Ludek, (see **Sargeant, Janice M.**, Diagnostic Medicine/Pathobiology).

FOOD SCIENCE INSTITUTE

Kastner, Curtis L., **Fung, Daniel Y.C.** (Animal Sciences and Industry), and **Kropf, Donald H.** (Animal Sciences and Industry), US Department of Agriculture, \$363,769, "Animal Science Food Safety Consortium - Kansas State University."

Retzlaff, Deanna D., (see **Getty, Kelly J. K.**, Animal Sciences and Industry).

GRAIN SCIENCE AND INDUSTRY

Behnke, Keith C., (see **Herrman, Timothy J.**, Grain Science and Industry).

Behnke, Keith C., (see **Beyer, R. Scott**, Animal Sciences and Industry).

Bennett, Robert E., Kansas Wheat Commission, \$14,675, "Protein/Hardness Screening of Early Progeny Wheats."

Bennett, Robert E., Kansas Wheat Commission, \$62,327, "Quality Evaluation from KAES Wheat Breeding Programs."

Bhadriraju, Subramanyam, **Huang, Fangneng**, and **Toews, Michael D.**, Dow AgroSciences, \$105,000, "Characterization of Spinosad as a Stored Grain and Stored Products Protectant."

Bhadriraju, Subramanyam, **Huang, Fangneng**, and **Roesli, Rennie**, Kansas Corn Commission, \$30,000, "Evaluation of Spinosad for Protection of Stored Corn from Insect Attack and Damage."

Bhadriraju, Subramanyam, (see **Herrman, Timothy J.**, Grain Science and Industry).

Bhadriraju, Subramanyam, and **Toews, Michael D.**, US Department of Agriculture, \$199,525, "Fate and Efficacy of Spinosad for Insect Management in Farm Stored Grain."

Bhadriraju, Subramanyam, and **Toews, Michael D.**, US Department of Agriculture, \$20,000, "Sixth National Stored-Product IPM Training Conference."

Donnelly, Brendan J., Bakers National Education Foundation, \$376,793, "Bakery Science and Management Professorship."

Donnelly, Brendan J., Nebraska Wheat Board, \$5,000, "International Grains Program Advisory Board."

Donnelly, Brendan J., Oklahoma Wheat Commission, \$15,000, "International Grains Program Wheat Advisory Board."

Donnelly, Brendan J., Texas Wheat Producers Board, \$15,000, "International Grains Program Advisory Board."

Donnelly, Brendan J., and **Howard, John E.**, Kansas Corn Commission, \$36,000, "Market Development Grant - International Grains Program Grain Storage, Handling, and Sanitation Specialist."

Donnelly, Brendan J., and **Howard, John E.**, Kansas Soybean Commission, \$72,000, "Market Development Grant - International Grains Program."

Doyungan, Stella M., (see **Herrman, Timothy J.**, Grain Science and Industry).

Herrman, Timothy J., AgraMarke, Inc., \$53,100, "Food-Grade Corn Hybrid Evaluation."

Herrman, Timothy J., Kansas Corn Commission, \$30,000, "Corn Dry Milling Performance."

Herrman, Timothy J., Ohio State University, \$24,475, "Grain Facility System Analysis to Improve Adoption of Value-Enhanced Grain Handling and Marketing in the U. S."

Herrman, Timothy J., **Behnke, Keith C.**, **Bhadriraju, Subramanyam**, **Boyle, Elizabeth** (Animal Sciences and Industry), and **Langemeier, Michael R.** (Agricultural Economics), US Department of Agriculture, \$534,153, "Development and Implementation of a Voluntary HACCP Program for the Commercial Feed Industry."

Herrman, Timothy J., **Behnke, Keith C.**, **Doyungan, Stella M.**, and **Reed, Carl**, Cargill, Inc., \$167,542, "Mold-Induced Deterioration in Grain Stored Under High Temperatures and Effect of Mold Inhibitors."

Herrman, Timothy J., and **Schenck-Hamlin, Donna C.** (Dean of Agriculture and Director of AES), US Department of Agriculture, \$4,427, "NC213 Information Support Services."

Howard, John E., (see **Donnelly, Brendan J.**, Grain Science and Industry).

Huang, Fangneng, (see **Bhadriraju, Subramanyam**, Grain Science and Industry).

MacRitchie, Finlay I., **Chung, Do Sup** (Biological and Agricultural Engineering), and **Herald, Thomas J.** (Animal Sciences and Industry), Midwest Grain Products, Inc., \$15,000, "Characterization of Modified Gluten Protein."

MacRitchie, Finlay I., **Fritz, Allan K.** (Agronomy), and **Paulsen, Gary M.** (Agronomy), US Department of Agriculture, \$157,262, "Consistency of Quality for the Wheat Industry."

Okot-Kotber, B. Moses, Kansas Crop Improvement Association, \$10,000, "Characterization of the Wheat Polyphenol Oxidase (PPO) Gene(s)."

Reed, Carl, (see **Herrman, Timothy J.**, Grain Science and Industry).

Roesli, Rennie, (see **Bhadriraju, Subramanyam**, Grain Science and Industry).

Seib, Paul A., US Department of Agriculture, \$74,146, "Development of Prediction Models for Wheat Quality Parameters."

Sun, X. Susan, US Department of Defense, \$24,900, "Characterization of Protein-Based Adhesive Performances for Fiber Cardboard."

Sun, X. Susan, US Department of Defense, \$14,000, "Construction of Rain Simulation System for U. S. Army Adhesive Project."

Sun, X. Susan, **Hulbert, Scot H.** (Plant Pathology), **Schapaugh, William T.** (Agronomy), **Trick, Harold N.** (Plant Pathology), **Wang, Donghai** (Biological and Agricultural Engineering), **Wang, Xuemin** (Biochemistry), US Department of Energy, \$826,188 (includes \$20,000 from AgriBoard, \$50,000 from Ashland, \$106,400 from Georgia Pacific), "Affordable Resins and Adhesives from Optimized Soybean Varieties."

Sun, X. Susan, and **Seib, Paul A.**, US Environmental Protection Agency, \$32,500, "High-Strength Degradable Plastic from Starch and Poly (lactic Acid)."

Seib, Paul A., (see **Sun, X. Susan**, Grain Science and Industry).

Sun, X. Susan, (see **Wang, Xuemin**, Biochemistry).

Tilley, Katherine A., Interstate Brands Corporation, \$20,000, "Correlation of Dough Formation and Breadmaking Quality Parameters for Tyrosine Crosslink Formation under Industry."

Tilley, Katherine A., Kansas Wheat Commission, \$30,000, "Molecular Factors Involved in Determining Wheat Flour and Dough Quality."

Tilley, Katherine A., US Department of Agriculture, \$121,237, "Tyrosine Crosslinks in Wheat: Kernel Development and Environmental Effects."

Toews, Michael D., (see **Bhadriraju, Subramanyam**, Grain Science and Industry).

HORTICULTURE, FORESTRY AND RECREATION RESOURCES

Becker, Constance D., Earthwatch Institute, \$3,231, "Ecuador Cloud Forest Research."

Bremer, Dale J., (see **Fry, Jack D.**, Horticulture, Forestry and Recreation Resources).

Bremer, Dale J., **Fry, Jack D.**, and **Rajashekar, Channa B.** (Plant Pathology), Scotts Company, \$7,000, "Evaluation of Texas Bluegrass for Use in Golf Course Fairways and Roughs."

Carey, Edward E., Organic Farming Research Foundation, \$8,000, "Are Organic Vegetables More Nutritious? - Fresh and Postharvest Assessment of Nutritional Quality of Organically- and Conventionally-Grown Lettuce and Other Salad Greens."

Fagerness, Matthew, (see **Fry, Jack D.**, Horticulture, Forestry and Recreation Resources).

Fry, Jack D., **Bremer, Dale J.**, **Fagerness, Matthew**, and **Keeley, Steven J.**, Multisponsor, \$88,450, "Turfgrass Investigations."

Fry, Jack D., **Fagerness, Matthew**, and **Keeley, Steven J.**, National Turfgrass Federation, \$16,800, "Turfgrass Testing."

Fry, Jack D., (see **Bremer, Dale J.**, Horticulture, Forestry and Recreation Resources).

Griffin, Jason, Frank J. Schmidt Family Charitable Foundation, \$2,000, "Evaluation of Ornamental Species for the Great Plains."

Keeley, Steven J., (see **Fry, Jack D.**, Horticulture, Forestry and Recreation Resources).

Marr, Charles W., Multisponsor, \$1,150, "Efficacy of Insecticides Against Vegetable Feeding Insect Pests."

Rajashekar, Channa B., Republic of Korea, \$27,000, "Physiological Mechanisms Involved in Chilling and Cold Stresses to Induce Tolerant of Cucurbitaceae and Strawberry."

Rajashekar, Channa B., (see **Bremer, Dale J.**, Horticulture, Forestry and Recreation Resources).

Reid, William R., Kansas Nut Growers Association, \$1,000, "Pecan Cultivar Evaluation."

Schroeder, Kenneth R., Frank J. Schmidt Family Charitable Foundation, \$3,000, "Development of Fruitless or Embryo-Lethal Woody Ornamental Plants."

Williams, Kimberly A., Multisponsor, \$1,000, "Floriculture Research."

Williams, Kimberly A., National Science Foundation, \$460, "Entomological Society of America Annual Meeting and Exhibition 2003 - Yan Chen."

Williams, Kimberly A., (see **Nechols, James R.**, Entomology).

KANSAS CENTER FOR AGRICULTURE RESOURCES AND THE ENVIRONMENT/ KANSAS WATER RESOURCE RESEARCH INSTITUTE

Beckman, Jana J., (see **Buchholz, Daryl D.**, Agriculture and Natural Resources).

Hargrove, William L., US Environmental Protection Agency, \$608,607 (includes \$20,000 from Kansas Department of Agriculture, and \$40,000 from State Conservation Commission), "Abatement of Fecal Coliform Bacteria - Part 3."

Hargrove, William L., **Broce, Alberto B.** (Entomology), **Harner III, Joseph P.** (Extension Biological and Agricultural Engineering), **Maghirang, Ronaldo G.** (Biological and Agricultural Engineering), **Murphy, James P.** (Biological and Agricultural Engineering), and **Pickrell, John A.** (Diagnostic Medicine/Pathobiology), US Department of Agriculture, \$85,519, "Air Quality: Odor, Dust, and Gaseous Emissions from Concentrated Animal Feeding Operations in the Southern Great Plains."

Hargrove, William L., **Powell, G. Morgan** (Extension Biological and Agricultural Engineering), and **Willingham, Judith M.** (Extension Biological and Agricultural Engineering), Kansas Water Office, \$10,000, "Kansas Water Resources Adult Education."

Hargrove, William L., (see **Barnes, Philip L.**, Biological and Agricultural Engineering).

NORTHWEST RESEARCH EXTENSION CENTER

Aiken, Robert M., Multisponsor, \$16,540, "Sunflower Investigations."

Aiken, Robert M., National Sunflower Association, \$3,400, "Quantifying Heat and Water Stress Impacts on Yield and Water Use for Oilseed Sunflower Crops."

Aiken, Robert M., National Sunflower Association, \$2,550, "Strategies for the Management of the Sunflower Stem Weevil."

Aiken, Robert M., (see **Gordon, Walter B.**, Agronomy).

Aiken, Robert M., (see **Lamm, Freddie R.**, Northwest Research Extension Center).

Aiken, Robert M., (see **Schlegel, Alan J.**, Southwest Research Extension Center).

Aiken, Robert M., (see **Stahlman, Phillip W.**, Agricultural Research Center-Hays).

Coyne, Patrick J., Multisponsor, \$55,835, "Sunflower Performance Testing Program."

Lamm, Freddie R., Aiken, Robert M., Ham, Jay M. (Agronomy), and **O'Brien, Daniel M.** (Northwest Area Office), Kansas Corn Commission, \$12,000, "Reducing Irrigation Water Needs with High Frequency, Limited Subsurface Drip Irrigation."

Lamm, Freddie R., Klocke, Norman L. (Southwest Research Extension Center), **Peterson, Jeffrey M.** (Agricultural Economics), **Rogers, Danny H.** (Biological and Agricultural Engineering), and **Stone, Loyd R.** (Agronomy), US Department of Agriculture, \$73,894, "Water Conservation—Increased Efficiency in Usage."

PLANT PATHOLOGY

Bockus, William W., Kansas Crop Improvement Association, \$4,000, "Development of Scab Resistant Winter Wheat Cultivars for Kansas."

Bockus, William W., Kansas Wheat Commission, \$25,500, "Development of Barley Yellow Dwarf-Resistant Wheat Cultivars for Kansas."

Bockus, William W., Multisponsor, \$4,350, "Seed Treatment."

Bockus, William W., US Department of Agriculture, \$29,740, "Development of Scab Resistant Wheat Cultivars for Kansas."

Bowden, Robert L., and **Leslie, John F.**, US Department of Agriculture, \$48,796, "Genetic Mapping of Aggressiveness and Fertility Barriers in *Gibberella Zeae*."

Bowden, Robert L., (see **Leslie, John F.**, Plant Pathology).

Clafin, Larry E., US Agency for International Development, \$56,850, "Agroecology and Biotechnology of Fungal Pathogens of Sorghum and Millet."

Clafin, Larry E., (see **Tuinstra, Mitchell R.**, Agronomy).

Garrett, Karen A., Land Institute, \$9,000, "Perenniality, Cytogenetics, and Disease Resistance of *Thinopyrum* spp. X *Triticum aestivum* Hybrids and Genetic Heterogeneity Effects on Disease Epidemiology - Cindy M. Cox."

Gill, Bikram S., Kansas Wheat Commission, \$85,000, "Wheat Genetics Resource Center and Its Contributions to the Kansas Wheat Industry."

Gill, Bikram S., National Science Foundation, \$215,654, "Assessment of the Insular Organization of the Wheat D Genome by Physical Mapping."

Gill, Bikram S., National Science Foundation, \$100,504, "Structure and Function of the Expressed Portion of the Wheat Genomes."

Gill, Bikram S., (see **Fritz, Allan K.**, Agronomy).

Gill, Bikram S., (see **Muthukrishnan, Subbarat**, Biochemistry).

Gill, Bikram S., (see **Trick, Harold N.**, Plant Pathology).

Heaton, Louis A., and **Leslie, John F.**, US Department of Agriculture, \$14,634, "Can We Debilitate the Wheat Scab Fungus with a Virus?"

Hei, Leung, (see **Leach, Jan E.**, Plant Pathology).

Hulbert, Scot H., National Science Foundation, \$260,000, "Molecular Characterization of Novel Rp1 Genes."

Hulbert, Scot H., Leach, Jan E., and **Trick, Harold N.**, US Department of Agriculture, \$178,000, "Isolation of Maize Genes Controlling Defense Reactions to Pathogens of Cereals."

Hulbert, Scot H., (see **Sun, X. Susan**, Grain Science and Industry).

Jardine, Douglas J., Multisponsor, \$9,755, "Soybean Foliar Fungicide and Seed Treatment Tests."

Jardine, Douglas J., North Central Soybean Research Program, \$11,813, "Limiting Losses to *Phytophthora sojae* in the North Central Region."

Jardine, Douglas J., (see **Higgins, Randall A.**, Entomology).

Johnson, Lowell B., (see **White, Frank F.**, Plant Pathology).

Leach, Jan E., National Science Foundation, \$36,520, "U.S.-Japan Seminar on Genomic and Genetic Analysis of Plant Parasitism and Defense."

Leach, Jan E., US Department of Agriculture, \$10,000, "U.S.-Japan Seminar on Genomic and Genetic Analysis of Plant Parasitism and Defense."

Leach, Jan E., US Department of Agriculture, \$11,000, "Workshop on Genomic Analysis of Plant-Associated Microorganisms, April 9-11, 2002."

Leach, Jan E., and **Hei, Leung**, National Science Foundation, \$34,645, "Activation-Tagged and Deletion Mutants and cDNA Microarrays for Functional Genomics of Rice."

Leach, Jan E., (see **Hulbert, Scot H.**, Plant Pathology).

Leach, Jan E., (see **Roe, Judith L.**, Biology).

Leslie, John F., American Society for Microbiology, \$22,000, "Editor Position for Applied and Environmental Microbiology."

Leslie, John F., US Agency for International Development, \$70,000, "Agroecology and Biotechnology of Fungal Pathogens of Sorghum and Millet."

Leslie, John F., US Agency for International Development, \$32,000, "Diversity in *Fusarium* Species Causing Stalk and Ear Rot of Maize and Sorghum in West Africa."

Leslie, John F., and **Bowden, Robert L.**, US Department of Agriculture, \$25,694, "Diversity of North and South American and Korean Populations of *Gibberella zeae*."

Leslie, John F., (see **Bowden, Robert L.**, Plant Pathology).

Leslie, John F., (see **Heaton, Louis A.**, Plant Pathology).

Tang, Xiaoyan, National Science Foundation, \$66,500, "Functional Genomics of the Interactions of Tomato and *Pseudomonas syringae* pv tomato DC3000."

Tang, Xiaoyan, and **Stewart, George C.** (Diagnostic Medicine/Pathobiology), US Department of Health and Human Services, \$184,898, "Structural Approaches for Control of Microbial Pathogens."

Tisserat, Ned A., Multisponsor, \$14,500, "Evaluation and Testing of Fungicides and Nematicides on Horticultural Crops."

Todd, Timothy C., (see **Rice, Charles W.**, Agronomy).

Todd, Timothy C., (see **Schapaugh, William T.**, Agronomy).

Todd, Timothy C., (see **Trick, Harold N.**, Plant Pathology).

Trick, Harold N., Fritz, Allan K. (Agronomy), **Gill, Bikram S.**, and **Muthukrishnan, Subbarat** (Biochemistry), Kansas Wheat Commission, \$40,500, "Wheat Improvement Through Genetic Engineering."

Trick, Harold N., and **Muthukrishnan, Subbarat** (Biochemistry), US Department of Agriculture, \$227,280, "Expression of Phenylalanine-Free Zein Protein in Transgenic Soybean as a Value-Added Trait for PKU Patients."

Trick, Harold N., Muthukrishnan, Subbarat (Biochemistry), **Schapaugh, William T.** (Agronomy), and **Todd, Timothy C.**, Kansas Soybean Commission, \$100,000, "Enhancement of Soybean Through Genetic Engineering."

Trick, Harold N., (see **Hulbert, Scot H.**, Plant Pathology).

Trick, Harold N., (see **Muthukrishnan, Subbarat**, Biochemistry).

Trick, Harold N., (see **Schapaugh, William T.**, Agronomy).

Trick, Harold N., (see **Sun, X. Susan**, Grain Science and Industry).

Valent, Barbara, Kansas Technology Enterprise Corporation, \$100,000, "Investigation of the Mechanisms by Which the Hemibiotrophic Rice Blast Fungus Delivers Effector Proteins into Plant Cells."

Valent, Barbara, US Department of Agriculture, \$289,000, "Functional Analysis of the AVR-Pita Rice Blast Avirulence Protein in Pathogenicity and Host Specificity."

White, Frank F., and **Johnson, Lowell B.**, US Department of Agriculture, \$271,000, "Genomic Analysis and Cloning of the Disease Resistance Gene Xa7."

Zeigler, Robert S., Kansas State University Foundation, \$71,338, "Non-Conventional Plant Improvement Technology."

Zeigler, Robert S., US Agency for International Development, \$332,500, "Cereals Comparative Genomics Initiative Grants Program."

Zeigler, Robert S., US Department of Agriculture, \$33,000, "Facilitate Development of New Molecular Markers for Wheat."

Zeigler, Robert S., US Department of Agriculture, \$62,635, "Facilitate Multiple Stress-Resistant Wheat and Alfalfa Germplasm."

Zeigler, Robert S., and **Brown-Guedira, Gina L.** (Agronomy), US Department of Agriculture, \$59,057, "Facilitate Development of Wheat Germplasm Resistant to Fusarium Head Blight via Marker Assisted Breeding."

SOUTHEAST AGRICULTURAL RESEARCH CENTER

Kelley, Kenneth W., and **Sweeney, Daniel W.**, Kansas Soybean Commission, \$6,500, "Effects of Crop Rotation and Tillage Systems on Soybean Yield in Southeast Kansas."

Long, James H., (see **Gordon, Walter B.**, Agronomy).

Long, James H., (see **Schapaugh, William T.**, Agronomy).

Moyer, Joseph L., Multisponsor, \$3,940, "Southeast Kansas Crop Performance Testing Program."

Sweeney, Daniel W., (see **Kelley, Kenneth W.**, Southeast Agricultural Research Center).

SOUTHWEST RESEARCH EXTENSION CENTER

Alam, Mahbub U., (see **Clark, Gary A.**, Biological and Agricultural Engineering).

Currie, Randall S., Multisponsor, \$21,200, "Weed Control Research in Southwest Kansas."

Klocke, Norman L., and **Dumler, Troy** (Southwest Area Office), Kansas Soybean Commission, \$10,050, "Water Savings from Crop Residues in Irrigated Soybeans."

Klocke, Norman L., (see **Alam, Mahbub U.**, Extension Biological and Agricultural Engineering).

Klocke, Norman L., (see **Lamm, Freddie R.**, Northwest Research Extension Center).

Schlegel, Alan J., Multisponsor, \$2,000, "Soil Fertility and Soil Management Research for Western Kansas."

Schlegel, Alan J., Aiken, Robert M. (Northwest Research Extension Center), and **Stone, Loyd R.** (Agronomy), National Sunflower Association, \$4,050, "Alleviation of Soil Compaction in Dryland Cropping Systems."

Schlegel, Alan J., Dumler, Troy (Southwest Area Office), and **Stone, Loyd R.** (Agronomy), Kansas Corn Commission, \$12,000, "Irrigated Cropping Systems to Reduce Irrigation Water Use and Groundwater Depletion While Sustaining Profitability."

Schlegel, Alan J., Dumler, Troy (Southwest Area Office), and **Stone, Loyd R.** (Agronomy), Kansas Grain Sorghum Commission, \$6,500, "Irrigated Cropping Systems to Reduce Irrigation Water Use and Groundwater Depletion While Sustaining Profitability."

Schlegel, Alan J., Dumler, Troy (Southwest Area Office), and **Stone, Loyd R.** (Agronomy), and Kansas Soybean Commission, \$16,000, "Irrigated Cropping Systems to Reduce Irrigation Water Use and Groundwater Depletion While Sustaining Profitability."

Schlegel, Alan J., (see **Alam, Mahbub U.**, Extension Biological and Agricultural Engineering).

Schlegel, Alan J., (see **Leikam, Dale F.**, Agronomy).

Schlegel, Alan J., (see **Leikam, Dale F.**, Extension Agronomy).

Schlegel, Alan J., (see **Schmidt, John P.**, Agronomy).

Willson, Thomas C., (see **Alam, Mahbub U.**, Extension Biological and Agricultural Engineering).

Witt, Merle D., Multisponsor, \$6,000, "Yield Appraisal of Crops for Southwestern Kansas."

Witt, Merle D., (see **Gordon, Walter B.**, Agronomy).

Witt, Merle D., (see **Higgins, Randall A.**, Entomology).

Witt, Merle D., (see **Sloderbeck, Phillip E.**, Extension Entomology).

COLLEGE OF ARCHITECTURE, PLANNING, AND DESIGN

ARCHITECTURE

Selfridge, O. John, (see **White, Betty Jo**, Apparel, Textiles, and Interior Design).

Simon, Madlen, Kansas City Design Center, \$5,000, "Architectural Design Studio 7/8."

LANDSCAPE ARCHITECTURE/REGIONAL AND COMMUNITY PLANNING

Bernard, Eric A., (see **Steward, David R.**, Civil Engineering).

Day, Dennis J., Prairie Band of Potawatomi Indians, \$913, "Mixed Use Residential Plan."

Keithley, Claude A., (see **Lawhon, Larry L.**, Landscape Architecture/Regional and Community Planning).

Lawhon, Larry L., and **Keithley, Claude A.**, US Department of Housing and Urban Development, \$3,000, "Community Development Work Study Program."

Wigfall, LaBarbara J., and **Boguski, Terrie K.** (Center for Hazardous Substance Research), US Environmental Protection Agency, \$6,000, "Community Visioning Workshop-Oakgrove Community Group."

COLLEGE OF ARTS AND SCIENCES

BIOCHEMISTRY

Davis, Lawrence C., (see **Erickson, Larry E.**, Chemical Engineering).

Kanost, Michael R., US Department of Health and Human Services, \$109,000, "Adhesion Receptors of the Insect Immune System."

Kanost, Michael R., US Department of Health and Human Services, \$310,090, "Proteinase Systems in Insect Hemolymph."

Kanost, Michael R., **Gehrke, Stevin H.** (Chemical Engineering), and **Kramer, Karl J.**, National Science Foundation, \$272,500, "Protein Cross-Linking Reactions for Insect Cuticle Sclerotization."

Kanost, Michael R., (see **Chapes, Stephen K.**, Biology).

Kanost, Michael R., (see **Zolkiewski, Michal**, Biochemistry).

Kramer, Karl J., (see **Kanost, Michael R.**, Biochemistry).

Kramer, Karl J., (see **Muthukrishnan, Subbarat**, Biochemistry).

Krishnamoorthi, Ramaswamy, Great Plains Diabetes Research, Inc., \$7,000, "Effect of Glucose on Blood Coagulation Factor XII Activation and Enzymatic Activity."

Muthukrishnan, Subbarat, National Science Foundation, \$500, "Ninth International Chitin-Chitosan Conference - David Hogenkamp."

Muthukrishnan, Subbarat, **Gill, Bikram S.** (Plant Pathology), and **Trick, Harold N.** (Plant Pathology), US Department of Agriculture, \$48,780, "Enhanced Resistance to Scab by Genetic Engineering with PR-Protein Genes."

Muthukrishnan, Subbarat, and **Kramer, Karl J.**, US Department of Agriculture, \$23,500, "Generation of Genetically-Modified Corn Expressing Insect Chitinase Gene."

Muthukrishnan, Subbarat, (see **Trick, Harold N.**, Plant Pathology).

Prakash, Om, US Department of Health and Human Services, \$7,000, "Immunogenic Tumor-Associated Mucin Peptides."

Roche, Thomas E., US Department of Health and Human Services, \$254,625, "Regulation of Mammalian Pyruvate Dehydrogenase."

Smith, Paul E., American Chemical Society, \$80,000, "Preferential Interactions in Urea Solutions."

Takemoto, Dolores J., and **Boyle, Daniel L.** (Biology), US Department of Health and Human Services, \$285,180, "Protein Kinase C Gamma in the Lens."

Takemoto, Dolores J., (see **Montelone, Beth A.**, Biology).

Tomich, John M., **Mitchell, Kathy E.** (Anatomy and Physiology), and **Schultz, Bruce D.** (Anatomy and Physiology), US Department of Health and Human Services, \$214,940, "Role of Ordered Helical Segments in Membrane Proteins."

Wang, Xuemin, US Department of Agriculture, \$150,000, "Characterizing Functions of Multiple Phospholipase Ds in Arabidopsis."

Wang, Xuemin, **Rintoul, David A.** (Biology), **Shah, Jyoti** (Biology), **Sun, X. Susan** (Grain Science and Industry), and **Welti, Ruth** (Biology), National Science Foundation, \$651,788, "Establishment of the Lipidomics Research Center at Kansas State University."

Wang, Xuemin, **Shah, Jyoti** (Biology), and **Welti, Ruth** (Biology), National Science Foundation, \$163,725, "Metabolomic Profiling of Membrane Lipids and Their Compositional Dynamics in Plant Stress Responses."

Wang, Xuemin, (see **Sun, X. Susan**, Grain Science and Industry).

Zolkiewska, Anna, US Department of Health and Human Services, \$166,405, "Protein Structure and Function."

Zolkiewski, Michal, US Department of Health and Human Services, \$181,875, "Structure and Function of Hsp100 Proteins."

Zolkiewski, Michal, and **Kanost, Michael R.**, US Department of Health and Human Services, \$13,623, "Protein Structure and Function."

BIOLOGY

Asano, Katsura, US Department of Health and Human Services, \$32,735, "Control of Translation Initiation in Fission Yeast."

Asano, Katsura, US Department of Health and Human Services, \$213,885, "Studies on Start Codon Selection by Eukaryotic Ribosomes."

Blair, John M., National Science Foundation, \$447,214, "Climatic Variability and Ecosystem Response: Precipitation Patterns, Soil Moisture Dynamics, and Productivity in Tallgrass Prairie."

Blair, John M., **Hartnett, David C.**, **Johnson, Loretta C.**, and **Knapp, Alan K.**, National Science Foundation, \$811,999, "Konza Prairie LTER V: Long-Term Research on Grassland Dynamics and Global Change."

Blair, John M., and **Knapp, Alan K.**, US Department of Energy, \$128,776, "Belowground Responses to Multiple Climate Change Factors: Interactive Effects of Warming and More Extreme Precipitation Patterns on Grassland Ecosystems."

Blair, John M., (see **Johnson, Loretta C.**, Biology).

Blair, John M., (see **Knapp, Alan K.**, Biology).

Boyle, Daniel L., (see **Takemoto, Dolores J.**, Biochemistry).

Briggs, John M., (see **Knapp, Alan K.**, Biology).

Brown, Susan J., US Department of Health and Human Services, \$284,400, "Genetic Control of Segmentation."

Brown, Susan J., US Department of Health and Human Services, \$128,780, "Kansas Biomedical Research Infrastructure Network."

Brown, Susan J., US Department of Health and Human Services, \$13,638, "Kansas Biomedical Research Infrastructure Network Star Trainee Award."

Brown, Susan J., US Department of Health and Human Services, \$35,780, "Structural Genomics of the Tribolium HOMC."

Brown, Susan J., (see **Denell, Robin E.**, Biology).

Chapes, Stephen K., National Aeronautics and Space Administration, \$28,000, "Cross-Kingdom Comparison of Host Defense Genes."

Chapes, Stephen K., National Aeronautics and Space Administration, \$285,171, "Differentiation of Bone Marrow Macrophages in Space."

Chapes, Stephen K., US Department of Health and Human Services, \$372,038, "Kansas Biomedical Research Infrastructure Network Training and Mentoring Core."

Chapes, Stephen K., **Hua, Duy H.** (Chemistry), and **Kanost, Michael R.** (Biochemistry), US Department of Health and Human Services, \$9,000, "Summer Scholar Awards."

Chapes, Stephen K., (see **Ganta, Roman Reddy R.**, Diagnostic Medicine/Pathobiology).

Clem, Rollie J., US Department of Health and Human Services, \$38,320, "Characterization of Insect Rpr, Hid, and Grim Homologs - Angela J. Fagerness."

Clem, Rollie J., US Department of Health and Human Services, \$25,000, "K-BRIN Core Support."

Clem, Rollie J. , (see Spooner, Brian S. , Biology).	Hartnett, David C. , (see Blair, John M. , Biology).
Conrad, Gary W. , and Tasheva, Elena S. , US Department of Health and Human Services, \$507,430, "Transcriptional Regulation of Keratocan and Mimecan."	Herman, Michael A. , US Department of Health and Human Services, \$13,638, "Kansas Biomedical Research Infrastructure Network Star Trainee Award."
Cully, Jr., Jack F. , US Department of Agriculture, \$8,000, "Community and Landscape Dynamics of Sylvatic Plague in Black-Tailed Prairie Dogs."	Herman, Michael A. , (see Johnson, Loretta C. , Biology).
Cully, Jr., Jack F. , US Department of Health and Human Services, \$38,714, "Landscape Effects on Disease Dynamics in Prairie Dogs."	Hirt, Helmut , US Department of Health and Human Services, \$69,110, "Enterococcus Faecalis Protein EbsG and LTA Function."
Cully, Jr., Jack F. , US Department of the Interior, \$3,500, "Arc Info Map of Active Prairie Dog Towns on Thunder Basin National Grasslands during Summer 2002."	Johnson, Loretta C. , and Blair, John M. , National Aeronautics and Space Administration, \$190,989, "Scaling Up the Ecosystem Consequences of Forest Expansion in the Great Plains Region."
Cully, Jr., Jack F. , US Department of the Interior, \$50,000, "Great Plains Gap Analysis."	Johnson, Loretta C. , and Herman, Michael A. , National Science Foundation, \$916,399 (includes \$12,321 from University of Kansas), "Genomic Approaches to Study Organismal Response to Global Environmental Change."
Cully, Jr., Jack F. , US Department of the Interior, \$3,000, "Metapopulation Ecology of the Black-Tailed Prairie Dog: A Keystone Species of Badlands National Park."	Johnson, Loretta C. , (see Blair, John M. , Biology).
Cully, Jr., Jack F. , US Environmental Protection Agency, \$18,755, "Habitat Alteration and Disease Effects of Black-Tailed Prairie Dogs."	Johnson, Loretta C. , (see Jumpponen, Ari M. , Biology).
Denell, Robin E. , Beeman, Richard W. (Entomology), and Brown, Susan J. , National Science Foundation, \$200,000, "Genetic Regulation of Developmental Fate."	Johnson, Terry C. , Kansas State University Foundation, \$34,987, "Cancer Center Core."
Denell, Robin E. , and Tomoyasu, Yoshinori , Human Frontier Science Program Organization, \$2,460, "Elucidation of Animal Diversity by Comparing Drosophila and Tribolium Wing Development."	Jumpponen, Ari M. , Mycological Society of America, \$2,000, "Martin-Baker Research Award."
Denell, Robin E. , (see Spooner, Brian S. , Biology).	Jumpponen, Ari M. , Nanoscale Materials, Inc., \$2,000, "Effectiveness of Nanoparticles for Treatment of Mycelia and Spores."
Dodds, Walter K. , (see Gido, Keith B. , Biology).	Jumpponen, Ari M. , and Johnson, Loretta C. , National Science Foundation, \$717,494, "Diversity of Ericoid Mycorrhizal Fungi and Its Significance in Plant Nitrogen Acquisition in the Arctic."
Dodds, Walter K. , (see Sandercock, Brett K. , Biology).	Kaufman, Donald W. , (see Kaufman, Glennis A. , Biology).
Ferguson, Carolyn J. , National Science Foundation, \$7,250, "Systematics and Geographic Relations of Phlox L. (Polemoniaceae)."	Kaufman, Glennis A. , Kansas Department of Wildlife and Parks, \$50,000, "GAP Products from Gap Analysis in Kansas."
Gido, Keith B. , Kansas Technology Enterprise Corporation, \$49,907, "Interactive Effects of Disturbance Frequency and Species Composition on Ecosystem Functioning of Intermittent Streams: A Test of Future Climate Change Scenarios."	Kaufman, Glennis A. , and Kaufman, Donald W. , Kansas Department of Wildlife and Parks, \$38,232, "On-Line Mammal Atlas for Kansas."
Gido, Keith B. , US Department of the Interior, \$25,000, "Effects of Largemouth Bass on Habitat Use by Topeka Shiners, Red Shiners, and Bluntnose Minnows: Implications for Susceptibility to Predation."	Knapp, Alan K. , South African National Parks, \$6,468, "Research Fellowship - Tony Swemmer."
Gido, Keith B. , US Department of the Interior, \$48,000, "Kansas State University's Involvement in the San Juan River Recovery Implementation Program."	Knapp, Alan K. , Blair, John M. , and Briggs, John M. , National Science Foundation, \$68,000, "Long-Term Ecological Research in Tallgrass Prairie: The Konza LTER Program."
Gido, Keith B. , and Dodds, Walter K. , US Department of the Interior, \$68,424, "Development of Aquatic GAP Analysis for Kansas."	Knapp, Alan K. , (see Blair, John M. , Biology).
Gido, Keith B. , (see Sandercock, Brett K. , Biology).	Knapp, Alan K. , (see Owensby, Clenton E. , Agronomy).
Gipson, Philip S. , Kansas Department of Wildlife and Parks, \$40,000, "Establishment and Operation of the Kansas Cooperative Fish and Wildlife Research Unit."	Montelone, Beth A. , Dyer, Ruth A. (Office of the Provost), Franks, Suzanne E. (Office of the Dean of Engineering), Spears, Jacqueline D. (Office of the Dean of Arts and Sciences), and Takemoto, Dolores J. (Biochemistry), National Science Foundation, \$599,935, "Program for Gender Equity in Science, Mathematics, Engineering and Technology: Women on the Prairie: Bringing Girls into Science through Environmental Stewardship."
Gipson, Philip W. , US Department of the Interior, \$46,579, "Bird and Vascular Plant Responses to Conversion from Fescue Pastures to Native Tallgrass Prairie II."	Montelone, Beth A. , (see Spooner, Brian S. , Biology).
Gipson, Philip S. , and Pontius, Jeffrey S. (Statistics), US Department of the Interior, \$300,586, "Land Condition Trend Analysis on Fort Riley."	Passarelli, A. Lorena , US Department of Health and Human Services, \$188,277, "Purification and Crystal Structure of a Novel Baculovirus RNA Polymerase Subunit."
Gipson, Philip S. , (see Thien, Stephen J. , Agronomy).	Perchellet, Jean-Pierre H. , US Department of Health and Human Services, \$85,653, "High Throughput Screening and Target Identification."
Hartnett, David C. , and Wilson, Gail T. , National Science Foundation, \$336,215, "Belowground Meristem Populations as Regulators of Grassland Dynamics."	Perchellet, Jean-Pierre H. , and Hua, Duy H. (Chemistry), US Department of Health and Human Services, \$196,425, "Triptycene Analogs: Novel Bifunctional Anticancer Drugs."
	Rintoul, David A. , (see Spooner, Brian S. , Biology).
	Rintoul, David A. , (see Wang, Xuemin , Biochemistry).

Roe, Judith L., Das, Sanjoy (Electrical and Computer Engineering), **Leach, Jan E.** (Plant Pathology), and **Welch, Stephen M.** (Agronomy), US Department of Agriculture, \$144,000, "Simulation Modeling of Heading Time in Rice: A Genetic Control Network Approach."

Roe, Judith L., (see **Spooner, Brian S.**, Biology).

Sandercock, Brett K., Kansas Technology Enterprise Corporation, \$49,735, "Lek Evolution in the Greater Prairie Chicken."

Sandercock, Brett K., National Science Foundation, \$40,000, "Improvement to the Kansas State University Ornithology Collection."

Sandercock, Brett K., Dodds, Walter K., Gido, Keith B., and Wilson, Gail T., National Science Foundation, \$169,954, "Conservation of the Tallgrass Prairie Ecosystem."

Shah, Jyoti, US Department of Health and Human Services, \$13,638, "Kansas Biomedical Research Infrastructure Network Star Trainee Award."

Shah, Jyoti, (see **Wang, Xuemin**, Biochemistry).

Smith, Ann S., (see **Shroyer, Margaret G.**, Elementary Education).

Spooner, Brian S., National Aeronautics and Space Administration, \$200,000, "BioServe Space Technologies: A NASA Center for the Commercial Development of Space."

Spooner, Brian S., US Department of Agriculture, \$10,000, "Wildlife Services Collaboration and Support Agreement."

Spooner, Brian S., US Department of Health and Human Services, \$36,375, "K-BRIN Faculty Recruitment Support."

Spooner, Brian S., Clem, Rollie J., Denell, Robin E., Montelone, Beth A., Rintoul, David A., Roe, Judith L., and Williams, Larry G., Howard Hughes Medical Institute, \$1,600,000, "2002 Undergraduate Biological Sciences Education Program."

Takemoto, Larry J., US Department of Health and Human Services, \$654,750, "Lens Membrane in Relation to Human Cataractogenesis."

Tasheva, Elena S., (see **Conrad, Gary W.**, Biology).

Todd, Scott C., US Department of Health and Human Services, \$279,625, "Analysis of CD81-PGRL Complex on T Cells."

Todd, Scott C., US Department of Health and Human Services, \$25,000, "Function of CD81-PGRL Complex on T Cells."

Todd, Scott C., US Department of Health and Human Services, \$72,750, "H2-Receptor and Tetraspanins as Novel Cancer Therapy Targets."

Tomoyasu, Yoshinori, (see **Denell, Robin E.**, Biology).

Upton, Steve J., US Department of Health and Human Services, \$26,693, "In vitro Assay for Cryptosporidiosis."

Upton, Steve J., and Woods, Keith M., US Department of Health and Human Services, \$181,875, "In vitro Refinements for *Cryptosporidium parvum*."

Welti, Ruth, (see **Wang, Xuemin**, Biochemistry).

Williams, Larry G., (see **Spooner, Brian S.**, Biology).

Wilson, Gail T., (see **Hartnett, David C.**, Biology).

Wilson, Gail T., (see **Rice, Charles W.**, Agronomy).

Wilson, Gail T., (see **Sandercock, Brett K.**, Biology).

With, Kimberly A., US Environmental Protection Agency, \$111,953, "Assessment of Extinction Risk in Dynamic Landscapes."

Woods, Keith M., (see **Upton, Steve J.**, Biology).

CHEMISTRY

Buszek, Keith B., US Department of Health and Human Services, \$85,651, "Synthesis of Lactone and Alkaloid Antitumor Agents."

Collinson, Maryanne M., National Science Foundation, \$100,000, "Preparation and Characterization of Templated Sol-Gel Derived Materials."

Collinson, Maryanne M., National Science Foundation, \$46,666, "Research Experiences for Undergraduates in Chemistry at Kansas State University."

Collinson, Maryanne M., US Department of Defense, \$50,000, "Preparation and Characterization of Nanostructured Materials for Solid-State Electrochemical Applications."

Culbertson, Christopher T., National Aeronautics and Space Administration, \$60,000, "Biosentinels: Biology-Based Microfluidic Reporter Technology for Monitoring Environmental Stressors."

Culbertson, Christopher T., US Department of Energy, \$75,000, "Development of a Microfluidics Package for on a KC-135 Flight at NASA JSC."

Fateley, William G., (see **Hammaker, Robert M.**, Chemistry).

Hammaker, Robert M., and Fateley, William G., Defense Advanced Research Projects Agency, \$144,901, "Metabolic Chemical Monitoring through Spectral Chemometry with MEMS."

Hollingsworth, Mark D., National Aeronautics and Space Administration, \$45,000, "Crystal Growth of New Families of Ferroelastic Materials."

Hua, Duy H., and Wangemann, A. Philine (Anatomy and Physiology), American Heart Association, Heartland Affiliate, \$121,000, "Syntheses and Bio-Evaluation of Endothelin Receptor Antagonists: Myriceric Acid A and Its Analogs."

Hua, Duy H., (see **Chapes, Stephen K.**, Biology).

Hua, Duy H., (see **Perchellet, Jean-Pierre H.**, Biology).

Klabunde, Kenneth J., National Science Foundation, \$79,998, "High Rate Synthesis of Highly Reactive Solvated Metal Atom Dispersion Nanoparticles."

Klabunde, Kenneth J., National Science Foundation, \$350,663, "Size and Shape of Small Crystals Affect Surface Chemistry and Consolidation: Rational Synthetic Methods."

Klabunde, Kenneth J., US Civilian Research and Development Foundation, \$8,000, "Nanocrystalline Oxides as Novel Catalytic Materials and Destructive Sorbents for Hazardous Compounds: Relationship Between Synthesis, Structure and Reactivity."

Klabunde, Kenneth J., US Department of Defense, \$301,479, "Enzyme, Antibody, and Photocatalytically Active Nanoscale Scavengers and Sensors for Chemical Warfare and Biological Agents."

Klabunde, Kenneth J., US Department of Defense, \$64,999, "Nanoscale Metal and Metal Oxide Particle Chemistry: Unique Catalytic, Adsorptive, and Storage Capabilities."

Klabunde, Kenneth J., US Department of Defense, \$162,918, "Protection against Chemical Warfare Agents. Reactive Nanoparticles as Destructive Adsorbents."

Klabunde, Kenneth J., and Sorensen, Christopher M. (Physics), National Aeronautics and Space Administration, \$34,000, "Nanocrystal Superlattices: Synthesis and Properties."

Maatta, Eric A., US Department of Energy, \$110,000, "New Vistas for Functionalized Polyoxometalates."

Ortiz, J. Vincent, American Chemical Society, \$8,000, "Structure and Bonding in Free and Hydrated Dicarboxylate Dianions."

Sherwood, Peter M., Kansas Technology Enterprise Corporation, \$220,328, "Kansas Defense 2010 Program - FY02."

Sherwood, Peter M., National Science Foundation, \$120,000, "Corrosion and Oxide-Free Surfaces Probed by Surface Analysis."

Warmuth, Ralf, US Department of Health and Human Services, \$154,422, "Structural Investigation of Unnatural Peptide Helices."

OFFICE OF THE DEAN OF THE COLLEGE OF ARTS AND SCIENCES

Spears, Jacqueline D., (see **Montelone, Beth A.**, Biology).

ECONOMICS

Babcock, Michael W., Kansas Department of Transportation, \$50,000, "The Impact of Jumbo Covered Hopper Cars on Kansas Shortline Roads."

Ragan, Jr., James F., Multisponsor, \$2,421, "Roe R. Cross Chair of Economics."

GEOGRAPHY

Goodin, Douglas G., (see **Harrington, Jr., John A.**, Geography).

Goodin, Douglas G., (see **White, Stephen E.**, Geography).

Harrington, Jr., John A., US Department of Energy, \$23,949, "Predicted Global Change on Livestock Reproduction and Performance."

Harrington, Jr., John A., **Harrington, Lisa M.**, **Goodin Douglas G.**, **Lu, Max**, and **White, Stephen E.**, National Science Foundation, \$14,685, "Infrastructure to Develop a Human-Environment Regional Observation Network."

Harrington, Jr., John A., (see **Mankin, Kyle R.**, Biological and Agricultural Engineering).

Harrington, Jr., John A., (see **White, Stephen E.**, Geography).

Harrington, Lisa M., (see **Harrington, Jr., John A.**, Geography).

Harrington, Lisa M., (see **White, Stephen E.**, Geography).

Hutchinson, J. M. Shawn, and **Von Bergen, Donald** (Salina Arts, Science and Business), Kansas Department of Administration, \$38,470, "Base Station Operation and Technical Support at KSU-Salina."

Lu, Max, (see **Harrington, Jr., John A.**, Geography).

Lu, Max, (see **White, Stephen E.**, Geography).

White, Stephen E., **Goodin, Douglas G.**, **Harrington, Jr., John A.**, **Harrington, Lisa M.**, and **Lu, Max**, National Science Foundation, \$60,000, "Infrastructure to Develop a Human-Environment Regional Observatory Network."

White, Stephen E., (see **Harrington, Jr., John A.**, Geography).

GEOLOGY

Gao, Stephen S., (see **Hubbard, Mary S.**, Geology).

Hubbard, Mary S., National Science Foundation, \$5,079, "Women's International Science Collaboration Program 2001-2003."

Hubbard, Mary S., **Gao, Stephen S.**, **Liu, Kelly**, and **Oviatt, Charles G.**, National Science Foundation, \$33,623, "USArray and the Great Plains: A PreEARTHSOPE Workshop Proposal."

Hubbard, Mary S., (see **Miller, Keith B.**, Geology).

Liu, Kelly, (see **Hubbard, Mary S.**, Geology).

Miller, Keith B., and **Hubbard, Mary S.**, Kansas Department of Transportation, \$52,880, "Development of a Materials and Engineering Database for "Shales" of Eastern Kansas."

Nicolaysen, Kirsten E., National Science Foundation, \$13,527, "Proposed SGER Survey of the Age and Geochemical Compositions of Mt. Cleveland: An Unstudied, Active Volcano of the Central Aleutian Arc."

Oviatt, Charles G., US Department of the Interior, \$9,000, "Analyzing the Carbonate Mineralogy of Sediment Samples from Great Salt Lake and Bear Lake."

Oviatt, Charles G., US Department of the Interior, \$46,566, "Intergovernmental Personnel Act (IPA) Mobility Assignment Program."

Oviatt, Charles G., (see **Hubbard, Mary S.**, Geology).

HISTORY

Holl, Jack M., Kansas State University Foundation, \$42,000, "Institute for Military History and 20th Century Studies."

KINESIOLOGY

Barstow, Thomas J., Life Measurement Instruments, \$42,923, "Metabolic Measurement System Prototype."

Harms, Craig A., American Lung Association, \$25,000, "Pulmonary Limitations in Healthy Subjects during Exercise."

MATHEMATICS

Auckly, David R., National Science Foundation, \$106,132, "Five Problems in Geometry."

Bennett, Andrew G., and **Rebello, N. Sanjay** (Physics), National Science Foundation, \$500,000, "Assessing Student Transfer and Retention of Learning in Mathematics, Physics and Engineering Courses."

Bennett, Andrew G., (see **Shroyer, Margaret G.**, Elementary Education).

Bennett, Andrew G., (see **Zollman, Dean A.**, Physics).

Cochrane, Todd E., (see **Shroyer, Margaret G.**, Elementary Education).

Foss, Mikil D., National Science Foundation, \$25,205, "Regularity of Minimizers and Necessity of the Euler-Lagrange Equations for Variational Problems."

Kapitanski, Lev, National Science Foundation, \$78,498, "Regularity of Solutions of Evolution Equations."

Korten, Marianne, National Science Foundation, \$58,234, "Free Boundary Problems in Degenerate Parabolic Equations."

Lin, Zongzhu, National Science Foundation, \$76,600, "Connecting Representations of Algebraic Groups, Finite Groups, Lie Algebras, Quantum Groups, and Related Quivers."

Rosenberg, Alexander, National Science Foundation, \$42,300, "D-modules on Noncommutative Spaces, Noncommutative Local Algebra and Representations, Noncommutative Smooth Spaces."

Vidussi, Stefano, National Science Foundation, \$91,730, "Symplectic Topology of Link Surgery 4-manifolds."

MUSIC

Walker, Rodney G., Master Teacher, Inc., \$10,000, "Summer Choral Institute."

PHYSICS

Bolton, Timothy A., Kansas Technology Enterprise Corporation, \$135,640, "Kansas Advanced Semiconductor Project (KASP)."

Bolton, Timothy A., **Demina, Regina**, **Sidwell, Ronald A.**, **Stanton, Noel R.**, and **Von Toerne, Eckhard**, US Department of Energy, \$670,000, "Heavy Quark and Neutrino Physics."

Bolton, Timothy A., Demina, Regina, Sidwell, Ronald A., Stanton, Noel R., and Von Toerne, Eckhard, National Science Foundation, \$9,300, "Quarknet."

Bolton, Timothy A., Ratra, Bharat, Sidwell, Ronald A., Stanton, Noel R., and Von Toerne, Eckhard, US Department of Energy, \$784,911 (includes \$184,911 from University of Kansas), "Kansas Advanced Semiconductor Project (KASP)."

Bolton, Timothy A., (see **Demina, Regina**, Physics).

Bolton, Timothy A., (see **Von Toerne, Eckhard**, Physics).

Chakrabarti, Amitabha, (see **Sorensen, Christopher M.**, Physics).

Chang, Zenghu, US Department of Energy, \$126,328, "Continuing the Development of a 100 Femtosecond X-Ray Detector."

Demina, Regina, Bolton, Timothy A., Sidwell, Ronald A., and Stanton, Noel R., National Science Foundation, \$90,923, "Development of a Silicon Vertex Detector for the Higgs Search at the Tevatron Collider."

Demina, Regina, (see **Bolton, Timothy A.**, Physics).

Esry, Brett D., National Science Foundation, \$57,670, "Theoretical Investigation of Ultracold Three-Body Collisions."

Esry, Brett D., US Department of Defense, \$90,000, "Theoretical Investigation of Atom Optical Elements."

Jiang, Hongxing, and Lin, Jingyu, National Science Foundation, \$58,783, "III-Nitride Wide Bandgap Semiconductors for Optical Communications."

Jiang, Hongxing, and Lin, Jingyu, US Department of Defense, \$56,119, "Fabrication and Optical Recombination in III-Nitride Microstructures and Devices."

Jiang, Hongxing, and Lin, Jingyu, US Department of Defense, \$175,000, "III-Nitride UV Optoelectronic Devices for Bio-Agents Detection."

Jiang, Hongxing, and Lin, Jingyu, US Department of Energy, \$143,259, "Optical and Electrical Properties of III-V Nitride Wide Bandgap Semiconductors."

Jiang, Hongxing, (see **Lin, Jingyu**, Physics).

Law, Bruce M., National Science Foundation, \$131,650, "Acquisition of a Scanning Probe Microscope for Liquids Material Research and Student Training."

Law, Bruce M., National Science Foundation, \$137,000, "Interfacial Phenomena Near Phase Transitions."

Law, Bruce M., US Department of Energy, \$172,932, "Neutron and X-Ray Reflectometry Study of Surface Critical Phenomena."

Lin, Jingyu, and Jiang, Hongxing, National Science Foundation, \$163,939, "Nitride Quantum Wells and Photonic Structures - Growth, Optical Studies and Applications."

Lin, Jingyu, and Jiang, Hongxing, US Department of Defense, \$211,762, "III - Nitrides Growth, Characterization, and Devices -For High Power Electronic Device and Deep UV Sensor Applications."

Lin, Jingyu, (see **Jiang, Hongxing**, Physics).

Rahman, Talat S., National Science Foundation, \$105,000, "Theoretical Studies of Chemisorption of Metal Surfaces."

Rahman, Talat S., National Science Foundation, \$40,000, "US-Turkey Cooperative Research: Theoretical Studies of Intermetallic Nanostructures."

Ratra, Bharat, (see **Bolton, Timothy A.**, Physics).

Rebello, N. Sanjay, National Science Foundation, \$81,525, "Research on Students' Mental Models: Learning and Transfer as a Guide to Application-Based Curriculum Development and Instruction in Physics."

Rebello, N. Sanjay, (see **Bennett, Andrew G.**, Mathematics).

Rebello, N. Sanjay, (see **Zollman, Dean A.**, Physics).

Richard, Patrick, US Department of Energy, \$2,438,556, "Structure and Dynamics of Atoms, Ions, Molecules, and Surfaces."

Sidwell, Ronald A., (see **Bolton, Timothy A.**, Physics).

Sidwell, Ronald A., (see **Demina, Regina**, Physics).

Sidwell, Ronald A., (see **Von Toerne, Eckhard**, Physics).

Sorensen, Christopher M., National Science Foundation, \$190,000, "Aerosol Physics: Optics, Gelation and Turbulent Aggregation."

Sorensen, Christopher M., and Chakrabarti, Amitabha, National Aeronautics and Space Administration, \$90,000, "Gelation in Aerosols: Non-Mean-Field Aggregation Kinetics."

Sorensen, Christopher M., (see **Klabunde, Kenneth J.**, Chemistry).

Stanton, Noel R., (see **Bolton, Timothy A.**, Physics).

Stanton, Noel R., (see **Demina, Regina**, Physics).

Stanton, Noel R., (see **Von Toerne, Eckhard**, Physics).

Thumm, Uwe, National Science Foundation, \$40,000, "Quantum Dynamics in Particle-Solid Interactions."

Von Toerne, Eckhard, Bolton, Timothy A., Sidwell, Ronald A., and Stanton, Noel R., US Department of Energy and National Science Foundation, \$55,729, "Compact Muon Solenoid - Sensors."

Von Toerne, Eckhard, (see **Bolton, Timothy A.**, Physics).

Zollman, Dean A., and Bennett, Andrew G. (Mathematics), National Science Foundation, \$327,803, "Conceptual Model-Based Assessment and Technology: Research in Student Application of Models in Physics and Mathematics."

Zollman, Dean A., and Rebello, N. Sanjay, National Science Foundation, \$276,382, "Physics Teaching Web Advisory (Pathway) — A Digital Video Library for Enhancement and Preparation of Physics Teachers."

Zollman, Dean A., (see **Staver, John R.**, Office of the Dean of Education).

POLITICAL SCIENCE

Suleiman, Michael W., US Department of Education, \$85,850, "Attitudes Toward the Other in Tunisian School Textbooks."

PSYCHOLOGY

Kiefer, Stephen W., Pew Charitable Trusts, \$61,676, "Establishing a Model Infrastructure to Sustain Communities for Peer Review of Teaching."

Kiefer, Stephen W., US Department of Health and Human Services, \$177,149, "Lead: Attention, Impulsivity, and Dopamine."

Smith, Kip C. S., US Department of Defense, \$11,939, "Mitigating Stress, Workload, and Fatigue on the Electronic Battlefield."

Uhlarik, John J., US Department of Transportation, \$77,000, "Aviation Weather Avionics and Usability Assessment."

Uhlarik, John J., US Department of Transportation, \$7,000, "Cockpit Displays of Digital Weather and Operational Information: Identification and Summary of Human Factors Issues."

A.Q. MILLER SCHOOL OF JOURNALISM AND MASS COMMUNICATIONS

Gordon, Joye C., Boone, Kristina M. (Communications), **Penner, Karen P.** (Animal Sciences and Industry), and **Remig, Valentina M.** (Human Nutrition), US Department of Agriculture, \$434,153, "Food Safety Education for the Prevention of Foodborne Illness Among U. S. Residents 65 and Older."

Gould, Thomas H., (see **Simon, Todd F.**, School of Journalism and Mass Communications).

Simon, Todd F., Kansas State University Foundation, \$728, "Construction of KSDB Radio Station in K-State Union."

Simon, Todd F., Kansas State University Foundation, \$2,100, "Huck Boyd National Center for Community Media."

Simon, Todd F., Multisponsor, \$16,450, "Journalism and Mass Communications Website Management."

Simon, Todd F., and **Gould, Thomas H.**, Kansas Board of Regents, \$7,000, "Development and Management of Websites."

SOCIOLOGY, ANTHROPOLOGY, AND SOCIAL WORK

Bloomquist, Leonard E., (see **Middendorf, Gerad D.**, Sociology, Anthropology, and Social Work).

Cauble, A. Elizabeth, Kansas Department of Social and Rehabilitation Services, \$3,415, "Mini-Grant Award Title IV-E Academic Traineeship Project."

Logan, Brad, City of Leroy, Kansas, \$2,430, "Cultural Resources Survey of Designated Portions of a Water Transmission Line Construction Project for the City of Leroy, Kansas."

Logan, Brad, US Department of the Interior, \$25,000, "Class III Cultural Resource Survey of Federally-Owned Lands Surrounding the Superior-Courtland Diversion Dam, Webster County, Nebraska."

Logan, Brad, US Department of the Interior, \$20,788, "National Register of Historic Places Evaluation of the Scott and Evans Sites, Stranger Creek Valley, Leavenworth County, Kansas."

Logan, Brad, (see **Ritterbush, Lauren W.**, Sociology, Anthropology, and Social Work).

Middendorf, Gerad D., and **Bloomquist, Leonard E.**, National Science Foundation, \$31,679, "Agrarian Landscapes in Transition: A Cross-Scale Approach."

Ritterbush, Lauren W., Kansas State University Foundation, \$914, "Archaeological Survey for Kansas State University Crewhouse Expansion."

Ritterbush, Lauren W., and **Logan, Brad**, Cloud County Water District No. 1, \$1,864, "Archaeological Survey for Cloud County Water District No. 1 Wells."

Roper, Donna C., US Department of the Interior, \$39,984, "Archeological Investigations at Medicine Creek Reservoir, Nebraska."

Twiggs, Joan E., US Department of Health and Human Services, \$7,586, "Better Pediatric Outcomes Through Chronic Care."

STATISTICS

Johnson, Dallas W., US Department of Health and Human Services, \$10,700, "Claude D. Pepper Grant."

Loughin, Thomas M., National Science Foundation, \$28,065, "Testing for Marginal Independence between Two or More Multiple Response Categorical Variables."

Milliken, George A., Kansas Water Office, \$10,000, "Assessment: General Statistical Assistance."

Pontius, Jeffrey S., (see **Gipson, Philip S.**, Biology).

COLLEGE OF BUSINESS ADMINISTRATION

ACCOUNTING

Vruwink, David R., (see **Niehoff, Brian P.**, Management).

OFFICE OF THE DEAN OF THE COLLEGE OF BUSINESS ADMINISTRATION

Ebadi, Yar M., Kansas State University Foundation, \$456,933, "Kansas State University Foundation Support."

Katz, Jeffrey P., Multisponsor, \$15,000, "Center for Leadership."

Katz, Jeffrey P., and **Downey, Ronald G.** (Planning and Analysis), Multisponsor, \$28,000, "Center for Leadership."

Katz, Jeffrey P., and **Fingland, Roger B.** (Clinical Sciences), Multisponsor, \$3,500, "Center for Leadership (Veterinary Medicine)."

MANAGEMENT

Niehoff, Brian P., and **Vruwink, David R.** (Accounting), Multisponsor, \$3,000, "MBA Practicum."

COLLEGE OF EDUCATION

COUNSELING AND EDUCATIONAL PSYCHOLOGY

Benton, Stephen L., and **Steichen, Ethel M.** (Office of the Dean of Education), National Science Foundation, \$99,980, "Building Evaluation Capacity Among Native American Indians. Influence by Design: Culture Based ABC's of Evaluation to Impact Public Policies."

OFFICE OF THE DEAN OF THE COLLEGE OF EDUCATION

Flaherty, Roberta D., National Academic Advising Association, \$947,900, "National Academic Advising Association Executive Office."

Havlicek, Barbara J., Kansas Foundation for Agriculture in the Classroom, \$69,088, "Kansas Foundation for Agriculture in the Classroom."

Havlicek, Barbara J., Multisponsor, \$6,230, "Council for Public School Improvement."

Havlicek, Barbara J., Multisponsor, \$54,664, "Educational Computer Assistance."

Havlicek, Barbara J., and **Newhouse, Barbara S.** (Regents' Educational Communications Center), AT&T Foundation, \$105,000, "AT&T/KSU Project Solve."

Herrera, Socorro G., US Department of Education, \$13,500, "Dos Puentes."

Herrera, Socorro G., US Department of Education, \$10,000, "ESL and In-Service Training for USD 500 Teachers."

Herrera, Socorro G., US Department of Education, \$389,528 (includes \$56,831 from USD 253 - Emporia, and \$56,831 from USD 305 - Salina), "Making the Grade."

Herrera, Socorro G., US Department of Education, \$405,160, "Operation ADVANCE (Achieving Values and Accomplishments for Migrant Adults through Networking Community Entities)."

Herrera, Socorro G., US Department of Education, \$244,000, "Project Besitos."

Herrera, Socorro G., US Department of Education, \$177,900, "Project COLLABORATE."

Herrera, Socorro G., US Department of Education, \$292,816, "Project Maestra."

Herrera, Socorro G., US Department of Education, \$180,000, "Project Ramos Secundarios."

Herrera, Socorro G., US Department of Education, \$350,335, "Project Synergy."

Herrera, Socorro G., US Department of Education, \$19,338, "Salida Del Sol."

Herrera, Socorro G., US Department of Education, \$54,612, "Supporting Innovative Leaders in Today's Schools."

McCann, Kevin M., US Department of Education, \$57,605, "USD #378 Memorandum of Agreement."

Murphy, Kevin G., US Department of Education, \$95,310, "Las Estrellas."

Murphy, Kevin G., US Department of Education, \$235,018, "Project Alcance."

Murphy, Kevin G., US Department of Education, \$166,116, "Project CALLE 2000 (Computer-Assisted Language Learning for Education)."

Murphy, Kevin G., US Department of Education, \$241,527, "Project Chrysalis."

Murphy, Kevin G., US Department of Education, \$226,900, "Project Dimelo."

Murphy, Kevin G., US Department of Education, \$241,117, "Project New Horizons."

Rankin, Charles I., US Department of Education, \$11,000, "Charter Schools Leadership Training of Trainers Institute."

Rankin, Charles I., US Department of Education, \$1,594, "Midwest Equity Assistant Center."

Ross, Tweed R., US Department of Education, \$42,286, "Knowledge Development for the Technology Integration Community."

Shroyer, Margaret G., US Department of Education, \$40,000, "KSU-Garden City PDS Partnership."

Shuman, Cindy, US Department of Education, \$13,691, "USD #378 Memorandum of Agreement."

Shuman, Cindy, (see **Thurston, Linda P.**, Office of the Dean of Education).

Spears, Jacqueline D., **McGrath, Diane** (Foundations and Adult Education), and **Thurston, Linda P.**, National Science Foundation, \$264,265, "Seeing Gender: Tools for Change."

Staver, John R., **Shroyer, Margaret G.** (Elementary Education), and **Zollman, Dean A.** (Physics), National Science Foundation, \$16,000, "Kansas Collaborative for Excellence in Teacher Preparation."

Staver, John R., (see **Neilsen, Mitchell L.**, Computing and Information Sciences).

Steichen, Ethel M., US Department of Education, \$37,684, "Off to a Good Start: 21st Century Community Learning Center."

Steichen, Ethel M., (see **Benton, Stephen L.**, Counseling and Educational Psychology).

Thurston, Linda P., Kansas Board of Regents, \$54,400, "KAN-ED Evaluation - Phase I."

Thurston, Linda P., and **Shuman, Cindy**, US Postal Service, \$10,400, "Revision of NCED Environmental Training Courses."

Thurston, Linda P., (see **Spears, Jacqueline D.**, Office of the Dean of Education).

Wright, Emmett L., Multisponsor, \$5,511, "Educational, Cultural and Scientific Cooperation Between the Oblast of Voronezh, the Russian Federation, and the State of Kansas."

Wright, Emmett L., National Aeronautics and Space Administration, \$25,381, "NOVA On-Line ESS."

Yahnke, Sally J., US Department of Education, \$58,000, "Teacher Enhancement: KSU-PDS Performance-Based Assessments."

ELEMENTARY EDUCATION

Allen, David B., US Department of Education, \$58,749 (includes \$8,884 from USD 475 Geary Co.), "Content and Pedagogical Study Using Lesson Examination (CAPSULE)."

Bay-Williams, Jennifer M., (see **Shroyer, Margaret G.**, Elementary Education).

Shroyer, Margaret G., **Bay-Williams, Jennifer M.**, **Bennett, Andrew G.** (Mathematics), and **Cochrane, Todd E.** (Mathematics), National Science Foundation, \$850,000, "KSU - Mathematics Teacher Preparation Partnership."

Shroyer, Margaret G., **Bennett, Andrew G.** (Mathematics), **Smith, Ann S.** (Biology), **Yahnke, Sally J.** (Secondary Education), US Department of Education, \$1,677,257 (includes \$55,775 from USD 383 Manhattan, Kan., \$88,936 from USD 500 Kansas City, Kan., \$164,925 from USD 573 Junction City, Kan.), "Improving Teacher Quality through the Kansas State University Professional Development Schools Partnership."

Shroyer, Margaret G., (see **Staver, John R.**, Office of the Dean of Education).

Staples, Kimberly A., US Department of Education, \$43,349 (includes \$6,998 from USD 573 Geary Co.), "Supporting Elementary Teacher Professional Development and Student Success in Science."

FOUNDATIONS AND ADULT EDUCATION

McGrath, Diane, (see **Spears, Jacqueline D.**, Office of the Dean of Education).

SECONDARY EDUCATION

Harris, Clark R., Kansas Farmers Union, \$1,419, "Study to Identify the Important Competencies for the Kansas Agricultural Education Course."

Kane, Mary R., Kansas Department of Education, \$70,604, "FFA-YF/YFW Organizations."

Yahnke, Sally J., (see **Shroyer, Margaret G.**, Elementary Education).

SPECIAL EDUCATION

White, Warren J., (see **Zabel, Mary Kay**, Special Education).

Zabel, Mary Kay, and **White, Warren J.**, US Department of Education, \$39,998, "IDEA State Improvement Grant."

COLLEGE OF ENGINEERING

ADVANCED MANUFACTURING INSTITUTE

Kramer, Bradley A., Kansas Technology Enterprise Corporation, \$40,000, "Amada Equipment Relocation."

Kramer, Bradley A., Kansas Technology Enterprise Corporation, \$859,870, "Kansas Technology Enterprise Corporation Center of Excellence Grant Agreement."

Kramer, Bradley A., Mid-America Manufacturing Technology Center, \$563,226 (includes \$163,282 from Kansas Technology Enterprise Corporation), "Agreement to Operate MAMTC Regional Office."

Kramer, Bradley A., (see **Tucker, Jeffrey W.**, Advanced Manufacturing Institute).

Tucker, Jeffrey W., Multisponsor, \$235,087, "Advanced Manufacturing Institute-Manufacturing Learning Center."

Tucker, Jeffrey W., US Department of Defense, \$6,800, "Conceptual Design for an Emergency Destruct Press."

Tucker, Jeffrey W., US Department of Transportation, \$31,000, "Seat Belt Convincer Trailer Build."

Tucker, Jeffrey W., and **Kramer, Bradley A.**, Multisponsor, \$34,587, "Advanced Manufacturing Institute-Manufacturing Learning Center."

BIOLOGICAL AND AGRICULTURAL ENGINEERING

Barnes, Philip L., and **Hargrove, William L.** (Kansas Center for Agriculture Resources and the Environment/Kansas Water Resources Research Institute), Kansas Department of Health and Environment, \$100,000, "Verdigris River Basin—Fall River Watershed WRAPS."

Chung, Do Sup, (see **MacRitchie, Finlay I.**, Grain Science and Industry).

Clark, Gary A., **Alam, Mahbub U.** (Southwest Research Extension Center), **Fjell, Dale L.** (Agronomy), and **Rogers, Danny H.**, Kansas Water Office, \$55,000, "Technical Assistance to Water Users: K-State Mobile Irrigation Lab."

Hutchinson, Stacy L., Kansas Technology Enterprise Corporation, \$50,000, "Controlling Pollutants from Animal Waste in the Environment."

Hutchinson, Stacy L., (see **Reddi, Lakshmi N.**, Civil Engineering).

Hutchinson, Stacy L., (see **Steichen, James M.**, National Institute for Land Management and Training).

Koelliker, James K., (see **Mankin, Kyle R.**, Biological and Agricultural Engineering).

Maghirang, Ronaldo G. (See **Hargrove, William L.**, Kansas Center for Agriculture Resources and the Environment/Kansas Water Resources Research Institute).

Mankin, Kyle R., National Science Foundation, \$500, "Kinetic Model for E. Coli Transport through Sand Column - Lin Wang."

Mankin, Kyle R., US Environmental Protection Agency, \$40,815, "Performance Evaluation of Wetlands in Northeast Kansas."

Mankin, Kyle R., **Harrington, Jr., John A.** (Geography), and **Koelliker, James K.**, US Environmental Protection Agency, \$131,175, "Kanopolis Watershed Assessment."

Mankin, Kyle R., (see **Barden, Charles J.**, Extension Horticulture, Forestry and Recreation Resources).

Rogers, Danny H., (see **Lamm, Freddie R.**, Northwest Research Extension Center).

Rogers, Danny H., (see **Schmidt, John P.**, Agronomy).

Taylor, Randal K., (see **Dille, Johanna A.**, Agronomy).

Wang, Donghai, SolviGen LLC, \$8,000, "Development of Model Study on Ethanol and Lactic Acid Production."

Wang, Donghai, US Department of Agriculture, \$26,700, "Automated Detection of Single Kernel Grain Attributes."

Wang, Donghai, (see **Sun, X. Susan**, Grain Science and Industry).

Wolf, Robert E., (see **Dille, Johanna A.**, Agronomy).

Zhang, Naiqian, (see **Neilsen, Mitchell L.**, Computing and Information Sciences).

Zhang, Naiqian, (see **Dille, Johanna A.**, Agronomy).

Zhang, Naiqian, (see **Steichen, James M.**, National Institute for Land Management and Training).

CENTER FOR HAZARDOUS SUBSTANCE RESEARCH

Boguski, Terrie K., (see **Wigfall, LaBarbara J.**, Landscape Architecture/Regional and Community Planning).

Erickson, Larry E., US Department of Defense, \$28,244, "Fort Riley Cemetery Environmental Assessment."

Erickson, Larry E., and **Guikema, James A.** (Office of the Vice Provost for Research and Dean of Graduate School), US Department of Defense, \$1,900,000, "Urban Operations Laboratory Research."

Erickson, Larry E., and **Leven, Blase A.**, US Environmental Protection Agency, \$3,340, "Rocky Mountain Regional Hazardous Substances Research Center Collateral Award."

Leven, Blase A., (see **Erickson, Larry E.**, Center for Hazardous Substance Research).

Leven, Blase A., (see **Reddi, Lakshmi N.**, Civil Engineering).

CHEMICAL ENGINEERING

Edgar, James H., Kansas Technology Enterprise Corporation, \$65,097, "Epitaxial Growth of Icosahedral Boride Semiconductors for Novel Energy Conversion Devices."

Edgar, James H., US Department of Defense, \$21,000, "Bulk Aluminum Nitride Crystal Growth Using Silicon Carbide Seed Crystals."

Edgar, James H., US Department of Defense, \$20,983, "Highly Durable Materials to Support Large AlN Crystal Growth."

Edgar, James H., US Department of Defense, \$70,000, "Rapid Growth of Bulk Aluminum Nitride Crystals."

Edgar, James H., US Department of Energy, \$121,835, "Epitaxial Growth of Icosahedral Boride Semiconductors for Novel Energy Conversion Devices."

Edgar, James H., (see **Rys, Andrew**, Electrical and Computer Engineering).

Erickson, Larry E., and **Davis, Lawrence C.** (Biochemistry), National Science Foundation, \$26,489, "Recruiting Native Americans into Environmental Science."

Erickson, Larry E., (see **Reddi, Lakshmi N.**, Civil Engineering).

Gehrke, Stevin H., US Department of Health and Human Services, \$34,100, "Elastin-Mimetic Triblock Gels for Diverse Biomedical Use."

Gehrke, Stevin H., (see **Kanost, Michael R.**, Biochemistry).

Hohn, Keith L., Kansas Technology Enterprise Corporation, \$13,736, "X-Ray Adsorption Studies of Vanadium-Containing Metal Oxide Nanocrystals."

Hohn, Keith L., US Department of Energy, \$67,378, "X-Ray Absorption Studies of Vanadium-Containing Metal Oxide Nanocrystals."

Hohn, Keith L., and **Schlup, John R.**, US Department of Defense, \$500,000, "In Situ Infrared Studies of Catalytic Partial Oxidation at Millisecond Contact Times."

Pfromm, Peter H., (see **Rezac, Mary E.**, Chemical Engineering).

Rezac, Mary E., and **Pfromm, Peter H.**, US Department of Agriculture, \$158,815, "Process Technology for Scale-up of Enzymatic Catalysis in Organic Media."

Schlup, John R., US Department of Energy, \$118,400, "Establishment of a Graduate Certificate Program in Biobased Industrial Products."

Schlup, John R., (see **Hohn, Keith L.**, Chemical Engineering).

CIVIL ENGINEERING

Bhandari, Alok, US Environmental Protection Agency, \$29,000, "Environmental Education and Training for Disadvantaged Inner-City Youth in Kansas."

Bhandari, Alok, (see **Reddi, Lakshmi N.**, Civil Engineering).

Bhandari, Alok, (see **Starrett, Steven K.**, Civil Engineering).

Esmaily, Asadollah, (see **Peterman, Robert J.**, Civil Engineering).

Hossain, Mustaque A., Kansas Department of Transportation, \$17,500, "Administration of KDOT/K-TRAN Program 2004."

Hossain, Mustaque A., Kansas Department of Transportation, \$42,000, "Roughness Progression on KDOT Asphalt Pavements."

Hossain, Mustaque A., US Department of Transportation, \$1,638, "Eisenhower Faculty Fellowship."

Hossain, Mustaque A., (see **Romanoschi, Stefan A.**, Civil Engineering).

Mathews, Alexander P., National Science Foundation, \$6,244, "Enhanced Oxidation of High Molecular Weight Organics Using Ozone Isotopomers."

Najjar, Yacoub M., Kansas Department of Transportation, \$70,000, "Mining the Kansas Traffic-Crash Database to Extract and Discover New Useful Correlations."

Peric, Dunja, National Science Foundation, \$3,990, "Conceptualization and Development of a Recycled Composite Soil System for Enhanced Performance of Geotechnical Infrastructure."

Peterman, Robert J., Kansas Department of Transportation, \$28,800, "Determining Self-Compacting Concrete Properties Critical to the Performance of Prestressed Concrete Members."

Peterman, Robert J., Kansas Department of Transportation, \$12,500, "KSU/KU Joint Proposal for the Development of an Infrared-Based Inspection System for Assessment of Repaired and Existing Structures."

Peterman, Robert J., US Department of Transportation, \$223,900, "Evaluating Load-Distribution, Fatigue Performance, and Horizontal Shear Transfer Mechanisms in Fiber-Reinforced Composite Honeycomb Bridge Decks."

Peterman, Robert J., and **Esmaily, Asadollah**, Kansas Department of Transportation, \$90,000, "Post-Tensioning the Inverted-T Bridge System for Improved Durability and Increased Span-to-Depth Ratio." (2 awards)

Peterman, Robert J., and **Rasheed, Hayder A.**, Kansas Department of Transportation, \$4,200, "Evaluating FRP Repair Method for Cracked Prestressed Concrete Bridge Members Subjected to Repeated Loadings (Phase 2)."

Peterman, Robert J., (see **Rasheed, Hayder A.**, Civil Engineering).

Rasheed, Hayder A., National Science Foundation, \$3,990, "Conceptualization and Development of a Recycled Composite Soil System for Enhanced Performance of Geotechnical Infrastructure."

Rasheed, Hayder A., and **Peterman, Robert J.**, Kansas Department of Transportation, \$20,750, "Examining New Strengthening Alternatives for Bridge Beams to Identify the Most Viable Practice."

Rasheed, Hayder A., (see **Peterman, Robert J.**, Civil Engineering).

Reddi, Lakshmi N., Kansas Department of Transportation, \$39,570, "Technician Support for Maintenance of Civil Engineering Laboratory Infrastructure."

Reddi, Lakshmi N., **Bhandari, Alok**, **Erickson, Larry E.** (Chemical Engineering), **Hutchinson, Stacy L.** (Biological and Agricultural Engineering), and **Steward, David R.**, National Science Foundation, \$407,986, "Combined Research-Curriculum Development in Geoenvironmental Engineering."

Reddi, Lakshmi N., and **Leven, Blase A.** (Center for Hazardous Substance Research), US Environmental Protection Agency, \$167,500, "Midwest Hazardous Substance Research Center Technical Assistance to Brownfields."

Reddi, Lakshmi N., and **Leven, Blase A.** (Center for Hazardous Substance Research), US Environmental Protection Agency, \$165,000, "Technical Outreach and Service to Native American Communities (TOSNAC)."

Romanoschi, Stefan A., and **Hossain, Mustaque A.**, Kansas Department of Transportation, \$78,000, "Development of Stiffness-Based Specifications for In-Situ Embankment Compaction Quality Control."

Romanoschi, Stefan A., and **Hossain, Mustaque A.**, US Department of Transportation, \$267,302, "Evaluation of Chemical Stabilized Subgrade Soil."

Russell, Eugene R., Insurance Institute for Highway Safety, \$36,214, "Roundabout Field Study II."

Russell, Eugene R., Kansas Department of Transportation, \$20,000, "Study of the Duties of a County Engineer in the State of Kansas."

Russell, Eugene R., (see **Rys, Malgorzata J.**, Industrial and Manufacturing Systems Engineering).

Starrett, Steven K., and **Bhandari, Alok**, US Golf Association, \$30,000, "Measuring Nutrient Losses Via Runoff from an Established Golf Course."

Starrett, Steven K., **Bhandari, Alok**, **Thien, Stephen J.** (Agronomy), and **Xia, Kang** (Agronomy), US Golf Association, \$30,000, "Fate of Pesticides and Their Partitioning among Water, Soil and Biomass Elements in a Turfgrass Ecosystem."

Steward, David R., and **Bernard, Eric A.** (Landscape Architecture/Regional and Community Planning), Kansas Technology Enterprise Corporation, \$500, "EPSCoR Poster Awards."

Steward, David R., and **Bernard, Eric A.** (Landscape Architecture/Regional and Community Planning), National Science Foundation, \$35,000, "Planning Grant: Establishing a Center for Research on Groundwater Based Economies."

Steward, David R., and **Bernard, Eric A.** (Landscape Architecture/Regional and Community Planning), National Science Foundation, \$19,887, "Prototyping Connectivity of Data and Models in Sheridan County Study Region, Northwestern Kansas, to Address Groundwater Declines."

Steward, David R., (see **Reddi, Lakshmi N.**, Civil Engineering).

Stokes, Robert W., US Department of Transportation, \$96,882, "Traffic Assistance Services for Kansas."

COMPUTING AND INFORMATION SCIENCES

Andresen, Daniel A., National Science Foundation, \$85,028, "DESPOT: Enhanced Dynamic Process Management for Beowulf Clusters on the Grid."

Andresen, Daniel A., **Erickson, Howard H.** (Anatomy and Physiology), **Poole, David C.** (Anatomy and Physiology), **Sargeant, Janice M.** (Diagnostic Medicine/Pathobiology), and **Warren, Steven** (Electrical and Computer Engineering), National Science Foundation, \$107,025, "Veterinary Telemedicine: Proactive Herd Health Management for Disease Prevention from Farm to Market."

Andresen, Daniel A., **Neilsen, Mitchell L.**, and **Singh, Gurdip**, National Science Foundation, \$194,436, "DHARMA: Domain-Specific Metaware for Hydrologic Applications."

Andresen, Daniel A., (see **Neilsen, Mitchell L.**, Computing and Information Sciences).

Banerjee, Anindya, National Science Foundation, \$137,464, "Integrating Pointer Confinement and Access Control of Encapsulation."

DeLoach, Scott A., National Science Foundation, \$491, "International Conference on Artificial Intelligence - Eric Matson."

DeLoach, Scott A., US Department of Defense, \$67,573, "Autonomous, Adaptive Information Systems."

Dwyer, Matthew B., Intel Corporation, \$9,199, "Bandera Toolset Project."

Dwyer, Matthew B., and **Hatcliff, John M.**, National Science Foundation, \$179,999, "BOGOR: A Model Checking Framework for Dynamic Software."

Dwyer, Matthew B., and **Hatcliff, John M.**, US Department of Defense, \$604,527, "Software Model Checking for Embedded Systems."

Dwyer, Matthew B., **Hatcliff, John M.**, **Mizuno, Masaaki**, **Neilsen, Mitchell L.**, and **Singh, Gurdip**, US Department of Defense, \$761,215, "Technologies, Development Tools, and Patterns for Automatic Generation and Customization of Adaptable DRE Middleware."

Dwyer, Matthew B., (see **Hatcliff, John M.**, Computing and Information Sciences).

Hatcliff, John M., **Dwyer, Matthew B.**, and **Singh, Gurdip**, US Department of Defense, \$181,314, "High-Assurance Infrastructure for Component-Based Embedded Systems."

Hatcliff, John M., (see **Dwyer, Matthew B.**, Computing and Information Sciences).

Hsu, William H., Kansas Technology Enterprise Corporation, \$74,693, "Algorithms for Discovery of Bayesian Network Models of Gene Regulation in *Saccharomyces Cerevisiae* from Microarray Data."

Mizuno, Masaaki, (see **Dwyer, Matthew B.**, Computing and Information Sciences).

Mizuno, Masaaki, (see **Neilsen, Mitchell L.**, Computing and Information Sciences).

Neilsen, Mitchell L., **Andresen, Daniel A.**, and **Mizuno, Masaaki**, US Department of Agriculture, \$92,000, "Software Tools for Watershed Dam Design/Analysis."

Neilsen, Mitchell L., **Mizuno, Masaaki**, **Singh, Gurdip**, **Staver, John R.** (Office of the Dean of Education), and **Zhang, Naiqian** (Biological and Agricultural Engineering), National Science Foundation, \$299,257, "Collaborative Learning Through Real-Time Embedded System Design."

Neilsen, Mitchell L., (see **Andresen, Daniel A.**, Computing and Information Sciences).

Neilsen, Mitchell L., (see **Dwyer, Matthew B.**, Computing and Information Sciences).

Schmidt, David A., National Science Foundation, \$76,492, "Design Conformant Software."

Schmidt, David A., National Science Foundation, \$68,864, "Open Source Quality Project."

Singh, Gurdip, (see **Andresen, Daniel A.**, Computing and Information Sciences).

Singh, Gurdip, (see **Dwyer, Matthew B.**, Computing and Information Sciences).

Singh, Gurdip, (see **Hatcliff, John M.**, Computing and Information Sciences).

Singh, Gurdip, (see **Neilsen, Mitchell L.**, Computing and Information Sciences).

Wallentine, Virgil E., Manko Window Systems, Inc., \$2,291, "Internship."

Wallentine, Virgil E., Multisponsor, \$15,358, "CIS Internship Program."

Wallentine, Virgil E., (see **Chapman, Kirby S.**, National Gas Machinery Laboratory).

OFFICE OF THE DEAN OF THE COLLEGE OF ENGINEERING

Franks, Suzanne E., (see **Dyer, Ruth A.**, Office of the Provost).

Franks, Suzanne E., (see **Montelone, Beth A.**, Biology).

King, Terry S., Multisponsor, \$19,000, "Pre-Enrollment Mathematics and Sciences Tutoring of Minority Engineering Recruits."

ELECTRICAL AND COMPUTER ENGINEERING

Carpenter, Kenneth H., US Department of Energy, \$68,519, "Integrated Firing-System/Initiation-Train Modeling Enhancement."

Das, Sanjoy, (see **Roe, Judith L.**, Biology).

Day, Dwight D., and **Devore, John J.**, US Department of Energy, \$46,000, "Hardware and Software Evaluation, Development, and Testing Supporting a New Generation Computer for Airborne and Space Applications."

Devore, John J., (see **Day, Dwight D.**, Electrical and Computer Engineering).

Gruenbacher, Don M., US Department of Energy, \$75,053, "Analysis of Network Issues at Sandia National Laboratories."

Kuhn, William B., National Aeronautics and Space Administration, \$31,773, "Design of RF Synthesizer and Power Amplifier Circuit in Peregrine Silicon-On-Sapphire."

Kuhn, William B., National Aeronautics and Space Administration, \$29,601, "Design of RFICs in Peregrine SOS Phase II."

Kuhn, William B., National Aeronautics and Space Administration, \$4,989, "Fully-Integrated, Switchless, T/R Module for SAR Applications."

Kuhn, William B., National Aeronautics and Space Administration, \$24,793, "Fully-Integrated T/R Module for SAR Applications."

Kuhn, William B., National Aeronautics and Space Administration, \$9,875, "Study of Neural Prosthesis Wireless Power/Data Link."

Morcos, Medhat M., US Defense Mapping Agency, \$17,900, "Magnetic Water Treatment for Domestic Industrial and Agricultural Purposes."

Rys, Andrew, and **Edgar, James H.** (Chemical Engineering), National Science Foundation, \$2,015, "Planning Grant for Gallium Nitride Characterization."

Simons, Gale G., Kansas Corporation Commission, \$7,326, "Photovoltaic Applications Symposium."

Soldan, David L., US Department of Agriculture, \$50,000, "Automated Insect Monitoring and Risk Analysis System for Stored Grain."

Warren, Steven, National Science Foundation, \$75,000, "Beyond Telemedicine: Realizing a Proactive Home Health Care Delivery Model through Research and Education in Plug-and-Play Components and Novel Sensors."

Warren, Steven, US Department of Energy, \$6,500, "Explore Electron Transport in a Complex Solid Model Using the Adjoint Version of ITS-CAD."

Warren, Steven, (see **Andresen, Daniel A.**, Computing and Information Sciences).

ENGINEERING EXPERIMENT STATION

Jones, Byron W., Kansas Technology Enterprise Corporation, \$2,000, "ADMRC Administration."

INDUSTRIAL AND MANUFACTURING SYSTEMS ENGINEERING

Ben-Arieh, David H., National Aeronautics and Space Administration, \$95,503, "Useful Life Prediction for Payload Carrier Hardware."

Easton, Todd W., Kansas Technology Enterprise Corporation, \$49,829, "Solving Integer Programs by Generating Hyperclique Cuts."

Hanna, Steven R., (see **Pei, Zhijian**, Industrial and Manufacturing Systems Engineering).

Harnett, R. Michael, US Department of Defense, \$27,409, "Part-Time M. S. Program in Industrial Engineering - Fall 2002."

Harnett, R. Michael, US Department of Defense, \$27,870, "Part-Time M. S. Program in Industrial Engineering - Spring 2003."

Harnett, R. Michael, US Department of Defense, \$17,437, "Part-Time M.S. Program in Industrial Engineering - Summer 2003."

Lei, Shuting, National Science Foundation, \$6,000, "Design and Development of Novel Responsive Cutting Tools for Laser-Assisted Machining and Diagnosis of Structural Ceramics: A Research Integrated Education Career Landscape."

Pei, Zhijian, US Department of Energy, \$19,715, "Laser-Based Techniques to Detect Defects and Machining Damage in Ceramic Components and Silicon Wafers."

Pei, Zhijian, and **Hanna, Steven R.**, Society of Manufacturing Engineers, \$35,000 (includes \$5,000 from Diamond Tool Corporation, and \$15,000 from Sonic-Mill), "Exploration of New Territories for Rotary Ultrasonic Machining."

Pei, Zhijian, and **Xin, Xiao J.** (Mechanical and Nuclear Engineering), National Science Foundation, \$220,549, "Soft-Pad Grinding of Wire-Sawn Silicon Wafers."

Rys, Malgorzata J., and **Russell, Eugene R.** (Civil Engineering), Kansas Department of Transportation, \$58,000, "Life Cycle Economic Comparison of Common Sign Post Materials and Types."

Rys, Malgorzata J., and **Russell, Eugene R.** (Civil Engineering), US Department of Transportation, \$20,000, "Life Cycle Economic Comparison of Common Sign Post Materials and Types."

INSTITUTE FOR ENVIRONMENTAL RESEARCH

Eckels, Steven, (see **Hosni, Mohammad H.**, Institute for Environmental Research).

Eckels, Steven, KEDDEG Company, \$27,617, "Development of a HEPA Filter Test Stand."

Hosni, Mohammad H., **Beck, B. Terry** (Mechanical and Nuclear Engineering), and **Eckels, Steven**, Ford Motor Company, \$80,000, "PIV/LDV Measurements of Air Distribution Around a Heated Manikin."

Hosni, Mohammad H., Multisponsor, \$121,688, "Institute for Environmental Research Support."

Jones, Byron W., (see **Hosni, Mohammad H.**, Mechanical and Nuclear Engineering).

KANSAS INDUSTRIAL EXTENSION SERVICES

El-Rayes, Hamdy, US Environmental Protection Agency, \$380,086, "Small Business Environmental Assistance Program."

Meyer, Gene M., Kansas Corporation Commission, \$67,000, "Kansas Energy Extension Service."

Meyer, Gene M., US Department of Commerce, \$19,531, "Assistance to the Office of Applied Economics for Life Cycle Cost Training."

Meyer, Gene M., US Department of Energy, \$29,907, "Continuing Efforts to Achieve Building Energy Code Compliance in Kansas."

Nelson, Richard G., Kansas Corporation Commission, \$15,000, "Energy-Profit Ratio Analysis for Kansas Agriculture and Bioenergy Crops."

Nelson, Richard G., Kansas Corporation Commission, \$5,000, "Fuel Cell Fact Sheet."

Nelson, Richard G., US Department of Energy, \$37,500, "Kansas Biomass Energy Resource Assessment."

Nelson, Richard G., US Environmental Protection Agency, \$110,000, "Kansas Pollution Prevention Enhancement Program."

Nelson, Richard G., **Devlin, Daniel L.** (Agronomy), **Fjell, Dale L.** (Agronomy), **Langemeier, Michael R.** (Agricultural Economics), and **Williams, Jeffery R.** (Agricultural Economics), US Environmental Protection Agency, \$154,000, "Crop Rotations to Protect Water Quality in Priority Watersheds."

Nelson, Richard G., and **Hosni, Mohammad H.** (Mechanical and Nuclear Engineering), US Environmental Protection Agency, \$13,364, "Tall Tower Wind Data Collection."

Snead, Bruce C., US Environmental Protection Agency, \$70,000, "Indoor Air Environment Technical Assistance for US-EPA Region 7 Schools."

Snead, Bruce C., US Environmental Protection Agency, \$15,000, "Iowa Radon New Construction and Coalition Workshops."

Snead, Bruce C., US Environmental Protection Agency, \$350,372 (includes \$102,000 from Kansas County Health and Extension Departments), "Radon Projects for Kansas."

Snead, Bruce C., US Environmental Protection Agency, \$83,500 (includes \$39,000 from various participants), "Radon Projects for Nebraska."

Snead, Bruce C., US Environmental Protection Agency, \$10,680, "Radon Workshops for Michigan." (2 awards)

Snead, Bruce C., US Environmental Protection Agency, \$19,750, "Radon Workshops for Nebraska."

Snead, Bruce C., US Environmental Protection Agency, \$24,599, "Regional Radon Training Center."

MECHANICAL AND NUCLEAR ENGINEERING

Beck, B. Terry, US Department of Agriculture, \$52,421, "Gift Acceptance Agreement."

Beck, B. Terry, (see **Hosni, Mohammad H.**, Institute for Environmental Research).

Beck, B. Terry, (see **Hosni, Mohammad H.**, Mechanical and Nuclear Engineering).

Cai, Liang-Wu, Wichita State University, \$54,988, "Design of Noise-Absorbing Composite Sandwich Panels."

Hosni, Mohammad H., **Beck, B. Terry** (Mechanical and Nuclear Engineering) and **Jones, Byron W.** (Mechanical and Nuclear Engineering), Boeing Company, \$56,557, "Large Eddy Simulation Validation Lab Test."

Hosni, Mohammad H., and **Jones, Byron W.** (Institute for Environmental Research), US Department of Energy, \$28,025, "Verifying Operating Envelope and Demonstration Conditions for ORNL Desiccant Technology Mobile Showcase."

Hosni, Mohammad H., (see **Nelson, Richard G.**, Kansas Industrial Extension Services).

Jones, Byron W., (see **Hosni, Mohammad H.**, Mechanical and Nuclear Engineering).

Krishnaswami, Prakash, (see **Chapman, Kirby S.**, National Gas Machinery Laboratory).

Lease, Kevin B., Kansas Technology Enterprise Corporation, \$1,000, "EPSCoR Poster Awards."

Lease, Kevin B., US Department of Agriculture, \$41,880, "Gift Acceptance Agreement."

McGregor, Douglas S., US Department of Defense, \$374,009, "Morphologically Optimized Neutron Detectors for Detection, Measurement and Dosimetry."

McGregor, Douglas S., US Department of Energy, \$24,219, "B-Coated High Purity Epitaxial GaAs Neutron Detectors."

McGregor, Douglas S., US Department of Energy, \$24,931, "Development and Fabrication of Improved GaAs Detectors."

McGregor, Douglas S., US Department of Energy, \$103,616, "Horizontal Ampoule Growth and Characterization of Mercuric Iodide at Controlled Gas Pressures for X-Ray and Gamma Radiation Spectrometers."

McGregor, Douglas S., **Shultis, J. Kenneth**, and **Whaley, Paul M.**, US Department of Energy, \$229,393, "Near-Core and In-Core Neutron Radiation Monitors for Real Time Neutron Flux Monitoring and Reactor Power Level Measurements."

Pacey, David A., National Science Foundation, \$31,345, "Robust Control of Passive and Non-Passive Aerospace Systems."

Schinstock, Dale E., National Science Foundation, \$86,493, "Electromechanical Systems Lab Infrastructure Improvement, KSU."

Shultis, J. Kenneth, US Department of Energy, \$48,925, "Experimental Investigation on the Effects of Coolant Concentration on Subcooled Boiling and Crud Deposition on Reactor Cladding at Prototypical PWR Operating Conditions."

Shultis, J. Kenneth, (see **McGregor, Douglas S.**, Mechanical and Nuclear Engineering).

Swenson, Daniel V., US Department of Energy, \$92,000, "Creation of an Enhanced Geothermal System through Hydraulic and Thermal Stimulation."

Wang, Youqi, Kansas Technology Enterprise Corporation, \$250, "EPSCoR Poster Awards."

Wang, Youqi, National Aeronautics and Space Administration, \$46,170, "Computational Models for Electrostrictive Graft Elasmeter."

Wang, Youqi, National Aeronautics and Space Administration, \$51,316, "Stiffness and Strength of Polymer Network and Carbon Nanotube Reinforced Polymer Network."

Wang, Youqi, US Department of Transportation, \$95,093, "Structural Analysis of Fiber Reinforced Sandwich Panels for Bridge Applications."

Whaley, Paul M., US Department of Energy, \$68,840, "University Reactor Instrumentation Program." (2 awards)

Whaley, Paul M., US Department of Energy, \$13,000, "University Reactor Sharing."

Whaley, Paul M., (see **McGregor, Douglas S.**, Mechanical and Nuclear Engineering).

Xin, Xiao J., Kansas Technology Enterprise Corporation, \$15,573, "Efficient Numerical Method for the Investigation of Composite Materials."

Xin, Xiao J., US Department of Energy, \$65,229, "Efficient Numerical Method for the Investigation of Composite Materials."

Xin, Xiao J., (see **Pei, Zhijian**, Industrial and Manufacturing Systems Engineering).

Zheng, Zhonquan C., National Aeronautics and Space Administration, \$39,375, "Vortex Dynamic Mechanisms and Innovative Modeling of Aerodynamic Noise Generation in Slats."

NATIONAL GAS MACHINERY LABORATORY

Chapman, Kirby S., Gas Research Institute, \$104,999, "Turbocharger Degradation Measurement through Embedded Sensors."

Chapman, Kirby S., Gas Research Institute, \$100,000, "Turbocharger Scavenging Impact."

Chapman, Kirby S., US Department of Energy, \$750,000 (includes \$100,000 from Universal Compression), "Cost-Effective Reciprocating Engine Emissions Control and Monitoring for Exploration and Production Field and Gathering Engines."

Chapman, Kirby S., US Environmental Protection Agency, \$232,262, "Follow-On Study to Demonstrate Cost-Effective Directed Inspection and Maintenance at Natural Gas Processing and Upstream Exploration and Production Facilities."

Chapman, Kirby S., **Krishnaswami, Prakash** (Mechanical and Nuclear Engineering), and **Wallentine, Virgil E.** (Computing and Information Sciences), US Department of Energy, \$358,000, "Virtual Pipeline System Testbed to Optimize the U. S. Natural Gas Transmission Pipeline System."

NATIONAL INSTITUTE FOR LAND MANAGEMENT AND TRAINING

Biles, Bertram R., US Department of Defense, \$159,985, "Integrated Training Area Management 2003 Workshop."

Biles, Bertram R., US Department of Defense, \$24,504, "Integrated Training Area Management 2004 Workshop."

Steichen, James M., US Department of Defense, \$18,158, "Active/Interactive (A/I) Range Inventory Support for the U. S. Army Environmental Center."

Steichen, James M., **Hutchinson, Stacy L.** (Biological and Agricultural Engineering), and **Zhang, Naiqian** (Biological and Agricultural Engineering), US Department of Defense, \$200,000, "Assessing the Impact of Maneuver Training on NPS Pollution and Water Quality."

Steichen, James M., US Department of Defense, \$89,393, "Support for an Update of the Military Training Area Management Plan U. S. Army Dugway Proving Ground."

COLLEGE OF HUMAN ECOLOGY

APPAREL, TEXTILES, AND INTERIOR DESIGN

McCullough, Elizabeth A., BHA Technologies, Inc., \$10,000, "Moisture Vapor Transmission Properties of Fabric/Film Laminates."

White, Betty Jo, and **Selfridge, O. John** (Architecture), National Foundation on the Arts and the Humanities, \$69,602, "Disseminating Universal Design Via a Learnsite for Youth."

OFFICE OF THE DEAN OF THE COLLEGE OF HUMAN ECOLOGY

Moxley, Virginia M., American Distance Education Consortium, \$5,000, "National Excellence Award 2002."

Moxley, Virginia M., US Department of Agriculture, \$20,166, "National Partnership for Facilitating Teacher Preparation for Family and Consumer Sciences."

Moxley, Virginia M., (see **Maes, Sue C.**, Regents' Educational Communications Center).

Norris-Baker, Carolyn, US Department of Health and Human Services, \$172,141, "Mental Health and Aging: New Directions."

Norris-Baker, Carolyn, US Department of Health and Human Services, \$263,119 (includes \$52,083 from various professional consultants), "Promoting Excellent Alternatives in Kansas Nursing Homes."

HOTEL, RESTAURANT, INSTITUTION MANAGEMENT AND DIETETICS

Lee, Kyung-Eun, (see **Shanklin, Carol W.**, Hotel, Restaurant, Institution Management and Dietetics).

Shanklin, Carol W., and **Lee, Kyung-Eun**, Child Nutrition Foundation, \$45,000, "Competitive Foods Sold at Schools: Effects on Students' Nutrient Consumption and Management of Child Nutrition Programs."

Shanklin, Carol W., and **Lee, Kyung-Eun**, Foodservice Systems Management Education Council, \$1,000, "Knowledge and Skills Required for Foodservice Directors in Senior Living Facilities in the New Millennium: Survey of Administrators and Foodservice Directors."

HUMAN NUTRITION

Chambers IV, Edgar, Abbott Laboratories, \$11,550, "Evaluation of Products."

Chambers IV, Edgar, US Department of Agriculture, \$275,000, "Accuracy of Descriptor Categories for Portion Size Estimation in Dietary Recalls."

Chambers IV, Edgar, US Department of Agriculture, \$22,175, "Simplified Rapid Tool for Estimating Portion Size in Dietary Studies."

Chambers IV, Edgar, US Department of Health and Human Services, \$14,550, "Home Refrigeration Knowledge and Consumer Practices - Phase 2."

Chambers IV, Edgar, Multisponsor, \$579,257, "Sensory Analysis Center Support."

Chambers IV, Edgar, and **Chambers, Delores H.**, Frito Lay, Inc., \$88,800, "Consumer Perception of Products Under Extended Use."

Chambers IV, Edgar, (see **Garcia, Jane M.**, School of Family Studies and Human Services).

Chambers, Delores H., **Jeon, Ike J.** (Animal Sciences and Industry), and **Schmidt, Karen A.** (Animal Sciences and Industry), Kansas Office of Attorney General, \$89,958, "Keeping Calcium in the Diet - Perceptions of Milk."

Chambers, Delores H., (see **Chambers IV, Edgar**, Human Nutrition).

Fitzgerald, Karen D., (see **Peters, Paula**, Human Nutrition).

Haub, Mark D., Kansas Office of Attorney General, \$103,900 (includes \$21,900 from NutriJoy, Inc.), "Calcium Supplementation on Bone Mineral Density in Kansas Women."

Higgins, Mary L., US Department of Agriculture, \$24,454, "Improving Food Stamp Program Use Among Rural Older Adults: A Partnership for Research and Results."

Holcomb, Carol A., Kansas Corn Commission, \$20,776, "Corn Consumption and Age-Related Macular Degeneration: A Case-Control Study in Kansas."

Medeiros, Denis M., Kansas Office of Attorney General, \$38,500, "Iron Factor in Bone Development."

Peters, Paula, and **Fitzgerald, Karen D.**, Multisponsor, \$2,500, "Support of the Kansas Nutrition Network (KNN)."

Remig, Valentina M., (see **Gordon, Joye C.**, School of Journalism and Mass Communications).

Steele, Lea, US Department of Defense, \$14,800, "Autonomic Dysfunction in Gulf War Veterans."

SCHOOL OF FAMILY STUDIES AND HUMAN SERVICES

Bailey, Gwen L., (see **Bollman, Stephan R.**, School of Family Studies and Human Services).

Bollman, Stephan R., and **Bailey, Gwen L.**, Kansas Child Care Training Opportunities, Inc, \$53,254, "Flint Hills Child Care Resource and Referral Project."

Bollman, Stephan R., and **Bailey, Gwen L.**, Kansas Child Care Training Opportunities, Inc, \$45,584, "Infant/Toddler Initiative."

Bollman, Stephan R., and **Bailey, Gwen L.**, Kansas Child Care Training Opportunities, Inc, \$110,388, "Kansas Child Care Training Opportunities."

Bollman, Stephan R., and **Bailey, Gwen L.**, Kansas Health Foundation, \$7,927, "Early Childhood Training."

Bollman, Stephan R., **Fees, Bronwyn S.**, **Nelson, Briana S.**, **O'Conner, Nancy T.**, and **White, Mark B.**, Kansas Department of Social & Rehabilitation Services, \$13,193, "Family Preservation Services Contract."

Bollman, Stephan R., (see **Griffin, Charles L.**, School of Family Studies and Human Services).

Bradshaw, Michael H., Kansas Health Foundation, \$800,000, "PATH Intergenerational Project."

DeLuccie, Mary L., US Department of Health and Human Services, \$9,920, "Head Start Practica."

DeLuccie, Mary L., USD 383, Manhattan, \$17,544, "Early Childhood Lab."

DeLuccie, Mary L., and **Fees, Bronwyn S.**, US Department of Education, \$13,000, "Early Childhood HigherEd Options (ECHO) Project."

Fees, Bronwyn S., and **Estabrooks, Paul A.** (Extension Office of Community Health), Kansas Health Foundation, \$120,000, "Evaluation of PATH Intergenerational Program."

Fees, Bronwyn S., (see **DeLuccie, Mary L.**, School of Family Studies and Human Services).

Fees, Bronwyn S., (see **Bollman, Stephan R.**, School of Family Studies and Human Services).

Garcia, Jane M., and **Chambers IV, Edgar** (Human Nutrition), Kansas Office of Attorney General, \$66,458, "Nutrition in Dysphagia: Understanding Variability of Thickened Liquids."

Garcia, Robert, Capper Foundation, \$45,515, "Capper-KSU Clinical Affiliation in Speech Pathology."

Garcia, Robert, USD 379, Clay Center, \$6,271, "Speech and Language Services."

Glasscock, Marlene K., US Department of Agriculture, \$304,000, "CYFAR Supported Extension Staff Training."

Glasscock, Marlene K., US Department of Agriculture, \$100,000, "Extension CARES for America's Children and Youth."

Grable, John E., Kansas Office of the State Banking Commissioner, \$25,000, "Personal Finance Workshop."

Griffin, Charles L., US Department of Health and Human Services, \$9,612, "Sowing the Seeds of Hope."

Griffin, Charles L., and **Bollman, Stephan R.**, US Department of Health and Human Services, \$47,482, "Kansas Farm and Ranch Family Assistance Program."

Griffin, Charles L., and **Bollman, Stephan R.**, US Department of Health and Human Services, \$1,015,382, "SRS Organizational Development Training and Curriculum Development."

Hoag, Linda A., US Department of Health and Human Services, \$71,227, "Communicative Competence and the Use of Prestored Text."

Murray, Ann D., Tobacco Settlement, \$22,000, "Smart Start Local Evaluation Plan."

Nelson, Briana S., (see **Bollman, Stephan R.**, School of Family Studies and Human Services).

O'Conner, Nancy T., (see **Bollman, Stephan R.**, School of Family Studies and Human Services).

Schumm, Walter R., US Department of Health and Human Services, \$24,152, "Alcohol and Drug Treatment Effectiveness Follow-Up Study."

Smit, Ann B., USD 383, Manhattan, \$9,989, "Speech and Language Services."

Walker, Doris K., Kansas Health Foundation, \$3,322, "Health Promotion for Older Kansans."

White, Mark B., (see **Bollman, Stephan R.**, School of Family Studies and Human Services).

COLLEGE OF TECHNOLOGY AND AVIATION

SALINA ARTS, SCIENCE AND BUSINESS

Von Bergen, Donald, (see **Hutchinson, J. M. Shawn**, Geography).

COLLEGE OF VETERINARY MEDICINE

ANATOMY AND PHYSIOLOGY

Blecha, Frank, US Department of Health and Human Services, \$59,854, "Short-Term Training Students in Health Professional Schools."

Blecha, Frank, (see **Freeman, Lisa C.**, Anatomy and Physiology).

Erickson, Howard H., Kansas Racing and Gaming Commission, \$13,549, "Determination of the Mechanistic Basis for the Reduction of Exercise-Induced Pulmonary Hemorrhage (EIPH) with Concentrated Equine Serum."

Erickson, Howard H., (see **Andresen, Daniel A.**, Computing and Information Sciences).

Erickson, Howard H., (see **Poole, David C.**, Anatomy and Physiology).

Freeman, Lisa C., US Department of Health and Human Services, \$198,791, "LKS and LKUR in Granulosa Cells."

Freeman, Lisa C., and **Blecha, Frank**, Merck & Company, Inc., \$40,000, "Veterinary Research Scholars." (2 awards)

Hildreth, Tammi S., (see **Poole, David C.**, Anatomy and Physiology).

Hunter, Robert P., Florida Fish and Wildlife Conservation Commission, \$6,426, "Pharmacokinetics of Piperacillin in Loggerhead Sea Turtles (*Caretta ceretta*)."

Kenney, Michael J., US Department of Health and Human Services, \$218,250, "Senescence Alters Sympathetic Regulation to Heat Stress."

Kenney, Michael J., US Department of Health and Human Services, \$218,250, "Sympathetic-Immune Interface: Central Sites and Function."

Kumari, Meena, International Rett Syndrome Association, \$62,728, "Gene Expression of Glutamate Receptors in Rett Syndrome."

Kumari, Meena, US Department of Health and Human Services, \$185,334, "Ethanol-Induced NMDA R1 mRNA Stabilization."

Marcus, Daniel C., Kansas Technology Enterprise Corporation, \$50,000, "Epithelial Function in Health and Disease."

Marcus, Daniel C., US Department of Health and Human Services, \$331,013, "Cochlear and Vestibular Ion Transport."

Marcus, Daniel C., US Department of Health and Human Services, \$2,137,185 (includes \$16,512 from University of Kansas Medical Center), "Epithelial Function in Health and Disease."

McDonough, Paul J., (see **Poole, David C.**, Anatomy and Physiology).

Mitchell, Kathy E., US Department of Health and Human Services, \$72,750, "Novel Stem Cell Source for Cancer Therapy."

Mitchell, Kathy E., (see **Tomich, John M.**, Biochemistry).

Padilla, Danielle J., (see **Poole, David C.**, Anatomy and Physiology).

Poole, David C., US Department of Health and Human Services, \$24,050, "Minority Predoctoral Fellowship - Brad J. Behnke."

Poole, David C., US Department of Health and Human Services, \$26,615, "Minority Predoctoral Fellowship - Danielle J. Padilla."

Poole, David C., **Erickson, Howard H.**, **Hildreth, Tammi S.**, **McDonough, Paul J.**, and **Padilla, Danielle J.**, American Quarter Horse Association, \$27,674, "Does the ETA Receptor Antagonist, TBC11251, Reduce Pulmonary Hypertension and EIPH in the Exercising Horse?"

Poole, David C., and **McDonough, Paul J.**, US Department of Health and Human Services, \$46,420, "Muscle Fiber Type, Oxidative Capacity and Oxygen Exchange."

Poole, David C., (see **Andresen, Daniel A.**, Computing and Information Sciences).

Schultz, Bruce D., Cystic Fibrosis Foundation, \$64,800, "Bicarbonate Secretion by Human and Porcine Epithelia."

Schultz, Bruce D., US Department of Health and Human Services, \$145,959, "HCO₃⁻ and Na⁺ Transport in Human and Pig Vas Deferens."

Schultz, Bruce D., (see **Tomich, John M.**, Biochemistry).

Wangemann, A. Philine, US Department of Health and Human Services, \$331,013, "Cytosolic Regulation of Inner Ear Ion Transport."

Wangemann, A. Philine, US Department of Health and Human Services, \$273,146, "Neurogenic Regulation of Cochlear Blood Flow."

Wangemann, A. Philine, (see **Hua, Duy H.**, Chemistry).

Weiss, Mark L., American Heart Association, Heartland Affiliate, \$121,000, "Neural Circuitry of the Kidney: Role of the PVN and Central Angiotensin II."

Westfall, Jane A., National Science Foundation, \$22,875, "Symposium on Neurobiology of Coelenterates."

CLINICAL SCIENCES

Arck, Shirley T., University of Kansas, \$3,200, "Pharm.D. Clerkship."

Armbrust, Laura J., Biller, David S., and Hoskinson, James J., Kansas Racing and Gaming Commission, \$24,316, "Characterization of Tarsal Joints in the Greyhound Using Quantitative Computed Tomography and Bone Densitometry."

Armbrust, Laura J., (see **Gaughan, Earl M.**, Clinical Sciences).

Bagladi-Swanson, Mary S., (see **Dryden, Michael W.**, Diagnostic Medicine/Pathobiology).

Biller, David S., (see **Armbrust, Laura J.**, Clinical Sciences).

Carpenter, James W., City of Manhattan, Kansas, \$20,000, "Veterinary Services at the Sunset Zoological Park, Manhattan, Kansas."

Chenoweth, Peter J., US Department of Agriculture, \$1,500, "Food Animal Veterinarians: An Endangered Species."

Chenoweth, Peter J., Galland, John C. (Diagnostic Medicine/Pathobiology), **Sanderson, Michael W.**, and **Sargeant, Janice M.** (Diagnostic Medicine/Pathobiology), US Department of Agriculture, \$50,007, "Integrating Security Practices into Livestock Production Management on Farms and Ranches to Insure a Sustainable and Wholesome Food Supply."

Chun, Ruthanne, Heska Corporation, \$1,434, "Canine Interleukin-2-Staphylococcus Aureus Enterotoxin Immunotherapy."

Davis, Elizabeth G., (see **Rush, Bonnie R.**, Clinical Sciences).

Dingwell, Randy T., Pfizer, Inc., \$9,756, "Evaluate a New Concept in Protection of Dry Dairy Cows from Intramammary Infection with the Use of 'TeatSeal'."

Fingland, Roger B., (see **Katz, Jeffrey P.**, Office of the Dean of Business Administration).

Gaughan, Earl M., Kansas Racing and Gaming Commission, \$6,555, "Influence of Exercise on Infrared Thermographic Images of the Thoracic and Pelvic Limbs of Horses."

Gaughan, Earl M., Armbrust, Laura J., Ritter, Heath L. (Diagnostic Medicine/Pathobiology), and **Spire, Mark F.** (Diagnostic Medicine/Pathobiology), Kansas Racing and Gaming Commission, \$6,097, "Comparison of Infrared Thermography, Scintigraphy and Radiography in the Detection of Distal Tarsal Osteoarthritis in Horses."

Gaughan, Kathy R., (see **Wilkerson, Melinda**, Diagnostic Medicine/Pathobiology).

Grauer, Gregory F., Hill's Pet Nutrition, Inc., \$70,000, "Research Technician Position in Comparative Clinic Nutrition."

Grauer, Gregory F., Hill's Pet Nutrition, Inc., \$686,021, "Tenure Track Position in Comparative Clinic Nutrition."

Grauer, Gregory F., Ross University, \$99,048, "Clinical Training for Ross University School of Health Sciences."

Hoskinson, James J., (see **Armbrust, Laura J.**, Clinical Sciences).

Johannes, Chad M., Winn Feline Foundation, \$14,250, "Mitoxantrone and Piroxicam Versus Piroxicam Therapy Alone for the Treatment of Feline Oral Squamous Cell Carcinoma."

Moore, Lisa E., (see **Wilkerson, Melinda**, Diagnostic Medicine/Pathobiology).

Renberg, Walter C., Bayer Corporation, \$67,206, "Comparison of Clinical Efficacy and Safety of Flupirtine vs. Carprofen for Treatment of Pain Associated with Osteoarthritis in Dogs."

Rush, Bonnie R., 3M Corporation, \$3,302, "Multi-Centered Clinical Trial of Beclomethasone Dipropionate in Horses with Recurrent Airway Obstruction."

Rush, Bonnie R., and Davis, Elizabeth G., Bayer Corporation, \$80,830, "Efficacy of Enrofloxacin for Treatment of Equine Respiratory Disease Complex in Transport Stressed Horses."

Rush, Bonnie R., and Davis, Elizabeth G., Genetraks Pty Ltd, \$22,769, "Pilot Investigation of Gene Expression Signatures during Induction of Heaves Using an Equine-Specific Immune/Inflammatory GeneChip."

Samper, Juan C., Bayer Corporation, \$37,801, "Evaluation of the Safety of Ponazuril in Horses Treated During the Third Trimester of Pregnancy."

Sanderson, Michael W., (see **Chenoweth, Peter J.**, Clinical Sciences).

Sanderson, Michael W., (see **Sargeant, Janice M.**, Diagnostic Medicine/Pathobiology).

Schermerhorn, Thomas, Diabetes Action Research and Education Foundation, \$26,000, "Beta Cell Inhibitors Act by Disrupting the SNARE Complex."

Schermerhorn, Thomas, US Department of Health and Human Services, \$109,391, "Beta Cell Inhibitors Act by Disrupting the SNARE Complex."

Schermerhorn, Thomas, Winn Feline Foundation, \$9,638, "Development of a Real Time RT-PCR Technique to Study Feline Glucose Metabolism."

OFFICE OF THE DEAN OF THE COLLEGE OF VETERINARY MEDICINE

Elmore, Carol H., (see **Willard, Gayle K.**, Office of the Dean of Veterinary Medicine).

Johnson, Linda M., (see **Johnson, Sandra K.**, Northwest Area Office).

Logan, Cynthia L., (see **Willard, Gayle K.**, Office of the Dean of Veterinary Medicine).

Robertson, Donald C., Blasi, Dale A. (Animal Sciences and Industry), **Sargeant, Janice M.** (Diagnostic Medicine/Pathobiology), and **Spire, Mark F.** (Diagnostic Medicine/Pathobiology), US Department of Agriculture, \$477,398, "Rapid Syndromic Validation Program for Animals: Food Animal Disease Surveillance Systems in Kansas."

Robertson, Donald C., US Department of Energy, \$2,278, "Identification of Infectious Disease Syndromes in Agricultural (Food) Animals."

Willard, Gayle K., Kansas Library Network, \$7,600, "Animals in Society."

Willard, Gayle K., US Department of Health and Human Services, \$9,956, "Enhancing Access to Biomedical Information Via Ariel."

Willard, Gayle K., and Elmore, Carol H., US Department of Health and Human Services, \$2,500, "Public Health and Veterinary Outreach."

Willard, Gayle K., and Logan, Cynthia L., Kansas Library Network, \$6,750, "Kansas Library Network."

DIAGNOSTIC MEDICINE/PATHOBIOLOGY

Chengappa, M. M., Eli Lilly & Company, \$10,240, "Assessment of Tilmicosin Mutation Frequency in Cattle Respiratory Disease Pathogens."

Chengappa, M. M., US Department of Health and Human Services, \$150,000, "Material Contract Agreement for Establishment of Kansas State University as a Laboratory Response Network Participant."

Davis, Rolan D., (see **Wilkerson, Melinda**, Diagnostic Medicine/Pathobiology).

Dritz, Steven S., Goodband, Robert D. (Animal Sciences and Industry), **Nelssen, Jim L.** (Animal Sciences and Industry), and **Tokach, Michael D.** (Animal Sciences and Industry), Purco, \$14,400, "Purco Project."

Dritz, Steven S., (see **DeRouchey, Joel M.**, Northeast Area Office).

Dritz, Steven S., (see **Tokach, Michael D.**, Animal Sciences and Industry).

Dryden, Michael W., Bayer Corporation, \$52,864, "Imidacloprid Flea Susceptibility Monitoring Project."

Dryden, Michael W., Pfizer, Inc., \$101,460, "Comparative Speed of Kill of Revolution (selamectin), Advantage (imidacloprid) and Frontline Plus (fipronil/(s)-methoprene) against Fleas on Cats."

Fenwick, Bradley W., Bayer Corporation, \$51,900, "Development of an Upper Respiratory Tract Infection Model in Adult Dogs by Experimental Infection with Bordetella bronchiseptica."

Fenwick, Bradley W., Bayer Corporation, \$76,874, "Development of an Upper Respiratory Tract Infection Model in Puppies by Experimental Infection with Bordetella bronchiseptica."

Fenwick, Bradley W., Kansas Racing and Gaming Commission, \$55,100, "Testing Efficacy of a New Kennel Cough Vaccine and the Reliability of Serologic Tests to Determine Immunity to Bordetella bronchiseptica."

Fenwick, Bradley W., US Department of Agriculture, \$120,776, "Intergovernmental Personnel Act Assignment."

Fenwick, Bradley W., US Department of Agriculture, \$10,000, "Sponsorship of the International Pasteurellaceae Society Conference 2002."

Galland, John C., US Environmental Protection Agency, \$38,604, "Antibiotic Detection and Resistance in Feedlot Management: A Preliminary Research, Demonstration and Education Project."

Galland, John C., (see **Chenoweth, Peter J.**, Clinical Sciences).

Ganta, Roman Reddy, Morris Animal Foundation, \$35,489, "Improved Multiplex Molecular Test for Sensitive Detection of Canine Ehrlichiosis Agents."

Ganta, Roman Reddy, US Department of Health and Human Services, \$43,085, "West Nile-Analysis Laboratory."

Ganta, Roman Reddy, Chapes, Stephen K. (Biology), and **Wilkerson, Melinda**, US Department of Health and Human Services, \$352,375, "Cellular Immunity against Ehrlichia Chaffeensis."

Kapil, Sanjay, US Department of Agriculture, \$27,500, "Pseudorabies Laboratory Testing."

Kapil, Sanjay, (see **Wilkerson, Melinda**, Diagnostic Medicine/Pathobiology).

Kennedy, George A., US Department of Health and Human Services, \$19,182, "West Nile - Diagnostic Laboratory Services."

Nagaraja, Tiruvoor G., (see **Sargeant, Janice M.**, Diagnostic Medicine/Pathobiology).

Oberst, Richard D., and **Rowland, Raymond R. R.**, National Pork Board, \$25,000, "Real-time PCR Detection of PRRSV and Rapid Identification of Vaccine in Serum and Semen."

Oberst, Richard D., (see **Sargeant, Janice M.**, Diagnostic Medicine/Pathobiology).

Payne, Patricia A., (see **Dryden, Michael W.**, Diagnostic Medicine/Pathobiology).

Pickrell, John A., (see **Hargrove, William L.**, Kansas Center for Agriculture Resources and the Environment/Kansas Water Resources Research Institute).

Ritter, Heath L., (see **Gaughan, Earl M.**, Clinical Sciences).

Rowland, Raymond R. R., (see **Jaax, Gerald P.**, Office of the Vice Provost for Research).

Rowland, Raymond R. R., (see **Oberst, Richard D.**, Diagnostic Medicine/Pathobiology).

Sargeant, Janice M., Nagaraja, Tiruvoor G., Oberst, Richard D., Sanderson, Michael W. (Clinical Sciences), and **Zurek, Ludek** (Entomology), US Department of Agriculture, \$193,173, "Ecology of E. coli O157:H7 in Beef Cow-Calf Operations from Ranch to Feedlot."

Sargeant, Janice M., (see **Andresen, Daniel A.**, Computing and Information Sciences).

Sargeant, Janice M., (see **Chenoweth, Peter J.**, Clinical Sciences).

Sargeant, Janice M., (see **Robertson, Donald C.**, Office of the Dean of Veterinary Medicine).

Spire, Mark F., (see **Drouillard, James S.**, Animal Sciences and Industry).

Spire, Mark F., (see **Gaughan, Earl M.**, Clinical Sciences).

Spire, Mark F., (see **Robertson, Donald C.**, Office of the Dean of Veterinary Medicine).

Stewart, George C., (see **Tang, Xiaoyan**, Plant Pathology).

Wilkerson, Melinda, Davis, Rolan D., Gaughan, Kathy R. (Clinical Sciences), **Kapil, Sanjay**, and **Moore, Lisa E.** (Clinical Sciences), American Veterinary Medical Foundation, \$75,000, "Evaluation of Vaccines and Vaccine Schedules with the Potential Risks of Adverse Reactions and Immune Mediated Diseases."

Wilkerson, Melinda, (see **Dryden, Michael W.**, Diagnostic Medicine/Pathobiology).

Wilkerson, Melinda, (see **Ganta, Roman Reddy**, Diagnostic Medicine/Pathobiology).

KANSAS COOPERATIVE EXTENSION SERVICE

AGRICULTURAL ECONOMICS

Albright, Martin L., (see **Williams, Jeffery R.**, Agricultural Economics).

Barton, David G., US Department of Agriculture, \$300,000, "Kansas Cooperative Development Center Education and Assistance Program."

Boland, Michael A., US Department of Agriculture, \$62,000, "Rural Community Based Case Test to Evaluate the Efficacy of the USDA Quality System Certification Program (QSCP) for Small Livestock and Meat Marketing Programs."

Darling, David L., Prairie Band of Potawatomi Indians, \$10,000, "Impact Analysis."

Kastens, Terry, (see **Featherstone, Allen M.**, Agricultural Economics).

Leatherman, John C., US Environmental Protection Agency, \$123,608, "Kansas Urban Water Quality Restoration and Protection Initiative."

AGRICULTURE AND NATURAL RESOURCES

Buchholz, Daryl D., Kansas Farm Service Agency, \$1,246, "Memorandum of Understanding between Kansas Agricultural Mediation Service and Kansas Farm Service Agency."

Buchholz, Daryl D., US Department of Agriculture, \$60, "Memorandum of Understanding between Kansas Agricultural Mediation Services and Kansas Natural Resources Conservation Service."

Buchholz, Daryl D., US Department of Agriculture, \$39,833, "North Central Professional Development Program Coordinator."

Buchholz, Daryl D., US Department of Agriculture, \$77,550, "National Resources Conservation Service Technical Service Provider Training."

Buchholz, Daryl D., US Department of Agriculture, \$101,062, "Renewable Resources Extension Act Program."

Buchholz, Daryl D., and **Beckman, Jana J.** (Kansas Center for Agriculture Resources and the Environment/Kansas Water Resources Research Institute), US Department of Agriculture, \$19,000, "North Central Region Sustainable Agriculture Research and Education Professional Development Program."

Buchholz, Daryl D., and **Johnson, Marc A.** (Agricultural Experiment Station), US Department of Agriculture, \$473,499, "Kansas Agricultural Mediation Service."

Buchholz, Daryl D., and **Slocombe, John W.** (Extension Biological and Agricultural Engineering), US Department of Agriculture, \$40,000, "Farm Safety Program."

AGRONOMY

Devlin, Daniel L., and **Barden, Charles J.** (Horticulture, Forestry and Recreation Resources), US Department of Agriculture, \$191,694, "Heartland Integrated Water Quality Coordination Initiative."

Devlin, Daniel L., (see **Barden, Charles J.**, Extension Horticulture, Forestry and Recreation Resources).

Eberle, William M., Kansas Department of Health and Environment, \$10,000, "KSU Agronomy Compost Site Development and Operation and Compost Operator Educational and Technical Assistance."

Fjell, Dale L., Kansas Grain Sorghum Commission, \$3,000, "Grain Sorghum Production in Kansas: Extension and Applied Research."

Fjell, Dale L., (see **Clark, Gary A.**, Biological and Agricultural Engineering).

Fjell, Dale L., (see **Clark, Gary A.**, Extension Biological and Agricultural Engineering).

Leikam, Dale F., **Lamond, Ray E.** (Agronomy), and **Schlegel, Alan J.** (Southwest Research Extension Center), Kansas Corn Commission, \$10,000, "Revising KSU Corn Phosphorus and Potassium Nutrient Recommendations."

Leikam, Dale F., **Lamond, Ray E.** (Agronomy), and **Schlegel, Alan J.** (Southwest Research Extension Center), Kansas Grain Sorghum Commission, \$15,000, "Revising KSU Sorghum Phosphorus and Potassium Nutrient Recommendations."

Peterson, Dallas E., (see **Regehr, David L.**, Extension Agronomy).

Regehr, David L., and **Peterson, Dallas E.**, Kansas Corn Commission, \$4,500, "Control of Field Pansy: A 'New' Winter Annual in No-Till Crops."

Shroyer, James P., Kansas Wheat Commission, \$2,800, "Wheat Production in Kansas: Extension and Applied Research."

Shroyer, James P., **Duncan, Stewart R.** (South Central Area Office), **Staggenborg, Scott A.** (Northeast Area Office), and **Thompson, Curtis R.** (Southwest Area Office), Finnup Foundation, \$2,500, "Wheat Research/Extension Assistant."

ANIMAL SCIENCES AND INDUSTRY

Aramouni, Fadi M., and **Herald, Thomas J.** (Animal Sciences and Industry), Kansas Department of Commerce and Housing, \$100,000, "Food and Feed Value Added Program."

Boyle, Elizabeth, Kansas Department of Commerce and Housing, \$23,310, "Value Added Meats Program for Kansas Companies and Entrepreneurs." (2 awards)

Boyle, Elizabeth, US Department of Agriculture, \$33,635, "HACCP Training and Research to Assist Meat Processors with Process Deviations for Lethality and Stabilization."

Lee, Charles D., Kansas Department of Wildlife and Parks, \$32,781, "Extension Education Position Support."

Lee, Charles D., US Department of Agriculture, \$1,500, "North Central Regional Aquaculture Center Extension Project."

BIOLOGICAL AND AGRICULTURAL ENGINEERING

Alam, Mahbub U., **Dumler, Troy** (Southwest Area Office), **Klocke, Norman L.** (Southwest Research Extension Center), **Schlegel, Alan J.** (Southwest Research Extension Center), **Thompson, Curtis R.** (Southwest Area Office), and **Willson, Thomas C.** (Southwest Research Extension Center), US Environmental Protection Agency, \$30,613, "Demonstration of Best Management Practices to Avoid Groundwater Pollution from Application of Livestock Manure to Cropland."

Alam, Mahbub U., (see **Clark, Gary A.**, Biological and Agricultural Engineering).

Clark, Gary A., **Alam, Mahbub U.**, **Fjell, Dale L.** (Agronomy), and **Rogers, Danny H.**, Kansas Corn Commission, \$28,500, "Mobile Irrigation Lab: Improved Irrigation Efficiency for Corn Production."

Harner III, Joseph P., US Environmental Protection Agency, \$120,000, "Dairy Nutrient Management Technical Assistance."

Harner III, Joseph P., (see **Hargrove, William L.**, Kansas Center for Agriculture Resources and the Environment/Kansas Water Resources Research Institute).

Kahl, Daniel W., (see **Powell, G. Morgan**, Extension Biological and Agricultural Engineering).

Murphy, James P., (see **Hargrove, William L.**, Kansas Center for Agriculture Resources and the Environment/Kansas Water Resources Research Institute).

Powell, G. Morgan, US Environmental Protection Agency, \$10,000, "Environmental Health Handbook Revision."

Powell, G. Morgan, **Buchholz, Daryl D.** (Director of Cooperative Extension), and **Devlin, Daniel L.** (Agronomy), US Environmental Protection Agency, \$22,696, "Kansas Environmental Leadership Program (KELP)."

Powell, G. Morgan, and **Kahl, Daniel W.**, US Environmental Protection Agency, \$10,000, "Kansas Environment Leadership Program."

Powell, G. Morgan, and **Willingham, Judith M.**, US Environmental Protection Agency, \$80,000, "Kansas Environmental Leadership Program - Class 4."

Powell, G. Morgan, (see **Hargrove, William L.**, Kansas Center for Agriculture Resources and the Environment/Kansas Water Resources Research Institute).

Rogers, Danny H., (see **Clark, Gary A.**, Biological and Agricultural Engineering).

Slocombe, John W., (see **Buchholz, Daryl D.**, Agriculture and Natural Resources).

Slocombe, John W., US Department of Agriculture, \$207,415 (includes \$59,672 from SKIL), "Kansas AgriAbility Project."

Taylor, Randal K., (see **Dille, Johanna A.**, Agronomy).

Willingham, Judith M., (see **Hargrove, William L.**, Kansas Center for Agriculture Resources and the Environment/Kansas Water Resources Research Institute).

Willingham, Judith M., (see **Powell, G. Morgan**, Extension Biological and Agricultural Engineering).

Wolf, Robert E., (see **Reese, John C.**, Entomology).

COMMUNICATIONS

Knapp, Mary C., and **Chumley, Forrest G.** (Agricultural Experiment Station), Kansas Water Office, \$8,000, "Technical Assistance to Water Users: ET/Weather Station Operation and Maintenance."

Terry, Roger V., US Department of Agriculture, \$18,500, "Healthy Places, Healthy Communities."

DIRECTOR OF COOPERATIVE EXTENSION

Buchholz, Daryl D., (see **Powell, G. Morgan**, Biological and Agricultural Engineering).

Lindquist, Jack W., Kansas Agriculture and Rural Leadership, \$65,364, "Kansas Agriculture and Rural Leadership, Inc."

ENTOMOLOGY

Higgins, Randall A., (see **Sloderbeck, Phillip E.**, Extension Entomology).

Ramaswamy, Sonny B., and **Dobesh, Sharon**, US Department of Agriculture, \$358,925, "Integrated Pest Management (Formula Funds)."

Sloderbeck, Phillip E., **Buschman, Larry L.** (Entomology), **Higgins, Randall A.**, **Jardine, Douglas J.** (Plant Pathology), **Schapaugh, William T.** (Agronomy), and **Witt, Merle D.** (Southwest Research Extension Center), Kansas Soybean Commission, \$15,425, "Biology and Management of the Soybean Stem Borer in Kansas."

EXTENSION FAMILY AND CONSUMER SCIENCES

Murphy, Martha E., (see **Peters, Paula**, Extension Family and Consumer Sciences).

Peters, Paula, and **Murphy, Martha E.**, Kansas Office of Attorney General, \$16,708, "Vitamin Settlement Project."

Peters, Paula, **Fitzgerald, Karen D.** (Human Nutrition), and **Hudson, Karen S.** (Human Nutrition), US Department of Agriculture, \$400, "Kansas Food Stamp Nutrition Education Plan."

Peters, Paula, **Fitzgerald, Karen D.** (Extension Human Nutrition), and **Hudson, Karen S.** (Extension Human Nutrition), US Department of Agriculture, \$3,679,443 (includes \$718,129 from various Kansas counties), "Kansas Food Stamp Nutrition Education Plan."

EXTENSION OFFICE OF COMMUNITY HEALTH

Dzewaltowski, David A., Eli Lilly & Company, \$7,500, "Obesity Resulting from Medication."

Dzewaltowski, David A., Kansas Health Foundation, \$50,000, "Healthy Out-of-School Places."

Dzewaltowski, David A., Kansas Office of Attorney General, \$6,000, "Increasing Family Understanding of Adolescent/Teen Weight Management."

Dzewaltowski, David A., Robert Wood Johnson Foundation, \$203,054, "Framework, Network, and Virtual Resource Center for Evaluating and Enhancing the Reach and Translation of Evidence-Based Health Strategies."

Dzewaltowski, David A., Sunflower Foundation, \$161,425 (includes \$12,500 from Via Christi Regional Medical Center, Wichita, Kan.), "Youth Mentoring for Weight Management."

Dzewaltowski, David A., US Department of Agriculture, \$5,500, "Cooperative Agreement between Kansas State Board of Education and Kansas State University."

Dzewaltowski, David A., US Department of Health and Human Services, \$885, "Agreement between the Bureau of Health Promotion, Kansas Department of Health and Environment and Kansas State University."

Dzewaltowski, David A., US Department of Health and Human Services, \$292,305, "Youth Environments Promoting Nutrition and Activity."

Estabrooks, Paul A., (see **Fees, Bronwyn S.**, School of Family Studies and Human Services).

Gyurcsik, Nancy C., US Department of Health and Human Services, \$12,692, "Arthritis Formative Research."

Ponte, Christine M., Kansas Department of Health and Environment, \$79,423, "Cooperative Agreement between Kansas Department of Health and Environment and Cooperative Extension Service, Kansas State University."

HORTICULTURE, FORESTRY AND RECREATION RESOURCES

Barden, Charles J., **Devlin, Daniel L.** (Extension Agronomy), and **Mankin, Kyle R.** (Biological and Agricultural Engineering), US Environmental Protection Agency, \$146,070, "Water Quality Improvement of Vegetated Riparian Areas and Buffers."

Barden, Charles J., (see **Devlin, Daniel L.**, Extension Agronomy).

Carey, Edward E., US Department of Agriculture, \$20,000, "Postharvest Handling and Production Facilities for Horticultural Crop Research and Extension."

Janke, Rhonda R., US Environmental Protection Agency, \$8,000, "Water Quality Test Kit Pilot Project in Conjunction with the River-Friendly Farm Program."

HUMAN NUTRITION

Fitzgerald, Karen D., (see **Peters, Paula**, Extension Family and Consumer Sciences).

Fitzgerald, Karen D., (see **Peters, Paula**, Extension Human Nutrition).

Higgins, Mary L., Kansas Association of Community Action Programs, \$1,200, "Developing Spanish-Language Materials for Food Assistance Outreach to Senior Adults."

Hudson, Karen S., (see **Peters, Paula**, Extension Family and Consumer Sciences).

Lohse, Barbara A., Shawnee County, Kansas, \$11,000, "Shawnee County Body Mass Index Profile."

Lohse, Barbara A., Sunflower Foundation, \$56,717, "Validation of an Instrument to Measure Competent Eating Behaviors."

Peters, Paula, and **Fitzgerald, Karen D.**, Sunflower Foundation, \$24,666 (includes \$3,000 from Heartland Programs and Healthy Kids Challenge), "Community Approach to Obesity Prevention."

KANSAS FOREST SERVICE

Aslin, Raymond G., US Department of Agriculture, \$23,149, "Conservation Reserve."

Aslin, Raymond G., US Department of Agriculture, \$2,254,547 (includes \$796,998 from various local and rural fire departments), "Consolidated Payment Grant 2002."

Aslin, Raymond G., US Department of Agriculture, \$30,000, "Forest Health Management/Monitoring FY 2002."

Aslin, Raymond G., US Department of Agriculture, \$81,109, "Forest Inventory Analysis - Kansas Forest Inventory."

Aslin, Raymond G., US Department of Agriculture, \$1,251, "Forestry Incentives Program 2002."

Aslin, Raymond G., US Department of Agriculture, \$67,200, "Hazardous Fuels Reduction Project."

Aslin, Raymond G., US Department of Agriculture, \$6,000, "Resource Conservation and Development 2002."

Aslin, Raymond G., US Department of the Interior, \$18,219 (includes \$1,822 from rural fire departments), "Assistance to Rural Firefighters."

NORTHEAST AREA OFFICE

DeRouchey, Joel M., **Dritz, Steven S.** (Diagnostic Medicine/Pathobiology), **Goodband, Robert D.** (Animal Sciences and Industry), **Nelssen, Jim L.** (Animal Sciences and Industry), and **Tokach, Michael D.** (Animal Sciences and Industry), Phibro Animal Health, \$10,800, "Influence of Mecadox in Swine Diets."

DeRouchey, Joel M., (see **Tokach, Michael D.**, Animal Sciences and Industry).

Staggenborg, Scott A., (see **Dille, Johanna A.**, Agronomy).

Staggenborg, Scott A., (see **Gordon, Walter B.**, Agronomy).

Staggenborg, Scott A., (see **Shroyer, James P.**, Extension Agronomy).

NORTHWEST AREA OFFICE

Johnson, Sandra K., and **Johnson, Linda M.** (Office of the Dean of Veterinary Medicine), US Department of Agriculture, \$5,000, "Applied Reproductive Strategies in Beef Cattle Workshop."

O'Brien, Daniel M., (see **Lamm, Freddie R.**, Northwest Research Extension Center).

O'Brien, Daniel M., (see **Stockton, Roger D.**, Northwest Area Office).

Olson, Brian L., (see **Stockton, Roger D.**, Northwest Area Office).

Stockton, Roger D., **O'Brien, Daniel M.**, and **Olson, Brian L.**, Kansas Wheat Commission, \$24,693, "No-Till Wheat Production in County Variety Trials."

PLANT PATHOLOGY

Jardine, Douglas J., (see **Reese, John C.**, Entomology).

Jardine, Douglas J., (see **Sloderbeck, Phillip E.**, Extension Entomology).

SCHOOL OF FAMILY STUDIES AND HUMAN SERVICES

Bradshaw, Michael H., US Department of Agriculture, \$2,063, "Healthy Homes — Kansas."

Bradshaw, Michael H., US Department of Agriculture, \$2,500, "Healthy Indoor Air for Kansas Homes."

Maddux, Estoria (Esther) M., Consumer Federation of America, \$1,500, "Kansas Saves: Build Wealth Not Debt, Look Before You Leap."

Maddux, Estoria (Esther) M., Kansas Office of the Securities Commission, \$50,000, "Building Financially Resilient Families in Kansas."

Olsen, Charlotte S., US Department of Agriculture, \$8,200, "Family Strength Health Education Programming."

SOUTH CENTRAL AREA OFFICE

Duncan, Stewart R., Cotton, Inc., \$6,435, "Kansas State Research and Extension Cotton Production and Management Project."

Duncan, Stewart R., (see **Gordon, Walter B.**, Agronomy).

Duncan, Stewart R., (see **Shroyer, James P.**, Extension Agronomy).

SOUTHEAST AREA OFFICE

Fogleman, Sarah L., (see **Kilgore, Gary L.**, Southeast Area Office).

Kilgore, Gary L., and **Fogleman, Sarah L.**, Kansas Corn Commission, \$3,950, "Short Season Corn Education Program in Southeast Kansas."

Kilgore, Gary L., and **Fogleman, Sarah L.**, Kansas Soybean Commission, \$11,180, "Soybean Educational Program in Southeast Kansas."

Kilgore, Gary L., and **Fogleman, Sarah L.**, Kansas Soybean Commission, \$11,180, "Soybean Extension Educational Program in Southeast Kansas."

Kilgore, Gary L., (see **Gordon, Walter B.**, Agronomy).

Kilgore, Gary L., (see **Robbins, Benny S.**, Southeast Area Office).

Robbins, Benny S., and **Kilgore, Gary L.**, Multisponsor, \$1,700, "Double-Crop Soybean Performance Tests - Extension Area Offices."

SOUTHWEST AREA OFFICE

Dumler, Troy, (see **Alam, Mahbub U.**, Extension Biological and Agricultural Engineering).

Dumler, Troy, (see **Hale, Ronald L.**, Southwest Area Office).

Dumler, Troy, (see **Klocke, Norman L.**, Southwest Research Extension Center).

Dumler, Troy, (see **Schlegel, Alan J.**, Southwest Research Extension Center).

Hale, Ronald L., **Dumler, Troy**, and **Thompson, Curtis R.**, Kansas Wheat Commission, \$9,145, "Hard White Winter Wheat for Dual-Purpose Use."

Sloderbeck, Phillip E., (see **Higgins, Randall A.**, Entomology).

Sloderbeck, Phillip E., (see **Michaud, John P.**, Entomology).

Sloderbeck, Phillip E., (see **Reese, John C.**, Entomology).

Thompson, Curtis R., Multisponsor, \$27,735, "Chemical Evaluation."

Thompson, Curtis R., Multisponsor, \$400, "Chemical Evaluation Testing."

Thompson, Curtis R., (see **Alam, Mahbub U.**, Extension Biological and Agricultural Engineering).

Thompson, Curtis R., (see **Hale, Ronald L.**, Southwest Area Office).

Thompson, Curtis R., (see **Shroyer, James P.**, Extension Agronomy).

OFFICE OF THE PRESIDENT

AUDITORIUM PERFORMANCES

Martin, Richard P., Mid-America Arts Alliance, \$4,424 (includes \$2,824 from fine arts fee support), "Robin Eubanks and Mental Images."

Martin, Richard P., Mid-America Arts Alliance, \$5,000, "Stanislavsky Opera Company - La Boheme."

Martin, Richard P., National Foundation on the Arts and the Humanities, \$7,258, "McCain Series - FY2003."

Martin, Richard P., National Foundation on the Arts and the Humanities, \$5,000, "Theatre de la Jeune Lune - Hamlet."

BEACH ART MUSEUM

Render, Lorne E., Institute of Museum and Library Services, \$112,500, "Beach Museum of Art General Operation Support."

Render, Lorne E., National Foundation on the Arts and the Humanities, \$7,802, "Beach Museum of Art Operating Support, FY2003."

Render, Lorne E., and **Schlageck, Kathrine W.**, National Foundation on the Arts and the Humanities, \$660, "Beyond Oz - The Paul Mesner Puppets Performance."

Schlageck, Kathrine W., (see **Render, Lorne E.**, Beach Art Museum).

VICE PRESIDENT FOR ADMINISTRATION AND FINANCE

FACILITIES SERVICES

Rice, Edward D., US Department of Transportation, \$129,872 (includes \$6,000 from American Institute of Baking, \$110,000 from City of Manhattan, and \$7,500 from Manhattan Housing Authority), "TEA-21 Pedestrian and Bicycle Facilities on North Manhattan and Kimball Avenues."

KSU POLICE DEPARTMENT

Grice, Ronnie D., and **Johnson, David W.**, US Department of Justice, \$150,000, "KSU Universal Hiring Program 2002."

Grice, Ronnie D., and **Johnson, David W.**, US Department of Justice, \$2,610, "Local Law Enforcement Block Grants - SFY2003."

Grice, Ronnie D., and **Johnson, David W.**, US Department of Justice, \$71,752, "Mobile Data."

Johnson, David W., (see **Grice, Ronnie D.**, KSU Police Department).

VICE PRESIDENT FOR INSTITUTIONAL ADVANCEMENT

DEPARTMENT OF HOUSING

Bannister, Stephanie, Kansas Health Foundation, \$6,060, "Jardine Tutoring Program."

Kohl, Deborah L., (see **Werring, Chuck J.**, Department of Housing).

Wang, Hong, (see **Werring, Chuck J.**, Department of Housing).

Werring, Chuck J., and **Kohl, Deborah L.**, Kansas Health Foundation, \$757, "Jardine Children's Learning Days."

Werring, Chuck J., and **Wang, Hong**, Kansas Health Foundation, \$489, "Jardine Gardening Club."

EDUCATIONAL AND PERSONAL DEVELOPMENT

Arck, William, City of Manhattan, Kansas, \$22,500, "Youth Oriented Alcohol Abuse Prevention Program."

Greene, Kathleen V., US Department of Education, \$245,336, "Ronald McNair Academic Achievement Program."

Greene, Kathleen V., US Department of Education, \$206,292, "Student Support Services."

Greene, Kathleen V., US Department of Education, \$266,482, "Student Support Services."

Lynch, Michael L., Kauffman Foundation, \$75,000, "Beyond the Boundaries: A Summer Enrichment Program."

McGowan, Reginland, US Department of Agriculture, \$19,062, "Kansas State University Upward Bound Math and Science Program Summer Food Service Program."

McGowan, Reginland, US Department of Agriculture, \$23,018, "Kansas State University Upward Bound Program Summer Food Service Program."

McGowan, Reginland, US Department of Education, \$374,700 (includes \$159,828 from various local non-profit organizations and local businesses), "Kansas State University Gear Up Program #2."

McGowan, Reginland, US Department of Education, \$250,728, "Kansas State University Upward Bound Math and Science Program."

McGowan, Reginland, US Department of Education, \$196,846, "Kansas State University/Gear Up."

McGowan, Reginland, US Department of Education, \$405,996, "Upward Bound Program."

OFFICE OF DIVERSITY AND DUAL CAREER DEVELOPMENT

Gordon, Myra E., US Agency for International Development, \$216,229 (includes \$13,500 from Dell Computers, and \$8,700 from University Cheikh Anta Diop), "Women's Leadership Initiative for Development and Democracy."

Gordon, Myra E., US Department of Health and Human Services, \$6,500, "Health Careers Pathways Program."

UNIVERSITY COUNSELING SERVICES

Arck, William, Kansas Health Foundation, \$11,000, "Evaluation of the Alcohol Abuse Prevention on College Campuses."

OFFICE OF THE PROVOST

INTERNATIONAL PROGRAMS

Michie, Barry H., and **Wood, Mary**, International Student Exchange Program, \$88,410, "ISEP - English Language Program."

Wood, Mary, (see **Michie, Barry H.**, International Programs).

KANSAS CENTER FOR RURAL INITIATIVES

Gould, Carol A., Corporation for National Service, \$29,553, "Kansas Campus Compact."

Gould, Carol A., Corporation for National Service, \$412,000 (includes \$112,000 from Western Kansas Community Service-Learning Consortium), "Kansas Service-Learning Consortium."

Gould, Carol A., Corporation for National Service, \$585, "New Linkages for Service Learning Through the Kansas State University Community Service Program."

Gould, Carol A., US Department of Commerce, \$69,184, "Kansas Center for Community Economic Development."

Gould, Thomas H., Rolling Hills Zoo, \$4,000, "Rolling Hills Zoo Fellowship."

LIBRARY

Adams, Roger C., National Foundation on the Arts and the Humanities, \$1,000, "Frankenstein: Penetrating the Secrets of Nature."

Bower, Merry D., Kansas Library Network, \$1,000, "Digital Graphic Design: Digital Photography."

Jeanjean, Catherine A., Kansas Library Network, \$4,190, "Nutrition and Diet Therapy."

Schenck-Hamlin, Donna C., United Soybean Board, \$27,027, "Translation of Asian Literature on the Soybean Aphid and Its Biological Control."

Watts, Tim J., Kansas Library Network, \$3,000, "Film Titles on the National Film Registry." (2 awards)

OFFICE OF THE PROVOST

Dyer, Ruth A., and **Franks, Suzanne E.** (Office of the Dean of Engineering), Henry Luce Foundation, Inc., \$142,292, "Claire Boothe Luce Scholars in the WESP Future Leaders Program at Kansas State University."

Dyer, Ruth A., (see **Montelone, Beth A.**, Biology).

PLANNING AND ANALYSIS

Downey, Ronald G., (see **Katz, Jeffrey P.**, Office of the Dean of Business Administration).

REGENTS' EDUCATIONAL COMMUNICATIONS CENTER

Maes, Sue C., and **Moxley, Virginia M.** (Office of the Dean of Human Ecology), US Department of Education, \$21,819, "HETS FIPSE LAAP Collaboration Project."

VICE PROVOST FOR ACADEMIC SERVICES AND TECHNOLOGY

CONFERENCES AND NON-CREDIT PROGRAMS

Minshall, Bettie C., (see **Getty, Kelly J. K.**, Animal Sciences and Industry).

REGENTS' EDUCATIONAL COMMUNICATIONS CENTER

Chastain, Melvin L., US Department of Education, \$15,000, "Beyond the Administrative Core: Creating Web-Based Student Services for Online Learners."

Maes, Sue C., (see **Getty, Kelly J. K.**, Animal Sciences and Industry).

Newhouse, Barbara S., (see **Havlicek, Barbara J.**, Office of the Dean of Education).

VICE PROVOST FOR RESEARCH AND DEAN OF THE GRADUATE SCHOOL

Guikema, James A., National Aeronautics and Space Administration, \$7,275, "Kansas NASA EPSCoR 2000 Program."

Guikema, James A., (see **Erickson, Larry E.**, Center for Hazardous Substance Research).

Jaax, Gerald P., US Department of Agriculture, \$3,000,000, "Vulnerability and Response to Agroterrorism."

Jaax, Gerald P., **Jaax, Nancy K.**, and **Rowland, Raymond R. R.** (Diagnostic Medicine/Pathobiology), General Services Administration, \$120,001, "Battelle Select Agent Monographs."

Jaax, Nancy K., (see **Jaax, Gerald P.**, Office of the Vice Provost for Research).

Trewyn, R. W., Kansas State University Research Foundation, \$237,140, "KSU Research Foundation Staff Compensation."

Trewyn, R. W., Kansas Board of Regents, \$16,000, "Kansas Minority Graduate Fellowship Awards."

Trewyn, R. W., National Science Foundation, \$2,000, "Science, Engineering, Math (SEM) Institutional Data Base: Kansas State University."

BIOTECHNOLOGY CORE LABORATORY

Tomich, John M., Multisponsor, \$74,036, "Biotechnology Laboratory Support."

ELECTRONICS DESIGN LABORATORY

Sobering, Timothy J., Multisponsor, \$151,753, "Electronics Design Laboratory."

Sobering, Timothy J., US Department of Energy, \$25,000, "ICCD Detector Readout Development."

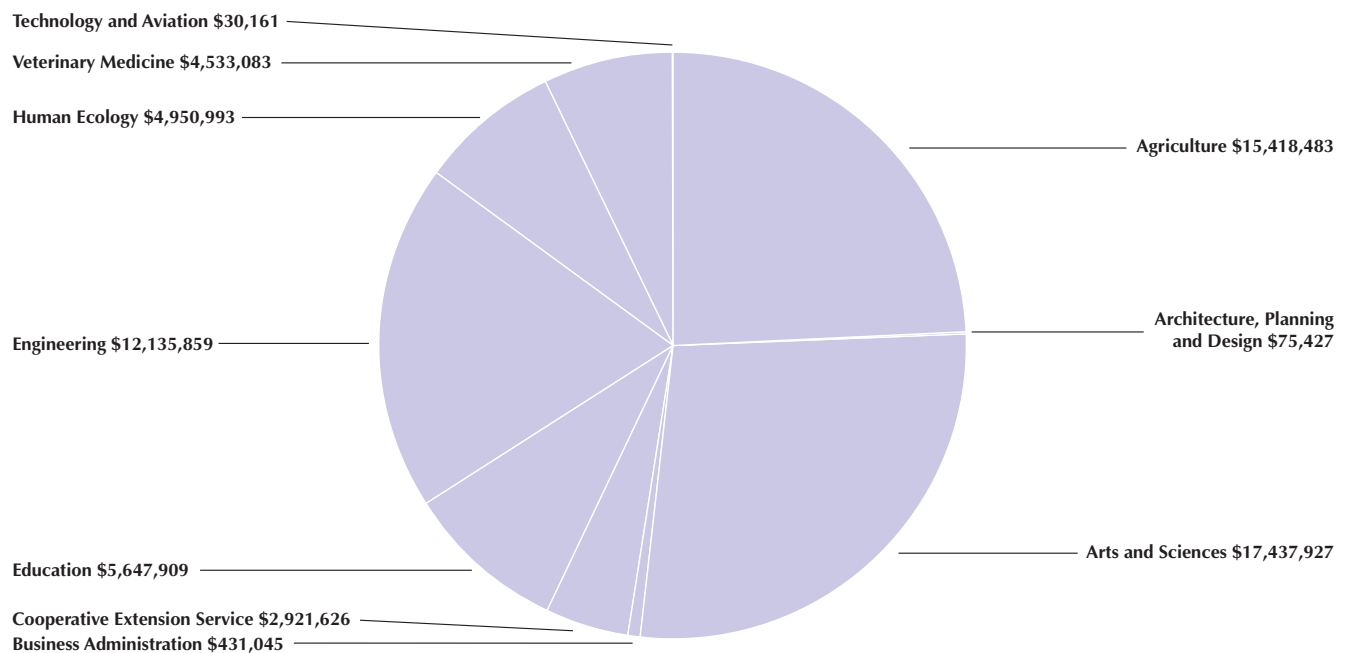
Sobering, Timothy J., and **Taylor, Russell D.**, Kintec, Inc., \$6,180, "Digital Brake Controller Development."

Taylor, Russell D., (see **Sobering, Timothy J.**, Electronics Design Laboratory).

SECTION 2: EXPENDITURES

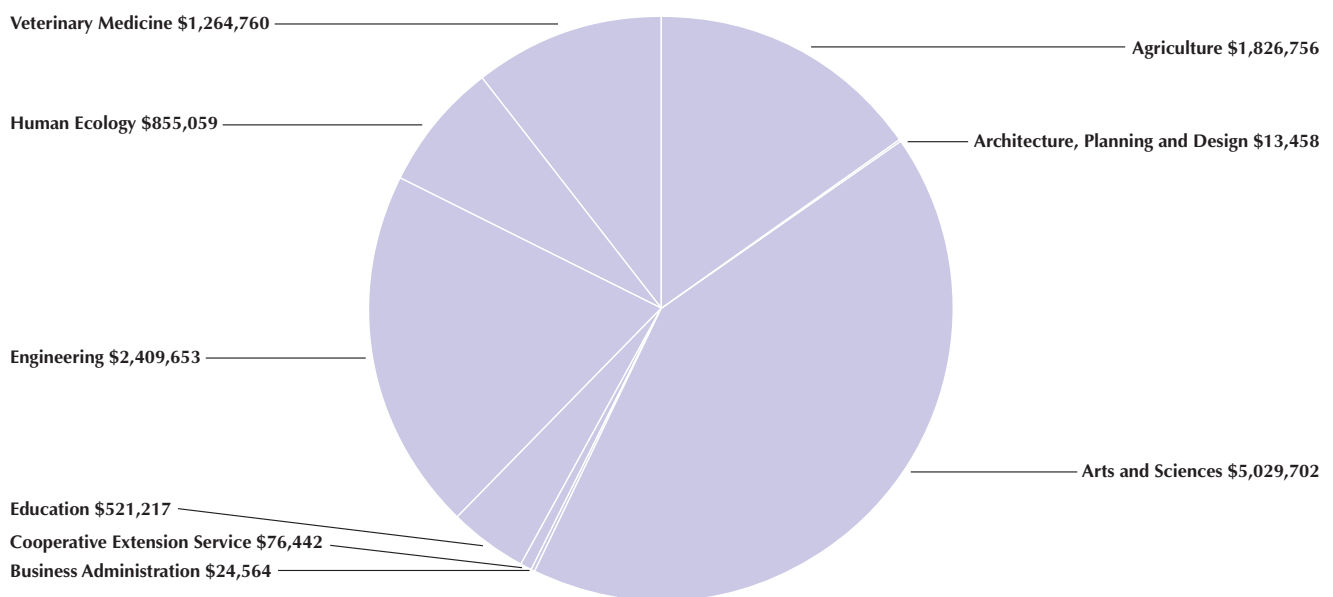
DIRECT COST EXPENDITURES BY COLLEGE AND EXTENSION*

Fiscal Year 2003



FACILITIES AND ADMINISTRATIVE COST RECOVERY BY COLLEGE AND EXTENSION*

Fiscal Year 2003



*Note: Data provided by the KSU Controller's Office, Sponsored Projects Accounting

EXPENDITURES FOR SPONSORED EXTRAMURAL FUNDING BY COLLEGE AND EXTENSION DEPARTMENT*

Fiscal Year 2003

	DIRECT COSTS	FACILITIES AND ADMINISTRATIVE COSTS	TOTAL
COLLEGE OF AGRICULTURE			
Dean of Agriculture and Director of AES	\$138,999.88	\$0.00	\$138,999.88
Agricultural Economics	\$1,089,261.66	\$266,507.74	\$1,355,769.40
Agronomy	\$2,312,282.05	\$215,740.22	\$2,528,022.27
Animal Sciences and Industry	\$1,521,415.97	\$114,403.47	\$1,635,819.44
Communications	\$64,270.28	\$1,011.75	\$65,282.03
Entomology	\$1,300,880.35	\$108,526.41	\$1,409,406.76
Grain Science and Technology	\$1,947,434.35	\$324,099.49	\$2,271,533.84
Horticulture, Forestry and Recreation Resources	\$506,317.20	\$66,044.26	\$572,361.46
International Agricultural Programs	\$22,675.68	\$0.00	\$22,675.68
Plant Pathology	\$3,321,055.15	\$515,457.79	\$3,836,512.94
Food and Feed Grains Institute	\$10,936.39	\$1,093.65	\$12,030.04
Kansas Center for Ag. Resource & Env	\$584,658.50	\$40,723.58	\$625,382.08
Agricultural Experiment Station	\$2,069,539.47	\$171,799.27	\$2,241,338.74
Northwest Research Extension Center	\$89,281.22	\$0.00	\$89,281.22
Agricultural Research Center-Hays	\$321,786.03	\$1,348.85	\$323,134.88
Southwest Research Extension Center	\$95,489.00	\$0.00	\$95,489.00
Southeast Agricultural Research Center	\$22,200.60	(\$0.01)	\$22,200.59
Total—College of Agriculture	\$15,418,483.78	\$1,826,756.47	\$17,245,240.25
COLLEGE OF ARCHITECTURE AND DESIGN			
Dean of Architecture, Planning and Design	\$10,862.10	\$2,824.14	\$13,686.24
Architecture	\$25,063.66	\$8,235.99	\$33,299.65
Interior Architecture	\$0.00	\$2,333.59	\$2,333.59
Landscape Architecture/Regional &Community Plan.	\$39,501.87	\$64.90	\$39,566.77
Total—College of Architecture & Design	\$75,427.63	\$13,458.62	\$88,886.25
COLLEGE OF ARTS AND SCIENCES			
Dean of Arts and Sciences	\$369,987.42	\$29,599.00	\$399,586.42
Biochemistry	\$1,743,482.87	\$645,617.42	\$2,389,100.29
Biology	\$6,024,618.49	\$1,578,416.54	\$7,603,035.03
Chemistry	\$2,087,847.86	\$699,967.65	\$2,787,815.51
Economics	\$114,135.41	\$2,101.41	\$116,236.82
Geography	\$310,658.94	\$66,579.54	\$377,238.48
Geology	\$176,288.30	\$41,464.11	\$217,752.41
History	\$72,057.41	\$0.00	\$72,057.41
James R. MacDonald Laboratory	\$1,846,402.32	\$778,264.22	\$2,624,666.54
School of Journalism and Mass Communication	\$196,971.47	\$12,225.33	\$209,196.80
Mathematics	\$109,515.60	\$48,840.57	\$158,356.17
Music	\$11,488.79	\$0.00	\$11,488.79
Kinesiology	\$83,087.51	\$6,173.84	\$89,261.35
Physics	\$2,471,682.04	\$686,393.53	\$3,158,075.57
High Energy Physics	\$1,289,085.58	\$264,102.01	\$1,553,187.59
Psychology	\$361,598.97	\$137,296.62	\$498,895.59
Sociology, Anthropology, & Social Work	\$91,702.57	\$22,365.47	\$114,068.04
Statistics	\$77,315.52	\$10,294.93	\$87,610.45
Total—College of Arts and Sciences	\$17,437,927.07	\$5,029,702.19	\$22,467,629.26

*Note: Data provided by the KSU Controller's Office, Sponsored Projects Accounting

COLLEGE OF BUSINESS ADMINISTRATION	DIRECT COSTS	FACILITIES AND ADMINISTRATIVE COSTS	TOTAL
Dean of Business Administration	\$297,361.67	\$2,240.74	\$299,602.41
Accounting	\$28,734.22	\$2,785.85	\$31,520.07
Management	\$46,214.33	\$16,340.52	\$62,554.85
Small Business Development Center	\$58,735.31	\$3,197.69	\$61,933.00
Total—College of Business Administration	\$431,045.53	\$24,564.80	\$455,610.33

COOPERATIVE EXTENSION SERVICES

Director of Cooperative Extension	\$60,963.26	\$0.00	\$60,963.26
Extension Family and Consumer Sciences	\$12,271.35	\$0.00	\$12,271.35
Extension Communication	\$14,709.53	\$0.00	\$14,709.53
Kansas Forest Service	\$1,367,792.08	\$0.00	\$1,367,792.08
Agriculture and Natural Resources	\$556,262.30	\$3,631.26	\$559,893.56
Extension Energy	\$4,580.57	\$1,557.40	\$6,137.97
Northwest Area Office	\$28,394.00	\$0.00	\$28,394.00
Southwest Area Office	\$30,756.60	\$379.62	\$31,136.22
Northeast Area Office	\$7,424.40	\$1,609.26	\$9,033.66
South Central Area Office	\$4,860.07	\$0.00	\$4,860.07
Southeast Area Office	\$22,642.19	\$0.00	\$22,642.19
Extension Office of Community Health	\$810,969.71	\$69,264.89	\$880,234.60
Total—Cooperative Extension Services	\$2,921,626.06	\$76,442.43	\$2,998,068.49

COLLEGE OF EDUCATION

Dean of Educational Instructional Support	\$4,276,155.41	\$356,510.21	\$4,632,665.62
Foundations & Adult Education	\$187,122.79	\$48,281.45	\$235,404.24
Special Education	\$30,149.77	\$1,507.49	\$31,657.26
Elementary Education	\$1,076,393.63	\$113,995.42	\$1,190,389.05
Secondary Education	\$78,087.53	\$922.59	\$79,010.12
Total—College of Education	\$5,647,909.13	\$521,217.16	\$6,169,126.29

COLLEGE OF ENGINEERING

Dean of Engineering	\$23,864.34	\$0.00	\$23,864.34
Biological & Agricultural Engineering	\$1,030,221.18	\$65,919.41	\$1,096,140.59
Architectural Engineering and Construction Science	\$39,120.31	\$49,724.50	\$88,844.81
Chemical Engineering	\$422,166.17	\$167,256.96	\$589,423.13
Civil Engineering	\$940,857.89	\$151,714.52	\$1,092,572.41
Computing & Information Sciences	\$1,365,347.66	\$359,674.33	\$1,725,021.99
Electrical & Computer Engineering	\$346,242.09	\$111,798.49	\$458,040.58
Engineering Experiment Station	\$1,812.20	\$172.85	\$1,985.05
Institute for Environmental Research	\$308,283.47	\$73,986.90	\$382,270.37
Industrial & Manufacturing Systems Engineering	\$323,839.80	\$82,171.14	\$406,010.94
Mechanical and Nuclear Engineering	\$985,484.94	\$262,588.21	\$1,248,073.15
Advanced Manufacturing Institute	\$1,524,955.22	\$81,355.30	\$1,606,310.52
Kansas Industrial Extension Services	\$924,558.69	\$73,718.48	\$998,277.17
Center for Hazardous Substance Research	\$1,660,004.54	\$612,331.55	\$2,272,336.09
National Institute for Land Management & Training	\$1,674,024.40	\$107,362.78	\$1,781,387.18
National Gas Machinery Laboratory	\$565,076.67	\$209,878.33	\$774,955.00
Total—College of Engineering	\$12,135,859.57	\$2,409,653.75	\$14,545,513.32

COLLEGE OF HUMAN ECOLOGY

Dean of Human Ecology	\$2,520,499.47	\$593,838.41	\$3,114,337.88
Apparel, Textiles and Interior Design	\$7,312.91	\$254.63	\$7,567.54
Hotel, Restaurant, Institution Management & Dietetics	\$29,648.28	\$5,516.78	\$35,165.06
Human Nutrition	\$389,932.72	\$84,035.91	\$473,968.63
School of Family Studies & Human Services	\$2,003,600.39	\$171,414.05	\$2,175,014.44
Total—College of Human Ecology	\$4,950,993.77	\$855,059.78	\$5,806,053.55

COLLEGE OF TECHNOLOGY	DIRECT COSTS	FACILITIES AND ADMINISTRATIVE COSTS	TOTAL
Salina Arts, Science & Business	\$30,161.13	\$89.22	\$30,250.35
Total—Salina College of Technology	\$30,161.13	\$89.22	\$30,250.35
COLLEGE OF VETERINARY MEDICINE			
Dean of Veterinary Medical Center	\$15,882.25	\$1,807.53	\$17,689.78
Anatomy and Physiology	\$2,372,585.04	\$701,973.84	\$3,074,558.88
Diagnostic Medicine/Pathobiology	\$1,398,430.14	\$341,522.44	\$1,739,952.58
Clinical Sciences	\$746,186.29	\$219,456.32	\$965,642.61
Total—Veterinary Medical Center	\$4,533,083.72	\$1,264,760.13	\$5,797,843.85
GRAND TOTAL	\$63,582,517.39	\$12,021,704.55	\$75,604,221.94

UNIVERSITY SMALL RESEARCH GRANTS

University Small Research Grants are awarded by the Office of Research and Sponsored Programs to support research, scholarly activity and other creative efforts of tenure-track faculty members.

Fall 2002 Awards

An, Soontae, School of Journalism and Mass Communications, \$1,000. Political Advertising and Voters' Candidate Issue Learning: The Role of Candidate Preference.

Armbrust, Laura, Clinical Sciences, \$3,000. Comparing Thoracic Radiography and Helical Computed Tomography for Evaluation of Pulmonary Metastases in Dogs with Osteosarcoma.

Brannon, Laura, Psychology, \$500. Reducing Binge Drinking by Matching Messages to Recipients' Self-Schemas.

Kaup, Migette, Apparel, Textiles, and Interior Design, \$700. Exploring Strategies for Optimizing the Design of Therapeutic Environments for People with Dementia: Opportunities for Changing the Culture of Care.

Liu, Kelly, Geology, \$1,500. NSF-funded Project for the Study of the Layered Structure of the Earth.

Maner, Brent, History, \$2,000. "Cold War Visions of the Distant Past: Prehistoric Archaeology in Germany Since 1945," a project at the State Library in Berlin.

McAllister, Richard, Anatomy and Physiology, \$2,000. Guanylate Cyclase Gene Expression in Skeletal Muscle Blood Vessels.

Moro, Manuel, Diagnostic Medicine/Pathobiology, \$3,000. Modulation of Host Immune Response by Tick Feeding in a Co-infection Murine Model of Lyme Disease.

Morrow, Nancy, Art, \$1,500. Purchase of Industrial-grade Heat Transfer Press, Inkjet Transfer Sheets, Graphics Software and Scanner to Expand Process and Artistic Complexity of Creative Output.

Nicolaysen, Kirsten, Geology, \$2,000. Radiometric Dating of Kerguelen Archipelago Basalts to Constrain the Fluctuations of Earth's Magnetic Field During the Early Tertiary.

Pickering, Jeffrey, Political Science, \$1,300. Military Intervention Data Collection Update.

Sanderclock, Brett, Biology, \$2,000. The Effects of Cowbird Nest Parasitism on the Demography of Bell's Vireos.

Schermerhorn, Thomas, Clinical Sciences, \$1,500. SNARE Protein Association with Detergent-Resistant Membrane Domains are Needed for Regulated Exocytosis in Pancreatic Beta Cells.

Vernberg, Dee Katherine, School of Journalism and Mass Communications, \$1,000. Potential of On-line Simulated Support Groups for Nurturing Hope in People with Stigmatizing Conditions.

Weiss, Mark, Anatomy and Physiology, \$5,000. Xenotransplantation of Human Stem Cells into the Rat Brain.

Westman, Karin, English, \$650. Interview Zadie Smith, a Contemporary British Novelist.

Yang, Hui, Finance, \$1,000. Explain the Cross-Sectional Differences of Mutual Fund Performance: A Behavioral Perspective.

Yum, Young-Ok, Speech Communication, Theatre and Dance, \$500. The Role of Perspective-taking in Attribution Making and Coping with the Context of the 9/11 Attacks.

Spring 2003 Awards

Back, Ki-Joon, Hotel, Restaurant, Institution Management and Dietetics, \$1,000. Brand Personality and Its Impact on Brand Loyalty in the Upper-Upscale Hotel Industry.

Bressers, Bonnie, School of Journalism and Mass Communications, \$1,330. Factors Influencing the Integration of Print and Online Newspapers.

Calluori-Holcombe, Anna, Art, \$1,800. Invited to be an Artist-in-Residence at Air-Valluaris, France, Culminating in an Exhibition "A la Picasso."

Clark, Robert, Modern Languages, \$1,000. Travel to Paris to Study Illustrated Manuscript of Medieval Drama: "The Miracles de Nostre Dame par personnages."

Hedrick, Donald, English, \$1,110. A Shakespeare Research Project at the Huntington Library.

Houser, Virginia, Music, \$1,455. Attend Intensive Training Workshop and Certificate Program: Freeing the Caged Bird (tm) - Developing Well-Coordinated, Injury-Preventive Keyboard Technique.

Jang, Soocheong, Hotel, Restaurant, Institution Management and Dietetics, \$1,400. Discover the Most Efficient Travel Segment Mixes Through Financial Portfolio Theory.

* **Ketz-Riley, Cornelia**, Clinical Sciences, \$1,500. Investigation of Effect of Butorphanol (An Opioid Analgesic) on Respiratory Tract in Waterfowl when Administered During and Before Isoflurane Anesthesia.

King, Kathleen, Art, \$1,125. Purchase of Photopolymer Intaglio Plates, Printmaking Paper and Intaglio Inks and Polyester Sheets to Expand Process and Artistic Complexity of Series of Intaglio Prints.

Li, Dong, Economics, \$2,775. Explore Estimation and Prediction of Panel Data Models with Spatially Dependent Errors.

* **Meyer, Deborah J. C.** Apparel, Textiles, and Interior Design \$2,000. Consumer's Knowledge, Perceptions, Attitudes and Shopping Patterns for Non-Flammable Children's Sleepwear.

Moro, Manuel, Diagnostic Medicine/Pathobiology, \$2,100. Acquisition of Resistance by Salmonella in Swine.

Parker, Craig, Music, \$1,500. Research on "Igor Stravinsky in Los Angeles" and "A History of the Los Angeles Music Festival" at UCLA Libraries.

Potts, Donna, English, \$830. Write about the Social History of Hell's Half Acre in 1930's Fort Worth.

Ritterbush, Lauren, Sociology, Anthropology, and Social Work, and **Nicolaysen, Kirsten**, Geology, \$2,345. Determine Whether Vesicular Lithic Materials Recovered from Archaeological Sites Along the Missouri River are Clinker or Scoria and Whether They have been Naturally Transported or Transported via Prehistoric People.

Smith, Jeffrey, Geography, \$2,500. Conduct a Pilot Study in the Cities of Hermosillo and Chihuahua, Mexico, for Reconnaissance and Mapping of Working-Class Districts.

Twiggs, Joan, Sociology, Anthropology, and Social Work, and **Higgins, Mary**, Human Nutrition, \$1,000. Study the Role of Stigma in the Decisions of Older Kansans to Participate in Food Assistance Programs.

* Pending

FACULTY DEVELOPMENT AWARDS

Faculty Development Awards are awarded by the Office of Research and Sponsored Programs and serve primarily as travel awards. They can be used for travel to international meetings, travel for foreign exchange, travel to offices of potential external funding sponsors, and as matching funds on certain fellowships. They cannot be used for research travel.

Fall 2002 Awards

Asano, Katsura, Biology, \$1,500. "Collaboration with Dr. Jurg Bahler at the Sanger Institute, UK.

Behlman, Lee, English, \$914. Present a paper "Old Lamps, New-Lit: The Future of Victorian Poetry" at the University of Western Ontario in London, Ontario, Canada.

Benson, Janet, Sociology, Anthropology, and Social Work, \$1,500. Present a paper "Globalization, Local Practice and Sustainability in the High Plains Region of the United States" at the 15th ICAES Humankind/Nature Interaction: Past, Present and Future held in Florence, Italy.

Blankenau, William, Economics, \$2,000. Present a paper "Labor Market Dynamics with Balanced Growth" at the annual meeting of the Society for Economic Dynamics held in Paris, France, and at the meeting of the Society for the Advancement of Economic Theory held in Rodos, Greece.

Cassidy, Christopher, Management, \$1,500. Present a paper at the International Association of Business and Society (IABS), held in Erasmus University, Rotterdam, The Netherlands.

Cassou, Steven, Economics, \$2,000. Present a paper at the annual meeting of the Society for Economic Dynamics held in Paris, France, and at a meeting of the Society for the Advancement of Economic Theory held in Rodos, Greece.

Chae, Bongsug, Management, \$1,500. Present a paper "The Conceptualization of Information Systems" at the International Federation Information Processing (IFIP) Joint Work Group 8.2 & 8.4 International Conference, and at the IS Ph.D. Supervisor's Workshop held in venue; both held at the Athens University of Economics and Business, Athens, Greece.

Garavito, C., Modern Languages, \$1,500. Present a paper "Transgression and Self-definition: Dramatic Strategies in the Theater of Albalucia Angel" at the Mujeres malas: Percepcion y representacion de la mujer transgresora en el mundo luso-hispanico" (Bad Women: Perception and Representation of Women as Transgressors in the Luso-Hispanic World) held in Oporto, Portugal.

Hillard, Derek, Modern Languages, \$1,500. Present research papers at the Hawaii International Conference on Arts and Humanities held in Honolulu, Hawaii, and at the Annual Meeting of the International Association for Philosophy and Literature held in Leeds, England.

Horne, Eva, Biology, \$1,000. Present a paper at the 2003 Joint Meeting of Ichthyologists and Herpetologists held in Manaus, Brazil.

Jin, Hyun, School of Journalism and Mass Communications, \$1,500. (1) 2003 American Academy of Advertising Asia-Pacific (AAA Conference, near Tokyo, Japan, May 27-30, 2003. (2) 2003 Society for Consumer Psychology (SCP) Conference, Seoul, Korea, June 5-7, 2003.

Marsh, Thomas, Agricultural Economics, \$1,030. Present a paper at the 47th Annual Conference of the Australian Agricultural and Resource Economics Meeting held in Fremantle, Western Australia.

Mathews, Alexander, Civil Engineering, \$1,000. Present a paper at the Third International Conference on Oxidation Technologies for Water and Wastewater Treatment: AOP's for Recycling and Reuse held in Goslar, Germany and the Technical University of Denmark.

Nafziger, Elfrieda, Economics, \$500. Present an invited keynote address "Economic Development, Inequality, Democracy and War: The Sources of Humanitarian Emergencies," to the annual conference of the Nigerian Political Science Association in Zaria, Nigeria.

Pahwa, Anil, Electrical and Computer Engineering, \$500. Present a paper at the 5th International Conference on Power Systems Operation and Planning held in Abuja, Nigeria.

Pierzynski, Gary, Agronomy, \$1,500. Present a paper at the International Conference on the Biogeochemistry of Trace Elements held in Uppsala, Sweden.

Poggi-Corradini, Pietro, Mathematics, \$1,500. Present a paper at a workshop on "Future Trends in Geometric Function Theory" held at the University of Jyväskylä, Finland in conjunction with the 19th Rolf Nevanlinna Colloquium.

Prince, J. Bruce, Management, \$1,500. Present a paper "Building Human Capital and Managing High Performance with the Promotion and Transfer Process" at the International Human Resource Management Conference at the University of Limerick, Ireland.

Ross, Chris, Anatomy and Physiology, \$1,500. Present three lectures at the European Society of Clinical Investigation, Verona, Italy, and at the Antimicrobial Peptides Gordon Conference held in Barga, Italy.

Sahng, Xuhong, Art, \$1,600. Present a lecture series and exhibit a group of paintings Visiting Artist/Professor invitation to present lecture series Studio Training in Abstract Approach and exhibit paintings at the East China Normal University, Shanghai, China.

Shah, Jyoti, Biology, \$1,450. Present research at the 7th Congress of the International Society of Plant Molecular Biology held in Barcelona, Spain.

Steward, David, Civil Engineering, \$2,000. Present a paper at the 4th International Conference on the Analytic Element Method (ICAEM) held in Saint-Etienne, France.

Suh, Jaebeom, Marketing, \$1,000. Present a paper at the 2003 Advertising and Consumer Psychology Conference, Seoul, Korea.

Spring 2003 Awards

Corum Jr., Robert, Modern Languages, \$500. Attend the NEH Summer Seminar held in Paris, France: "Surveying Paris: Urban Space and Urban Culture in the Early Modern City."

Dubnicka, Suzanne, Statistics, \$1,340. Present a paper "Rank-based Estimation in Linear Models with Clustered Data" at the International Conference on Robust Statistics held in Antwerp, Belgium.

Frey, Marsha, History, \$2,200. Present a paper on the Treaties of Utrecht and the European International System at the Europe and Hungary in the Age of Prince Francis Rakoczi II held in Budapest.

Harrington, Lisa, Geography, \$1,855. Present "Vulnerability, Adaptability, Resiliency, Sustainability: Concerns for the U.S. High Plains" at the 4th British-American-Canadian Conference on Rural Geography held in Exeter and Plymouth, UK.

Hillard, Derek, Modern Languages, \$1,500. Present "Modernity and Ritual's Return: Performing Aesthetics in Nietzsche's Birth of Tragedy" at the Friedrich Nietzsche Society Annual Conference in Warwick, England.

Hubbard, Mary, Geology, \$1,200. Initiate a foreign exchange with Dr. Papa Moussa Ndiaye and Dr. Abdoulay Dia and potential Senegalese graduate students for Kansas State University at the Universite Cheikh Anta Diop, Dakar, Senegal.

Hubler, Angela, Women's Studies, \$1,260. Present "Making Hope and History Rhyme: Gender and History in Josephine Herbst's Trexler Trilogy" at Historical Fictions: Women, History and Authorship at the University of Wales, Swansea.

Hutchinson, J. M. Shawn, Geography, \$1,500. Travel to Paraguay in Support of Student Exchange and Research Activities.

Liu, Kelly, Geology, \$1,500. Continuation of the collaboration with Russian scientists in the Russian Academy of Sciences to study the formation and evolution of one of the largest rifts on Earth.

Morcos, Medhat, Electrical and Computer Engineering, \$500. Present a paper at the 10th European Power Electronics Conference held in Toulouse, France.

Najjar, Yacoub, Civil Engineering, \$1,665. Visit the Department of Civil and Geotechnical Engineering at the University of Lille, Lille-France.

Natarajan, Balasubramaniam, Electrical and Computer Engineering, \$800. Present paper at the 15th International Conference on Wireless Communications, WIRELESS 2003, in Calgary, Alberta, Canada.

Ossar, Michael, Modern Languages, \$1,500. Presenting at a seminar on "Society and Literature in Present-Day Germany: Readings and Discussions with Contemporary Writers" in Berlin, Germany.

Pahwa, Anil, Electrical and Computer Engineering, \$500. Presenting at the 12th Intelligent Systems Application to Power Systems Conference (ISAP 2003) in Lemnos, Greece.

Patterson, Douglas, Philosophy, \$500. Present a paper at the LOGICA International Symposium, 2003 held in Prague, Czech Republic.

Peric, Dunja, Civil Engineering, \$1,250. Present a paper at the International Workshop on Geotechnics of Soft Soils/Theory and Practice held in Noordwijkerhout, Netherlands.

Prins, Harald, Sociology, Anthropology, and Social Work, \$1,200. Present a distinguished lecture and new documentary screening at the University of Nymegen, The Netherlands.

Ramm, Alexander, Mathematics, \$2,050. Give a plenary talk at the International Conference on Mathematical Geophysics held in Novosibirsk, Russia.

Rebello, N. Sanjay, Physics, \$1,500. Attend the Second International GIREP Seminar on Quality Development in Teacher Education and Training held at the University of Udine, Italy.

Richter, Linda, Political Science, \$2,000. Attend the International Academy for the Study of Tourism Biennial meeting in Savrolinna, Finland, and St. Petersburg, Russia.

Sanderson, Michael, Clinical Sciences, \$1,120. Present a paper at the International Society for Veterinary Epidemiology and Economics held in Vina del Mar, Chile.

Smith, Sheri, Landscape Architecture/Regional and Community Planning \$2,085. Present a paper "Who decides: the when and how of it?" at the Third Joint Conference of ACSP-AESOP held in Leuven, Belgium.

Tummala, Krishna, Political Science, \$2,500. Present two papers at the International Political Science Association meeting held in Durban, South Africa. Also meeting with representatives of three universities in South Africa where the KSU Masters in Public Administration program has exchange agreements.

UNIVERSITY DISTINGUISHED PROFESSORS

FRANK BLECHA, Anatomy and Physiology (2001)
M. CHENGAPPA, Diagnostic Medicine/Pathobiology (2003)
C. LEWIS COCKE, Physics (1997)
GARY W. CONRAD, Biology (1998)
ROBIN DENELL, Biology, (2000)
L. T. FAN, Chemical Engineering (1987)
BIKRAM S. GILL, Plant Pathology (1997)
JONATHAN HOLDEN, English (1988)
KENNETH HOYT, Counseling and Educational Psychology (1984)
KENNETH KLABUNDE, Chemistry (1988)
ALAN KNAPP, Biology (2002)
S. LILLIAN KREMER, English (2002)
JAN E. LEACH, Plant Pathology (1998)
CHII-DONG LIN, Physics (1990)
ROBERT D. LINDER, History (2003)
DAVID LITRELL, Music (2001)
JAMES L. MARSDEN, Regents Distinguished Professor of Animal Sciences (1994)
E. WAYNE NAFZIGER, Economics (1999)
TALAT RAHMAN, Physics (2001)
PATRICK RICHARD, Cortelyou-Rust Distinguished Professor of Physics(1988)
TOM ROCHE, Biochemistry (2002)
SADAHIRO SAEKI, Mathematics (1988)
DAVID A. SCHMIDT, Computing and Information Sciences (2003)
PETER M. A. SHERWOOD, Chemistry (1997)
CHRISTOPHER SORENSEN, Physics, (2000)
BRIAN S. SPOONER, Biology (1999)
MICHAEL W. SULEIMAN, Political Science (1990)
LARRY TAKEMOTO, Biology (2001)
BARBARA VALENT, Plant Pathology (2002)
DEAN ZOLLMAN, Physics (2001)

A COMPLETE LISTING, INCLUDING UNIVERSITY DISTINGUISHED PROFESSORS EMERITUS, APPEARS AT
[HTTP://WWW.KSU.EDU/GRAD/FACULTY/GRADPRO.HTM](http://www.ksu.edu/grad/faculty/gradpro.htm)

RECIPIENTS OF THE DISTINGUISHED GRADUATE FACULTY AWARD

The Distinguished Graduate Faculty Award is made annually to those faculty members who have distinguished themselves nationally and internationally for their excellence in research and graduate education. Normally, up to two faculty members are selected annually by a group of faculty peers. Recipients receive an honorarium and deliver a public lecture following selection for this award.

JOHN F. HELM Architecture and Applied Arts 1955–56
HILMER H. LAUDE Agronomy 1955–56

ALVIN B. CARDWELL Physics 1956–57
CHARLES H. SCHOLER Applied Mechanics 1956–57

HOWARD T. HILL Speech 1957–58
ARTHUR D. WEBER College of Agriculture 1957–58

CHARLES M. CORRELL History 1958–59
LEON R. QUINLAN Landscape Architecture 1958–59

FRANCIS D. FARRELL President Emeritus 1959–60
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KLING L. ANDERSON Agronomy 1960–61
HOLLY C. FRYER Statistics 1960–61

A. M. GUHL Zoology 1961–62
H. HENLEY HAYMAKER Botany 1961–62

ROBERT KATZ Physics 1962–63

ERLE E. BARTLEY Dairy and Poultry Science 1963–64

ROY LANGFORD Psychology 1964–65

V. D. FOLTZ Bacteriology 1965–66

BREWSTER ROGERSON English 1966–67

JOHN A. JOHNSON Grain Science and Industry 1967–68

R. KENNETH BURKHARD Biochemistry 1968–69

CLIFTON E. MELOAN Chemistry 1969–70

ROBIN HIGHAM History 1970–71

ANGELO C. GARZIO Art 1971–72

L. T. FAN Chemical Engineering 1972–73

IVAN D. TEARE Agronomy 1973–74

STANLEY E. LELAND Veterinary Pathology 1974–75

RICHARD CONSIGLI Biology 1975–76

DUDLEY WILLIAMS Physics 1976–77

FREDERICK W. OEHME Surgery and Medicine 1977–78

ELMER G. HEYNE Agronomy 1978–79

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C. LEWIS COCKE Physics 1992–93

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LARRY TAKEMOTO Biology 1998–99

MARSHA FREY History 1999–00

ERIC MAATA Chemistry 1999–00

GEORGE KEISER English 2000–01

PAUL SEIB Grain Science and Industry 2000–01

SCOT H. HULBERT Plant Pathology 2001–02

JOSEPH VINCENT ORTIZ Chemistry 2001–02

LARRY E. ERICKSON Chemical Engineering 2002–03

JAMES SHANTEAU Psychology 2002–03

U.S. PATENTS

Issued from July 1, 2002 to June 30, 2003 to the KSU Research Foundation

(Listed in reverse chronological order)

Xiuzhi S. Sun "Apparatus for Forming Biodegradable and Edible Feed Packaging Material" (#6,561,787)

Kenneth J. Klabunde, Savka Stoeva, and Christopher Sorensen "Synthesis of Substantially Monodispersed Colloids" (#6,562,403)

Joel M. DeRouchey, Michael D. Tokach, Jim L. Nelssen, Robert D. Goodband and Steve S. Dritz "Use of Modified Ingredients and Feed to Improve Performance and/or Utilization of Animals" (#6,534,104)

Kuo-Kuang Hu and Philip G. Kirmser "Expansion and Crack Joint Coupler" (#6,517,277)

James S. Drouillard and Conrad M. Coetzer "Method of Manufacturing a Ruminant Feedstuff with Reduced Ruminant Protein Degradability" (#6,506,423)

Xiuzhi S. Sun and Ke Bian "Modified Soy Protein Adhesives" (#6,497,760)

Hui Meng and Ye Pu "Holographic Particle Image Velocimetry Apparatus and Methods" (#6,496,262)

Sung I. Koo "Method for Increasing Intestinal Absorption of Fat Soluble Vitamins in Post-Menopausal Women and Lower Animals" (#6,476,010)

Kevin Q. Owen, Jim L. Nelssen, Robert D. Goodband, Michael D. Tokach and Robert E. Musser "Carnitine Supplemented Diets for Gestating and Lactating Swine" (#6,451,856)

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