

# RESEARCH

— *Kansas State University* —



Office of Research and Sponsored Programs

# FY09 ANNUAL REPORT

## KANSAS STATE UNIVERSITY

### RESEARCH/SCHOLARLY ACTIVITY FUNDING BASE

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. Sponsored** **\$133,650,574**

#### II. Appropriated

Main Campus State Appropriation \$3,407,817

Experiment Station Programs and  
Extension Services

Federal Appropriation\* \$9,092,384

State Appropriation \$56,123,762

Veterinary Medical Center

State Appropriation \$581,779

**SUBTOTAL** **\$69,205,742**

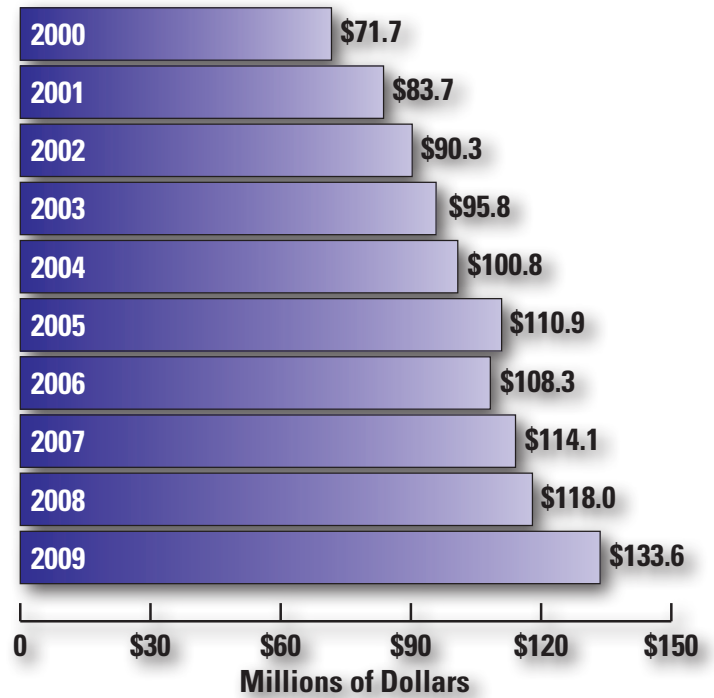
**III. Donated\*\*** **\$33,759,047**

**RESEARCH/SCHOLARLY ACTIVITY BASE GRAND TOTAL** **\$236,615,363**

\*Actual appropriations varied from those budgeted for FY09. Final congressional budget approval and presidential signature, along with a new president and congress, delayed the final budget process. The final Federal fiscal year budget was unknown until May 2009.

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

### SPONSORED RESEARCH FUNDING 2000-2009



### DISTRIBUTION OF NEW AWARDS AMONG COLLEGES AND OFFICES OF THE UNIVERSITY

College/Office	Number of Awards	Dollar Value
Agriculture	359	\$28,888,737
Architecture, Planning and Design	0	\$0
Arts and Sciences	155	\$21,583,116
Business Administration	2	\$26,213
Education	27	\$5,570,261
Engineering	176	\$22,720,569
Human Ecology	37	\$21,176,914
Technology and Aviation	3	\$496,901
Veterinary Medicine	70	\$13,617,848
Office of the President	6	\$506,042
Office of the Provost	17	\$653,662
Vice President for Administration and Finance	2	\$8,497
Vice President for Research	12	\$16,571,285
Vice President for Student Life and Dean of Students	18	\$1,830,531
<b>UNIVERSITY TOTAL</b>	<b>884</b>	<b>\$133,650,574</b>

### SOURCES OF AWARDS

College/Office	Number of Awards	Dollar Value
Area/Local Government	6	\$158,426
Department of Agriculture	172	\$42,232,474
Department of Defense	43	\$22,043,139
Department of Education	26	\$4,980,485
Department of Energy	23	\$5,848,938
Department of Health and Human Services	56	\$15,573,384
Environmental Protection Agency	39	\$6,636,805
Foundations	198	\$8,688,887
Industry	110	\$6,023,816
National Science Foundation	70	\$10,906,205
National Aeronautics and Space Administration	5	\$232,056
Other Federal	79	\$6,636,082
State of Kansas	57	\$3,689,878
<b>TOTAL</b>	<b>884</b>	<b>\$133,650,574</b>

# EXPENDITURES FOR SPONSORED EXTRAMURAL FUNDING BY COLLEGE AND EXTENSION DEPARTMENT

	Direct Costs	Facilities and Administrative Costs	Total
College of Agriculture	\$17,838,517.22	\$2,216,162.70	\$20,054,679.92
College of Arts and Sciences	\$15,445,038.45	\$4,293,202.96	\$19,738,241.41
College of Business Administration	\$386,265.51	\$43,371.88	\$429,637.39
Cooperative Extension Services	\$2,510,707.67	\$5,643.77	\$2,516,351.44
College of Education	\$6,817,200.24	\$482,556.30	\$7,299,756.54
School of Leadership Studies	\$105,628.98	\$1,436.88	\$107,065.86
College of Engineering	\$13,178,758.24	\$3,503,847.42	\$16,682,605.66
College of Human Ecology	\$12,610,682.70	\$789,327.93	\$13,400,010.63
Veterinary Medical Center	\$7,068,745.10	\$1,801,687.35	\$8,870,432.45
Salina College of Technology	\$209,406.04	\$17,068.56	\$226,474.60
<b>Grand Total</b>	<b>\$76,170,950.15</b>	<b>\$13,154,305.75</b>	<b>\$89,325,255.90</b>

## 2009 UNIVERSITY DISTINGUISHED PROFESSORS

The title of University Distinguished Professor is a lifetime title that represents the highest honor Kansas State University can bestow on its faculty, an award that recognizes those making outstanding contributions to teaching, research and service to their professions and communities. University Distinguished Professors are appointed following a university-wide competition held by the provost.

**WALTER K. DODDS**, Biology  
**CHARLES W. RICE**, Agronomy

**A COMPLETE LISTING APPEARS AT**  
**WWW.KSU.EDU/GRAD/FACULTY/GRADPRO.HTM**

## U.S. PATENTS

**Issued from July 1, 2008 to June 30, 2009 to the KSU Research Foundation**  
 (Listed in reverse chronological order)

**Stefan H. Bossmann and Norbert Bora** "Electro-thermal Nanoparticle Generator" (#7,454,893)

**Tiruvor G. Nagaraja, George C. Stewart, Sanjeev K. Narayanan and Muckatira M. Chengappa** "Recombinant Fusobacterium Necrophorum Leukotoxin Vaccine and Preparation Thereof" (#7,449,310)

**Susan Sun, Donghai Wang, Zhikai Zhong and Guang Yang** "Adhesives from Modified Soy Protein" (#7,416,598)

**Jack Fry, Randy Taylor, Bob Wolf and Dick Stuntz** "Method and Equipment for Interseeding an Area of Ground to Convert the Existing Vegetation or to Improve the Quality of the Existing Vegetation" (#7,409,916)

## 2009 DISTINGUISHED GRADUATE FACULTY

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.

**ELIZABETH DODD**, English  
**WALTER K. DODDS**, Biology

The Kansas State University Research Foundation (KSURF), a not-for-profit 501(c)(3) corporation is assigned the responsibility for technology transfer activities for Kansas State University. KSURF secures legal protection (patents, copyrights, trademarks, etc.) for intellectual property created at the University and facilitates various commercialization efforts involving this property. Licensing and entrepreneurial initiatives are carried out by the National Institute for Strategic Technology Acquisition and Commercialization (NISTAC) in conjunction with KSURF.

E-mail: [tech.transfer@ksu.edu](mailto:tech.transfer@ksu.edu)  
<http://www.ksu.edu/tech.transfer>

# EXTRAMURAL AWARDS

*Fiscal Year 2009 (July 1, 2008-June 30, 2009)*

ABOUT THE AWARDS LISTING: Funding for multi-PI projects is allocated to each PI/Department/College based on the percent reporting allocation agreed upon by the project participants and detailed on the executed KSU Sponsored Projects Transmittal Sheet submitted at the time the award was processed.

This method of reporting results in multiple entries for numerous projects; however, only those funds allocated via the "reporting credit percentage" will appear for each PI/Co-PI in their respective department lists. The sum total of all budget entries allocated to each PI/Co-PI and the respective departments for a particular project will amount to the total funds received from the extramural sponsor for the overall project.

For those projects that have multiple PI's/Co-PI's, but that show no multiple reporting credit allocations on the Sponsored Projects Transmittal Sheet, the total funding is allocated to the lead-PI and his/her respective department; each Co-PI's participation on the project is then indicated with a notation in that Co-PI's department of the Co-PI's name, the project title and sponsor.

We believe this method better reflects the collaborative nature of multi-PI projects and details the actual allocation of funds among project participants and the respective departments and colleges. — Preawards Services

## COLLEGE OF AGRICULTURE

### AGRICULTURAL ECONOMICS

**Barton, David G.**, Multisponsor, \$80,000, "Arthur Capper Cooperative Center."

**Boland, Michael A.**, US Department of Agriculture, \$499,517 (includes \$64,517 from Center for Creative Leadership, \$25,000 from Montana State University, and \$25,000 from North Dakota State University), "Agricultural Marketing Resources Center."

**Boland, Michael A.**, US Department of Agriculture, \$4,500 (includes \$3,000 from registration fees), "The Young Professional Teaching Academy."

**Dalton, Timothy J.**, International Food Policy Research Institute, \$20,668, "Impact Assessment of Gates AWARD Fellowship Program."

**Das, Biswaranjan**, and **Leatherman, John C.**, University of Arkansas, "Agritourism Development in Arkansas: Economics and Associated Constraints."

**Dhuyvetter, Kevin C.**, and **Llewellyn, Richard V.**, US Department of Agriculture, "Developing Web-Based Decision Tools and RSS Feeds on AgManager.Info."

**Golden, Bill B.**, **Dumler, Troy** (Southwest Area Office), **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), **Klocke, Norman L.** (Southwest Research Extension Center), **Lamm, Freddie R.** (Northwest Research Extension Center), **Prasad, P. V. Vara** (Agronomy), **Presley, DeAnn R.** (Agronomy), **Rogers, Danny H.** (Biological and Agricultural Engineering), **Schlegel, Alan J.** (Southwest Research Extension Center), **Staggenborg, Scott A.** (Agronomy), **Steward, David R.** (Civil Engineering), and **Stone, Loyd R.** (Agronomy), US Department of Agriculture, \$121,701, "New Water Management Technologies to Sustain Rural Economies."

**Golden, Bill B.**, **Klocke, Norman L.** (Southwest Research Extension Center), **Lamm, Freddie R.** (Northwest Research Extension Center), **Rogers, Danny H.** (Biological and Agricultural Engineering), and **Stone, Loyd R.** (Agronomy), US Department of Agriculture, \$15,487, "Water Conservation - Increase Efficiency in Usage."

**Herbel, Kevin L.**, **Langemeier, Michael R.**, and **Schurle, Bryan W.**, Kansas Soybean Commission, "Development of Farm Management Data Systems for Kansas Farmers."

**Herbel, Kevin L.**, **Langemeier, Michael R.**, and **Schurle, Bryan W.**, Kansas Wheat Commission, "Development of Farm Management Data Systems for Kansas."

**Hund, Duane M.**, and **Jones, Rodney D.**, US Department of Agriculture, "Transition Planning Assistance for Kansas (TPAK)."

**Jones, Rodney D.**, and **Hund, Duane M.**, US Department of Agriculture, \$45,000, "Transition Planning Assistance for Kansas (TPAK)."

**Kastens, Terry**, **Aiken, Robert M.** (Northwest Research Extension Center), **Kluitenberg, Gerard J.** (Agronomy), **Maddux, Larry D.** (Agronomy), **Mengel, David B.** (Agronomy), **Schlegel, Alan J.** (Southwest Research Extension Center), and **Stone, Loyd R.** (Agronomy), Kansas Corn Commission, "Managing Nitrogen in Irrigated Corn to Optimize Nitrogen Use and Minimize Nitrogen Loss."

**Langemeier, Michael R.**, **Blair, John M.** (Biology), **Nelson, Richard G.** (Kansas Industrial Extension Services), **Pfromm, Peter H.** (Chemical Engineering), **Rice, Charles W.** (Agronomy), **Rogers, Danny H.** (Biological and Agricultural Engineering), **Staggenborg, Scott A.** (Agronomy), **Wang, Donghai** (Biological and Agricultural Engineering), and **Williams, Jeffery R.**, Kansas Bioscience Authority, \$45,000, "Biomass Feedstock Resource Assessment and Supply Analyses for Kansas."

**Langemeier, Michael R.**, **Herbel, Kevin L.**, and **Schurle, Bryan W.**, Kansas Wheat Commission, "Development of Farm Management Data Systems for Kansas."

**Langemeier, Michael R.**, **Bhadriraju, Subramanyam** (Grain Science and Industry), **Chayaprasert, Watcharapol** (Grain Science and Industry), and **Maier, Dirk E.** (Grain Science and Industry), US Department of Agriculture, "Critical Analysis of Methyl Bromide, Sulfuryl Fluoride, and Heat Treatment for Disinfecting Food-Processing Facilities."

**Leatherman, John C.**, and **Das, Biswaranjan**, University of Arkansas, \$3,900, "Agritourism Development in Arkansas: Economics and Associated Constraints."

**Leatherman, John C.**, and **Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), US Environmental Protection Agency, \$28,171 (includes \$3,656 from stakeholder in-kind support), "KS WRAPS Upper Arkansas Planning."

**Leatherman, John C.**, **Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), and **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), US Environmental Protection Agency, \$85,288 (includes \$2,100 from county extension offices, \$10,220 from stakeholder support, and \$1,470 from Watershed Institute), "KS WRAPS: KSU Assessment & Planning Technical Assistance (FFY08)."

**Leatherman, John C.**, and **Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), US Environmental Protection Agency, \$70,021 (includes \$12,123 from stakeholder in-kind support), "KS WRAPS: Neosho Basin Planning."

**Leatherman, John C.**, **Devlin, Daniel L.** (Agronomy), **Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), and **Williams, Jeffery R.**, US Environmental Protection Agency, \$62,370 (includes \$5,310 from cooperator support), "Milford Lake Watershed WRAPS Planning."

**Leatherman, John C.**, **Devlin, Daniel L.** (Agronomy), **Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), and **Williams, Jeffery R.**, US Environmental Protection Agency, \$69,750 (includes \$12,690 from cooperator support), "Tuttle Creek Lake Watershed WRAPS Planning."

**Leatherman, John C.**, US Environmental Protection Agency, \$80,000, "TWG - Kansas State University BMP Auction."

**Llewellyn, Richard V.**, and **Dhuyvetter, Kevin C.**, US Department of Agriculture, \$9,999, "Developing Web-Based Decision Tools and RSS Feeds on AgManager.Info."

**Peterson, Hikaru H.**, US Department of Agriculture, \$52,725, "Marketing of Locally Produced Sustainable Animal Fiber Products."

**Schurle, Bryan W.**, **Herbel, Kevin L.**, and **Langemeier, Michael R.**, Kansas Soybean Commission, \$15,000, "Development of Farm Management Data Systems for Kansas Farmers."

**Schurle, Bryan W., Herbel, Kevin L., and Langemeier, Michael R.**, Kansas Wheat Commission, \$15,000, "Development of Farm Management Data Systems for Kansas."

**Williams, Jeffery R., Blair, John M.** (Biology), **Langemeier, Michael R., Nelson, Richard G.** (Kansas Industrial Extension Services), **Pfromm, Peter H.** (Chemical Engineering), **Rice, Charles W.** (Agronomy), **Rogers, Danny H.** (Biological and Agricultural Engineering), **Staggenborg, Scott A.** (Agronomy), and **Wang, Donghai** (Biological and Agricultural Engineering), Kansas Bioscience Authority, "Biomass Feedstock Resource Assessment and Supply Analyses for Kansas."

**Williams, Jeffery R., Nelson, Richard G.** (Kansas Industrial Extension Services), **Rice, Charles W.** (Agronomy), and **Staggenborg, Scott A.** (Northeast Area Office), US Department of Energy, "National Carbon Sequestration Database and Geographic Information System."

**Williams, Jeffery R., Devlin, Daniel L.** (Agronomy), **Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), **Hargrove, William L.** ( Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), and **Leatherman, John C.**, US Environmental Protection Agency, "Milford Lake Watershed WRAPS Planning."

**Williams, Jeffery R., Devlin, Daniel L.** (Agronomy), **Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), **Hargrove, William L.** ( Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), and **Leatherman, John C.**, US Environmental Protection Agency, "Tuttle Creek Lake Watershed WRAPS Planning."

**Wilson, Christine**, US Department of Agriculture, \$25,000, "Intergenerational Transfer for Strong and Sustainable Small- and Medium-Sized Farm Family Businesses."

**Woolverton, Michael W., Madl, Ronald L.** (Grain Science and Industry), **Staggenborg, Scott A.** (Agronomy), and **Wang, Donghai** (Biological and Agricultural Engineering), US Department of Transportation, \$1,750, "Develop Comprehensive Understanding and Utilization of Sorghum Stover and Brown Midrib Forage Sorghum for Ethanol Production."

## AGRICULTURAL EXPERIMENT STATION

**Minton, J. Ernest**, and **Stamm, Michael J.** (Agronomy), US Department of Agriculture, \$123,192, "Development and Management of Canola in the Great Plains Region."

## AGRICULTURAL RESEARCH CENTER-HAYS

**Blanco, Humberto, Janssen, Keith A.** (Agronomy), **Olson, Brian L.** (Northwest Area Office), and **Presley, DeAnn R.** (Agronomy), Kansas Corn Commission, \$34,453, "Impacts of Corn Stover Removal for Biofuel on Crop Production, Soil and Water Quality."

**Brethour, John R.**, Multisponsor, \$6,000, "Beef Research."

**Harmoney, Keith R.**, US Department of Energy, \$25,000, "CRP Management for Biomass Feedstock Production."

**Jaeger, John R.**, and **Waggoner, Justin** (Southwest Research Extension Center), Kansas Corn Commission, "Low Input Storage of Wet Distiller's Grains."

**Kofoed, Kenneth D.**, US Department of Agriculture, \$6,175, "Evaluating Photoperiod Sensitive Sorghum Germplasm for Pre- and Post-Flowering Drought Tolerance."

**Martin, Terry J., Bockus, William W.** (Plant Pathology), and **Seifers, Dallas L.**, Kansas Crop Improvement Association, \$6,860, "Use of Virus Induced Stress to Create Genome Mutations that Restore or Create Resistance to Different Fungal Diseases in the Popular Wheat Varieties Jagger, 2137, Karl 92, and Ike."

**Martin, Terry J.**, and **Aiken, Robert M.** (Northwest Research Extension Center), Kansas Wheat Commission, "Carbon Isotope Discrimination, Selecting for Productivity and Water Use Efficiency in Wheat."

**Martin, Terry J.**, and **Seifers, Dallas L.**, Kansas Wheat Commission, \$102,100, "Development of New Hard Red and Hard White Winter Wheat Varieties with Improved Levels of Disease Resistance for Western Kansas."

**Martin, Terry J.**, and **Fritz, Allan K.** (Agronomy), Kansas Wheat Commission, "Improvement of Hard Red Winter Wheat for Kansas."

**Martin, Terry J.**, and **Seifers, Dallas L.**, Kansas Wheat Commission, "Replacement of Growth Chambers."

**Martin, Terry J.**, and **Thompson, Carlyle A.**, Multisponsor, "Crop Culture."

**Seifers, Dallas L., Bockus, William W.** (Plant Pathology), and **Martin, Terry J.**, Kansas Crop Improvement Association, "Use of Virus Induced Stress to Create Genome Mutations that Restore or Create Resistance to Different Fungal Diseases in the Popular Wheat Varieties Jagger, 2137, Karl 92, and Ike."

**Seifers, Dallas L.**, and **Martin, Terry J.**, Kansas Wheat Commission, "Development of New Hard Red and Hard White Winter Wheat Varieties with Improved Levels of Disease Resistance for Western Kansas."

**Seifers, Dallas L.**, and **Martin, Terry J.**, Kansas Wheat Commission, \$27,000, "Replacement of Growth Chambers."

**Stahlman, Phillip W.**, Multisponsor, \$148,000, "Weed Research."

**Stahlman, Phillip W.**, National Sunflower Association, \$6,000, "Validating Saflufenacil (Kixor™) Desiccation of Sunflower Using Aerial Application."

**Stahlman, Phillip W.**, Pioneer Hi-Bred International, Inc., \$7,500, "Field Trial Agreement USA-09-194."

**Thompson, Carlyle A.**, and **Martin, Terry J.**, Multisponsor, \$10,000, "Crop Culture."

## AGRONOMY

**Al-Khatib, Kassim**, Monsanto Company, \$6,000, "Dicamba-tolerant Soybean Academic Study."

**Blocksome, Carolyn E., Barnes, Philip L.** (Biological and Agricultural Engineering), **Devlin, Daniel L.**, and **Hargrove, William L.** ( Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), US Environmental Protection Agency, "KS WRAPS: KSU SFY 08 Technical Assistance Services (FFY08)."

**Devlin, Daniel L.**, and **Barden, Charles J.** (Horticulture, Forestry and Recreation Resources), US Department of Agriculture, \$940, "Heartland Integrated Water Quality Coordination Initiative."

**Devlin, Daniel L., Barden, Charles J.** (Horticulture, Forestry and Recreation Resources), and **DeRouchey, Joel M.** (Animal Sciences and Industry), US Department of Agriculture, \$51,705, "Heartland Regional Water Coordination Initiative."

**Devlin, Daniel L., Barnes Jr, Alton A.** (Biological and Agricultural Engineering), **Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), and **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), US Department of Agriculture, \$354,750 (includes \$129,750 from producer in-kind time), "Reducing Agricultural Sediment Transport."

**Devlin, Daniel L.**, US Environmental Protection Agency, \$191,588 (includes \$31,175 from stakeholder support, and \$27,605 from third party stakeholder support), "KS WRAPS Little Arkansas - Kansas State University."

**Devlin, Daniel L.**, and **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), US Environmental Protection Agency, \$51,780 (includes \$12,780 from stakeholder support), "KS WRAPS: Lower Smoky Hill from Kanopolis Dam to Solomon: Assessment & Planning (FFY08)."

**Devlin, Daniel L., Barnes, Philip L.** (Biological and Agricultural Engineering), **Blocksome, Carolyn E.**, and **Hargrove, William L.** ( Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), US Environmental Protection Agency, \$192,406 (includes \$17,330 from outside stakeholder support), "KS WRAPS: KSU SFY 08 Technical Assistance Services (FFY08)."

**Devlin, Daniel L.**, and **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), US Environmental Protection Agency, \$35,907 (includes \$7,650 from cooperator support), "KS WRAPS: Lower Smoky Hill from Kanopolis Dam to Solomon: Assessment and Planning."

**Devlin, Daniel L., Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), **Leatherman, John C.** (Agricultural Economics), and **Williams, Jeffery R.** (Agricultural Economics), US Environmental Protection Agency, \$15,593 (includes \$1,328 from cooperator support), "Milford Lake Watershed WRAPS Planning."

**Devlin, Daniel L., Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), **Leatherman, John C.** (Agricultural Economics), and **Williams, Jeffery R.** (Agricultural Economics), US Environmental Protection Agency, \$17,438 (includes \$3,173 from cooperator support), "Tuttle Creek Lake Watershed WRAPS Planning."

**Eberle, William M., Presley, DeAnn R., and Ruiz Diaz Suarez, Dorivar A.,** Kansas Department of Health and Environment, \$15,432, "Compost Site Development and Operation and Compost Operator Educational and Technical Assistance."

**Fick, Walter H.,** Multisponsor, \$19,500, "Range and Pasture Brush and Weed Control."

**Fritz, Allan K.,** Kansas Crop Improvement Association, \$9,600, "Enhanced Disease/Insect Resistance in Hard White Wheats."

**Fritz, Allan K., and Prasad, P. V. Vara,** Kansas Crop Improvement Association, "Evaluation of Drought and Heat Tolerance in Wheat."

**Fritz, Allan K., and Martin, Terry J.** (Agricultural Research Center-Hays), Kansas Wheat Commission, \$170,000, "Improvement of Hard Red Winter Wheat for Kansas."

**Fritz, Allan K.,** Kansas Wheat Commission, \$59,000, "Improvement of Hard White Winter Wheat for Kansas."

**Fritz, Allan K., Fellers, John P.** (Plant Pathology), and **Trick, Harold N.** (Plant Pathology), Kansas Wheat Commission, "Wheat Improvement through Genetic Engineering."

**Fritz, Allan K.,** US Department of Agriculture, \$21,951, "Breeding for Resistance to Karnal Bunt in Kansas."

**Fritz, Allan K.,** US Department of Agriculture, \$90,225, "Wheat Applied Genomics."

**Gordon, Walter B., Duncan, Stewart R.** (Northeast Area Office), **Jardine, Douglas J.** (Plant Pathology), and **Roozeboom, Kraig L.,** Kansas Soybean Commission, \$5,950, "The Use of Seed and Foliar Fungicides at Two Planting Dates for Soybean Production in Kansas."

**Gordon, Walter B.,** Monsanto Company, \$5,000, "Manganese in "Roundup Ready 2 Yield" and Conventional Soybean."

**Gordon, Walter B.,** Monsanto Company, \$10,000, "Service Order #15 - Soybeans."

**Gordon, Walter B., Maddux, Larry D., Marsh, Brian H., and Pierzynski, Gary M.,** Multisponsor, \$108,100, "Soil Fertility and Soil Management Investigations."

**Gordon, Walter B., Duncan, Stewart R.** (Northeast Area Office), and **Long Jr, James H.** (Southeast Agricultural Research Center), The United Sorghum Checkoff Program Board, \$9,000, "Managing Sorghum Production in the Eastern Great Plains."

**Heer, William F., Duncan, Stewart R.** (Northeast Area Office), **Long Jr, James H.** (Southeast Agricultural Research Center), **Martin, Kent L.** (Southwest Area Office), **Olson, Brian L.** (Northwest Area Office), and **Shoup, Douglas E.** (Southeast Area Office), Kansas Sunflower Commission, \$900, "Sunflower Planting Date Study."

**Hettiarachchi, Ganga M., Leven, Blase A.** (Center for Hazardous Substance Research), and **Martin, Sabine E.** (Center for Hazardous Substance Research), US Environmental Protection Agency, \$225,000, "Sustainable Local Gardening Redevelopment."

**Janssen, Keith A., Blanco, Humberto** (Agricultural Research Center-Hays), **Olson, Brian L.** (Northwest Area Office), and **Presley, DeAnn R.,** Kansas Corn Commission, "Impacts of Corn Stover Removal for Biofuel on Crop Production, Soil and Water Quality."

**Janssen, Keith A., and Thompson, Curtis R.,** Multisponsor, "Field Herbicidal Evaluations."

**Kluitenberg, Gerard J., Aiken, Robert M.** (Northwest Research Extension Center), **Kastens, Terry** (Agricultural Economics), **Maddux, Larry D., Mengel, David B., Schlegel, Alan J.** (Southwest Research Extension Center), and **Stone, Loyd R.,** Kansas Corn Commission, "Managing Nitrogen in Irrigated Corn to Optimize Nitrogen Use and Minimize Nitrogen Loss."

**Maddux, Larry D., Aiken, Robert M.** (Northwest Research Extension Center), **Kastens, Terry** (Agricultural Economics), **Kluitenberg, Gerard J., Mengel, David B., Schlegel, Alan J.** (Southwest Research Extension Center), and **Stone, Loyd R.,** Kansas Corn Commission, "Managing Nitrogen in Irrigated Corn to Optimize Nitrogen Use and Minimize Nitrogen Loss."

**Maddux, Larry D., Gordon, Walter B., Marsh, Brian H., and Pierzynski, Gary M.,** Multisponsor, "Soil Fertility and Soil Management Investigations."

**Maddux, Larry D.,** Syngenta Corporation, \$24,000, "Research and Materials Transfer Agreement."

**Marsh, Brian H., Gordon, Walter B., Maddux, Larry D., and Pierzynski, Gary M.,** Multisponsor, "Soil Fertility and Soil Management Investigations."

**Martin, Victor L.,** US Canola Association, \$6,400, "Promote Canola Acres in the Great Plains 2008-2010."

**Mengel, David B., Aiken, Robert M.** (Northwest Research Extension Center), **Kastens, Terry** (Agricultural Economics), **Kluitenberg, Gerard J., Maddux, Larry D., Schlegel, Alan J.** (Southwest Research Extension Center), and **Stone, Loyd R.,** Kansas Corn Commission, \$31,120, "Managing Nitrogen in Irrigated Corn to Optimize Nitrogen Use and Minimize Nitrogen Loss."

**Mengel, David B.,** Kansas Grain Sorghum Commission, \$3,145, "Enhancing Sorghum Yield and Profitability through Efficient Nitrogen Management: Phase II."

**Mengel, David B., and Ruiz Diaz Suarez, Dorivar A.,** Kansas Soybean Commission, \$30,990, "Correction of Potassium Deficiency in Soybean Production in Kansas."

**Mengel, David B., and Ruiz Diaz Suarez, Dorivar A.,** Kansas Soybean Commission, "Iron Deficiency Chlorosis in Soybean: Effect of Soil Properties and Iron Fertilizer Application."

**Mengel, David B.,** Kansas Wheat Commission, \$34,654, "Enhancing Nutrient Use Efficiency and Reducing the Cost of Wheat Production in Kansas."

**Mengel, David B., Prasad, P. V. Vara, and Staggenborg, Scott A.,** US Agency for International Development, "Integrated Soil, Water and Crop Management Strategies for Improving Productivity in Sorghum- and Millet-Based Cropping Systems."

**Mengel, David B., and Minton, J. Ernest** (Animal Sciences and Industry), US Department of Agriculture, \$511,147, "Great Plains Sorghum Improvement and Utilization Center."

**Mengel, David B., and Staggenborg, Scott A.,** Ventria Bioscience, "Development of Rice Production Recommendations in Kansas."

**Peterson, Dallas E.,** Monsanto Company, \$5,840, "Encapsulated Acetochlor in Soybeans - EUP Academic."

**Peterson, Dallas E.,** Syngenta Corporation, \$12,000, "Research and Materials Transfer Agreement."

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**Pierzynski, Gary M., Gordon, Walter B., Maddux, Larry D., and Marsh, Brian H.,** Multisponsor, "Soil Fertility and Soil Management Investigations."

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**Rice, Charles W.**, Kansas Technology Enterprise Corporation, \$55,050, "Environmental Protection Agency Proposal."

**Rice, Charles W.**, **Nelson, Richard G.** (Kansas Industrial Extension Services), **Staggenborg, Scott A.** (Northeast Area Office), and **Williams, Jeffery R.** (Agricultural Economics), US Department of Energy, "National Carbon Sequestration Database and Geographic Information System."

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**Thompson, Curtis R.**, Pioneer Hi-Bred International, Inc., \$9,000, "Field Trial Agreement USA-09-179."

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**Bradford, Barry J., and Minton, J. Ernest**, US Department of Agriculture, \$349,923, "Inflammation and Metabolism: A New Model for the Pathology of Bovine Fatty Liver."

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**DeRouchey, Joel M.**, United Soybean Board, \$16,724, "National Swine Nutrition Guide."

**DeRouchey, Joel M., Barden, Charles J.** (Horticulture, Forestry and Recreation Resources), and **Devlin, Daniel L.** (Agronomy), US Department of Agriculture, \$22,980, "Heartland Regional Water Coordination Initiative."

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**Smith, J. Scott, Fung, Daniel Y.C.** (Food Science Institute), **Kastner, Curtis L.** (Food Science Institute), and **Kastner, Justin J.** (Diagnostic Medicine/Pathobiology), US Department of Agriculture, \$56,328, "Animal Science Food Safety Consortium - Kansas State University."

**Stevenson, Jeffrey S.,** Select Sires, \$15,000, "Proposal to Increase Estradiol Secretion by the Dominant Follicle in a Timed AI Protocol in Lactating Dairy Cows in Response to Equine Chorionic Gonadotropin."

**Titgemeyer, Evan C., and Bradford, Barry J.,** American Feed Industry Association, "Investigating the Mechanisms Underlying Stimulation of De Novo Fatty Acid Synthesis by Molasses during Milk Fat Depression."

**Titgemeyer, Evan C.,** Kansas Soybean Commission, \$10,824, "Value of Expanded Soybean Meal for Dairy Cattle (Chinese Marketing Information)."

**Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S.** (Diagnostic Medicine/Pathobiology), **Goodband, Robert D., and Nelssen, Jim L.,** Elanco Animal Health, "Effects of Pellet Binders on Pellet Quality."

**Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S.** (Diagnostic Medicine/Pathobiology), **Goodband, Robert D., and Nelssen, Jim L.,** Engrain, LLC, "Evaluation of Novel Enzyme Blend on Nursery Pig Performance."

**Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S.** (Diagnostic Medicine/Pathobiology), **Goodband, Robert D., and Nelssen, Jim L.,** Environmental Care and Share, Inc., "An Evaluation of the Enzyme Blend "Livestock Answer" in Phase 1 and Phase 2 Nursery Diets Containing DDGS."

**Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S.** (Diagnostic Medicine/Pathobiology), **Goodband, Robert D., and Nelssen, Jim L.,** Environmental Care and Share, Inc., "Effects of Livestock Answer on Growth Performance of Wean to Finish Pigs."

**Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S.** (Diagnostic Medicine/Pathobiology), **Goodband, Robert D., and Nelssen, Jim L.,** Evonik Degussa Canada, Inc., "Effects of Feeding Programs Varying in Balanced Amino Acid Density on Growth Performance and Carcass Composition of Growing-Finishing Pigs."

**Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S.** (Diagnostic Medicine/Pathobiology), **Goodband, Robert D., and Nelssen, Jim L.,** National Pork Board, "Development of Alternative Ingredient Booklet."

**Tokach, Michael D., Anderson, Gary A.** (Diagnostic Medicine/Pathobiology), **Hollis, Larry C., Houser, Terry A., and Nietfeld, Jerome C.** (Diagnostic Medicine/Pathobiology), National Pork Board, "Incidence and Severity of Arcanobacterium Pyogenes Injection Site Abscesses with Needle or Needle-Free Injection Methods."

**Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S.** (Diagnostic Medicine/Pathobiology), **Goodband, Robert D., and Nelssen, Jim L.,** Protein Resources, LLC, \$10,000, "An Evaluation of PEP2 (Proteins Enzymatically Processed) in Diets for Nursery Pigs."

**Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S.** (Diagnostic Medicine/Pathobiology), **Goodband, Robert D., and Nelssen, Jim L.,** Purco, "Purco Project."

**Waggoner, Justin, Breiner, Ryan M., DeRouchey, Joel M., and Marston, Twig T.,** Deere & Company, "Evaluation of Precut Forage on Cattle Growth, Feed Wastage and Complete Diet Mixing Uniformity."

## ENTOMOLOGY

**Akhunov, Eduard D.,** Kansas Wheat Commission, \$3,000, "Advancing Genomics at K-State: Ultra High-Throughput DNA Sequencing."

**Bauernfeind, Robert J., Broce, Alberto B., Cloyd, Raymond A., Jardine, Douglas J.** (Plant Pathology), **Kennelly, Megan** (Plant Pathology), **Michaud, John P., Nechols, James R., Ortigao, Marcelo R., Peterson, Dallas E.** (Agronomy), **Phillips, Thomas W., Sloderbeck, Phillip E.** (Southwest Area Office), **Upham, Ward S.** (Horticulture, Forestry and Recreation Resources), and **Zurek, Ludek,** US Department of Agriculture, "Extension IPM Coordination Program for Kansas."

**Beeman, Richard W., Arakane, Yasuyuki** (Biochemistry), **Kanost, Michael R.** (Biochemistry), **Kramer, Karl J.** (Biochemistry), and **Muthukrishnan, Subbarat** (Biochemistry), National Science Foundation, \$1,500, "Integrated Functional Genomics Investigation of Chitin Metabolism and Its Role in Insect Growth and Development."

**Broce, Alberto B., and Zurek, Ludek,** Multisponsor, \$200, "Methods for Control of Livestock Insects."

**Broce, Alberto B., Bauernfeind, Robert J., Cloyd, Raymond A., Jardine, Douglas J.** (Plant Pathology), **Kennelly, Megan** (Plant Pathology), **Michaud, John P., Nechols, James R., Ortigao, Marcelo R., Peterson, Dallas E.** (Agronomy), **Phillips, Thomas W., Sloderbeck, Phillip E.** (Southwest Area Office), **Upham, Ward S.** (Horticulture, Forestry and Recreation Resources), and **Zurek, Ludek,** US Department of Agriculture, "Extension IPM Coordination Program for Kansas."

**Buschman, Larry L.,** Monsanto Company, \$7,560, "SMARTSTAX and YieldGard VT PRO Evaluations - Academic (2008)."

**Buschman, Larry L.,** Monsanto Company, \$7,000, "SMARTSTAX Insect Efficacy Trial - Northern Academics."

**Buschman, Larry L.,** Multisponsor, \$11,500, "Insecticide Management of Field Crop Insects in Southwestern Kansas."

**Buschman, Larry L.,** Pioneer Hi-Bred International, Inc., \$7,500, "Field Trial Agreement - 2009 Field Trials."

**Chen, Ming-Shun, McCornack, Brian P., Sloderbeck, Phillip E.** (Southwest Area Office), and **Whitworth, Robert “Jeff” J.**, Kansas Wheat Commission, “Biotype Survey and Integrated Management of the Hessian Fly and Selected Wheat Aphids in Kansas.”

**Chen, Ming-Shun,** and **Trick, Harold N.** (Plant Pathology), US Department of Agriculture, \$77,837, “Molecular Genetic Interactions of Wheat Resistance and Hessian Fly Avirulence.”

**Cloyd, Raymond A.**, Fred. C. Gloeckner Foundation, Inc., \$9,000, “Efficacy and Characteristics of Plant-Derived Essential Oils Used to Control Greenhouse Arthropod Pests.”

**Cloyd, Raymond A., Reese, John C., Whitworth, Robert “Jeff” J., and Wilde, Gerald E.**, Multisponsor, “Chemical Control of Insect Pests of Corn and Other Field Crops, Small Grain and Forage.”

**Cloyd, Raymond A., and Zhu, Kun Yan,** National Foliage Foundation, \$84,000, “Resistance of Soft Scale and Mealybug Pests to Insecticide Commonly Used in Interior Landscapes.”

**Cloyd, Raymond A., Carey, Edward E.** (Horticulture, Forestry and Recreation Resources), **Janke, Rhonda R.** (Horticulture, Forestry and Recreation Resources), **Kennelly, Megan** (Plant Pathology), and **Williams, Kimberly A.** (Horticulture, Forestry and Recreation Resources), Organic Farming Research Foundation, \$827, “Developing Web Resources for Organic Production in High Tunnels.”

**Cloyd, Raymond A., Bauernfeind, Robert J., Broce, Alberto B., Jardine, Douglas J.** (Plant Pathology), **Kennelly, Megan** (Plant Pathology), **Michaud, John P., Nechols, James R., Ortigao, Marcelo R., Peterson, Dallas E.** (Agronomy), **Phillips, Thomas W., Sloderbeck, Phillip E.** (Southwest Area Office), **Upham, Ward S.** (Horticulture, Forestry and Recreation Resources), and **Zurek, Ludek,** US Department of Agriculture, “Extension IPM Coordination Program for Kansas.”

**Cloyd, Raymond A.,** US Department of Agriculture, \$8,000, “Interregional Research Project #4 Minor Crop Pest Management Program.”

**Dobesh, Sharon,** US Department of Agriculture, \$32,696, “Pesticide Safety Education Program.”

**Kambhampati, Srinivas, Bolton, Timothy A.** (Physics), **Ferguson, Carolyn J.** (Biology), **Rebello, Nobel S.** (Physics), and **Totten, Iris M.** (Geology), National Science Foundation, “Evidence-based Inquiry into the Distant, Remote, or Past (EIDRoP): Linking Evidence to Inference in the Kansas Science Classroom.”

**Marcus, Daniel C.,** US Department of Health and Human Services, \$29,848, “Epithelial Function in Health and Disease.”

**McCornack, Brian P., Chen, Ming-Shun, Sloderbeck, Phillip E.** (Southwest Area Office), and **Whitworth, Robert “Jeff” J.**, Kansas Wheat Commission, “Biotype Survey and Integrated Management of the Hessian Fly and Selected Wheat Aphids in Kansas.”

**McCornack, Brian P.,** Monsanto Company, \$7,300, “Soybean Aphid Biotype Study.”

**McCornack, Brian P., and Reese, John C.,** North Central Soybean Research Program, “Soybean Responses to Soybean Aphids.”

**McCornack, Brian P.,** US Department of Agriculture, \$9,995, “Developing a Node-based Sampling Plan for Estimating Soybean Aphid Populations in Soybean.”

**Michaud, John P.,** National Sunflower Association, \$32,945, “Mitigation of Yield Losses to *Dectes texanus* in Rainfed Sunflowers.”

**Michaud, John P., Bauernfeind, Robert J., Broce, Alberto B., Cloyd, Raymond A., Jardine, Douglas J.** (Plant Pathology), **Kennelly, Megan** (Plant Pathology), **Nechols, James R., Ortigao, Marcelo R., Peterson, Dallas E.** (Agronomy), **Phillips, Thomas W., Sloderbeck, Phillip E.** (Southwest Area Office), **Upham, Ward S.** (Horticulture, Forestry and Recreation Resources), and **Zurek, Ludek,** US Department of Agriculture, “Extension IPM Coordination Program for Kansas.”

**Minton, J. Ernest,** US Department of Agriculture, \$2,200, “USDA/ARS Research Support Agreement #58-5430-8-818.”

**Nechols, James R., Bauernfeind, Robert J., Broce, Alberto B., Cloyd, Raymond A., Jardine, Douglas J.** (Plant Pathology), **Kennelly, Megan** (Plant Pathology), **Michaud, John P., Ortigao, Marcelo R., Peterson, Dallas E.** (Agronomy), **Phillips, Thomas W., Sloderbeck, Phillip E.** (Southwest Area Office), **Upham, Ward S.** (Horticulture, Forestry and Recreation Resources), and **Zurek, Ludek,** US Department of Agriculture, “Extension IPM Coordination Program for Kansas.”

**Ortigao, Marcelo R., Bauernfeind, Robert J., Broce, Alberto B., Cloyd, Raymond A., Jardine, Douglas J.** (Plant Pathology), **Kennelly, Megan** (Plant Pathology), **Michaud, John P., Nechols, James R., Peterson, Dallas E.** (Agronomy), **Phillips, Thomas W., Sloderbeck, Phillip E.** (Southwest Area Office), **Upham, Ward S.** (Horticulture, Forestry and Recreation Resources), and **Zurek, Ludek,** US Department of Agriculture, “Extension IPM Coordination Program for Kansas.”

**Park, Yoonseong,** US Department of Health and Human Services, \$222,000, “Neuroptidergic Control of the Salivary Gland in the Black-Legged Tick, *Ixodes Scapularis*.”

**Phillips, Thomas W.,** Institute of International Education, \$25,000, “Scholar Rescue Fund Fellowship for Dr. Shah Alam Khan.”

**Phillips, Thomas W., Bauernfeind, Robert J., Broce, Alberto B., Cloyd, Raymond A., Jardine, Douglas J.** (Plant Pathology), **Kennelly, Megan** (Plant Pathology), **Michaud, John P., Nechols, James R., Ortigao, Marcelo R., Peterson, Dallas E.** (Agronomy), **Sloderbeck, Phillip E.** (Southwest Area Office), **Upham, Ward S.** (Horticulture, Forestry and Recreation Resources), and **Zurek, Ludek,** US Department of Agriculture, \$56,000, “Extension IPM Coordination Program for Kansas.”

**Phillips, Thomas W.,** US Department of Agriculture, \$67,300, “Molecular Mechanisms of Wheat Resistance to the Hessian Fly.”

**Ramallo-Ortigao, Marcelo,** US Department of Health and Human Services, \$540,438, “P. papatasi Midgut Molecules: Gene Function and Assessing TBV Candidates.”

**Reese, John C., Cloyd, Raymond A., Whitworth, Robert “Jeff” J., and Wilde, Gerald E.,** Multisponsor, “Chemical Control of Insect Pests of Corn and Other Field Crops, Small Grain and Forage.”

**Reese, John C., and McCornack, Brian P.,** North Central Soybean Research Program, \$43,955, “Soybean Responses to Soybean Aphids.”

**Reese, John C.,** US Department of Agriculture, \$3,850, “Acquisition of Goods and Services.”

**Smith, C. Michael, Buschman, Larry L.** (Southwest Research Extension Center), **Schapaugh Jr, William T.** (Agronomy), **Sloderbeck, Phillip E.** (Southwest Area Office), and **Trick, Harold N.** (Plant Pathology), Kansas Soybean Commission, “Development of Soybean Host Plant Resistance and Other Management Options for the Soybean Stem Borer.”

**Smith, C. Michael, Fellers, John P.** (Plant Pathology), and **Whitfield, Anna E.** (Plant Pathology), Kansas Wheat Commission, \$21,406, “Identification of Wheat Curl Mite and Virus-Resistant Wheat Germplasm.”

**Smith, C. Michael,** US Department of Agriculture, \$10,000, “A Molecular Fingerprinting Method to Detect Biotypes of the Russian Wheat Aphid.”

**Whitworth, Robert “Jeff” J., Chen, Ming-Shun, McCornack, Brian P., and Sloderbeck, Phillip E.** (Southwest Area Office), Kansas Wheat Commission, \$66,718, “Biotype Survey and Integrated Management of the Hessian Fly and Selected Wheat Aphids in KS.”

**Whitworth, Robert “Jeff” J., Cloyd, Raymond A., Reese, John C., and Wilde, Gerald E.,** Multisponsor, “Chemical Control of Insect Pests of Corn and Other Field Crops, Small Grain and Forage.”

**Wilde, Gerald E., Cloyd, Raymond A., Reese, John C., and Whitworth, Robert “Jeff” J.,** Multisponsor, \$91,200, “Chemical Control of Insect Pests of Corn and Other Field Crops, Small Grain and Forage.”

**Zhu, Kun Yan, and Cloyd, Raymond A.,** National Foliage Foundation, “Resistance of Soft Scale and Mealybug Pests to Insecticide Commonly Used in Interior Landscapes.”

**Zurek, Ludek, and Broce, Alberto B.,** Multisponsor, “Methods for Control of Livestock Insects.”

**Zurek, Ludek, Bauernfeind, Robert J., Broce, Alberto B., Cloyd, Raymond A., Jardine, Douglas J.** (Plant Pathology), **Kennelly, Megan** (Plant Pathology), **Michaud, John P., Nechols, James R., Ortigao, Marcelo R., Peterson, Dallas E.** (Agronomy), **Phillips, Thomas W., Sloderbeck, Phillip E.** (Southwest Area Office), and **Upham, Ward S.** (Horticulture, Forestry and Recreation Resources), US Department of Agriculture, "Extension IPM Coordination Program for Kansas."

**Zurek, Ludek**, US Department of Health and Human Services, \$80,000, "West Nile Surveillance in the State of Kansas."

## FOOD SCIENCE INSTITUTE

**Fung, Daniel Y.C., Kastner, Curtis L., Kastner, Justin J.** (Diagnostic Medicine/Pathobiology), and **Smith, J. Scott** (Animal Sciences and Industry), US Department of Agriculture, "Animal Science Food Safety Consortium - Kansas State University."

**Kastner, Curtis L., Fung, Daniel Y.C., Kastner, Justin J.** (Diagnostic Medicine/Pathobiology), and **Smith, J. Scott** (Animal Sciences and Industry), US Department of Agriculture, \$112,657, "Animal Science Food Safety Consortium - Kansas State University."

## GRAIN SCIENCE AND INDUSTRY

**Alavi, Sajid**, Kansas Soybean Commission, \$35,530, "Premium Texturized Soybean Protein by Extrusion Processing -- Product Quality from Different Formulations and Processing Parameters."

**Alavi, Sajid**, US Department of Agriculture, \$498,130, "Development of Cross-Linked Bio-Nanocomposite Packaging Films with Enhanced Barrier and Mechanical Properties."

**Behnke, Keith C., McKinney, Leland, Staggenborg, Scott A.** (Agronomy), **Vadlani, Praveen V.**, and **Wang, Donghai** (Biological and Agricultural Engineering), US Department of Agriculture, \$345,000, "Pelletizing Forages to Increase Cellulosic Ethanol Production: Proof of Concept Justification."

**Bhadriraju, Subramanyam**, Multisponsor, \$61,000, "Grain Science."

**Bhadriraju, Subramanyam, Chayaprasert, Watcharapol, Langemeier, Michael R.** (Agricultural Economics), and **Maier, Dirk E.**, US Department of Agriculture, \$784,805, "Critical Analysis of Methyl Bromide, Sulfuryl Fluoride, and Heat Treatment for Disinfecting Food-Processing Facilities."

**Bhadriraju, Subramanyam**, US Department of Agriculture, \$25,000, "Ozonation of Corn, Wheat, and Barley Stored in Commercial Grain Storage Structures for Management of Pest Insects and Molds and Removal of Off-Odors."

**Chayaprasert, Watcharapol, Bhadriraju, Subramanyam, Langemeier, Michael R.** (Agricultural Economics), and **Maier, Dirk E.**, US Department of Agriculture, "Critical Analysis of Methyl Bromide, Sulfuryl Fluoride, and Heat Treatment for Disinfecting Food-Processing Facilities."

**Dogan, Hulya**, and **Faubion, Jon M.**, US Department of Agriculture, \$77,453, "Study of the Interactions of Bran with Gluten Proteins During Dough Development Using Rheology, Infrared Spectroscopy and Tomography."

**Faubion, Jon M.**, and **Shi, Yong Cheng**, Kansas Bioscience Authority, "Effects of Enzymes on Starch for Bread Volume Enhancement."

**Faubion, Jon M.**, and **Shi, Yong Cheng**, Kansas Bioscience Authority, "Improving and Understanding Unique Properties of Olacta."

**Faubion, Jon M.**, and **Dogan, Hulya**, US Department of Agriculture, "Study of the Interactions of Bran with Gluten Proteins During Dough Development Using Rheology, Infrared Spectroscopy and Tomography."

**Faubion, Jon M.**, US Department of Agriculture, \$99,814, "Whole Grain Ingredients: Health Benefits of Bioactive Phytonutrients and Dietary Fibers from Cereal Grains."

**Gwirtz, Jeffrey A.**, US Department of Agriculture, \$25,000, "Relationships Between Sorghum Grain Attributes, Milling Quality, and Flour Quality/Functionality."

**Howard, John E., Maier, Dirk E.**, and **McFall, Kendall L.**, Colorado Wheat Administrative Committee, \$10,000, "International Grain Project Wheat Advisory Board."

**Howard, John E.**, and **Maier, Dirk E.**, Kansas Corn Commission, \$50,000, "Market Development Grant - International Grains Program."

**Howard, John E., Maier, Dirk E.**, and **McFall, Kendall L.**, Kansas Soybean Commission, \$50,000, "Market Development Grant - International Grains Program."

**Howard, John E., Maier, Dirk E.**, and **McFall, Kendall L.**, Nebraska Wheat Board, \$15,000, "International Grains Program Wheat Advisory Board."

**Lookhart, George L.**, and **Culbertson, Christopher T.** (Chemistry), Kansas Wheat Commission, \$14,520, "Rapid Varietal Identification for Wheat Quality Prediction."

**Madl, Ronald L., Dumler, Troy** (Southwest Area Office), and **O'Brien, Daniel M.** (Northwest Area Office), Kansas Association of Wheat Growers, \$9,900, "Development of an Economic Analysis Tool for Kansas Wheat."

**Madl, Ronald L., O'Brien, Daniel M.** (Northwest Area Office), and **Vadlani, Praveen V.**, Kansas Soybean Commission, "Nutritional Enhancement of Soybean Carbohydrates and Hulls for Animal Feed using Microbial Cultures."

**Madl, Ronald L.**, Kansas Wheat Commission, \$25,000, "Screening Procedures for High Antioxidant Wheat for Healthy Baked Products."

**Madl, Ronald L., Nelson, Richard G.** (Kansas Industrial Extension Services), and **Rezac, Mary E.** (Chemical Engineering), National Science Foundation, "I/UCRC Center for Bioenergy Research and Development."

**Madl, Ronald L., Seib, Paul A.**, and **Shi, Yong Cheng**, US Department of Agriculture, "Physiochemical Properties of Waxy Wheat and Partial Waxy Wheat Flours and Starches and Their Applications in Food."

**Madl, Ronald L.**, US Department of Education, \$14,120, "Integral Valorization of Bio-Production."

**Madl, Ronald L., Staggenborg, Scott A.** (Agronomy), **Wang, Donghai** (Biological and Agricultural Engineering), and **Woolverton, Michael W.** (Agricultural Economics), US Department of Transportation, \$4,375, "Develop Comprehensive Understanding and Utilization of Sorghum Stover and Brown Midrib Forage Sorghum for Ethanol Production."

**Maier, Dirk E.**, Grain Elevator & Processing Society, \$10,000, "Memorandum of Agreement - GEAPS 521 Course Development Facilitation."

**Maier, Dirk E.**, Grain Elevator & Processing Society, \$10,000, "Memorandum of Agreement - GEAPS 522 Course Development Facilitation."

**Maier, Dirk E.**, Grain Elevator & Processing Society, \$10,000, "Memorandum of Agreement - GEAPS 542 Course Development Facilitation."

**Maier, Dirk E.**, and **Howard, John E.**, Kansas Corn Commission, "Market Development Grant - International Grains Program."

**Maier, Dirk E., Bhadriraju, Subramanyam, Chayaprasert, Watcharapol, and Langemeier, Michael R.** (Agricultural Economics), US Department of Agriculture, "Critical Analysis of Methyl Bromide, Sulfuryl Fluoride, and Heat Treatment for Disinfecting Food-Processing Facilities."

**Maier, Dirk E.**, and **Moog, Dale J.**, US Department of Agriculture, \$90,000, "Early Detection of Spoilage in Stored Grain."

**McKinney, Leland**, and **Miller, Rebecca**, Kansas Wheat Commission, \$231,812, "Kansas Wheat Quality Laboratory: Quality Evaluation from KAES Wheat Breeding Programs and Protein/Hardness Screening of Early Progeny Wheat."

**McKinney, Leland, Behnke, Keith C., Staggenborg, Scott A.** (Agronomy), **Vadlani, Praveen V.**, and **Wang, Donghai** (Biological and Agricultural Engineering), US Department of Agriculture, "Pelletizing Forages to Increase Cellulosic Ethanol Production: Proof of Concept Justification."

**Miller, Rebecca**, and **McKinney, Leland**, Kansas Wheat Commission, "Kansas Wheat Quality Laboratory: Quality Evaluation from KAES Wheat Breeding Programs and Protein/Hardness Screening of Early Progeny Wheat."

**Moog, Dale J.**, and **Maier, Dirk E.**, US Department of Agriculture, "Early Detection of Spoilage in Stored Grain."

**Seib, Paul A., Madl, Ronald L.**, and **Shi, Yong Cheng**, US Department of Agriculture, "Physiochemical Properties of Waxy Wheat and Partial Waxy Wheat Flours and Starches and Their Applications in Food."

**Seib, Paul A., Haub, Mark D.** (Human Nutrition), **Medeiros, Denis M.** (Human Nutrition), and **Shi, Yong Cheng**, US Department of Agriculture, "Training in Cereal Carbohydrates and Human Nutrition."

**Shi, Yong Cheng**, and **Faubion, Jon M.**, Kansas Bioscience Authority, \$49,990, "Effects of Enzymes on Starch for Bread Volume Enhancement."

**Shi, Yong Cheng**, and **Faubion, Jon M.**, Kansas Bioscience Authority, \$44,579, "Improving and Understanding Unique Properties of Orlacta."

**Shi, Yong Cheng**, and **Wang, Donghai** (Biological and Agricultural Engineering), Kansas Corn Commission, \$18,306, "Developing High Solids Enzyme Conversion of Corn Starches and Corn Flours to Reduce the Cost in Ethanol Production."

**Shi, Yong Cheng**, US Department of Agriculture, \$63,000, "Evaluating Cereal Starch and Protein Digestibility."

**Shi, Yong Cheng, Madl, Ronald L., and Seib, Paul A.**, US Department of Agriculture, \$64,000 (includes \$2,000 from Ehmke Seed in-kind funds, and \$25,000 from Kellogg Company), " "Physiochemical Properties of Waxy Wheat and Partial Waxy Wheat Flours and Starches and Their Applications in Food."

**Shi, Yong Cheng, Haub, Mark D.** (Human Nutrition), **Medeiros, Denis M.** (Human Nutrition), and **Seib, Paul A.**, US Department of Agriculture, \$78,000, "Training in Cereal Carbohydrates and Human Nutrition."

**Shi, Yong Cheng**, Wm. Wrigley Jr. Company, \$99,156, "Sponsored Research Agreement- Starch Derivatives."

**Sun, X. Susan**, and **Wang, Donghai** (Biological and Agricultural Engineering), Kansas Soybean Commission, \$29,220, "Soy Oil Latex for Pressure Sensitive Adhesives."

**Sun, X. Susan**, and **Wang, Donghai** (Biological and Agricultural Engineering), US Department of Agriculture, \$217,075, "Affordable and Durable Biobased Adhesives for Wood Veneer Applications."

**Sun, X. Susan**, US Department of Energy, \$55,000 (includes \$15,000 from PolyOne Corporation), "Bio-Nanocomposites Derived from Renewable Materials."

**Sun, X. Susan**, Wm. Wrigley Jr. Company, \$91,966, "Biobased Polymer Composites."

**Vadlani, Praveen V., Madl, Ronald L., and O'Brien, Daniel M.** (Northwest Area Office), Kansas Soybean Commission, \$32,931, "Nutritional Enhancement of Soybean Carbohydrates and Hulls for Animal Feed using Microbial Cultures."

**Vadlani, Praveen V.**, MeadWestvaco Corporation -North Carolina, \$56,558, "Innovative Bioprocessing of Lignocellulosic Biomass for High Value Products."

**Vadlani, Praveen V., Behnke, Keith C., McKinney, Leland, Staggenborg, Scott A.** (Agronomy), and **Wang, Donghai** (Biological and Agricultural Engineering), US Department of Agriculture, "Pelletizing Forages to Increase Cellulosic Ethanol Production: Proof of Concept Justification."

## HORTICULTURE, FORESTRY AND RECREATION RESOURCES

**Atchison, Robert L., Barden, Charles J., and Geyer, Wayne A.**, US Department of Agriculture, "Establishment of Hardwood Seed Orchards from Existing Genetic Plantings in Kansas."

**Barden, Charles J.**, Edenspace Systems Corporation, \$17,478, "Field Testing Agreement."

**Barden, Charles J., Atchison, Robert L., and Geyer, Wayne A.**, US Department of Agriculture, "Establishment of Hardwood Seed Orchards from Existing Genetic Plantings in Kansas."

**Barden, Charles J.**, and **Devlin, Daniel L.** (Agronomy), US Department of Agriculture, \$235, "Heartland Integrated Water Quality Coordination Initiative."

**Barden, Charles J., DeRouchey, Joel M.** (Animal Sciences and Industry), and **Devlin, Daniel L.** (Agronomy), US Department of Agriculture, \$40,215, "Heartland Regional Water Coordination Initiative."

**Barden, Charles J.**, US Department of Agriculture, \$62,905, "KSU Stream Assessment."

**Boyer, Cheryl R.**, US Department of Agriculture, \$29,270, "Development of Alternative Substrates for Container Nursery Crops."

**Bremer, Dale J., Fry, Jack D., Griffin, Jason, and Keeley, Steven J.**, Multisponsor, "Turfgrass Investigations."

**Bremer, Dale J., Fry, Jack D., Keeley, Steven J., Lavis, Catherine C., and St John, Rodney A.**, US Department of Agriculture, \$609,736 (includes \$3,000 from City of Salina, and \$6,736 from Kansas Turfgrass Foundation), "Modifying Homeowner's Lawn-Irrigation Behavior to Conserve Water and Improve Water Quality in Urbanizing Watersheds."

**Carey, Edward E., Cloyd, Raymond A.** (Entomology), **Janke, Rhonda R., Kennelly, Megan** (Plant Pathology), and **Williams, Kimberly A.**, Organic Farming Research Foundation, "Developing Web Resources for Organic Production in High Tunnels."

**Carey, Edward E.**, US Department of Agriculture, \$62,372, "CSAs and Organic Farmers Markets: Strengthening Producer Capacity and Consumer Linkages Around Kansas City."

**Carey, Edward E.**, and **Shoemaker, Candice A.**, US Department of Agriculture, \$20,000, "Ethnic Specialty Crops for Kansas: Crops and Cultivars for Diverse Markets."

**Carey, Edward E.**, US Department of Agriculture, \$22,000 (includes \$2,000 from Kansas Fruit Growers Association), "Growing Growers Training Program: Training New Fruit and Vegetable Growers for Kansas."

**Fry, Jack D., Bremer, Dale J., Griffin, Jason, and Keeley, Steven J.**, Multisponsor, \$63,764, "Turfgrass Investigations."

**Fry, Jack D., Bremer, Dale J., Keeley, Steven J., Lavis, Catherine C., and St John, Rodney A.**, US Department of Agriculture, "Modifying Homeowner's Lawn-Irrigation Behavior to Conserve Water and Improve Water Quality in Urbanizing Watersheds."

**Geyer, Wayne A.**, US Department of Agriculture, \$1,800, "Cimarron National Grassland Research Studies."

**Geyer, Wayne A., Atchison, Robert L., and Barden, Charles J.**, US Department of Agriculture, \$5,000, "Establishment of Hardwood Seed Orchards from Existing Genetic Plantings in Kansas."

**Griffin, Jason, Bremer, Dale J., Fry, Jack D., and Keeley, Steven J.**, Multisponsor, "Turfgrass Investigations."

**Griffin, Jason, J.** Frank Schmidt Family Charitable Foundation, \$3,000, "Evaluation of Ornamental Species for the Great Plains."

**Janke, Rhonda R., Carey, Edward E., Cloyd, Raymond A.** (Entomology), **Kennelly, Megan** (Plant Pathology), and **Williams, Kimberly A.**, Organic Farming Research Foundation, "Developing Web Resources for Organic Production in High Tunnels."

**Janke, Rhonda R.**, US Department of Agriculture, \$36,810, "Growing, Marketing, and Training for Edible Mushroom Production in Kansas."

**Janke, Rhonda R.**, US Department of Agriculture, \$20,000, "Research for Overcoming Barriers to Institutional Purchases of Locally Grown Food."

**Janke, Rhonda R., Hargrove, William L.** ( Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), and **Kahl, Daniel W.** (Agriculture and Natural Resources), US Environmental Protection Agency, \$35,742 (includes \$7,062 from third-party, in-kind support), "KSU Information & Ed Project (FFY 08) -- EARTH, PRIDE, Citizen Science, WaterLINK."

**Keeley, Steven J., Bremer, Dale J., Fry, Jack D., and Griffin, Jason**, Multisponsor, "Turfgrass Investigations."

**Keeley, Steven J., Bremer, Dale J., Fry, Jack D., Lavis, Catherine C., and St John, Rodney A.**, US Department of Agriculture, "Modifying Homeowner's Lawn-Irrigation Behavior to Conserve Water and Improve Water Quality in Urbanizing Watersheds."

**Lavis, Catherine C., Bremer, Dale J., Fry, Jack D., Keeley, Steven J., and St John, Rodney A.**, US Department of Agriculture, "Modifying Homeowner's Lawn-Irrigation Behavior to Conserve Water and Improve Water Quality in Urbanizing Watersheds."

**Mattson, Richard H.**, Harvest Greenhouse and Garden Center, \$4,388, "Graduate Research (Fellowship)."

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

**Reid, William R.**, University of Missouri, \$8,944, "Missouri Pecan Growers."

**Shoemaker, Candice A.**, and **Haub, Mark D.** (Human Nutrition), Kansas State University Foundation, \$2,000, "Match for "Determining the Exercise Intensities of Gardening Tasks" Grant (pp# 22038)."

**Shoemaker, Candice A.**, and **Haub, Mark D.** (Human Nutrition), US Department of Agriculture, \$17,462, "Determining the Exercise Intensities of Gardening Tasks."

**Shoemaker, Candice A.**, and **Carey, Edward E.**, US Department of Agriculture, "Ethnic Speciality Crops for Kansas: Crops and Cultivars for Diverse Markets."

**St John, Rodney A.**, **Bremer, Dale J.**, **Fry, Jack D.**, **Keeley, Steven J.**, and **Lavis, Catherine C.**, US Department of Agriculture, "Modifying Homeowner's Lawn-Irrigation Behavior to Conserve Water and Improve Water Quality in Urbanizing Watersheds."

**Upham, Ward S.**, **Bauernfeind, Robert J.** (Entomology), **Broce, Alberto B.** (Entomology), **Cloyd, Raymond A.** (Entomology), **Jardine, Douglas J.** (Plant Pathology), **Kennelly, Megan** (Plant Pathology), **Michaud, John P.** (Entomology), **Nechols, James R.** (Entomology), **Ortigao, Marcelo R.** (Entomology), **Peterson, Dallas E.** (Agronomy), **Phillips, Thomas W.** (Entomology), **Sloderbeck, Phillip E.** (Southwest Area Office), and **Zurek, Luddek** (Entomology), US Department of Agriculture, \$3,000, "Extension IPM Coordination Program for Kansas."

**Williams, Kimberly A.**, Multisponsor, \$9,025, "Floriculture Research."

**Williams, Kimberly A.**, **Carey, Edward E.**, **Cloyd, Raymond A.** (Entomology), **Janke, Rhonda R.**, and **Kennelly, Megan** (Plant Pathology), Organic Farming Research Foundation, \$6,617, "Developing Web Resources for Organic Production in High Tunnels."

## **KANSAS CENTER FOR AGRICULTURAL RESOURCES AND THE ENVIRONMENT/KANSAS WATER RESOURCE RESEARCH INSTITUTE**

**Hargrove, William L.**, and **Michie, Barry H.** (International Programs), US Agency for International Development, \$25,029, "Cultural Interfacing for FATA Youth in the USA."

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

**Hargrove, William L.**, US Department of Agriculture, \$18,309, "From Dust Bowl to Mud Bowl: Conservation Measures and the Future of Reservoirs: A National Interdisciplinary Conference."

**Hargrove, William L.**, **Dumler, Troy** (Southwest Area Office), **Golden, Bill B.** (Agricultural Economics), **Klocke, Norman L.** (Southwest Research Extension Center), **Lamm, Freddie R.** (Northwest Research Extension Center), **Prasad, P. V. Vara** (Agronomy), **Presley, DeAnn R.** (Agronomy), **Rogers, Danny H.** (Biological and Agricultural Engineering), **Schlegel, Alan J.** (Southwest Research Extension Center), **Staggenborg, Scott A.** (Agronomy), **Steward, David R.** (Civil Engineering), and **Stone, Loyd R.** (Agronomy), US Department of Agriculture, \$151,731, "New Water Management Technologies to Sustain Rural Economies."

**Hargrove, William L.**, **Barnes Jr, Alton A.** (Biological and Agricultural Engineering), **Devlin, Daniel L.** (Agronomy), and **Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), US Department of Agriculture, \$70,950 (includes \$25,950 from producer in-kind time), "Reducing Agricultural Sediment Transport."

**Hargrove, William L.**, **Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), and **Nejathashemi, Amirpouyan** (Biological and Agricultural Engineering), US Department of the Interior, \$242,335 (includes \$150,000 from Kansas Water Office), "Kansas Water Resources Research Institute."

**Hargrove, William L.**, and **Devlin, Daniel L.** (Agronomy), US Environmental Protection Agency, "KS WRAPS: Lower Smoky Hill from Kanopolis Dam to Solomon: Assessment & Planning (FFY08)."

**Hargrove, William L.**, **Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), and **Leatherman, John C.** (Agricultural Economics), US Environmental Protection Agency, "KS WRAPS: KSU Assessment & Planning Technical Assistance (FFY08)."

**Hargrove, William L.**, **Barnes, Philip L.** (Biological and Agricultural Engineering), **Blocksome, Carolyn E.** (Agronomy), and **Devlin, Daniel L.** (Agronomy), US Environmental Protection Agency, \$96,203 (includes \$8,665 from outside stakeholder support), "KS WRAPS: KSU SFY 08 Technical Assistance Services (FFY08)."

**Hargrove, William L.**, and **Devlin, Daniel L.** (Agronomy), US Environmental Protection Agency, "KS WRAPS: Lower Smoky Hill from Kanopolis Dam to Solomon: Assessment and Planning."

**Hargrove, William L.**, **Janke, Rhonda R.** (Horticulture, Forestry and Recreation Resources), and **Kahl, Daniel W.** (Agriculture and Natural Resources), US Environmental Protection Agency, \$411,033 (includes \$81,213 from third-party, in-kind support), "KSU Information & Ed Project (FFY 08) -- EARTH, PRIDE, Citizen Science, WaterLINK."

**Hargrove, William L.**, **Devlin, Daniel L.** (Agronomy), **Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), **Leatherman, John C.** (Agricultural Economics), and **Williams, Jeffery R.** (Agricultural Economics), US Environmental Protection Agency, \$10,395 (includes \$885 from cooperator support), "Milford Lake Watershed WRAPS Planning."

**Hargrove, William L.**, and **Kahl, Daniel W.** (Agriculture and Natural Resources), US Environmental Protection Agency, \$125,350 (includes \$10,350 from community match), "PRIDE Initiated Community Water Quality Action Plans - Part 3."

**Hargrove, William L.**, **Devlin, Daniel L.** (Agronomy), **Douglas-Mankin, Kyle R.** (Biological and Agricultural Engineering), **Leatherman, John C.** (Agricultural Economics), and **Williams, Jeffery R.** (Agricultural Economics), US Environmental Protection Agency, \$11,625 (includes \$2,115 from cooperator support), "Tuttle Creek Lake Watershed WRAPS Planning."

## **NORTHWEST RESEARCH EXTENSION CENTER**

**Aiken, Robert M.**, **Kastens, Terry** (Agricultural Economics), **Kluitenberg, Gerard J.** (Agronomy), **Maddux, Larry D.** (Agronomy), **Mengel, David B.** (Agronomy), **Schlegel, Alan J.** (Southwest Research Extension Center), and **Stone, Loyd R.** (Agronomy), Kansas Corn Commission, "Managing Nitrogen in Irrigated Corn to Optimize Nitrogen Use and Minimize Nitrogen Loss."

**Aiken, Robert M.**, and **Martin, Terry J.** (Agricultural Research Center-Hays), Kansas Wheat Commission, \$4,000, "Carbon Isotope Discrimination, Selecting for Productivity and Water Use Efficiency in Wheat."

**Aiken, Robert M.**, and **Olson, Brian L.** (Northwest Area Office), Kansas Wheat Commission, \$7,800, "Intensive Wheat Production in Northwest Kansas."

**Aiken, Robert M.**, Multisponsor, \$1,250, "Sunflower Investigations."

**Aiken, Robert M.**, National Sunflower Association, \$10,400, "Development of Resistance to Stem and Seed Insect Pests of Sunflower in the Central Plains."

**Aiken, Robert M.**, **Lamm, Freddie R.**, and **O'Brien, Daniel M.** (Northwest Area Office), National Sunflower Association, "Managing Deficit Sprinkler Irrigation for Sunflower Production."

**Coyne, Patrick J.**, Multisponsor, \$15,540, "Sunflower Performance Testing Program."

**Lamm, Freddie R.**, and **O'Brien, Daniel M.** (Northwest Area Office), Kansas Corn Commission, \$20,000, "Optimizing Corn Production Under Deficit Sprinkler Irrigation."

**Lamm, Freddie R.**, **Aiken, Robert M.**, and **O'Brien, Daniel M.** (Northwest Area Office), National Sunflower Association, \$7,840, "Managing Deficit Sprinkler Irrigation for Sunflower Production."

**Lamm, Freddie R.**, **Dumler, Troy** (Southwest Area Office), **Golden, Bill B.** (Agricultural Economics), **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), **Klocke, Norman L.** (Southwest Research Extension Center), **Prasad, P. V. Vara** (Agronomy), **Presley, DeAnn R.** (Agronomy), **Rogers, Danny H.** (Biological and Agricultural Engineering), **Schlegel, Alan J.** (Southwest Research Extension Center), **Staggenborg, Scott A.** (Agronomy), **Steward, David R.** (Civil Engineering), and **Stone, Loyd R.** (Agronomy), US Department of Agriculture, \$252,885, "New Water Management Technologies to Sustain Rural Economies."

**Lamm, Freddie R., Golden, Bill B.** (Agricultural Economics), **Klocke, Norman L.** (Southwest Research Extension Center), **Rogers, Danny H.** (Biological and Agricultural Engineering), and **Stone, Loyd R.** (Agronomy), US Department of Agriculture, \$18,543, "Water Conservation - Increase Efficiency in Usage."

## OFFICE OF ACADEMIC PROGRAMS

**Kane, Mary R.**, US Department of Education, \$74,134, "FFA-YF/YFW Organization."

## PLANT PATHOLOGY

**Akhunov, Eduard D.**, BiNational Agricultural Research and Development Fund, \$45,000, "Population Genomics and Association Mapping of Disease Resistance Genes in Israeli Populations of Wild Relatives of Wheat, *Triticum dicoccoides* and *Aegilops speltoides*."

**Akhunov, Eduard D.**, Kansas Wheat Commission, \$3,000, "Advancing Genomics at K-State: Ultra High-Throughput DNA Sequencing."

**Akhunov, Eduard D.**, Kansas Wheat Commission, \$40,000, "Utilization of Next Generation Sequencing Technologies for Discovery."

**Akhunov, Eduard D.**, US Department of Agriculture, \$22,961, "Construction and Utilization of a Library of Sumai 3."

**Akhunov, Eduard D., Garrett, Karen A., Johnson, Loretta C.** (Biology), and **Morgan, Theodore J.** (Biology), US Department of Agriculture, "Ecotypic Variation and Functional Genetic Responses of a Dominant Grass Under Natural and Reduced Precipitation: Genes to Ecosystem Response."

**Akhunov, Eduard D., Faris, Justin D., Gill, Bikram S., and Li, Wanlong**, US Department of Agriculture, "IWGSC: Integrated Genetic and Physical Map of Chromosome 3A of Wheat."

**Bockus, William W.**, Kansas Crop Improvement Association, \$4,000, "Do Foliar Wheat Diseases Mask the Advantage of Large Seed vs. Small Seed?"

**Bockus, William W., Martin, Terry J.** (Agricultural Research Center-Hays), and **Seifers, Dallas L.** (Agricultural Research Center-Hays), Kansas Crop Improvement Association, \$2,940, "Use of Virus Induced Stress to Create Genome Mutations that Restore or Create Resistance to Different Fungal Diseases in the Popular Wheat Varieties Jagger, 2137, Karl 92, and Ike."

**Bockus, William W.**, Kansas Wheat Commission, \$30,000, "Disease Phenotyping: Determining the Reaction of Wheat Lines to Important Diseases."

**Bockus, William W.**, Multisponsor, \$19,450, "Seed Treatment."

**Bockus, William W.**, US Department of Agriculture, \$26,157, "Development of Scab Resistant Wheat Cultivars for Kansas."

**Bockus, William W., Stack, James P., Tang, Xiaoyan, and Valent, Barbara S.**, US Department of Agriculture, "Genome-enabled Diagnosis of the Wheat Blast Pathogen and Identification of Resistance Resources."

**Bockus, William W.**, US Department of Agriculture, \$50,122, "Mapping and Deployment of QTL for Wheat Resistance to Fusarium Head Blight."

**DeWolf, Erick D.**, Multisponsor, \$11,000, "Winter Wheat Seed Treatment Tests."

**DeWolf, Erick D.**, US Department of Agriculture, \$50,000, "Development of Critical Extension Resources for Emerging Races of Wheat Stem Rust (Ug99)."

**DeWolf, Erick D.**, US Department of Agriculture, \$44,506, "Prediction Models and Improved Pre-Harvest Estimates of Deoxynivalenol."

**DeWolf, Erick D.**, US Department of Agriculture, \$80,000, "The Inursion of New Wheat Stem Rust Races into the United States: Preparation through Research, Education & Extension."

**Faris, Justin D., Akhunov, Eduard D., Gill, Bikram S., and Li, Wanlong**, US Department of Agriculture, "IWGSC: Integrated Genetic and Physical Map of Chromosome 3A of Wheat."

**Fellers, John P., Smith, C. Michael** (Entomology), and **Whitfield, Anna E.**, Kansas Wheat Commission, "Identification of Wheat Curl Mite and Virus-Resistant Wheat Germplasm."

**Fellers, John P., Fritz, Allan K.** (Agronomy), and **Trick, Harold N.**, Kansas Wheat Commission, "Wheat Improvement through Genetic Engineering."

**Friebe, Bernd**, Kansas Crop Improvement Association, \$6,600, "Transfer of New Sources of Barley Yellow Dwarf Resistance from *Haynaldia villosa* to Adapted Kansas Winter Wheats."

**Garrett, Karen A.**, US Agency for International Development, \$4,536, "Ecologically-Based Participatory IPM for Southeast Asia."

**Garrett, Karen A.**, US Agency for International Development, \$24,971, "LTRA 4 Adapting to Change in the Andes: Practices and Strategies for Vulnerable Ecosystems."

**Garrett, Karen A., Akhunov, Eduard D., Johnson, Loretta C.** (Biology), and **Morgan, Theodore J.** (Biology), US Department of Agriculture, "Ecotypic Variation and Functional Genetic Responses of a Dominant Grass Under Natural and Reduced Precipitation: Genes to Ecosystem Response."

**Gill, Bikram S.**, Bill and Melinda Gates Foundation, \$118,646, "Chromosome Engineering of Stem Rust Resistance in Wheat."

**Gill, Bikram S.**, Kansas Wheat Commission, \$20,000, "Automated Extraction of DNA in the Wheat Genetic & Genomic Resources Center (WGGRC)."

**Gill, Bikram S.**, Kansas Wheat Commission, \$100,000, "Wheat Genetic & Genomic Resources Center and Its Contribution to the Kansas Wheat Industry."

**Gill, Bikram S.**, National Science Foundation, \$780,061, "Physical Mapping of the Wheat D Genome."

**Gill, Bikram S.**, US Department of Agriculture, \$29,991, "Alien Chromosome Engineering and the Deployment of a Novel Source of Fusarium Head Blight Resistance in Wheat."

**Gill, Bikram S., Akhunov, Eduard D., Faris, Justin D., and Li, Wanlong**, US Department of Agriculture, \$1,000,000, "IWGSC: Integrated Genetic and Physical Map of Chromosome 3A of Wheat."

**Gill, Bikram S.**, US Department of Agriculture, \$238,905, "Wheat Genetics Resource Center at Kansas State University."

**Jardine, Douglas J., Duncan, Stewart R.** (Northeast Area Office), **Gordon, Walter B.** (Agronomy), and **Roozeboom, Kraig L.** (Agronomy), Kansas Soybean Commission, \$1,700, "The Use of Seed and Foliar Fungicides at Two Planting Dates for Soybean Production in Kansas."

**Jardine, Douglas J.**, Multisponsor, \$15,180, "Soybean Foliar Fungicide and Seed Treatment Tests."

**Jardine, Douglas J.**, North Central Soybean Research Program, \$36,000, "Improving Management of Soybean Cyst Nematode through Extension Demonstration and Outreach."

**Jardine, Douglas J., and Little, Christopher R.**, North Central Soybean Research Program, \$45,000, "Managing Frogeye Leaf Spot, Charcoal Rot and Foliar Diseases in the North Central Region."

**Jardine, Douglas J.**, North Central Soybean Research Program, \$18,000, "Sentinel Plots to Monitor the Spread of Soybean Rust in the US Soybean Production Regions."

**Jardine, Douglas J., Bauernfeind, Robert J.** (Entomology), **Broce, Alberto B.** (Entomology), **Cloyd, Raymond A.** (Entomology), **Kennelly, Megan, Michaud, John P.** (Entomology), **Nichols, James R.** (Entomology), **Ortigao, Marcelo R.** (Entomology), **Peterson, Dallas E.** (Agronomy), **Phillips, Thomas W.** (Entomology), **Sloderbeck, Phillip E.** (Southwest Area Office), **Upham, Ward S.** (Horticulture, Forestry and Recreation Resources), and **Zurek, Ludek** (Entomology), US Department of Agriculture, \$13,000, "Extension IPM Coordination Program for Kansas."

**Jardine, Douglas J.**, US Department of Agriculture, \$7,293, "The 2008 Legume IPM PIPE Kansas."

**Kennelly, Megan**, Multisponsor, \$24,150, "Evaluation and Testing of Fungicides and Nematicides on Horticultural Crops."

**Kennelly, Megan, Carey, Edward E.** (Horticulture, Forestry and Recreation Resources), **Cloyd, Raymond A.** (Entomology), **Janke, Rhonda R.** (Horticulture, Forestry and Recreation Resources), and **Williams, Kimberly A.** (Horticulture, Forestry and Recreation Resources), Organic Farming Research Foundation, \$827, "Developing Web Resources for Organic Production in High Tunnels."

**Kennelly, Megan, Bauernfeind, Robert J.** (Entomology), **Broce, Alberto B.** (Entomology), **Cloyd, Raymond A.** (Entomology), **Jardine, Douglas J., Michaud, John P.** (Entomology), **Nechols, James R.** (Entomology), **Ortigao, Marcelo R.** (Entomology), **Peterson, Dallas E.** (Agronomy), **Phillips, Thomas W.** (Entomology), **Sloderbeck, Phillip E.** (Southwest Area Office), **Upham, Ward S.** (Horticulture, Forestry and Recreation Resources), and **Zurek, Ludek** (Entomology), US Department of Agriculture, "Extension IPM Coordination Program for Kansas."

**Leslie, John F.**, US Agency for International Development, \$70,000, "Grain Molds, Mycotoxins and Stalk Rots of Sorghum and Millet."

**Leslie, John F.**, US Department of Agriculture, \$16,493, "Genetic Diversity and Genetic Mapping of *Gibberella zeae*."

**Leslie, John F.**, US Department of Agriculture, \$20,000, "Memorandum of Agreement between USDA APHIS and KSU."

**Leslie, John F.**, US Department of Agriculture, \$382,215, "Molecular Genetics of Virulence and Resistance to Wheat Diseases."

**Leslie, John F.**, US Department of Agriculture, \$39,276, "Norman E. Borlaug International Agricultural Science and Technology Fellows Program."

**Li, Wanlong, Akhunov, Eduard D., Faris, Justin D., and Gill, Bikram S.**, US Department of Agriculture, "IWGSC: Integrated Genetic and Physical Map of Chromosome 3A of Wheat."

**Little, Christopher R., Prasad, P. V. Vara** (Agronomy), **Presley, DeAnn R.** (Agronomy), and **Roozeboom, Kraig L.** (Agronomy), Kansas Soybean Commission, \$27,016, "Influence of Soils, Nutrition, and Water Relations Upon Charcoal Rot Disease Processes in Kansas."

**Little, Christopher R., and Jardine, Douglas J.**, North Central Soybean Research Program, "Managing Frogeye Leaf Spot, Charcoal Rot and Foliar Diseases in the North Central Region."

**Little, Christopher R.**, United Soybean Board, \$120,000, "Charcoal Rot Cultivar Evaluation Using Adapted and Exotic Sources of Resistance."

**Minton, J. Ernest**, US Department of Agriculture, \$10,001, "Acquisition of Goods and Services."

**Minton, J. Ernest**, US Department of Agriculture, \$44,440, "USDA/ARS Research Support Agreement #58-5430-8-819."

**Nelson, James C.**, US Department of Agriculture, \$22,774, "Coordinated Research, Education, and Extension Project for the Application of Genomic Discoveries to Improve Rice in the United States."

**Stack, James P., Bockus, William W., Tang, Xiaoyan, and Valent, Barbara S.**, US Department of Agriculture, "Genome-enabled Diagnosis of the Wheat Blast Pathogen and Identification of Resistance Resources."

**Stack, James P.**, US Department of Agriculture, \$824,190, "Great Plains Diagnostic Network."

**Stack, James P.**, US Department of Agriculture, \$75,000, "Great Plains Diagnostic Network."

**Stack, James P.**, US Department of Agriculture, \$150,000, "Plant Diagnostic Laboratories for Plant Disease and Pest Diagnosis and Surveillance."

**Stack, James P.**, US Department of Agriculture, \$9,930, "Plant Diagnostic Laboratories for Plant Disease and Pest Diagnosis and Surveillance (National Network of Diagnostic Centers)."

**Tang, Xiaoyan, Bockus, William W., Stack, James P., and Valent, Barbara S.**, US Department of Agriculture, "Genome-enabled Diagnosis of the Wheat Blast Pathogen and Identification of Resistance Resources."

**Tang, Xiaoyan**, US Department of Agriculture, \$10,000, "Laboratory, Greenhouse and Field Based Assessment of Sodium Acetate for Control of Plant Bacterial Speck Diseases (Graduate Student - Xin Deng)."

**Todd, Timothy C., Schapaugh Jr, William T.** (Agronomy), and **Trick, Harold N.**, Kansas Soybean Commission, "Enhancement of Soybean through Genetic Engineering."

**Todd, Timothy C., Long Jr, James H.** (Southeast Agricultural Research Center), **Schapaugh Jr, William T.** (Agronomy), and **Trick, Harold N.**, Kansas Soybean Commission, \$82,935, "Trait and Production Efficiency Enhancement in Soybean."

**Trick, Harold N., Buschman, Larry L.** (Southwest Research Extension Center), **Schapaugh Jr, William T.** (Agronomy), **Sloderbeck, Phillip E.** (Southwest Area Office), and **Smith, C. Michael** (Entomology), Kansas Soybean Commission, \$2,616, "Development of Soybean Host Plant Resistance and Other Management Options for the Soybean Stem Borer."

**Trick, Harold N., Schapaugh Jr, William T.** (Agronomy), and **Todd, Timothy C.**, Kansas Soybean Commission, \$75,092, "Enhancement of Soybean through Genetic Engineering."

**Trick, Harold N., Long Jr, James H.** (Southeast Agricultural Research Center), **Schapaugh Jr, William T.** (Agronomy), and **Todd, Timothy C.**, Kansas Soybean Commission, "Trait and Production Efficiency Enhancement in Soybean."

**Trick, Harold N., Fellers, John P., and Fritz, Allan K.** (Agronomy), Kansas Wheat Commission, \$56,948, "Wheat Improvement through Genetic Engineering."

**Trick, Harold N.**, United Soybean Board, \$42,436, "Center for Soybean Tissue Culture and Genetic Engineering: Engineering Soybean for Effective Resistance to Soybean Cyst Nematode."

**Trick, Harold N.**, United Soybean Board, \$40,000, "Towards Broad and Effective Cyst Nematode Resistance in Soybean."

**Trick, Harold N.**, US Department of Agriculture, \$28,463, "Engineering Fusarium Head Blight Resistance and Plant Defense Signaling."

**Trick, Harold N., and Chen, Ming-Shun** (Entomology), US Department of Agriculture, \$51,891, "Molecular Genetic Interactions of Wheat Resistance and Hessian Fly Avirulence."

**Valent, Barbara S., Bockus, William W., Stack, James P., and Tang, Xiaoyan**, US Department of Agriculture, \$999,688, "Genome-enabled Diagnosis of the Wheat Blast Pathogen and Identification of Resistance Resources."

**Valent, Barbara S.**, US Department of Agriculture, \$351,261, "Localization of Secreted Proteins during Penetration and Invasive Growth of the Rice Blast Fungus, *Magnaporthe oryzae*."

**White, Frank F.**, National Science Foundation, \$1,119,906, "Collaborative Research CEPR: Transcription Profiling and Functional Analyses of Bacterial Disease Susceptibility Pathways of Rice."

**Whitfield, Anna E., Fellers, John P., and Smith, C. Michael** (Entomology), Kansas Wheat Commission, \$21,406, "Identification of Wheat Curl Mite and Virus-Resistant Wheat Germplasm."

## SOUTHEAST AGRICULTURAL RESEARCH CENTER

**Kelley, Kenneth W., and Sweeney, Daniel W.**, Kansas Corn Commission, "Optimizing Seed Planting Rates and Fertilizer Placement to Improve Strip-Till and No-Till Corn Production."

**Long Jr, James H., Schapaugh Jr, William T.** (Agronomy), **Todd, Timothy C.** (Plant Pathology), and **Trick, Harold N.** (Plant Pathology), Kansas Soybean Commission, \$27,645, "Trait and Production Efficiency Enhancement in Soybean."

**Long Jr, James H., Duncan, Stewart R.** (Northeast Area Office), **Heer, William F.** (Agronomy), **Martin, Kent L.** (Southwest Area Office), **Olson, Brian L.** (Northwest Area Office), and **Shoup, Douglas E.** (Southeast Area Office), Kansas Sunflower Commission, "Sunflower Planting Date Study."

**Long Jr, James H.**, National Sunflower Association, \$4,750, "Production Practices for Late-Planted Sunflower in Eastern Kansas."

**Long Jr, James H., Duncan, Stewart R.** (Northeast Area Office), and **Gordon, Walter B.** (Agronomy), The United Sorghum Checkoff Program Board, \$3,000, "Managing Sorghum Production in the Eastern Great Plains."

**Moyer, Joseph L.**, Multisponsor, \$8,900, "Southeast Kansas Crop Performance Testing Program."

**Sweeney, Daniel W., and Kelley, Kenneth W.**, Kansas Corn Commission, \$8,000, "Optimizing Seed Planting Rates and Fertilizer Placement to Improve Strip-Till and No-Till Corn Production."

## **SOUTHWEST RESEARCH EXTENSION CENTER**

**Buschman, Larry L., Schapaugh Jr, William T.** (Agronomy), **Sloderbeck, Phillip E.** (Southwest Area Office), **Smith, C. Michael** (Entomology), and **Trick, Harold N.** (Plant Pathology), Kansas Soybean Commission, \$20,925, "Development of Soybean Host Plant Resistance and Other Management Options for the Soybean Stem Borer."

**Currie, Randall S.**, Multisponsor, \$22,400, "Weed Control Research in Southwest Kansas."

**Holman, Johnathon D.**, and **Schlegel, Alan J.**, Multisponsor, "Soil Fertility and Soil Management Research for Western Kansas."

**Klocke, Norman L., Dumler, Troy** (Southwest Area Office), **Golden, Bill B.** (Agricultural Economics), **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), **Lamm, Freddie R.** (Northwest Research Extension Center), **Prasad, P. V. Vara** (Agronomy), **Presley, DeAnn R.** (Agronomy), **Rogers, Danny H.** (Biological and Agricultural Engineering), **Schlegel, Alan J., Staggenborg, Scott A.** (Agronomy), **Steward, David R.** (Civil Engineering), and **Stone, Loyd R.** (Agronomy), US Department of Agriculture, \$167,536, "New Water Management Technologies to Sustain Rural Economies."

**Klocke, Norman L., Golden, Bill B.** (Agricultural Economics), **Lamm, Freddie R.** (Northwest Research Extension Center), **Rogers, Danny H.** (Biological and Agricultural Engineering), and **Stone, Loyd R.** (Agronomy), US Department of Agriculture, \$12,918, "Water Conservation - Increase Efficiency in Usage."

**Schlegel, Alan J., Aiken, Robert M.** (Northwest Research Extension Center), **Kastens, Terry** (Agricultural Economics), **Kluitenberg, Gerard J.** (Agronomy), **Maddux, Larry D.** (Agronomy), **Mengel, David B.** (Agronomy), and **Stone, Loyd R.** (Agronomy), Kansas Corn Commission, "Managing Nitrogen in Irrigated Corn to Optimize Nitrogen Use and Minimize Nitrogen Loss."

**Schlegel, Alan J.**, and **Holman, Johnathon D.**, Multisponsor, \$96,200, "Soil Fertility and Soil Management Research for Western Kansas."

**Schlegel, Alan J.**, Multisponsor, \$9,000, "Variety Testing of Alternative Crops."

**Schlegel, Alan J.**, and **Thompson, Curtis R.** (Agronomy), US Department of Agriculture, "New Crop Opportunity for Semiarid Dryland Production System (Camelina Herbicide Research)."

**Schlegel, Alan J., Dumler, Troy** (Southwest Area Office), **Golden, Bill B.** (Agricultural Economics), **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), **Klocke, Norman L., Lamm, Freddie R.** (Northwest Research Extension Center), **Prasad, P. V. Vara** (Agronomy), **Presley, DeAnn R.** (Agronomy), **Rogers, Danny H.** (Biological and Agricultural Engineering), **Staggenborg, Scott A.** (Agronomy), **Steward, David R.** (Civil Engineering), and **Stone, Loyd R.** (Agronomy), US Department of Agriculture, \$121,701, "New Water Management Technologies to Sustain Rural Economies."

**Waggoner, Justin**, and **Jaeger, John R.** (Agricultural Research Center-Hays), Kansas Corn Commission, \$9,130, "Low Input Storage of Wet Distiller's Grains."

## **KANSAS COOPERATIVE EXTENSION SERVICE**

### **AGRICULTURE AND NATURAL RESOURCES**

**Beckman, Jana J.**, and **Murphy, James P.**, US Department of Agriculture, "2008 Kansas SARE Professional Development Program."

**Beckman, Jana J.**, and **Murphy, James P.**, US Department of Agriculture, "2009 Kansas SARE Professional Development Program."

**Kahl, Daniel W., Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), and **Janke, Rhonda R.** (Horticulture, Forestry and Recreation Resources), US Environmental Protection Agency, "KSU Information and Education Project (FFY 08) - EARTH, PRIDE, Citizen Science, WaterLINK."

**Kahl, Daniel W.**, and **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), US Environmental Protection Agency, "PRIDE Initiated Community Water Quality Action Plans - Part 3."

**Murphy, James P.**, and **Beckman, Jana J.**, US Department of Agriculture, \$50,000, "2008 Kansas SARE Professional Development Program."

**Murphy, James P.**, and **Beckman, Jana J.**, US Department of Agriculture, \$51,000, "2009 Kansas SARE Professional Development Program."

**Murphy, James P.**, US Department of Agriculture, \$33,500, "Educational Program for Kansas Grape Growers - Specialty Crop Block Grant."

**Murphy, James P.**, and **Rowland, Raymond R. R.** (Diagnostic Medicine/Pathobiology), US Department of Agriculture, "Integrated Strategies to Control and Reduce the Impact of PRRS Virus."

**Murphy, James P.**, US Department of Agriculture, \$375,828, "Kansas Agricultural Mediation Service."

**Murphy, James P.**, US Department of Agriculture, \$96,787, "NCR-SARE Professional Development Program (NCR-SARE PDP), Chapter 3."

**Murphy, James P.**, US Department of Agriculture, \$83,095, "NCR-SARE Regional Professional Development Program."

### **AGRONOMY**

**Peterson, Dallas E.**, Pioneer Hi-Bred International, Inc., \$11,500, "Field Trial Agreement USA-09-169 and USA-09-194."

### **DIRECTOR OF COOPERATIVE EXTENSION**

**Lindquist, Jack W.**, Kansas Agriculture and Rural Leadership, Inc., \$104,209, "Kansas Agriculture and Rural Leadership, Inc."

### **EXTENSION FAMILY AND CONSUMER SCIENCES**

**Peters, Paula**, and **Hudson, Karen S.** (Human Nutrition), US Department of Agriculture, \$3,129,135 (includes \$909,934 from Kansas counties), "Kansas Food Assistance Nutrition Education Plan."

### **4-H/YOUTH DEVELOPMENT**

**Gerhard, Gary W.**, and **Griswold, Wendy M.** (Center for Hazardous Substance Research), US Department of Agriculture, \$77,280, "Engineering for Sustainability."

### **HUMAN NUTRITION**

**Hudson, Karen S.**, and **Peters, Paula** (Extension Family and Consumer Sciences), US Department of Agriculture, "Kansas Food Assistance Nutrition Education Plan."

### **KANSAS FOREST SERVICE**

**Aslin, Raymond G.**, US Department of Agriculture, \$2,753, "Conservation Reserve Program 2008."

**Aslin, Raymond G.**, and **Biles, Larry E.**, US Department of Agriculture, \$3,128,862 (includes \$1,112,642 from outside cooperators, and \$102,543 from volunteer fire cooperators), "Consolidated Payment Grant 2008."

**Aslin, Raymond G.**, US Department of Agriculture, \$100,000, "Hazardous Fuels Reduction."

**Atchison, Robert L.**, US Department of Agriculture, \$50,000, "NRCS Technical Service MOU 2008."

**Biles, Larry E.**, US Department of Agriculture, \$73,513, "Inventory of the Forest Resources of Kansas."

**Biles, Larry E.**, US Department of Agriculture, \$14,349 (includes \$5,705 from Kansas Rural Fire Districts), "NASF State Assessment."

**Biles, Larry E.**, US Department of the Interior, \$22,000 (includes \$2,000 from fire districts), "Assistance to Rural Firefighters."

### **KANSAS CENTER FOR AGRICULTURAL RESOURCES AND THE ENVIRONMENT/KANSAS WATER RESOURCE RESEARCH INSTITUTE**

**Hargrove, William L.**, US Environmental Protection Agency, \$15,000, "KS WRAPS: Kanopolis Reservoir, Big Creek and Middle Smoky Hill River Watersheds."

## NORTHEAST AREA OFFICE

**Duncan, Stewart R., Gordon, Walter B.** (Agronomy), **Jardine, Douglas J.** (Plant Pathology), and **Roozeboom, Kraig L.** (Agronomy), Kansas Soybean Commission, \$850, "The Use of Seed and Foliar Fungicides at Two Planting Dates for Soybean Production in Kansas."

**Duncan, Stewart R., Heer, William F.** (Agronomy), **Long Jr, James H.** (Southeast Agricultural Research Center), **Martin, Kent L.** (Southwest Area Office), **Olson, Brian L.** (Northwest Area Office), and **Shoup, Douglas E.** (Southeast Area Office), Kansas Sunflower Commission, \$900, "Sunflower Planting Date Study."

**Duncan, Stewart R.**, Multisponsor, \$580, "Crop and Soils Multisponsor Programs."

**Duncan, Stewart R., Gordon, Walter B.** (Agronomy), and **Long Jr, James H.** (Southeast Agricultural Research Center), The United Sorghum Checkoff Program Board, \$3,000, "Managing Sorghum Production in the Eastern Great Plains."

**Staggenborg, Scott A., Nelson, Richard G.** (Kansas Industrial Extension Services), **Rice, Charles W.** (Agronomy), and **Williams, Jeffery R.** (Agricultural Economics), US Department of Energy, "National Carbon Sequestration Database and Geographic Information System."

## NORTHWEST AREA OFFICE

**O'Brien, Daniel M., Dumler, Troy** (Southwest Area Office), and **Madl, Ronald L.** (Grain Science and Industry), Kansas Association of Wheat Growers, \$20,100, "Development of an Economic Analysis Tool for Kansas Wheat."

**O'Brien, Daniel M.**, and **Lamm, Freddie R.** (Northwest Research Extension Center), Kansas Corn Commission, "Optimizing Corn Production Under Deficit Sprinkler Irrigation."

**O'Brien, Daniel M., Madl, Ronald L.** (Grain Science and Industry), and **Vadlani, Praveen V.** (Grain Science and Industry), Kansas Soybean Commission, \$5,811, "Nutritional Enhancement of Soybean Carbohydrates and Hulls for Animal Feed using Microbial Cultures."

**O'Brien, Daniel M., Aiken, Robert M.** (Northwest Research Extension Center), and **Lamm, Freddie R.** (Northwest Research Extension Center), National Sunflower Association, "Managing Deficit Sprinkler Irrigation for Sunflower Production."

**Olson, Brian L., Blanco, Humberto** (Agricultural Research Center-Hays), **Janssen, Keith A.** (Agronomy), and **Presley, DeAnn R.** (Agronomy), Kansas Corn Commission, \$7,383, "Impacts of Corn Stover Removal for Biofuel on Crop Production, Soil and Water Quality."

**Olson, Brian L., Duncan, Stewart R.** (Northeast Area Office), **Heer, William F.** (Agronomy), **Long Jr, James H.** (Southeast Agricultural Research Center), **Martin, Kent L.** (Southwest Area Office), and **Shoup, Douglas E.** (Southeast Area Office), Kansas Sunflower Commission, \$900, "Sunflower Planting Date Study."

**Olson, Brian L.**, and **Aiken, Robert M.** (Northwest Research Extension Center), Kansas Wheat Commission, \$5,200, "Intensive Wheat Production in Northwest Kansas."

## NUTRITION PROGRAM

**Peters, Paula**, US Department of Agriculture, \$32,078, "Military Life Skills Education Program at Ft. Riley, Kansas."

## SOUTHEAST AREA OFFICE

**Shoup, Douglas E., Duncan, Stewart R.** (Northeast Area Office), **Heer, William F.** (Agronomy), **Long Jr, James H.** (Southeast Agricultural Research Center), **Martin, Kent L.** (Southwest Area Office), and **Olson, Brian L.** (Northwest Area Office), Kansas Sunflower Commission, \$900, "Sunflower Planting Date Study."

## SOUTHWEST AREA OFFICE

**Dumler, Troy, Madl, Ronald L.** (Grain Science and Industry), and **O'Brien, Daniel M.** (Northwest Area Office), Kansas Association of Wheat Growers, "Development of an Economic Analysis Tool for Kansas Wheat."

**Dumler, Troy, Golden, Bill B.** (Agricultural Economics), **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), **Klocke, Norman L.** (Southwest Research Extension Center), **Lamm, Freddie R.** (Northwest Research Extension Center), **Prasad, P. V. Vara** (Agronomy), **Presley, DeAnn R.** (Agronomy), **Rogers, Danny H.** (Biological and Agricultural Engineering), **Schlegel, Alan J.** (Southwest Research Extension Center), **Staggenborg, Scott A.** (Agronomy), **Steward, David R.** (Civil Engineering), and **Stone, Loyd R.** (Agronomy), US Department of Agriculture, \$53,738, "New Water Management Technologies to Sustain Rural Economies."

**Hartman, Paul D.**, Multisponsor, \$2,750, "Chemical Evaluation."

**Martin, Kent L., Duncan, Stewart R.** (Northeast Area Office), **Heer, William F.** (Agronomy), **Long Jr, James H.** (Southeast Agricultural Research Center), **Olson, Brian L.** (Northwest Area Office), and **Shoup, Douglas E.** (Southeast Area Office), Kansas Sunflower Commission, \$900, "Sunflower Planting Date Study."

**Sloderbeck, Phillip E., Buschman, Larry L.** (Southwest Research Extension Center), **Schapaugh Jr, William T.** (Agronomy), **Smith, C. Michael** (Entomology), and **Trick, Harold N.** (Plant Pathology), Kansas Soybean Commission, "Development of Soybean Host Plant Resistance and Other Management Options for the Soybean Stem Borer."

**Sloderbeck, Phillip E., Chen, Ming-Shun** (Entomology), **McCornack, Brian P.** (Entomology), and **Whitworth, Robert "Jeff" J.** (Entomology), Kansas Wheat Commission, "Biotype Survey and Integrated Management of the Hessian Fly and Selected Wheat Aphids in Kansas."

**Sloderbeck, Phillip E., Bauernfeind, Robert J.** (Entomology), **Broce, Alberto B.** (Entomology), **Cloyd, Raymond A.** (Entomology), **Jardine, Douglas J.** (Plant Pathology), **Kennelly, Megan** (Plant Pathology), **Michaud, John P.** (Entomology), **Nechols, James R.** (Entomology), **Ortigao, Marcelo R.** (Entomology), **Peterson, Dallas E.** (Agronomy), **Phillips, Thomas W.** (Entomology), **Upham, Ward S.** (Horticulture, Forestry and Recreation Resources), and **Zurek, Ludek** (Entomology), US Department of Agriculture, \$13,000, "Extension IPM Coordination Program for Kansas."

**Sloderbeck, Phillip E.**, US Department of Agriculture, \$7,000, "Technology Transfer Program for Integrated Pest Management of Potato Psyllid to Minimize the Incidence of Zebra Chip in Potatoes."

## COLLEGE OF ARCHITECTURE, PLANNING AND DESIGN

### LANDSCAPE ARCHITECTURE/REGIONAL AND COMMUNITY PLANNING

**Keane, Timothy D.**, and **Hutchinson, Stacy L.** (Biological and Agricultural Engineering), Johnson County Public Works, "Johnson County Stormwater Infiltration Demonstration."

## COLLEGE OF ARTS AND SCIENCES

### BIOCHEMISTRY

**Arakane, Yasuyuki, Beeman, Richard W.** (Entomology), **Kanost, Michael R., Kramer, Karl J.**, and **Muthukrishnan, Subbarat**, National Science Foundation, "Integrated Functional Genomics Investigation of Chitin Metabolism and Its Role in Insect Growth and Development."

**Davis, Lawrence C.**, and **Erickson, Larry E.** (Chemical Engineering), National Science Foundation, \$1,903, "Recruiting Native Americans into Environmental Science."

**Kanost, Michael R., Arakane, Yasuyuki, Beeman, Richard W.** (Entomology), **Kramer, Karl J.**, and **Muthukrishnan, Subbarat**, National Science Foundation, "Integrated Functional Genomics Investigation of Chitin Metabolism and Its Role in Insect Growth and Development."

**Kanost, Michael R.**, US Department of Health and Human Services, \$302,950, "Proteinase Systems in Insect Hemolymph."

**Kramer, Karl J., Arakane, Yasuyuki, Beeman, Richard W.** (Entomology), **Kanost, Michael R.**, and **Muthukrishnan, Subbarat**, National Science Foundation, "Integrated Functional Genomics Investigation of Chitin Metabolism and Its Role in Insect Growth and Development."

**Marcus, Daniel C.**, US Department of Health and Human Services, \$57,564, "Epithelial Function in Health and Disease."

**Muthukrishnan, Subbarat, Arakane, Yasuyuki, Beeman, Richard W.** (Entomology), **Kanost, Michael R.**, and **Kramer, Karl J.**, National Science Foundation, \$4,500, "Integrated Functional Genomics Investigation of Chitin Metabolism and Its Role in Insect Growth and Development."

**Prakash, Om**, US Department of Health and Human Services, \$316,050, "Purchase of a Cryo-Probe to Upgrade a 500 MHz NMR System for BioNMR Applications."

**Takemoto, Dolores J.**, US Department of Health and Human Services, \$475,930, "Protein Kinase C Gamma in the Lens."

## BIOLOGY

**Akhunov, Eduard D.**, Kansas Wheat Commission, \$3,000, "Advancing Genomics at K-State: Ultra High-Throughput DNA Sequencing."

**Asano, Katsura**, US Department of Health and Human Services, \$277,400, "Studies on Start Codon Selection by Eukaryotic Ribosomes."

**Beeser, Alexander E.**, Sarcoma Foundation of America, \$25,000, "Evaluation of the Oncogenic Potential of Genes within the 1q23 Amplicon."

**Beeser, Alexander E.**, US Department of Health and Human Services, \$146,000, "Identification of In Vivo Pak 1 Protein Kinase Inhibitors."

**Beeser, Alexander E.**, and **Denell, Robin E.**, US Department of Health and Human Services, \$15,511, "Identification of In Vivo Pak 1 Protein Kinase Inhibitors (Mentor)."

**Blair, John M.**, **Langemeier, Michael R.** (Agricultural Economics), **Nelson, Richard G.** (Kansas Industrial Extension Services), **Pfromm, Peter H.** (Chemical Engineering), **Rice, Charles W.** (Agronomy), **Rogers, Danny H.** (Biological and Agricultural Engineering), **Staggenborg, Scott A.** (Agronomy), **Wang, Donghai** (Biological and Agricultural Engineering), and **Williams, Jeffery R.** (Agricultural Economics), Kansas Bioscience Authority, \$15,000, "Biomass Feedstock Resource Assessment and Supply Analyses for Kansas."

**Blair, John M.**, National Science Foundation, \$64,063, "Collaborative Research: Convergence and Contingencies in Savannah."

**Blair, John M.**, **Dodds, Walter K.**, **Hartnett, David C.**, **Joern, Anthony**, and **Nippert, Jesse B.**, National Science Foundation, \$101,850, "Konza Prairie LTER V: Long-Term Research on Grassland Dynamics and Global Change."

**Blair, John M.**, National Science Foundation, \$820,000, "Konza Prairie LTER VI: Grassland Dynamics and Long-Term Trajectories of Change."

**Blair, John M.**, US Department of Energy, \$118,605, "Interactive Effects of Altered Rainfall Timing and Elevated Temperature on Soil Communities and Processes."

**Blecha, Kevin A.**, **Conard, Jonathan M.**, and **Paukert, Craig**, US Department of the Interior, "Chronic Wasting Disease - Whitetail Deer - Kansas."

**Brown, Susan J.**, BASF Aktiengesellschaft, \$221,729, "Early ADME for Agrochemicals: Excretion and P450 Metabolism."

**Brown, Susan J.**, **Denell, Robin E.**, and **Shippy, Teresa D.**, US Department of Health and Human Services, \$547,282, "Genetic Control of Segmentation."

**Brown, Susan J.**, US Department of Health and Human Services, \$175,200, "KSU Bioinformatics Core."

**Chapes, Stephen K.**, American Heart Association, Midwest Affiliate, \$71,500, "Understanding Adipocyte-Macrophage Interactions."

**Chapes, Stephen K.**, National Aeronautics and Space Administration, \$82,420, "Determination of the Bone Marrow Macrophage Phenotype in Space."

**Chapes, Stephen K.**, US Department of Health and Human Services, \$58,400, "KSU Undergraduate Support Core."

**Chapes, Stephen K.**, US Department of Health and Human Services, \$13,000, "Star Trainee: Diana Hylton."

**Chapes, Stephen K.**, US Department of Health and Human Services, \$20,800, "Summer Scholars: Gorman, Kjos, Low, Littlechild."

**Chapes, Stephen K.**, US Department of Health and Human Services, \$13,000, "Undergraduate Coordinator Office Outstanding Mentor Award - S. K. Chapes."

**Conard, Jonathan M.**, **Blecha, Kevin A.**, and **Paukert, Craig**, US Department of the Interior, "Chronic Wasting Disease - Whitetail Deer - Kansas."

**Conrad, Gary W.**, US Department of Health and Human Services, \$370,000, "Fibroblast Differentiation During Eye Development."

**Craine, Joseph M.**, and **McLauchlan, Kendra K.**, National Science Foundation, \$444,157, "Testing the Consequences of the Carbon-Quality Temperature Hypothesis for Soil Organic Matter Decomposition."

**Cully, Jr., Jack F.**, US Department of Agriculture, \$5,000, "Cibola National Forest/Kansas State University 10.25 Challenge Cost Share Grant, 2009 at Kiowa/Rita Blanca national Grasslands."

**Cully, Jr., Jack F.**, and **Wisely, Samantha**, US Department of the Interior, "Genetic Susceptibility and Animal Movement Patterns of Sympatric Populations of Mule Deer and White-Tailed Deer in Western Kansas."

**Cully, Jr., Jack F.**, US Department of the Interior, \$102,300, "Status and Management of Black-tailed Prairie Dogs on Small Cultural Parks of the Western Great Plains."

**Denell, Robin E.**, National Science Foundation, \$140,000, "Evolution of Genetic Mechanisms Controlling Developmental Fate."

**Denell, Robin E.**, **Brown, Susan J.**, and **Shippy, Teresa D.**, US Department of Health and Human Services, "Genetic Control of Segmentation."

**Denell, Robin E.**, and **Beeser, Alexander E.**, US Department of Health and Human Services, "Identification of In Vivo Pak 1 Protein Kinase Inhibitors (Mentor)."

**Dodds, Walter K.**, Missouri Department of Conservation, \$72,604, "Ecological Integrity of Prairie Streams as Influenced by Patchburn Grazing and Riparian Protection."

**Dodds, Walter K.**, **Blair, John M.**, **Hartnett, David C.**, **Joern, Anthony**, and **Nippert, Jesse B.**, National Science Foundation, "Konza Prairie LTER V: Long-Term Research on Grassland Dynamics and Global Change."

**Ferguson, Carolyn J.**, **Bolton, Timothy A.** (Physics), **Kambhampati, Srinivas** (Entomology), **Rebello, Nobel S.** (Physics), and **Totten, Iris M.** (Geology), National Science Foundation, \$538,637, "Evidence-based Inquiry into the Distant, Remote, or Past (EIDRoP): Linking Evidence to Inference in the Kansas Science Classroom."

**Ferguson, Carolyn J.**, **Culbertson, Christopher T.** (Chemistry), **Rebello, Nobel S.** (Physics), **Scharmann, Lawrence C.** (Dean of Education), and **Totten, Iris M.** (Geology), National Science Foundation, "K-State TEACH Program."

**Ferguson, Carolyn J.**, and **Rolfsmeier, Steven**, US Department of Agriculture, \$12,969, "PLANTS Database Project."

**Fleming, Sherry D.**, US Department of Health and Human Services, \$339,485, "Natural Antibodies and Tissue Injury."

**Gerken, Joe**, and **Paukert, Craig**, US Department of the Interior, "Factors Influencing Threatened and Endangered Fishes in the Great Plains."

**Gido, Keith B.**, US Department of the Interior, \$118,004, "Quantifying Basal Resource Productivity of Native and Nonnative Fishes in the Gila River Basin Fish Assemblages."

**Hartnett, David C.**, **Blair, John M.**, **Dodds, Walter K.**, **Joern, Anthony**, and **Nippert, Jesse B.**, National Science Foundation, "Konza Prairie LTER V: Long-Term Research on Grassland Dynamics and Global Change."

**Jeannotte, Richard**, and **Welti, Ruth**, The Breast Cancer Research Foundation, "Assessment of Tissue Levels of Hormones (Estradiol, Estrone)."

**Joern, Anthony**, **Blair, John M.**, **Dodds, Walter K.**, **Hartnett, David C.**, and **Nippert, Jesse B.**, National Science Foundation, "Konza Prairie LTER V: Long-Term Research on Grassland Dynamics and Global Change."

**Johnson, Loretta C.**, **Akhunov, Eduard D.** (Plant Pathology), **Garrett, Karen A.** (Plant Pathology), and **Morgan, Theodore J.**, US Department of Agriculture, \$349,400, "Ecotypic Variation and Functional Genetic Responses of a Dominant Grass Under Natural and Reduced Precipitation: Genes to Ecosystem Response."

**Jumpponen, Ari M.**, and **Sandercock, Brett K.**, National Science Foundation, "REU Site: Ecology, Evolution and Genomics of Grassland Organisms."

**Marcus, Daniel C.**, US Department of Health and Human Services, \$270,763, "Epithelial Function in Health and Disease."

**Morgan, Theodore J.**, **Akhunov, Eduard D.** (Plant Pathology), **Garrett, Karen A.** (Plant Pathology), and **Johnson, Loreta C.**, US Department of Agriculture, "Ecotypic Variation and Functional Genetic Responses of a Dominant Grass Under Natural and Reduced Precipitation: Genes to Ecosystem Response."

**Nippert, Jesse B.**, **Blair, John M.**, **Dodds, Walter K.**, **Hartnett, David C.**, and **Joern, Anthony**, National Science Foundation, "Konza Prairie LTER V: Long-Term Research on Grassland Dynamics and Global Change."

**Nippert, Jesse B.**, US Environmental Protection Agency, \$3,750, "Determination of Ecological Thresholds in Rivers Through a Historical Perspective of Trophic Dynamics."

**Passarelli, A. Lorena**, US Department of Health and Human Services, \$214,839, "Role of Viral Fibroblast Growth Factor in Pathogenesis."

**Paukert, Craig**, Kansas Department of Wildlife and Parks, \$40,000, "Establishment and Operation of the Kansas Cooperative Fish and Wildlife Research Unit."

**Paukert, Craig**, **Blecha, Kevin A.**, and **Conard, Jonathan M.**, US Department of the Interior, \$16,000, "Chronic Wasting Disease - Whitetail Deer - Kansas."

**Paukert, Craig**, US Department of the Interior, \$95,586, "Development and Validation of Models to Assess the Threat to Freshwater Fishes from Environmental Change and Invasive Species."

**Paukert, Craig**, US Department of the Interior, \$92,776, "Development of Conservation Priorities to Protect Biodiversity of Fishes in the Lower Colorado River Basin."

**Paukert, Craig**, and **Gerken, Joe**, US Department of the Interior, \$21,698, "Factors Influencing Threatened and Endangered Fishes in the Great Plains."

**Sandercock, Brett K.**, and **Wisely, Samantha**, Multisponsor, \$138,100, "Effects of Wind Power Development on Greater Prairie Chickens."

**Sandercock, Brett K.**, and **Wisely, Samantha**, US Department of Energy, \$47,065, "Effects of Wind Power Development on Greater Prairie Chickens."

**Sandercock, Brett K.**, and **Jumpponen, Ari M.**, National Science Foundation, \$210,720, "REU Site: Ecology, Evolution and Genomics of Grassland Organisms."

**Shippy, Teresa D.**, **Brown, Susan J.**, and **Denell, Robin E.**, US Department of Health and Human Services, "Genetic Control of Segmentation."

**Spooner, Brian S.**, Kansas State University Foundation, \$68,120, "Biology Research Career Development Core."

**Spooner, Brian S.**, Kansas State University Foundation, \$76,280, "Cancer Center Core."

**Takemoto, Larry J.**, University of Kansas Endowment Association, \$10,000, "Higuchi-Endowment Association Research Achievement Award."

**Takemoto, Larry J.**, US Department of Health and Human Services, \$259,563, "Lens Membrane in Relation to Human Cataractogenesis."

**Ungerer, Mark**, National Science Foundation, \$242,780, "Hybrid Speciation, Transposable Elements, and Genome Evolution in Wild Sunflowers."

**Welti, Ruth**, National Science Foundation, \$6,000, "Metabolomic Profiling of Lipids and Their Compositional Dynamics in Plant Stress Responses."

**Welti, Ruth**, National Science Foundation, \$115,596, "Metabolomics: A Functional Genomics Tool for Deciphering Functions of Arabidopsis Genes in the Context of Metabolic and Regulatory Networks."

**Welti, Ruth**, National Science Foundation, \$13,540, "Role of Arabidopsis SFD1 in Systemic Acquired Resistance."

**Welti, Ruth**, and **Jeannotte, Richard**, The Breast Cancer Research Foundation, \$12,500, "Assessment of Tissue Levels of Hormones (Estradiol, Estrone)."

**Welti, Ruth**, US Department of Health and Human Services, \$11,580, "Novel Proapoptotic BH3-Only Proteins in Cancer Apoptosis."

**Wisely, Samantha**, and **Sandercock, Brett K.**, Multisponsor, "Effects of Wind Power Development on Greater Prairie Chickens."

**Wisely, Samantha**, and **Sandercock, Brett K.**, US Department of Energy, "Effects of Wind Power Development on Greater Prairie Chickens."

**Wisely, Samantha**, and **Cully, Jr., Jack F.**, US Department of the Interior, \$22,324, "Genetic Susceptibility and Animal Movement Patterns of Sympatric Populations of Mule Deer and White-Tailed Deer in Western Kansas."

## CHEMISTRY

**Aakeroy, Christer B.**, Boehringer Ingelheim, \$49,980, "Synthesis and Solubility of Co-Crystals of Pharmaceuticals."

**Aakeroy, Christer B.**, US Department of Health and Human Services, \$73,000, "Molecular Co-Crystals: New Solid Forms for Anti-Cancer Drugs."

**Aikens, Christine M.**, American Chemical Society, \$100,000, "Fundamental Surface Reactions of Lactic Acid with MgO."

**Bossmann, Stefan**, US Department of Health and Human Services, \$49,500, "Functionalized Bimagnetic Core/Shell Fe/Fe304 Stealth Nanoparticles for Diagnosis and Treatment of Cancer."

**Chikan, Viktor**, American Chemical Society, \$100,000, "Investigation of Dopant Incorporation in Semiconductor Nanoparticles by in situ Time-resolved Fluorescence Spectroscopy and Terahertz Spectroscopy."

**Culbertson, Christopher T.**, and **Lookhart, George L.** (Grain Science and Industry), Kansas Wheat Commission, \$14,520, "Rapid Varietal Identification for Wheat Quality Prediction."

**Culbertson, Christopher T.**, **Ferguson, Carolyn J.** (Biology), **Rebello, Nobel S.** (Physics), **Schermann, Lawrence C.** (Dean of Education), and **Totten, Iris M.** (Geology), National Science Foundation, "K-State TEACH Program."

**Culbertson, Christopher T.**, US Department of Health and Human Services, \$51,493, "Microanalytical Methods for the Detection of Reactive Nitrogen Species."

**Erickson, Larry E.**, **Eckels, Steven J.** (Institute for Environmental Research), **Guikema, James A.** (Office of the Vice President for Research), and **Leven, Blase A.** (Center for Hazardous Substance Research), US Department of Defense, \$24,700, "Urban Operations Laboratory."

**Higgins, Daniel A.**, and **Li, Jun**, Canadian Government, "Biochip Testing."

**Higgins, Daniel A.**, National Science Foundation, \$85,000, "Collaborative Research: New Routes for the Preparation and Characterization of Functionally-Graded and Mesoporous Silica Thin Films."

**Hollingsworth, Mark D.**, National Science Foundation, \$220,000, "Synthesis and Mechanistic Studies of New Series of Ferroelastic and Ferroelectric Crystals."

**Hua, Duy H.**, and **Chang, Kyeong-Ok** (Diagnostic Medicine/Pathobiology), US Department of Health and Human Services, \$152,667, "Development of Novel Therapeutic Agents for Norovirus Infections."

**Hua, Duy H.**, US Department of Health and Human Services, \$261,009, "Inhibition of Alzheimer's Beta-Amyloid Fibril Formation."

**Hua, Duy H.**, and **Li, Jun**, US Department of Health and Human Services, "Nanoelectronic Chip for Kinase Profiling (mentor)."

**Hua, Duy H.**, **Tamura, Masaaki** (Anatomy and Physiology), and **Troyer, Deryl L.** (Anatomy and Physiology), US Department of Health and Human Services, \$82,125, "Stem Cells as Vehicles for Therapeutic Nanoparticle Delivery to Breast Cancer."

**Hua, Duy H.**, Wm. Wrigley Jr. Company, \$77,834, "Cross-Linked Polymers."

**Jankowiak, Ryszard J.**, Kansas Technology Enterprise Corporation, \$15,000, "Excitation Energy Transfer in Natural Photosynthetic Complexes and Chlorophyll Trefoils: Hole Burning and Single Complex/Trefoil Spectroscopic Studies."

**Jankowiak, Ryszard J.**, US Department of Energy, \$420,000, "Excitation Energy Transfer in Natural Photosynthetic Complexes and Chlorophyll Trefoils: Hole- Burning and Single Complex/Trefoil Spectroscopic Studies."

**Jankowiak, Ryszard J.**, US Department of Energy, \$5,000, "Hole-Burned Spectra."

**Klabunde, Kenneth J.**, US Army, \$30,000, "Engineered Reactive Metal Oxyhydroxides for Detection and Decontamination of Toxic Reagents."

**Klabunde, Kenneth J.**, and **Erickson, Larry E.** (Chemical Engineering), US Department of Defense, \$10,000, "Nanoscale Materials in Chemistry: Environmental Applications."

**Klabunde, Kenneth J.**, US Department of Defense, \$50,000, "Oxidation Catalysts in the Dark and the Light."

**Li, Jun**, and **Higgins, Daniel A.**, Canadian Government, \$120,000, "Biochip Testing."

**Li, Jun**, US Department of Health and Human Services, \$221,869, "Nanoelectronic Chip for Kinase Profiling."

**Li, Jun**, and **Hua, Duy H.**, US Department of Health and Human Services, \$15,588, "Nanoelectronic Chip for Kinase Profiling (mentor)."

**Rayat, Sundeep**, American Chemical Society, \$50,000, "Substituent Effects on the Photochemistry of 1,4-Disubstituted Tetrazolethiones."

**Smith, Paul E.**, US Department of Health and Human Services, \$219,000, "Accurate Simulations of Peptide Aggregation."

## COMMUNICATION STUDIES, THEATRE, AND DANCE

**Yagerline, Joyce A.**, Kansas State University Foundation, \$962, "Walking with Pearl.Southern Diaries: Dance Residency at Kansas State University."

**Yagerline, Joyce A.**, National Foundation on the Arts and the Humanities, \$10,000, "Walking with Pearl.Southern Diaries: Dance Residency at Kansas State University."

## COMMUNITY HEALTH INSTITUTE

**Dzewaltowski, David A.**, US Department of Health and Human Services, \$24,118, "Individual and Environmental Mechanisms of PA Change."

## DEAN OF ARTS AND SCIENCES

**Allen, David S.**, and **Bennett, Andrew G.** (Mathematics), US Department of Education, \$42,000, "Infinite Mathematics Project."

**Montelone, Beth A.**, and **Freeman, Lisa C.** (Office of the Vice President for Research), Kansas Health Foundation, \$1,079,654, "One Health Kansas."

**Montelone, Beth A.**, and **Britton, Dana M.** (Sociology, Anthropology, and Social Work), National Science Foundation, \$71,244, "ADVANCE: Partnerships for Adaptation, Implementation, and Dissemination (PAID): PROMOTE- Improving the Promotion to Full Process at Western Public Universities."

**Shroyer, Margaret G.**, **Bennett, Andrew G.** (Mathematics), and **Yahnke, Sally J.** (Secondary Education), US Department of Education, \$475,193, "Equity and Access: Enhancing Teacher Quality through Multi-Institutional Partnerships."

**Staples, Kimberly A.**, US Department of Education, "Connections that Create Science Conceptual Change: A Professional Development Project for Middle Level Science Teachers."

## ECONOMICS

**Babcock, Michael W.**, and **Landman, E. Dean** (Civil Engineering), Kansas Department of Transportation, \$32,000, "Economic Impacts of the Kansas Comprehensive Transportation Program (CTP) Highway Construction and Maintenance Activities."

**Babcock, Michael W.**, Kansas Department of Transportation, \$43,000, "The Economics of Potential Reduction of the Rural Road System in Kansas."

**Thomas Jr, Lloyd B.**, Kansas State University Foundation, \$10,000, "Trenary Chair in Economics."

## GEOGRAPHY

**Harrington Jr, John A.**, National Geographic Education Foundation, \$23,660, "2007/2008 Kansas Geographic Alliance."

**Harrington Jr, John A.**, National Geographic Education Foundation, \$50,000, "2008/2009 Kansas Geographic Alliance."

**Hutchinson, J. M. Shawn**, US Department of Agriculture, \$64,175, "Applying Landscape Connectivity to Model the Spread of Plant Pathogens."

**Hutchinson, J. M. Shawn**, and **Hutchinson, Stacy L.** (Biological and Agricultural Engineering), US Department of Defense, "Validating the Kinematic Wave Approach for Rapid Soil Erosion Assessment and Improved BMP Site Selection to Enhance Training Land Sustainability."

**Hutchinson, J. M. Shawn**, and **Hutchinson, Stacy L.** (Biological and Agricultural Engineering), US Department of the Interior, "Range and Training Lands Assessment on Fort Riley."

**Lu, Max**, Kansas Department of Health and Environment, \$36,087, "Data Development for Asthma Hazard Mapping."

**McLauchlan, Kendra K.**, National Science Foundation, \$90,005, "Improving Reconstructions of Open Vegetation in North America: Pollen Productivity Estimates for Grassland Plants."

## GEOLOGY

**Oviatt, Charles G.**, Comer Science & Education Foundation, \$8,399, "Climate Change During the Overflowing Phase of Lake Bonneville."

**Totten, Iris M.**, Kauffman Foundation, \$178,754, "GeoWorlds: The Integration of Collaborative Virtual Learning Environments, Problem-Based Education in the Geosciences and Facilitator Development."

**Totten, Iris M.**, **Bolton, Timothy A.** (Physics), **Ferguson, Carolyn J.** (Biology), **Kambhampati, Srinivas** (Entomology), and **Rebello, Nobel S.** (Physics), National Science Foundation, "Evidence-based Inquiry into the Distant, Remote, or Past (EIDRoP): Linking Evidence to Inference in the Kansas Science Classroom."

**Totten, Iris M.**, **Culbertson, Christopher T.** (Chemistry), **Ferguson, Carolyn J.** (Biology), **Rebello, Nobel S.** (Physics), and **Scharmann, Lawrence C.** (Dean of Education), National Science Foundation, "K-State TEACH Program."

## HISTORY

**Lynn-Sherow, Bonnie**, and **Zschoche, Sue**, Kansas State University Foundation, "Chapman Center for Personnel."

**Lynn-Sherow, Bonnie**, National Foundation on the Arts and the Humanities, \$24,987, "Lost Kansas: Recovering the Legacy of Kansas Places and People."

**Zschoche, Sue**, and **Lynn-Sherow, Bonnie**, Kansas State University Foundation, \$60,000, "Chapman Center for Personnel."

## KINESIOLOGY

**Dzewaltowski, David A.**, United Methodist Health Ministry Fund, \$132,002, "Promoting Media Literacy in Parents and Young Children to Provide Healthy Opportunities for Physical Activity and Nutrition at Home: The HOP'N Home Environment Project."

## MATHEMATICS

**Bennett, Andrew G.**, **Rebello, Nobel S.** (Physics), **Warren, Steven** (Electrical and Computer Engineering), and **Zollman, Dean A.** (Physics), National Science Foundation, \$78,968, "Investigating Trajectories of Learning & Transfer of Problem Solving Expertise from Mathematics to Physics to Engineering."

**Bennett, Andrew G.**, **Shroyer, Margaret G.** (Elementary Education), and **Yahnke, Sally J.** (Secondary Education), US Department of Education, "Equity and Access: Enhancing Teacher Quality through Multi-Institutional Partnerships."

**Bennett, Andrew G.**, and **Allen, David S.** (Elementary Education), US Department of Education, "Infinite Mathematics Project."

**Bennett, Andrew G.**, and **Allen, David S.** (Dean of Education), US Department of Education, "PROJECT RENEW: Leadership for Renewal and Excellence in Mathematics."

**Crane, Louis**, Foundational Questions Institute, \$3,000, "FQXi Mini-Grant #MGB-08-004."

**Crane, Louis**, Foundational Questions Institute, \$27,454, "New Approach to Quantum Gravity, with Possible Applications to the Origin and Future of Life."

**Maldonado, Diego M.**, National Science Foundation, \$131,451, "The Monge-Ampere Operator in Analysis and PDEs."

**Nguyen, Xuan Hien**, National Science Foundation, \$22,399, "Construction of Complete Embedded Self-Similar Surfaces under Mean Curvature Flow."

**Rojkovskaia, Natalia**, National Science Foundation, \$15,100, "Graduate Research Conference in Algebra and Representation Theory- Spring 2009, Manhattan, Kansas."

## MUSIC

**Yu, Julie**, Master Teacher, Inc., \$15,920, "Summer Choral Institute."

## PHYSICS

**Ben-Itzhak, Itzhak**, National Science Foundation, \$397,901, "International Collaboration in Chemistry: Control of Ultrafast EUV-induced Chemical Reactions."

**Ben-Itzhak, Itzhak**, US Department of Energy, \$2,500,000, "Structure and Dynamics of Atoms, Ions, Molecules, and Surfaces."

**Bolton, Timothy A.**, and **Onoprienko, Dmitry V.**, Fermi National Accelerator Laboratory, \$19,661, "Collaboration on Simulations for SiD LOI Preparation and Detector Concepts - Dmitry Onoprienko."

**Bolton, Timothy A.**, Fermi National Accelerator Laboratory, \$1,659, "Interface Board Repair."

**Bolton, Timothy A.**, and **Maravin, Yurii**, Fermi National Accelerator Laboratory, \$12,833, "Pixels M&O Subsystem."

**Bolton, Timothy A.**, **Ferguson, Carolyn J.** (Biology), **Kambhampati, Srinivas** (Entomology), **Rebello, Nobel S.**, and **Totten, Iris M.** (Geology), National Science Foundation, "Evidence-based Inquiry into the Distant, Remote, or Past (EIDRoP): Linking Evidence to Inference in the Kansas Science Classroom."

**Bolton, Timothy A.**, National Science Foundation, \$82,500, "PIRE: Collaborative Research with the Paul Scherrer Institute and Eidgenoessische Technische Hochschule on Advanced Pixel Silicon Detectors for the CMS Detector."

**Bolton, Timothy A.**, **Horton-Smith, Glenn A.**, **Maravin, Yurii**, **Ratra, Bharat**, and **Stanton, Noel R.**, US Department of Energy, \$669,100, "Heavy Quark and Neutrino Physics."

**Bolton, Timothy A.**, US Department of Energy, \$16,000, "Memorandum of Understanding: Temporary Support for Dr. Dmitry Onoprienko for the Purpose of Developing and Refining Silicon Detector (SiD)."

**Bolton, Timothy A.**, and **Maravin, Yurii**, US Department of Energy and National Science Foundation, "Electromagnetic Calorimeter M&O Subsystem."

**Chang, Zenghu**, and **Lei, Shuting** (Industrial and Manufacturing Systems Engineering), National Science Foundation, \$31,800, "Collaborative Research: Mathematical Modeling and Experimental Study of Femtosecond Laser Machining of High Aspect Ratio Microstructures."

**Chang, Zenghu**, **Cocke, Charles L.**, and **Lei, Shuting** (Industrial and Manufacturing Systems Engineering), US Department of Defense, \$1,250,000, "Attosecond Optical Technology Based on Recollision and Gating."

**Cocke, Charles L.**, **Chang, Zenghu**, and **Lei, Shuting** (Industrial and Manufacturing Systems Engineering), US Department of Defense, "Attosecond Optical Technology Based on Recollision and Gating."

**Corwin, Kristan L.**, and **Weaver, Oliver L.**, National Science Foundation, \$110,000, "REU Site: Laser-Matter Interactions on Atomic and Nanoscales."

**Corwin, Kristan L.**, and **Washburn, Brian R.**, US Army, \$49,000, "Eye-safe Optically-pumped Gas-filled Fiber Lasers."

**Corwin, Kristan L.**, and **Washburn, Brian R.**, US Department of Defense, \$175,579, "Gas-Filled Hollow Optical Fiber-based Frequency References for Portable Frequency Combs in the Near Infrared."

**Corwin, Kristan L.**, and **Washburn, Brian R.**, US Department of Defense, "Molecular Gas-Filled Hollow Optical Fiber Lasers in the Near Infrared."

**Erickson, Larry E.**, **Eckels, Steven J.** (Institute for Environmental Research), **Guikema, James A.** (Office of the Vice President for Research), and **Leven, Blase A.** (Center for Hazardous Substance Research), US Department of Defense, \$12,350, "Urban Operations Laboratory."

**Esry, Brett D.**, National Science Foundation, \$100,000, "Exploiting Algorithm and Hardware Improvements to Solve the Ultracold Few-Body Problem."

**Esry, Brett D.**, US Department of Defense, \$34,172, "Theoretical Investigation of Ultracold Few-Body Collisions."

**Flanders, Bret N.**, National Science Foundation, \$14,915, "Whispering Gallery Microlasers Using Semiconductor Nanoparticles."

**Horton-Smith, Glenn A.**, **Bolton, Timothy A.**, **Maravin, Yurii**, **Ratra, Bharat**, and **Stanton, Noel R.**, US Department of Energy, "Heavy Quark and Neutrino Physics."

**Jiang, Hongxing**, and **Lin, Jingyu**, US Department of Defense, \$34,000, "III-Nitrides for Hydrogen Fuel Cell and Thermopower Technologies."

**Jiang, Hongxing**, and **Lin, Jingyu**, US Department of Defense, \$15,000, "Workshop/Summer School 2008 on Wide-Bandgap Semiconductor Physics and Devices."

**Jones, Byron W.**, Kansas Technology Enterprise Corporation, \$60,781, "Kansas Defense 2010 (FY08)."

**Law, Bruce M.**, National Science Foundation, \$145,500, "Materials World Network: Electric Field Induced Microfluidic Manipulation."

**Lin, Chii-Dong**, US Department of Energy, \$145,000, "Time-Resolved Imaging of Molecules by High-Order Harmonics and Ultra Short Rescattering Electrons."

**Lin, Jingyu**, and **Jiang, Hongxing**, US Department of Defense, "III-Nitrides for Hydrogen Fuel Cell and Thermopower Technologies."

**Lin, Jingyu**, and **Jiang, Hongxing**, US Department of Defense, "Workshop/Summer School 2008 on Wide-Bandgap Semiconductor Physics and Devices."

**Litvinyuk, Igor V.**, US Department of Energy, \$153,000, "Developing Laser-Induced Re-Collision Electron Self-Diffraction for Ultra-Fast Imaging of Transient Molecular Structure."

**Maravin, Yurii**, Fermi National Accelerator Laboratory, \$5,000, "Coordination of the US CMS Research Effort at the LHC Physics Center in the Area of Dileptons."

**Maravin, Yurii**, and **Bolton, Timothy A.**, Fermi National Accelerator Laboratory, "Pixels M&O Subsystem."

**Maravin, Yurii**, **Bolton, Timothy A.**, **Horton-Smith, Glenn A.**, **Ratra, Bharat**, and **Stanton, Noel R.**, US Department of Energy, "Heavy Quark and Neutrino Physics."

**Maravin, Yurii**, US Department of Energy, \$82,000, "The Path to Discoveries with the CMS ECAL Detector."

**Maravin, Yurii**, and **Bolton, Timothy A.**, US Department of Energy & National Science Foundation, \$2,308, "Electromagnetic Calorimeter M&O Subsystem."

**Onoprienko, Dmitry V.**, and **Bolton, Timothy A.**, Fermi National Accelerator Laboratory, "Collaboration on Simulations for SiD LOI Preparation and Detector Concepts - Dmitry Onoprienko."

**Ratra, Bharat**, **Bolton, Timothy A.**, **Horton-Smith, Glenn A.**, **Maravin, Yurii**, and **Stanton, Noel R.**, US Department of Energy, "Heavy Quark and Neutrino Physics."

**Rebello, Nobel S.**, National Science Foundation, \$18,443, "CoMPASS: Integrating Digital Text in Design-Based Science Classes."

**Rebello, Nobel S.**, **Bolton, Timothy A.**, **Ferguson, Carolyn J.** (Biology), **Kambhampati, Srinivas** (Entomology), and **Totten, Iris M.** (Geology), National Science Foundation, "Evidence-based Inquiry into the Distant, Remote, or Past (EIDRoP): Linking Evidence to Inference in the Kansas Science Classroom."

**Rebello, Nobel S.**, and **Zollman, Dean A.**, National Science Foundation, \$6,633, "Facilitating Case Reuse during Problem Solving."

**Rebello, Nobel S.**, **Bennett, Andrew G.** (Mathematics), **Warren, Steven** (Electrical and Computer Engineering), and **Zollman, Dean A.**, National Science Foundation, "Investigating Trajectories of Learning & Transfer of Problem Solving Expertise from Mathematics to Physics to Engineering."

**Rebello, Nobel S., Culbertson, Christopher T.** (Chemistry), **Ferguson, Carolyn J.** (Biology), **Scharmann, Lawrence C.** (Dean of Education), and **Totten, Iris M.** (Geology), National Science Foundation, "K-State TEACH Program."

**Rebello, Nobel S.**, US Department of Education, \$72,119, "Scaffolding Students' Use of Multiple Representations for Science Learning."

**Stanton, Noel R., Bolton, Timothy A., Horton-Smith, Glenn A., Maravin, Yurii,** and **Ratra, Bharat**, US Department of Energy, "Heavy Quark and Neutrino Physics."

**Thumm, Uwe**, National Science Foundation, \$65,000, "Quantum Dynamics in Particle Interactions with Atomically Flat and Nano-Structured Surfaces."

**Washburn, Brian R.,** and **Corwin, Kristan L.**, US Army, "Eye-safe Optically-pumped Gas-filled Fiber Lasers."

**Washburn, Brian R.,** and **Corwin, Kristan L.**, US Department of Defense, "Gas-Filled Hollow Optical Fiber-based Frequency References for Portable Frequency Combs in the Near Infrared."

**Washburn, Brian R.,** and **Corwin, Kristan L.**, US Department of Defense, \$305,170, "Molecular Gas-Filled Hollow Optical Fiber Lasers in the Near Infrared."

**Weaver, Oliver L.,** and **Corwin, Kristan L.**, National Science Foundation, "REU Site: Laser-Matter Interactions on Atomic and Nanoscales."

**Zollman, Dean A.,** and **Rebello, Nobel S.**, National Science Foundation, "Facilitating Case Reuse during Problem Solving."

**Zollman, Dean A., Bennett, Andrew G.** (Mathematics), **Rebello, Nobel S.,** and **Warren, Steven** (Electrical and Computer Engineering), National Science Foundation, \$173,730, "Investigating Trajectories of Learning and Transfer of Problem Solving Expertise from Mathematics to Physics to Engineering."

**Zollman, Dean A.**, National Science Foundation, \$186,688, "Pathway II: Addressing the Needs of the Nation's Physics Teachers through State-of-the-Art Video Applications and Contemporary Pedagogy."

**Zollman, Dean A.**, National Science Foundation, \$72,855, "Undergraduate Science Course Reform Serving Pre-Service Teachers: Evaluation of a Faculty Professional Development Model."

## PSYCHOLOGY

**Frieman, Jerome,** and **Monaco, Gregory E.**, Great Plains Network Consortium, \$186,900, "Funding for Director of Research - Great Plains Network."

**Monaco, Gregory E.,** and **Frieman, Jerome**, Great Plains Network Consortium, "Funding for Director of Research - Great Plains Network."

**Monaco, Gregory E., Gruenbacher, Don M.** (Electrical and Computer Engineering), and **Scoglio, Caterina M.** (Electrical and Computer Engineering), National Science Foundation, \$7,205, "GpENI: Great Plains Environment for Network Innovation."

**Monaco, Gregory E.**, National Science Foundation, \$2,368, "SGER: Bridging the Cyber, Physical, and Social Worlds."

## SCHOOL OF JOURNALISM AND MASS COMMUNICATIONS

**Gordon, Joye C.**, US Department of Agriculture, \$38,873, "Improving Hygienic and Food Preparation Practices in Day Care Centers."

**Gould, Thomas H.,** and **Goetsch, Lori** (Library), North Central Regional Planning Commission, "K-State Editorship of the Online Journal of Rural Research and Policy."

## SOCIOLOGY, ANTHROPOLOGY, AND SOCIAL WORK

**Britton, Dana M.,** and **Montelone, Beth A.** (Dean of Arts and Sciences), National Science Foundation, \$71,244, "ADVANCE: Partnerships for Adaptation, Implementation, and Dissemination (PAID): PROMOTE-Improving the Promotion to Full Process at Western Public Universities."

**Britton, Dana M.**, Sociologists for Women in Society, \$98,400, "Gender and Society Editorship."

**Goe, W. Richard**, US Department of Agriculture, \$91,227, "Latin- and Women-Owned Businesses as Generators of Amenity-Rich Rural Towns in the Midwest and Northern Great Plains States."

**Goe, W. Richard, Kulcsar, Laszlo, Middendorf, Gerad D.,** and **Selfa, Theresa L.**, US Department of Energy, "Biofuels Revolution: Understanding the Social, Cultural and Economic Impacts of Biofuels Development on Rural Communities."

**Kulcsar, Laszlo, Goe, W. Richard, Middendorf, Gerad D.,** and **Selfa, Theresa L.**, US Department of Energy, "Biofuels Revolution: Understanding the Social, Cultural and Economic Impacts of Biofuels Development on Rural Communities."

**Logan, Brad R.,** and **Ritterbush, Lauren W.**, Kansas State Historical Society, "Manhattan Archeological Survey Project."

**Logan, Brad R.**, US Department of the Interior, \$26,686, "National Register of Historic Places Evaluation of Selected Sites at Lovewell Reservoir, Jewell County, Kansas."

**Middendorf, Gerad D., Goe, W. Richard, Kulcsar, Laszlo,** and **Selfa, Theresa L.**, US Department of Energy, "Biofuels Revolution: Understanding the Social, Cultural and Economic Impacts of Biofuels Development on Rural Communities."

**Ritterbush, Lauren W.,** and **Logan, Brad R.**, Kansas State Historical Society, \$18,000, "Manhattan Archeological Survey Project."

**Roper, Donna C.**, National Science Foundation, \$97,540, "Collaborative Research: Ceramic Geography and the Social Formations of the Smoky Hill Phase, East-Central Kansas."

**Selfa, Theresa L., Goe, W. Richard, Kulcsar, Laszlo,** and **Middendorf, Gerad D.**, US Department of Energy, \$244,368, "Biofuels Revolution: Understanding the Social, Cultural and Economic Impacts of Biofuels Development on Rural Communities."

## STATISTICS

**Higgins, James J., Apley, Michael D.** (Clinical Sciences), and **Coetzee, Johann F.** (Clinical Sciences), US Department of Agriculture, "Validation of a Bovine Pain Model and Development of Effective Pain Relief Regimens Through Pharmacokinetic-Pharmacodynamic Modeling."

## COLLEGE OF BUSINESS ADMINISTRATION

### ACCOUNTING

**Vruwink, David R.,** and **Katz, Jeffrey P.** (Management), Multisponsor, "MBA Practicum."

### MANAGEMENT

**Ehie, Ike C.,** and **Gordon, Myra E.** (Office of Diversity and Dual Career Development), US Agency for International Development, \$19,838, "Advancing Economic Development through Strengthening the MBA Programs in Nigeria."

**Katz, Jeffrey P.,** and **Vruwink, David R.** (Accounting), Multisponsor, \$6,375, "MBA Practicum."

## COLLEGE OF EDUCATION

### DEAN OF EDUCATION

**Allen, David S.,** and **Bennett, Andrew G.** (Mathematics), US Department of Education, \$58,000, "Infinite Mathematics Project."

**Allen, David S.,** and **Bennett, Andrew G.** (Mathematics), US Department of Education, \$307,633 (includes \$7,633 from USD #475 - Junction City PROJECT RENEW: Leadership for Renewal and Excellence in Mathematics."

**Dunn, Cindi,** and **Middendorf, B. Jan**, Institute of Museum and Library Services, "Kansas Center for the Book (KCFB)."

**Havlicek, Barbara J.**, Kansas Foundation for Agriculture in the Classroom, \$128,279, "Kansas Foundation for Agriculture in the Classroom."

**Havlicek, Barbara J.**, Multisponsor, \$3,259, "Council for Public School Improvement."

**Havlicek, Barbara J.**, Multisponsor, \$134,960, "Educational Computer Assistance."

**Havlicek, Barbara J.**, Schools for Quality Education, Inc., \$7,000, "Schools for Quality Education."

**Herrera, Socorro G.**, US Department of Education, \$191,159 (includes \$41,542 from USD #253 - Emporia), "Project CARE."

**Herrera, Socorro G.**, US Department of Education, \$467,255, "Project Destiny."

**Middendorf, B. Jan**, and **Dunn, Cindi**, Institute of Museum and Library Services, \$4,160, "Kansas Center for the Book (KCFB)."

**Middendorf, B. Jan**, Kansas Board of Regents, \$936,000, "Kan-ed Evaluation - Phase VII."

**Middendorf, B. Jan**, and **Shuman, Cindy**, Kansas Board of Regents, \$50,000, "Kansas Board of Regents (KBOR) Research."

**Middendorf, B. Jan**, and **Thurston, Linda P.**, Master Teacher, Inc., "Master Teacher Survey Project."

**Murry, Kevin G.**, US Department of Education, \$259,190, "Project SOAR."

**Rankin, Charles I.**, US Department of Education, \$697,894, "Midwest Equity Assistance Center." (NOTE: A similar award for \$750,978 was inadvertently omitted from the FY 08 annual report.)

**Scharmann, Lawrence C.**, **Culbertson, Christopher T.** (Chemistry), **Ferguson, Carolyn J.** (Biology), **Rebello, Nobel S.** (Physics), and **Totten, Iris M.** (Geology), National Science Foundation, \$875,359, "K-State TEACH Program."

**Shroyer, Margaret G.**, **Bennett, Andrew G.** (Mathematics), and **Yahnke, Sally J.** (Secondary Education), US Department of Education, \$712,789, "Equity and Access: Enhancing Teacher Quality through Multi-Institutional Partnerships."

**Shuman, Cindy**, and **Middendorf, B. Jan**, Kansas Board of Regents, "Kansas Board of Regents (KBOR) Research."

**Shuman, Cindy**, and **Thurston, Linda P.**, US Department of Education, "Evaluation of !LISTO!."

**Staples, Kimberly A.**, US Department of Education, \$43,378, "Connections that Create Science Conceptual Change: A Professional Development Project for Middle Level Science Teachers."

**Teagarden, James M.**, US Department of Education, \$2,000, "Family and Parent Involvement - Curriculum Enhancement Initiative."

**Thurston, Linda P.**, and **Middendorf, B. Jan**, Master Teacher, Inc., \$9,344, "Master Teacher Survey Project."

**Thurston, Linda P.**, National Science Foundation, \$10,000, "Effectiveness of Problem-Based Learning in a Materials Science Course in the Engineering Curriculum."

**Thurston, Linda P.**, National Science Foundation, \$320,800, "Oklahoma EPSCoR Evaluation."

**Thurston, Linda P.**, and **Shuman, Cindy**, US Department of Education, \$22,000, "Evaluation of !LISTO!."

**Vontz, Thomas**, US Department of Education, \$13,500, "Civitas Eurasia Kansas Partnership."

**Vontz, Thomas**, US Department of Education, \$19,000, "Kansas - We the People: The Citizen and the Constitution."

**Vontz, Thomas**, US Department of Education, \$67,376, "Kansas State University / Kazakhstan Civic Education."

## EDUCATIONAL LEADERSHIP

**Gould, Carol A.**, Corporation for National and Community Service, \$116,856, "Kansas Campus Compact."

**Marston, Mary E.**, and **Tolar, Mary H.** (Center for Engagement and Community Development), Corporation for National and Community Service, "Kansas AmeriCorps\*VISTA Service-Learning Project."

**Tolar, Mary H.**, Corporation for National and Community Service, \$81,200 (includes \$45,000 from outside campus compact institutions), "Kansas AmeriCorps\*VISTA Service-Learning Project."

## ELEMENTARY EDUCATION

**Allen, David S.**, and **Bennett, Andrew G.** (Mathematics), US Department of Education, "Infinite Mathematics Project."

**Shroyer, Margaret G.**, **Bennett, Andrew G.** (Mathematics), and **Yahnke, Sally J.** (Secondary Education), US Department of Education, "Equity and Access: Enhancing Teacher Quality through Multi-Institutional Partnerships."

**Staples, Kimberly A.**, US Department of Education, "Connections that Create Science Conceptual Change: A Professional Development Project for Middle Level Science Teachers."

**Vontz, Thomas**, US Department of Education, "Kansas - We the People: The Citizen and the Constitution."

**Vontz, Thomas**, US Department of Education, "Kansas State University / Kazakhstan Civic Education."

**Vontz, Thomas**, US Department of Education, \$31,870, "We the People: Kansas."

## SECONDARY EDUCATION

**Yahnke, Sally J.**, **Bennett, Andrew G.** (Mathematics), and **Shroyer, Margaret G.** (Elementary Education), US Department of Education, "Equity and Access: Enhancing Teacher Quality through Multi-Institutional Partnerships."

## COLLEGE OF ENGINEERING

### ADVANCED MANUFACTURING INSTITUTE

**Case, Scott A.**, and **Tucker, Jeffrey W.**, Multisponsor, "Advanced Manufacturing Institute - Manufacturing Learning Center."

**Case, Scott A.**, **Jones, Taylor S.**, **Kramer, Bradley A.**, and **Tucker, Jeffrey W.**, Multisponsor, "Advanced Manufacturing Institute - Manufacturing Learning Center."

**Case, Scott A.**, US Department of Defense, \$15,000, "Seat Belt Convincer Build."

**Case, Scott A.**, US Department of Defense, \$16,500, "Seat Belt Convincer Build."

**Jones, Taylor S.**, **Case, Scott A.**, **Kramer, Bradley A.**, and **Tucker, Jeffrey W.**, Multisponsor, "Advanced Manufacturing Institute - Manufacturing Learning Center."

**Kramer, Bradley A.**, and **Tucker, Jeffrey W.**, Kansas Technology Enterprise Corporation, \$46,000, "EDA "Early-Stage Technology Development Assistance Center: Phase II"."

**Kramer, Bradley A.**, and **Tucker, Jeffrey W.**, Kansas Technology Enterprise Corporation, \$635,602, "Kansas Technology Enterprise Corporation Center of Excellence Grant Agreement."

**Kramer, Bradley A.**, and **Tucker, Jeffrey W.**, Mid-America Manufacturing Technology Center, \$48,875, "Agreement to Provide Early Stage Technology Development Counseling/Mentoring and Product Development Services to MAMTC Clients."

**Kramer, Bradley A.**, **Case, Scott A.**, **Jones, Taylor S.**, and **Tucker, Jeffrey W.**, Multisponsor, \$414,438, "Advanced Manufacturing Institute - Manufacturing Learning Center."

**Kramer, Bradley A.**, and **Tucker, Jeffrey W.**, US Department of Commerce, \$180,000, "Early-Stage Technology Development Assistance Center: Bridging the Gap between New Technologies and Commercialization."

**Tucker, Jeffrey W.**, Kansas Environmental Management Associates, LLC, \$24,600, "Development of an Ammonia-Water Pre-Mix Injection System P09-0040."

**Tucker, Jeffrey W.**, and **Kramer, Bradley A.**, Kansas Technology Enterprise Corporation "Early-Stage Technology Development Assistance Center: Phase II."

**Tucker, Jeffrey W.**, and **Kramer, Bradley A.**, Kansas Technology Enterprise Corporation, "Kansas Technology Enterprise Corporation Center of Excellence Grant Agreement."

**Tucker, Jeffrey W.**, and **Kramer, Bradley A.**, Mid-America Manufacturing Technology Center, "Agreement to Provide Early Stage Technology Development Counseling/Mentoring and Product Development Services to MAMTC Clients."

**Tucker, Jeffrey W.**, and **Case, Scott A.**, Multisponsor, \$239,898, "Advanced Manufacturing Institute - Manufacturing Learning Center."

**Tucker, Jeffrey W.**, **Case, Scott A.**, **Jones, Taylor S.**, and **Kramer, Bradley A.**, Multisponsor, "Advanced Manufacturing Institute - Manufacturing Learning Center."

**Tucker, Jeffrey W.**, and **Kramer, Bradley A.**, US Department of Commerce, "Early-Stage Technology Development Assistance Center: Bridging the Gap between New Technologies and Commercialization."

**Tucker, Jeffrey W.**, US Department of Defense, \$20,000, "Seat Belt Convincer."

**Tucker, Jeffrey W.**, US Department of Defense, \$17,000, "Seat Belt Convincer Build."

**Tucker, Jeffrey W.**, US Department of Transportation, \$24,000, "KHP Safety Belt Convincers Build S09-0056."

## BIOLOGICAL AND AGRICULTURAL ENGINEERING

**Barnes Jr, Alton A.**, **Devlin, Daniel L.** (Agronomy), **Douglas-Mankin, Kyle R.**, and **Hargrove, William L.** ( Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), US Department of Agriculture, \$283,800 (includes \$103,800 from producer in-kind time), "Reducing Agricultural Sediment Transport."

**Barnes, Philip L.**, **Blocksome, Carolyn E.** (Agronomy), **Devlin, Daniel L.** (Agronomy), and **Hargrove, William L.** ( Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), US Environmental Protection Agency, \$96,203 (includes \$8,665 from outside stakeholder support), "KS WRAPS: KSU SFY 08 Technical Assistance Services (FFY08)."

**Douglas-Mankin, Kyle R.**, **Barnes Jr, Alton A.**, **Devlin, Daniel L.** (Agronomy), and **Hargrove, William L.** ( Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), US Department of Agriculture, "Reducing Agricultural Sediment Transport."

**Douglas-Mankin, Kyle R.**, **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), and **Nejadhashemi, Amirpouyan**, US Department of the Interior, "Kansas Water Resources Research Institute."

**Douglas-Mankin, Kyle R.**, and **Leatherman, John C.** (Agricultural Economics), US Environmental Protection Agency, \$9,390 (includes \$1,219 from stakeholder in-kind support), "KS WRAPS Upper Arkansas Planning."

**Douglas-Mankin, Kyle R.**, **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), and **Leatherman, John C.** (Agricultural Economics), US Environmental Protection Agency, \$36,552 (includes \$900 from county extension offices, \$4,380 from stakeholder support, and \$630 from Watershed Institute), "KS WRAPS: KSU Assessment & Planning Technical Assistance (FFY08)."

**Douglas-Mankin, Kyle R.**, and **Leatherman, John C.** (Agricultural Economics), US Environmental Protection Agency, \$37,704 (includes \$6,528 from stakeholder in-kind support), "KS WRAPS: Neosho Basin Planning."

**Douglas-Mankin, Kyle R.**, **Devlin, Daniel L.** (Agronomy), **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/ Kansas Water Resource Research Institute), **Leatherman, John C.** (Agricultural Economics), and **Williams, Jeffery R.** (Agricultural Economics), US Environmental Protection Agency, \$15,593 (includes \$1,328 from cooperator support), "Milford Lake Watershed WRAPS Planning."

**Douglas-Mankin, Kyle R.**, **Devlin, Daniel L.** (Agronomy), **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/ Kansas Water Resource Research Institute), **Leatherman, John C.** (Agricultural Economics), and **Williams, Jeffery R.** (Agricultural Economics), US Environmental Protection Agency, \$17,438 (includes \$3,173 from cooperator support), "Tuttle Creek Lake Watershed WRAPS Planning."

**Erickson, Larry E.**, **Eckels, Steven J.** (Institute for Environmental Research), **Guikema, James A.** (Office of the Vice President for Research), and **Leven, Blase A.** (Center for Hazardous Substance Research), US Department of Defense, \$24,700, "Urban Operations Laboratory."

**Harner III, Joseph P.**, **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), **Maghirang, Ronaldo G.**, and **Pickrell, John A.** (Diagnostic Medicine/Pathobiology), US Department of Agriculture, "Air Quality: Odor, Dust and Gaseous Emissions from Concentrated Animal Feeding Operations in the Southern Great Plains."

**Harner III, Joseph P.**, and **Maghirang, Ronaldo G.**, US Department of Agriculture, "Characterization and Measurement of Air Emission from Large Cattle Feedlot."

**Hutchinson, Stacy L.**, and **Keane, Timothy D.** (Landscape Architecture/ Regional and Community Planning), Johnson County Public Works, \$20,349, "Johnson County Stormwater Infiltration Demonstration."

**Hutchinson, Stacy L.**, and **Hutchinson, J. M. Shawn** (Geography), US Department of Defense, \$129,586, "Validating the Kinematic Wave Approach for Rapid Soil Erosion Assessment and Improved BMP Site Selection to Enhance Training Land Sustainability."

**Hutchinson, Stacy L.**, and **Hutchinson, J. M. Shawn** (Geography), US Department of the Interior, \$377,358, "Range and Training Lands Assessment on Fort Riley."

**Koelliker, James K.**, US Department of the Interior, \$39,920, "Modeling and Field Experimentation to Determine the Effects of Land Terracing and Non-Federal Reservoirs on Water Supplies in the Republican River Basin above Hardy, Nebraska."

**Maghirang, Ronaldo G.**, **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), **Harner III, Joseph P.**, and **Pickrell, John A.** (Diagnostic Medicine/Pathobiology), US Department of Agriculture, \$133,841, "Air Quality: Odor, Dust and Gaseous Emissions from Concentrated Animal Feeding Operations in the Southern Great Plains."

**Maghirang, Ronaldo G.**, and **Harner III, Joseph P.**, US Department of Agriculture, \$399,981, "Characterization and Measurement of Air Emission from Large Cattle Feedlot."

**Maghirang, Ronaldo G.**, US Department of Agriculture, \$21,432, "Improved Handling of Grain in Commercial Elevators."

**Nejadhashemi, Amirpouyan**, **Douglas-Mankin, Kyle R.**, and **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/ Kansas Water Resource Research Institute), US Department of the Interior, "Kansas Water Resources Research Institute."

**Price, Randy R.**, American Sugar Cane League, \$15,500, "Development of New Technologies to Estimate Sugarcane Yields and Improve Mechanical Planters."

**Rogers, Danny H.**, **Blair, John M.** (Biology), **Langemeier, Michael R.** (Agricultural Economics), **Nelson, Richard G.** (Kansas Industrial Extension Services), **Pfromm, Peter H.** (Chemical Engineering), **Rice, Charles W.** (Agronomy), **Staggenborg, Scott A.** (Agronomy), **Wang, Donghai**, and **Williams, Jeffery R.** (Agricultural Economics), Kansas Bioscience Authority, "Biomass Feedstock Resource Assessment and Supply Analyses for Kansas."

**Rogers, Danny H.**, Kansas Water Office, \$75,000, "Technical Assistance to Water Users Kansas State University Mobile Irrigation Lab."

**Rogers, Danny H., Dumler, Troy** (Southwest Area Office), **Golden, Bill B.** (Agricultural Economics), **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), **Klocke, Norman L.** (Southwest Research Extension Center), **Lamm, Freddie R.** (Northwest Research Extension Center), **Prasad, P. V. Vara** (Agronomy), **Presley, DeAnn R.** (Agronomy), **Schlegel, Alan J.** (Southwest Research Extension Center), **Staggenborg, Scott A.** (Agronomy), **Steward, David R.** (Civil Engineering), and **Stone, Loyd R.** (Agronomy), US Department of Agriculture, \$131,184, "New Water Management Technologies to Sustain Rural Economies."

**Rogers, Danny H., Golden, Bill B.** (Agricultural Economics), **Klocke, Norman L.** (Southwest Research Extension Center), **Lamm, Freddie R.** (Northwest Research Extension Center), and **Stone, Loyd R.** (Agronomy), US Department of Agriculture, \$9,445, "Water Conservation - Increase Efficiency in Usage."

**Slocombe, John W.**, US Department of Agriculture, \$179,860, "Kansas AgrAbility Project."

**Slocombe, John W.**, US Department of Agriculture, \$4,500, "Kansas AgrAbility Project - National Training Workshop."

**Steichen, James M.**, and **Zhang, Naiqian**, US Department of Defense, "Continuous, Wireless Monitoring of Sediment Flux at Multiple Low-Water Stream Crossings on Tank Trails."

**Wang, Donghai, Blair, John M.** (Biology), **Langemeier, Michael R.** (Agricultural Economics), **Nelson, Richard G.** (Kansas Industrial Extension Services), **Pfromm, Peter H.** (Chemical Engineering), **Rice, Charles W.** (Agronomy), **Rogers, Danny H., Staggenborg, Scott A.** (Agronomy), and **Williams, Jeffery R.** (Agricultural Economics), Kansas Bioscience Authority, \$30,000, "Biomass Feedstock Resource Assessment and Supply Analyses for Kansas."

**Wang, Donghai**, and **Shi, Yong Cheng** (Grain Science and Industry), Kansas Corn Commission, \$18,306, "Developing High Solids Enzyme Conversion of Corn Starches and Corn Flours to Reduce the Cost in Ethanol Production."

**Wang, Donghai**, and **Sun, X. Susan** (Grain Science and Industry), Kansas Soybean Commission, \$19,480, "Soy Oil Latex for Pressure Sensitive Adhesives."

**Wang, Donghai**, and **Sun, X. Susan** (Grain Science and Industry), US Department of Agriculture, \$116,887, "Affordable and Durable Biobased Adhesives for Wood Veneer Applications."

**Wang, Donghai**, US Department of Agriculture, \$25,000, "Bio-industrial Uses of Sorghum Proteins."

**Wang, Donghai**, US Department of Agriculture, \$24,612, "Developing Technology and Procedures to Measure Characteristics of Grain and Plants."

**Wang, Donghai**, US Department of Agriculture, \$63,000, "Molecular Genetic Analysis to Improve Ethanol Production from Pearl Millet-A Marginal Land Crop."

**Wang, Donghai, Behnke, Keith C.** (Grain Science and Industry), **McKinney, Leland** (Grain Science and Industry), **Staggenborg, Scott A.** (Agronomy), and **Vadlani, Praveen V.** (Grain Science and Industry), US Department of Agriculture, \$69,000, "Pelletizing Forages to Increase Cellulosic Ethanol Production: Proof of Concept Justification."

**Wang, Donghai**, US Department of Transportation, \$31,500, "Designer Sorghums: Development of High Yielding Sorghum Cultivars with Modified Endosperm Matrices for Optimized Low Energy Input Ethanol Production and High Nutrition Feed."

**Wang, Donghai, Madl, Ronald L.** (Grain Science and Industry), **Staggenborg, Scott A.** (Agronomy), and **Woolverton, Michael W.** (Agricultural Economics), US Department of Transportation, \$7,000, "Develop Comprehensive Understanding and Utilization of Sorghum Stover and Brown Midrib Forage Sorghum for Ethanol Production."

**Wang, Donghai**, and **Staggenborg, Scott A.** (Agronomy), US Department of Transportation, \$8,438, "Evaluation of Sweet Sorghum Hybrids as a Bioenergy Feedstock for the South Central U.S. - Germplasm Development and Agronomic Practices."

**Yuan, Wenqiao**, and **Pei, Zhijian** (Industrial and Manufacturing Systems Engineering), National Science Foundation, \$11,000, "SGER: Exploratory Research on Solid Carriers for Manufacturing Algae Biofuels in the Ocean."

**Yuan, Wenqiao**, and **Zhang, Naiqian**, US Department of Transportation, "Multifunctional Frequency-Response Permittivity Sensor for Biodiesel Concentration Measurement and Impurity Detection."

**Zhang, Naiqian**, AGCO Corporation, \$48,326, "Optical Processing Methods for Application to Agricultural Machines."

**Zhang, Naiqian**, and **Steichen, James M.**, US Department of Defense, \$296,823, "Continuous, Wireless Monitoring of Sediment Flux at Multiple Low-Water Stream Crossings on Tank Trails."

**Zhang, Naiqian**, and **Yuan, Wenqiao**, US Department of Transportation, \$17,490, "Multifunctional Frequency-Response Permittivity Sensor for Biodiesel Concentration Measurement and Impurity Detection."

## CENTER FOR HAZARDOUS SUBSTANCE RESEARCH

**Boguski, Terrie K., Leven, Blase A.**, and **Martin, Sabine E.**, US Environmental Protection Agency, "Technical Assistance to Brownfields Communities, Zone 3."

**Erickson, Larry E., Eckels, Steven J.** (Institute for Environmental Research), **Guikema, James A.** (Office of the Vice President for Research), and **Leven, Blase A.**, US Department of Defense, \$370,500, "Urban Operations Laboratory."

**Griswold, Wendy M.**, and **Gerhard, Gary W.** (4-H Youth Development), US Department of Agriculture, \$19,320, "Engineering for Sustainability."

**Leven, Blase A.**, and **Saulters, Oral S.**, US Department of Defense, \$21,000, "Airburst Non-Lethal Munitions (ANLM) PESHE."

**Leven, Blase A., Eckels, Steven J.** (Institute for Environmental Research), **Erickson, Larry E.**, and **Guikema, James A.** (Office of the Vice President for Research), US Department of Defense, "Urban Operations Laboratory."

**Leven, Blase A., Hettiarachchi, Ganga M.** (Agronomy), and **Martin, Sabine E.**, US Environmental Protection Agency, "Sustainable Local Gardening Redevelopment."

**Leven, Blase A., Boguski, Terrie K.**, and **Martin, Sabine E.**, US Environmental Protection Agency, "Technical Assistance to Brownfields Communities, Zone 3."

**Martin, Sabine E., Hettiarachchi, Ganga M.** (Agronomy), and **Leven, Blase A.**, US Environmental Protection Agency, \$75,000, "Sustainable Local Gardening Redevelopment."

**Martin, Sabine E., Boguski, Terrie K.**, and **Leven, Blase A.**, US Environmental Protection Agency, \$400,000, "Technical Assistance to Brownfields Communities, Zone 3."

**Saulters, Oral S.**, and **Leven, Blase A.**, US Department of Defense, "Airburst Non-Lethal Munitions (ANLM) PESHE."

## CHEMICAL ENGINEERING

**Anthony, Jennifer L.**, National Science Foundation, \$88,417, "Synthesis of Nanoporous Materials in Ionic Liquids: A Fundamental Study of the Solvent's Role."

**Edgar, James H.**, National Science Foundation, \$6,500, "Materials World Network: Collaborative Research: An Investigation into the Properties of B12As2, B4C and Their Heterostructures."

**Edgar, James H.**, US Department of Homeland Security, \$145,703, "ARI-SA: Boron-rich Semiconductors for Neutron Detectors."

**Erickson, Larry E.**, and **Davis, Lawrence C.** (Biochemistry), National Science Foundation, \$1,903, "Recruiting Native Americans into Environmental Science."

**Erickson, Larry E.**, and **Hohn, Keith L.**, National Science Foundation, "REU Site: Earth, Wind, and Fire: Sustainable Energy for the 21st Century."

**Erickson, Larry E.**, and **Klabunde, Kenneth J.** (Chemistry), US Department of Defense, "Nanoscale Materials in Chemistry: Environmental Applications."

**Erickson, Larry E., Eckels, Steven J.** (Institute for Environmental Research), **Guikema, James A.** (Office of the Vice President for Research), and **Leven, Blase A.** (Center for Hazardous Substance Research), US Department of Defense, \$135,850, "Urban Operations Laboratory."

**Glasgow, Larry A., and Soldan, David L.** (Electrical and Computer Engineering), National Science Foundation, \$41,255, "Reconnecting Chemical Engineering Students with the Physical World."

**Hohn, Keith L., and Erickson, Larry E.,** National Science Foundation, \$269,445, "REU Site: Earth, Wind, and Fire: Sustainable Energy for the 21st Century."

**Pfromm, Peter H.,** Boehringer Ingelheim Vetmedica, Inc., \$141,221, "Topics in Antigen Production."

**Pfromm, Peter H., Blair, John M.** (Biology), **Langemeier, Michael R.** (Agricultural Economics), **Nelson, Richard G.** (Kansas Industrial Extension Services), **Rice, Charles W.** (Agronomy), **Rogers, Danny H.** (Biological and Agricultural Engineering), **Staggenborg, Scott A.** (Agronomy), **Wang, Donghai** (Biological and Agricultural Engineering), and **Williams, Jeffery R.** (Agricultural Economics), Kansas Bioscience Authority, \$15,000, "Biomass Feedstock Resource Assessment and Supply Analyses for Kansas."

**Pfromm, Peter H.,** US Department of Transportation, \$17,496, "Saline Extractive Distillation for Ethanol Separation."

**Rezac, Mary E., Madl, Ronald L.** (Grain Science and Industry), and **Nelson, Richard G.** (Kansas Industrial Extension Services), National Science Foundation, \$51,000, "I/UCRC Center for Bioenergy Research and Development."

**Rezac, Mary E.,** US Department of Energy, \$97,671, "Novel Platform for Enhanced Membrane Reactors for Homogenous Catalysis."

**Rezac, Mary E.,** US Department of Transportation, \$17,500, "Breaking the Cost Barrier for Bio-Ethanol: Reactive Adsorption of Fermentation Broth."

**Walton, Krista S.,** National Science Foundation, \$419,568, "CAREER: Toward the Rational Design of Multifunctional Nanomaterials Synthesis and Characterization of Nanostructured Metal-Organic Frameworks."

**Walton, Krista S.,** US Department of Defense, \$250,743, "Air Purification: Nanostructured Media for Individual Protection."

**Walton, Krista S.,** US Department of Defense, \$450,000, "Multifunctional Nanostructures for Adsorption of Toxic Materials."

## CIVIL ENGINEERING

**Dissanayake, Sunanda,** Kansas Department of Transportation, \$40,000, "Evaluation of Motorcycle Safety in Kansas."

**Dissanayake, Sunanda,** Kansas Department of Transportation, \$40,000, "Identification of Safety Belt Restraint Usage Characteristics Related to 5 - 14 Year Olds - Phase I."

**Dissanayake, Sunanda,** and **Hossain, Mustaque A.,** US Department of Transportation, "Implementation of the 2002 AASHTO Design Guide for Pavement Structures."

**Dissanayake, Sunanda, Hossain, Mustaque A., Peterman, Robert J., and Stokes, Robert W.,** US Department of Transportation, "KSU University Transportation Center: High Priority Demonstration (HPD) Project."

**Dissanayake, Sunanda, Hossain, Mustaque A., Peterman, Robert J., and Stokes, Robert W.,** US Department of Transportation, "Region VII University Transportation Center (UTC)."

**Esmaily, Asadollah,** and **Peterman, Robert J.,** Kansas Department of Transportation, "Evaluating the Time-Dependent and Bond Characteristics of a Lightweight Concrete Mix for Kansas Prestressed Concrete Bridges."

**Hossain, Mustaque A.,** Kansas Department of Transportation, \$40,000, "Administration of KDOT/KTRAN Program."

**Hossain, Mustaque A.,** Kansas Department of Transportation, \$20,000, "Kansas Pavement Preservation Initiative: Development of a Seal Coat Design and Construction Manual and Investigation of Design of Seal Coats with Light Weight Aggregates (K-TRAN KSU-09-08)."

**Hossain, Mustaque A.,** Kansas Department of Transportation, \$52,000, "Review of Data in CMS and QC/QA Data Bases to Improve Current Specifications for Superpave and Concrete Pavements in Kansas."

**Hossain, Mustaque A.,** Kansas Department of Transportation, \$72,000, "Structural Characteristics of Aged Hot-Mix Asphalt Pavements."

**Hossain, Mustaque A.,** US Department of Transportation, \$102,926, "Accelerated Pavement Testing of Unpaved Roads with Geocell Reinforcement."

**Hossain, Mustaque A., and Dissanayake, Sunanda,** US Department of Transportation, \$150,000, "Implementation of the 2002 AASHTO Design Guide for Pavement Structures."

**Hossain, Mustaque A., Dissanayake, Sunanda, Peterman, Robert J., and Stokes, Robert W.,** US Department of Transportation, "KSU University Transportation Center: High Priority Demonstration (HPD) Project."

**Hossain, Mustaque A., Dissanayake, Sunanda, Peterman, Robert J., and Stokes, Robert W.,** US Department of Transportation, \$343,552 (includes \$12,452 from Kansas Department of Transportation - KS0276), "Region VII University Transportation Center (UTC)."

**Landman, E. Dean, and Russell, Eugene R.,** Kansas Department of Transportation, "A Study of the Impact of Roundabouts on Traffic Flows and Business."

**Landman, E. Dean, and Babcock, Michael W.** (Economics), Kansas Department of Transportation, \$8,000, "Economic Impacts of the Kansas Comprehensive Transportation Program (CTP) Highway Construction and Maintenance Activities."

**Mathews, Alexander P.,** Adaptive Ozone Solutions, Inc., \$8,959, "Hydrogen Sulfide Control in Forcemains Using Ozone and Oxygen."

**Mathews, Alexander P.,** National Science Foundation, \$299,287, "Enhancement of Gas-Liquid Mass Transfer Using Magnetite Nanoparticles."

**Najjar, Yacoub M., and Stokes, Robert W.,** US Department of Transportation, "The Sustainability and Safety of Rural Transportation Systems and Infrastructure."

**Peterman, Robert J., and Esmaily, Asadollah,** Kansas Department of Transportation, \$89,800, "Evaluating the Time-Dependent and Bond Characteristics of a Lightweight Concrete Mix for Kansas Prestressed Concrete Bridges."

**Peterman, Robert J., Beck, B. Terry** (Mechanical and Nuclear Engineering), and **Wu, Chih-Hang** (Industrial and Manufacturing Systems Engineering), Kansas Department of Transportation, \$7,235, "Implementation of Non-Contact Strain Measurement Device for Bridges and Piers."

**Peterman, Robert J., Dissanayake, Sunanda, Hossain, Mustaque A., and Stokes, Robert W.,** US Department of Transportation, "KSU University Transportation Center: High Priority Demonstration (HPD) Project."

**Peterman, Robert J., Dissanayake, Sunanda, Hossain, Mustaque A., and Stokes, Robert W.,** US Department of Transportation, "Region VII University Transportation Center (UTC)."

**Riding, Kyle,** US Department of Transportation, \$8,000, "Development of a Rigid Pavement Database for Local Calibration of MEPDG."

**Russell, Eugene R., and Landman, E. Dean,** Kansas Department of Transportation, \$45,000, "A Study of the Impact of Roundabouts on Traffic Flows and Business."

**Steward, David R., Dumler, Troy** (Southwest Area Office), **Golden, Bill B.** (Agricultural Economics), **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), **Klocke, Norman L.** (Southwest Research Extension Center), **Lamm, Freddie R.** (Northwest Research Extension Center), **Prasad, P. V. Vara** (Agronomy), **Presley, DeAnn R.** (Agronomy), **Rogers, Danny H.** (Biological and Agricultural Engineering), **Schlegel, Alan J.** (Southwest Research Extension Center), **Staggenborg, Scott A.** (Agronomy), and **Stone, Loyd R.** (Agronomy), US Department of Agriculture, \$259,207, "New Water Management Technologies to Sustain Rural Economies."

**Stokes, Robert W., Dissanayake, Sunanda, Hossain, Mustaque A., and Peterman, Robert J.,** US Department of Transportation, \$300,000, "KSU University Transportation Center: High Priority Demonstration (HPD) Project."

**Stokes, Robert W., Dissanayake, Sunanda, Hossain, Mustaque A., and Peterman, Robert J.**, US Department of Transportation, "Region VII University Transportation Center (UTC)."

**Stokes, Robert W., and Najjar, Yacoub M.**, US Department of Transportation, \$457,000, "The Sustainability and Safety of Rural Transportation Systems and Infrastructure."

**Stokes, Robert W.**, US Department of Transportation, \$300,000, "Traffic Assistance Services for Kansas (TASK) Program (FY 2009-2011)."

## COMPUTING AND INFORMATION SCIENCES

**Akhunov, Eduard D.**, Kansas Wheat Commission, \$3,000, "Advancing Genomics at K-State: Ultra High-Throughput DNA Sequencing."

**Amtoft, Torben, Hatcliff, John M., Ou, Xinming (Simon), and Robby**, Rockwell Collins, Inc., "A Domain Specific Language for Defining High-Assurance Secure-Network Guards."

**Amtoft, Torben, Banerjee, Anindya, Hatcliff, John M., Ou, Xinming (Simon), and Robby**, US Department of Defense, "Evidence-based Trust in Large-Scale MLS Systems."

**Banerjee, Anindya, Amtoft, Torben, Hatcliff, John M., Ou, Xinming (Simon), and Robby**, US Department of Defense, "Evidence-based Trust in Large-Scale MLS Systems."

**DeLoach, Scott A.**, US Department of Defense, \$54,772, "Human-Robot Teams Informed By Human Performance Moderator Functions."

**Erickson, Larry E., Eckels, Steven J.** (Institute for Environmental Research), **Guikema, James A.** (Office of the Vice President for Research), and **Leven, Blase A.** (Center for Hazardous Substance Research), US Department of Defense, \$86,450, "Urban Operations Laboratory."

**Hatcliff, John M., Amtoft, Torben, Ou, Xinming (Simon), and Robby**, Rockwell Collins, Inc., \$170,000, "A Domain Specific Language for Defining High-Assurance Secure-Network Guards."

**Hatcliff, John M.**, Rockwell Collins, Inc., \$25,000, "Conditional Information Flow Modeling for High-Assurance Systems."

**Hatcliff, John M., Amtoft, Torben, Banerjee, Anindya, Ou, Xinming (Simon), and Robby**, US Department of Defense, \$450,001, "Evidence-based Trust in Large-Scale MLS Systems."

**Neilsen, Mitchell L.**, Sandia National Laboratories, \$40,000, "Sandia Turbo Solder Interconnect Predictor (TurboSIP)."

**Neilsen, Mitchell L.**, US Department of Agriculture, \$20,000, "Integration of Spillway Erosion Technology and WinTR-20 with WinDAM."

**Ou, Xinming (Simon)**, National Science Foundation, \$112,500, "Model-Based, Automatic Network Security Management."

**Ou, Xinming (Simon), Amtoft, Torben, Hatcliff, John M., and Robby**, Rockwell Collins, Inc., "A Domain Specific Language for Defining High-Assurance Secure-Network Guards."

**Ou, Xinming (Simon), Amtoft, Torben, Banerjee, Anindya, Hatcliff, John M., and Robby**, US Department of Defense, "Evidence-based Trust in Large-Scale MLS Systems."

**Robby, Amtoft, Torben, Hatcliff, John M., and Ou, Xinming (Simon)**, Rockwell Collins, Inc., "A Domain Specific Language for Defining High-Assurance Secure-Network Guards."

**Robby, Amtoft, Torben, Banerjee, Anindya, Hatcliff, John M., and Ou, Xinming (Simon)**, US Department of Defense, "Evidence-based Trust in Large-Scale MLS Systems."

## DEAN OF ENGINEERING

**Douglas-Mankin, Kimberly D., Hanson, Brian R.** (Kansas Industrial Extension Services), and **Snead, Bruce C.** (Kansas Industrial Extension Services), US Environmental Protection Agency, "Operational Process for EPA Radiation and Indoor Environments Laboratory Environmental Professional Student Intern Program."

**King, Terry S.**, Multisponsor, \$2,171, "Pre-Enrollment Mathematics and Sciences Tutoring of Minority Engineering Recruits."

**Larson, Nancy J.**, Multisponsor, \$14,428, "KINEX Multi-Sponsor."

**Staples, Kimberly A.**, US Department of Education, "Connections that Create Science Conceptual Change: A Professional Development Project for Middle Level Science Teachers."

## ELECTRICAL AND COMPUTER ENGINEERING

**Carpenter, Kenneth H.**, US Department of Energy, \$35,000, "Integrated Firing-System/Initiation-Train Modeling Enhancement."

**Day, Dwight D., and Natarajan, Balasubramaniam**, Kansas Department of Transportation, \$50,000, "Analysis of Road Condition Data Employing Sensor Fusion and High Level Classifications."

**Day, Dwight D., and Lewis, Christopher L.**, Kansas Department of Transportation, "Video-log Data Mining Analysis."

**Devore, John J., Lewis, Christopher L., and Natarajan, Balasubramaniam**, US Department of Energy, "Communication and Controls Development."

**Erickson, Larry E., Eckels, Steven J.** (Institute for Environmental Research), **Guikema, James A.** (Office of the Vice President for Research), and **Leven, Blase A.** (Center for Hazardous Substance Research), US Department of Defense, \$49,400, "Urban Operations Laboratory."

**Gruenbacher, Don M., and Natarajan, Balasubramaniam**, eG Innovations, Inc., "Enhancing IT Infrastructure Monitoring via Advanced Baselining, Event Detection and Prediction Techniques."

**Gruenbacher, Don M., Monaco, Gregory E.** (Psychology), and **Scoglio, Caterina M.**, National Science Foundation, "GpENI: Great Plains Environment for Network Innovation."

**Gruenbacher, Don M., and Soldan, David L.**, National Science Foundation, "Modeling the Economic Cost of Inadequate Teaching and Mentoring."

**Kuhn, William B.**, National Aeronautics and Space Administration, \$3,884, "Wide-Band Integrated Si-Based Single Chip TR Module for UHF Radar."

**Kuhn, William B.**, US Department of Energy, \$85,787, "Research in Fractional-N Synthesizer Design and LTCC Inductor Performance, Phase II."

**Kuhn, William B.**, US Department of Energy, \$62,000, "RFIC Development in Peregrine SOS Phase I."

**Lewis, Christopher L., and Day, Dwight D.**, Kansas Department of Transportation, \$50,000, "Video-log Data Mining Analysis."

**Lewis, Christopher L., and Schinstock, Dale E.** (Mechanical and Nuclear Engineering), National Aeronautics and Space Administration, \$51,876, "Topographic Models with Multispectral Image Registration from Orbiter Data."

**Lewis, Christopher L., Devore, John J., and Natarajan, Balasubramaniam**, US Department of Energy, \$77,000, "Communication and Controls Development."

**Miller, Ruth D.**, US Department of Energy, \$34,062, "Wind for Schools Wind Application Center: Kansas."

**Natarajan, Balasubramaniam, and Gruenbacher, Don M.**, eG Innovations, Inc., \$161,497, "Enhancing IT Infrastructure Monitoring via Advanced Baselining, Event Detection and Prediction Techniques."

**Natarajan, Balasubramaniam, and Day, Dwight D.**, Kansas Department of Transportation, "Analysis of Road Condition Data Employing Sensor Fusion and High Level Classifications."

**Natarajan, Balasubramaniam**, Kansas State University Research Foundation, \$15,000, "Pre-Coding for Multiple-Input Multiple-Output Communication."

**Natarajan, Balasubramaniam, Devore, John J., and Lewis, Christopher L.**, US Department of Energy, "Communication and Controls Development."

**Scoglio, Caterina M.**, National Academies Keck Futures Initiative, \$25,000, "Quality of Care and Network Properties of Outpatient Health Care Delivery in the Veterans Administration."

**Scoglio, Caterina M., Gruenbacher, Don M., and Monaco, Gregory E.** (Psychology), National Science Foundation, \$14,627, "GpENI: Great Plains Environment for Network Innovation."

**Scoglio, Caterina M., Easton, Todd W.** (Industrial and Manufacturing Systems Engineering), and **Schumm, Walter R.** (School of Family Studies and Human Services), National Science Foundation, \$17,000, "SGER: Exploratory Research on Complex Network Approach to Epidemic Spreading in Rural Regions."

**Soldan, David L., and Gruenbacher, Don M.**, National Science Foundation, \$148,390, "Modeling the Economic Cost of Inadequate Teaching and Mentoring."

**Soldan, David L.**, and **Glasgow, Larry A.** (Chemical Engineering), National Science Foundation, \$41,255, "Reconnecting Chemical Engineering Students with the Physical World."

**Soldan, David L.**, US Department of Agriculture, \$10,000, "Development of Computer Models for Stored Product Insect Population Dynamics in Flour Mills."

**Warren, Steven, Bennett, Andrew G.** (Mathematics), **Rebello, Nobel S.** (Physics), and **Zollman, Dean A.** (Physics), National Science Foundation, \$63,174, "Investigating Trajectories of Learning and Transfer of Problem Solving Expertise from Mathematics to Physics to Engineering."

## ENGINEERING EXPERIMENT STATION

**Jones, Byron W.**, Kansas Technology Enterprise Corporation, \$123,404, "Kansas Defense 2010 (FY08)."

## INDUSTRIAL AND MANUFACTURING SYSTEMS ENGINEERING

**Easton, Todd W.**, **Schumm, Walter R.** (School of Family Studies and Human Services), and **Scoglio, Caterina M.** (Electrical and Computer Engineering), National Science Foundation, \$16,500, "SGER: Exploratory Research on Complex Network Approach to Epidemic Spreading in Rural Regions."

**Harnett, R. Michael**, US Department of Defense, \$23,678, "Part-Time M.S. Program in Industrial Engineering - Summer 2009."

**Harnett, R. Michael**, US Department of Defense, \$49,296, "Part-Time M.S. Program in Industrial Engineering - Fall 2008."

**Harnett, R. Michael**, US Department of Defense, \$41,652, "Part-Time M.S. Program in Industrial Engineering - Spring 2008."

**Harnett, R. Michael**, US Department of Defense, \$51,588, "Part-Time M.S. Program in Industrial Engineering - Spring 2009."

**Lei, Shuting**, and **Chang, Zenghu** (Physics), National Science Foundation, \$74,199, "Collaborative Research: Mathematical Modeling and Experimental Study of Femtosecond Laser Machining of High Aspect Ratio Microstructures."

**Lei, Shuting, Chang, Zenghu** (Physics), and **Cocke, Charles L.** (Physics), US Department of Defense, "Attosecond Optical Technology Based on Recollision and Gating."

**Pei, Zhijian**, Crystal Technology, Inc., \$32,500, "Development of Advance Fabrication Process of Lithium Niobate."

**Pei, Zhijian**, Crystal Technology, Inc., \$20,000, "Development of Advance Fabrication Process of Lithium Niobate - Patrick Zhang (Internship)."

**Pei, Zhijian**, National Science Foundation, \$277,363, "Collaborative Research: Fundamental Research on Titanium Drilling with Rotary Ultrasonic Machining."

**Pei, Zhijian**, National Science Foundation, \$225,782, "Funding for Student Participation in the 2009 CMMI Grantees Conference."

**Pei, Zhijian**, and **Yuan, Wenqiao** (Biological and Agricultural Engineering), National Science Foundation, \$11,000, "SGER: Exploratory Research on Solid Carriers for Manufacturing Algae Biofuels in the Ocean."

**Pei, Zhijian**, National Science Foundation, \$20,411, "Workshop/ Collaborative Research: 2010 NSF CAREER Proposal Writing."

**Pei, Zhijian**, National Science Foundation, \$22,958, "Workshop: 2009 NSF CAREER Proposal Writing Workshop."

**Wu, Chih-Hang, Beck, B. Terry** (Mechanical and Nuclear Engineering), and **Peterman, Robert J.** (Civil Engineering), Kansas Department of Transportation, \$7,022, "Implementation of Non-Contact Strain Measurement Device for Bridges and Piers."

## INSTITUTE FOR ENVIRONMENTAL RESEARCH

**Eckels, Steven J.**, Multisponsor, \$321,550, "Institute for Environmental Research Support."

**Eckels, Steven J.**, and **Hosni, Mohammad H.** (Mechanical and Nuclear Engineering), PAX Streamline, Inc., \$132,991, "Evaluation of Boiling in an Enhanced Evaporator."

**Eckels, Steven J.**, **Erickson, Larry E.** (Center for Hazardous Substance Research), **Guikema, James A.** (Office of the Vice President for Research), and **Leven, Blase A.** (Center for Hazardous Substance Research), US Department of Defense, \$259,350, "Urban Operations Laboratory."

**Eckels, Steven J.**, and **Jones, Byron W.**, US Department of Transportation, \$120,000, "Aircraft Recirculation Filter for Air Quality and Incident Assessment."

**Jones, Byron W.**, and **Hosni, Mohammad H.** (Mechanical and Nuclear Engineering), Boeing Company, \$85,000, "Sponsor Research Agreement - KSU Project Agreement No. 4."

**Jones, Byron W.**, MITRE Corporation, \$30,000, "Aircraft Filter Evaluation."

**Jones, Byron W.**, and **Eckels, Steven J.**, US Department of Transportation, "Aircraft Recirculation Filter for Air Quality and Incident Assessment."

**Jones, Byron W.**, and **Hosni, Mohammad H.** (Mechanical and Nuclear Engineering), US Department of Transportation, \$40,000, "Contamination Transport in Aircraft Cabins, Phase 2."

## KANSAS INDUSTRIAL EXTENSION SERVICES

**Carter, David A.**, **Hamel, Ryan J.**, **Johnson, Barbara L.**, and **Larson, Nancy J.**, US Environmental Protection Agency, "Kansas Pollution Prevention Programs."

**Carter, David A.**, Wolf Creek Nuclear Operating Corporation, \$4,641, "Pollution Prevention Student Intern Program."

**Carter, David A.**, Wolf Creek Nuclear Operating Corporation, \$7,726, "Pollution Prevention Student Intern Program 2009."

**Hamel, Ryan J.**, **Carter, David A.**, **Johnson, Barbara L.**, and **Larson, Nancy J.**, US Environmental Protection Agency, "Kansas Pollution Prevention Programs."

**Hamel, Ryan J.**, and **Larson, Nancy J.**, US Environmental Protection Agency, "Wichita Clean Diesel Technologies."

**Hanson, Brian R.**, **Douglas-Mankin, Kimberly D.** (Dean of Engineering), and **Snead, Bruce C.**, US Environmental Protection Agency, \$87,500, "Operational Process for EPA Radiation and Indoor Environments Laboratory Environmental Professional Student Intern Program."

**Johnson, Barbara L.**, US Environmental Protection Agency, \$12,400, "Developing Tools for Community Hazardous Waste Management."

**Johnson, Barbara L.**, US Environmental Protection Agency, \$90,927, "Environmental Sustainability for the Salina Community."

**Johnson, Barbara L.**, **Carter, David A.**, **Hamel, Ryan J.**, and **Larson, Nancy J.**, US Environmental Protection Agency, "Kansas Pollution Prevention Programs."

**Larson, Nancy J.**, Kansas Health Foundation, \$23,332, "Safe Disposal of Unwanted Pharmaceutical Wastes - 2008."

**Larson, Nancy J.**, Multisponsor, \$29,293, "KINEX Multi-Sponsor."

**Larson, Nancy J.**, **Carter, David A.**, **Hamel, Ryan J.**, and **Johnson, Barbara L.**, US Environmental Protection Agency, \$128,255 (includes \$41,680 from industry match), "Kansas Pollution Prevention Programs."

**Larson, Nancy J.**, US Environmental Protection Agency, \$30,400 (includes \$5,400 from participating industrial firms), "Region 7 Champions for Change: States Partner to Foster Source Reduction in Region 7 Healthcare Facilities."

**Larson, Nancy J.**, US Environmental Protection Agency, \$295,000, "Small Business Environmental Assistance Program - FY09."

**Larson, Nancy J.**, and **Hamel, Ryan J.**, US Environmental Protection Agency, \$3,196,008 (includes \$1,852,000 from Waste Management & Waste Connections Inc), "Wichita Clean Diesel Technologies."

**Nelson, Richard G.**, **Blair, John M.** (Biology), **Langemeier, Michael R.** (Agricultural Economics), **Pfomm, Peter H.** (Chemical Engineering), **Rice, Charles W.** (Agronomy), **Rogers, Danny H.** (Biological and Agricultural Engineering), **Staggenborg, Scott A.** (Agronomy), **Wang, Donghai** (Biological and Agricultural Engineering), and **Williams, Jeffery R.** (Agricultural Economics), Kansas Bioscience Authority, \$165,000, "Biomass Feedstock Resource Assessment and Supply Analyses for Kansas."

**Nelson, Richard G., Madl, Ronald L.** (Grain Science and Industry), and **Rezac, Mary E.** (Chemical Engineering), National Science Foundation, "I/UCRC Center for Bioenergy Research and Development."

**Nelson, Richard G., Rice, Charles W.** (Agronomy), **Staggenborg, Scott A.** (Northeast Area Office), and **Williams, Jeffery R.** (Agricultural Economics), US Department of Energy, \$19,637, "National Carbon Sequestration Database and Geographic Information System."

**Nelson, Richard G., and Presley, DeAnn R.** (Agronomy), US Department of Energy, \$70,115, "Regional Biomass Feedstock Partnership - Biomass Residue Removal."

**Snead, Bruce C., Douglas-Mankin, Kimberly D.** (Dean of Engineering), and **Hanson, Brian R.**, US Environmental Protection Agency, "Operational Process for EPA Radiation and Indoor Environments Laboratory Environmental Professional Student Intern Program."

**Snead, Bruce C.**, US Environmental Protection Agency, \$217,000 (includes \$88,000 from participant support and outside match), "Radon Projects for Kansas."

**Snead, Bruce C.**, US Environmental Protection Agency, \$20,500 (includes \$10,000 from participant support), "Radon Training for the Nebraska State Radon Program."

**Snead, Bruce C.**, US Environmental Protection Agency, \$36,528, "Regional Radon Training Center."

## MECHANICAL AND NUCLEAR ENGINEERING

**Babin, Bruce R., Beck, B. Terry,** and **Hosni, Mohammad H.**, US Department of Energy, \$189,488, "Experimental Development and Demonstration of Ultrasonic Measurement Diagnostics for Sodium Fast Reactor Thermohydraulics."

**Beck, B. Terry, Peterman, Robert J.** (Civil Engineering), and **Wu, Chih-Hang** (Industrial and Manufacturing Systems Engineering), Kansas Department of Transportation, \$7,022, "Implementation of Non-Contact Strain Measurement Device for Bridges and Piers."

**Beck, B. Terry, Babin, Bruce R.,** and **Hosni, Mohammad H.**, US Department of Energy, "Experimental Development and Demonstration of Ultrasonic Measurement Diagnostics for Sodium Fast Reactor Thermohydraulics."

**Cai, Liang-Wu**, US Department of Defense, \$127,243, "Two-and Three-Dimensional Broadband Acoustic Metamaterials via Homogenization and Multiple Scattering from Arrays of Natural Minerals."

**Erickson, Larry E., Eckels, Steven J.** (Institute for Environmental Research), **Guikema, James A.** (Office of the Vice President for Research), and **Leven, Blase A.** (Center for Hazardous Substance Research), US Department of Defense, \$271,700, "Urban Operations Laboratory."

**Hosni, Mohammad H., and Jones, Byron W.** (Institute for Environmental Research), Boeing Company, "Sponsor Research Agreement - KSU Project Agreement No. 4."

**Hosni, Mohammad H., and Eckels, Steven J.** (Institute for Environmental Research), PAX Streamline, Inc., \$44,330, "Evaluation of Boiling in an Enhanced Evaporator."

**Hosni, Mohammad H., Anderson, Dawn L.** (Dean of Human Ecology), and **Maes, Sue C.** (Dean of Continuing Education), US Department of Education, \$19,696, "Inter-Institutional Collaboration: The Key to Affordable and Accessible High Quality Education."

**Hosni, Mohammad H., Babin, Bruce R.,** and **Beck, B. Terry**, US Department of Energy, "Experimental Development and Demonstration of Ultrasonic Measurement Diagnostics for Sodium Fast Reactor Thermohydraulics."

**Hosni, Mohammad H., and Jones, Byron W.** (Institute for Environmental Research), US Department of Transportation, \$40,000, "Contamination Transport in Aircraft Cabins, Phase 2."

**McGregor, Douglas S.**, US Department of Defense, \$759,140, "Multi-Disciplined Research in Nuclear Detection."

**McGregor, Douglas S.**, US Department of Defense, \$100,921, "Neutron Irradiation Testing of Solid State Neutron Detectors."

**McGregor, Douglas S.**, US Department of Defense, \$173,289, "Vapor Growth and Material Characterization of Mercuric Iodide (HgI<sub>2</sub>)."

**McGregor, Douglas S.**, US Department of Energy, \$698,040, "Growth and Characterization of Li Ternary Compounds for Solid-State Neutron

Detectors."

**Schinstock, Dale E.,** and **Lewis, Christopher L.** (Electrical and Computer Engineering), National Aeronautics and Space Administration, \$51,876, "Topographic Models with Multispectral Image Registration from Orbiter Data."

**Wang, Youqi**, US Department of Defense, \$896,158, "Application of Digital Element Approach in Textile Mechanics."

## NATIONAL GAS MACHINERY LABORATORY

**Chapman, Kirby S.**, Dresser-Rand, \$30,000 (includes \$25,000 from ingenuity in-kind), "Field Test Characterization of NSCR Catalysts on Engines Used in the Oil and Gas Gathering Industry."

**Chapman, Kirby S.**, Pipeline Research Council International, Inc., \$65,772, "Engine Cooling Performance Optimization."

**Chapman, Kirby S.**, Pipeline Research Council International, Inc., \$62,240, "Exhaust Manifold Design Guidelines to Optimize Scavenging and Turbocharger Performance."

**Chapman, Kirby S.**, Pipeline Research Council International, Inc., \$50,000, "Proposal to Assess the Robustness and Transportability of the Gas Turbine Combustor Model."

## NATIONAL INSTITUTE FOR LAND MANAGEMENT AND TRAINING

**Biles, Bertram R.**, US Army, \$133,427, "2009 SRP Workshop."

## COLLEGE OF HUMAN ECOLOGY

### APPAREL, TEXTILES, AND INTERIOR DESIGN

**Brosdahl, Deborah J. C.**, Cotton, Inc., \$40,303, "Team Cotton: Reaching Apparel and Textile Undergraduates and Faculty through Peer Interaction."

### DEAN OF HUMAN ECOLOGY

**Anderson, Dawn L., Hosni, Mohammad H.** (Mechanical and Nuclear Engineering), and **Maes, Sue C.** (Dean of Continuing Education), US Department of Education, \$177,262, "Inter-Institutional Collaboration: The Key to Affordable and Accessible High Quality Education."

**Doll, Gayle**, American Society on Aging, \$1,200, "Memorandum of Understanding (Consulting Agreement) ASA MetLife Foundation Mind Alert Trainer's Bureau."

**Moxley, Virginia M.**, Great Plains IDEA Alliance, \$177,165, "Great Plains IDEA Lead Institution."

### HOSPITALITY MANAGEMENT AND DIETETICS

**Kwon, Junehee**, Foodservice Systems Management Education Council, \$2,000, "Food Allergies in Restaurants: Knowledge, Attitudes, and Behaviors of Hospitality Management and Dietetics Students in the U.S."

**Kwon, Junehee**, US Department of Agriculture, \$212,878, "Food Safety Risk Assessment and Development of Education Program for Evacuation Shelters Operated by Faith-Based Organizations."

**Ok, Chihyung**, Kansas State University Foundation, \$3,180, "Foodservice Employees' Job Satisfaction and Dissatisfaction in Continuing Care Retirement Communities (Graduate Student - Sanghyeop Lee)."

### HUMAN NUTRITION

**Adhikari, Koushik,** and **Chambers IV, Edgar**, National Cattlemen's Beef Association, \$36,500, "Differentiation of Beef Flavor Across Muscles and Quality Grades."

**Chambers IV, Edgar,** and **Chambers, Delores H.**, Frito Lay, Inc., \$87,144, "Consumer Perception of Products Under Extended Use."

**Chambers IV, Edgar,** and **Adhikari, Koushik**, National Cattlemen's Beef Association, "Differentiation of Beef Flavor Across Muscles and Quality Grades."

**Chambers, Delores H.,** and **Chambers IV, Edgar**, Frito Lay, Inc., "Consumer Perception of Products Under Extended Use."

**Haub, Mark D.**, Eriban Research, \$5,480, "Directed Service for Eriban

Research.”

**Haub, Mark D., and Shoemaker, Candice A.** (Horticulture, Forestry and Recreation Resources), Kansas State University Foundation, “Match for Determining the Exercise Intensities of Gardening Tasks Grant (pp# 22038).”

**Haub, Mark D.,** MGP Ingredients, Inc., \$30,830, “Resistant Starch on Insulin Sensitivity in those with Type 2 Diabetes.”

**Haub, Mark D.,** NutriJoy, Inc., \$8,790, “Glycemic Response of a Sports Beverage.”

**Haub, Mark D., and Shoemaker, Candice A.** (Horticulture, Forestry and Recreation Resources), US Department of Agriculture, “Determining the Exercise Intensities of Gardening Tasks.”

**Haub, Mark D., Medeiros, Denis M., Seib, Paul A.** (Grain Science and Industry), and **Shi, Yong Cheng** (Grain Science and Industry), US Department of Agriculture, \$78,000, “Training in Cereal Carbohydrates and Human Nutrition.”

**Lindshield, Brian,** Kansas State University Foundation, \$25,850, “5-alpha-reductase Inhibitors for Reduction of Prostate Tumor Growth.”

**Marcus, Daniel C.,** US Department of Health and Human Services, \$183,351, “Epithelial Function in Health and Disease.”

**Medeiros, Denis M., Haub, Mark D., Seib, Paul A.** (Grain Science and Industry), and **Shi, Yong Cheng** (Grain Science and Industry), US Department of Agriculture, “Training in Cereal Carbohydrates and Human Nutrition.”

**Medeiros, Denis M.,** US Department of Health and Human Services, \$72,874, “Kansas Bridges to the Future.”

**Wang, Wei qun,** Kansas State University Foundation, \$4,000, “Mechanistic Studies of Cancer Prevention by Phosphoproteomics in Dietary Calorie Restriction and Exercise-Induced Weight Controlled Mice.”

**Wang, Wei qun,** Kansas State University Foundation, \$686, “Travel to Experimental Biology - Poster Presentation - Cancer Prevention of Anthocyanins in the Purple Sweetpotato Bred in Kansas.”

**Wang, Wei qun,** Kansas State University Foundation, \$2,000, “Undergraduate Student Cancer Research - Mentoring Students.”

## SCHOOL OF FAMILY STUDIES AND HUMAN SERVICES

**Anderson, Jared R., Goff, Briana S., Johannes, Elaine M., Kahl, Joan, Maddux, Estoria (Esther) M., McCants, Terrie R., Olsen, Charlotte S., and Schumm, Walter R.,** US Department of Defense, “Support for Resiliency Project.”

**DeLuccie, Mary L.,** US Department of Agriculture, \$8,585, “Federal Aid in Support of the Child and Adult Care Food Program.”

**DeLuccie, Mary L.,** USD 383, Manhattan, \$39,914, “Early Childhood Lab.”

**Glasscock, Marlene K.,** US Department of Agriculture, \$454,545, “4-H/Air Force Partnership Project.”

**Glasscock, Marlene K.,** US Department of Agriculture, \$14,563,994, “4-H/Army Youth Development Project - Kansas.”

**Glasscock, Marlene K.,** US Department of Agriculture, \$820,000, “CYFAR and 4-H Military Partnerships.”

**Goff, Briana S., Anderson, Jared R., Johannes, Elaine M., Kahl, Joan, Maddux, Estoria (Esther) M., McCants, Terrie R., Olsen, Charlotte S., and Schumm, Walter R.,** US Department of Defense, \$75,000, “Support for Resiliency Project.”

**Johannes, Elaine M., Anderson, Jared R., Goff, Briana S., Kahl, Joan, Maddux, Estoria (Esther) M., McCants, Terrie R., Olsen, Charlotte S., and Schumm, Walter R.,** US Department of Defense, “Support for Resiliency Project.”

**Kahl, Joan, Anderson, Jared R., Goff, Briana S., Johannes, Elaine M., Maddux, Estoria (Esther) M., McCants, Terrie R., Olsen, Charlotte S., and Schumm, Walter R.,** US Department of Defense, “Support for Resiliency Project.”

**Maddux, Estoria (Esther) M.,** FINRA Investor Education Foundation,

\$90,890, “Investor Education for College Students.”

**Maddux, Estoria (Esther) M., Anderson, Jared R., Goff, Briana S., Johannes, Elaine M., Kahl, Joan, McCants, Terrie R., Olsen, Charlotte S., and Schumm, Walter R.,** US Department of Defense, “Support for Resiliency Project.”

**McCants, Terrie R., Anderson, Jared R., Goff, Briana S., Johannes, Elaine M., Kahl, Joan, Maddux, Estoria (Esther) M., Olsen, Charlotte S., and Schumm, Walter R.,** US Department of Defense, “Support for Resiliency Project.”

**O’Conner, Nancy T.,** Kansas Health Solutions, LLC, \$20,680, “Home Based Family Therapy Training.”

**O’Conner, Nancy T.,** US Department of Health and Human Services, \$188,472, “Program for Training and Consultation of CMHC Practitioners Delivering Intensive Home Based Family Therapy Services.”

**Olsen, Charlotte S., Anderson, Jared R., Goff, Briana S., Johannes, Elaine M., Kahl, Joan, Maddux, Estoria (Esther) M., McCants, Terrie R., and Schumm, Walter R.,** US Department of Defense, “Support for Resiliency Project.”

**Schumm, Walter R., Easton, Todd W.** (Industrial and Manufacturing Systems Engineering), and **Scoglio, Caterina M.** (Electrical and Computer Engineering), National Science Foundation, \$16,500, “SGER: Exploratory Research on Complex Network Approach to Epidemic Spreading in Rural Regions.”

**Schumm, Walter R., Anderson, Jared R., Goff, Briana S., Johannes, Elaine M., Kahl, Joan, Maddux, Estoria (Esther) M., McCants, Terrie R., and Olsen, Charlotte S.,** US Department of Defense, “Support for Resiliency Project.”

**Sellers, Debra,** US Department of Agriculture, \$17,980, “eXtension Family Caregiving: Caring for Aged and/or Disabled Adults.”

**Sellers, Debra,** US Department of Agriculture, \$5,500, “eXtension Family Caregiving: Caring for Aged and/or Disabled Adults.”

**Sellers, Debra,** US Department of Agriculture, \$10,000, “Mastery of Aging Well Online Series of E-Courses.”

**Sellers, Debra,** US Department of Health and Human Services, \$22,329, “Kansas Optimizing Health Program (KOHP) Integration to KSRE System.”

**Stith, Sandra M.,** US Department of Agriculture, \$281,818, “KSU/Air Force Family Maltreatment Definitions Validation and Training Project.”

**Stith, Sandra M.,** US Department of Defense, \$250,000, “Risk Assessment Tool - Phase III.”

## SALINA COLLEGE OF TECHNOLOGY AND AVIATION

### DEAN OF COLLEGE OF TECHNOLOGY AND AVIATION

**Hannah, Leslie D., Brown, Danielle** (Salina Summer School), and **Wood, Jacqueline M.** (Salina Academic Services), National Endowment for Financial Education, “CashCourse Reimbursement Program Proposal.”

### SALINA ACADEMIC SERVICES

**Wood, Jacqueline M., Brown, Danielle** (Salina Summer School), and **Hannah, Leslie D.** (Dean of College of Technology and Aviation), National Endowment for Financial Education, \$580, “CashCourse Reimbursement Program Proposal.”

### SALINA APPLIED AVIATION RESEARCH CENTER

**Barnhart, Richard K., and Khan, Saeed M.** (Salina Engineering Technology), Flint Hills Solutions, LLC, \$116,081, “Advanced Avionics Miniaturization Program (AAMP).”

**Barnhart, Richard K., and Shappee, Eric J.** (Salina Aviation), US Department of Defense, \$380,240, “Unmanned Aerial Systems (UAS) Mission Planning.”

### SALINA AVIATION

**Shappee, Eric J., and Barnhart, Richard K.** (Salina Applied Aviation Research Center), US Department of Defense, “Unmanned Aerial Systems

(UAS) Mission Planning.”

## **SALINA ENGINEERING TECHNOLOGY**

**Khan, Saeed M.**, and **Barnhart, Richard K.** (Salina Applied Aviation Research Center), Flint Hills Solutions, LLC, “Advanced Avionics Miniaturization Program (AAMP).”

## **SALINA SUMMER SCHOOL**

**Brown, Danielle, Hannah, Leslie D.** (Dean of College of Technology and Aviation), and **Wood, Jacqueline M.** (Salina Academic Services), National Endowment for Financial Education, “CashCourse Reimbursement Program Proposal.”

## **COLLEGE OF VETERINARY MEDICINE**

### **ANATOMY AND PHYSIOLOGY**

**Blecha, Frank**, and **Shi, Jishu**, Fort Dodge Animal Health, “Evaluation of the FDAH PRRS Vaccine for Cell-Mediated Immune Responses Against Multiple Clusters of PRRS Viruses.”

**Davis, Elizabeth G.**, and **Freeman, Lisa C.**, Merck Company Foundation, “2009 Merck Merial Veterinary Research Grants Program.”

**Freeman, Lisa C.**, and **Davis, Elizabeth G.**, Merck Company Foundation, \$20,000, “2009 Merck Merial Veterinary Research Grants Program.”

**Kenney, Michael J.**, US Department of Health and Human Services, \$401,500, “Aging and Heart Failure are not similar Syndromes of Sympathetic Dysregulation.”

**Kenney, Michael J.**, US Department of Health and Human Services, \$185,000, “Mechanisms Mediating Hypotension to Anthrax Lethal Toxin.”

**Kenney, Michael J.**, and **Freeman, Lisa C.** (Dean of Veterinary Medical Center), US Department of State, \$2,460, “Afghanistan and Iraqi Engagement (PR 1005844).”

**Kukanich, Stanley P.**, and **West, Gary D.** (Clinical Sciences), Morris Animal Foundation, “Pharmacokinetics of Oral and Topical Moxidectin in the Giraffe (*Giraffa camelopardalis*).”

**Kukanich, Stanley P.**, and **Davis, Elizabeth G.** (Clinical Sciences), Morris Animal Foundation, “The Pharmacokinetics of Piroxicam in Horses (Michelle Hubin).”

**Kukanich, Stanley P.**, and **Davis, Elizabeth G.** (Clinical Sciences), Morris Animal Foundation, “The Pharmacokinetics and Antinociceptive Effects of Nalbuphine in Dogs (Julia Paul).”

**Kumari, Meena**, US Department of Health and Human Services, \$255,179, “Ethanol-Induced NMDA R1 mRNA Stabilization.”

**Marcus, Daniel C.**, and **Wangemann, A. Philine**, US Department of Health and Human Services, \$377,237, “Cochlear and Vestibular Ion Transport.”

**Marcus, Daniel C.**, US Department of Health and Human Services, \$1,349,550, “Epithelial Function in Health and Disease.”

**Schultz, Bruce D.**, and **Lillich, James D.** (Clinical Sciences), US Department of Health and Human Services, \$295,650, “Neuroendocrine-modulated Epithelial HCO<sub>3</sub>-transport.”

**Shi, Jishu**, and **Blecha, Frank**, Fort Dodge Animal Health, \$100,000, “Evaluation of the FDAH PRRS Vaccine for Cell-Mediated Immune Responses Against Multiple Clusters of PRRS Viruses.”

**Tamura, Masaaki**, and **Troyer, Deryl L.**, US Department of Health and Human Services, \$11,759, “Nanoparticle-based Dual Gene Therapy for Lung Adenocarcinoma (Mentor).”

**Tamura, Masaaki**, and **Troyer, Deryl L.**, US Department of Health and Human Services, \$198,869, “Nanoparticle-based Dual Gene Therapy for Lung Adenocarcinoma.”

**Tamura, Masaaki, Hua, Duy H.** (Chemistry), and **Troyer, Deryl L.**, US Department of Health and Human Services, “Stem Cells as Vehicles for Therapeutic Nanoparticle Delivery to Breast Cancer.”

**Troyer, Deryl L.**, US Department of Health and Human Services, \$28,825, “Functionalized Bimagnetic Core/Shell Fe/Fe<sub>3</sub>O<sub>4</sub> Stealth Nanoparticles for Diagnosis and Treatment of Cancer.”

**Troyer, Deryl L.**, and **Tamura, Masaaki**, US Department of Health and

Human Services, “Nanoparticle-based Dual Gene Therapy for Lung Adenocarcinoma (Mentor).”

**Troyer, Deryl L.**, and **Tamura, Masaaki**, US Department of Health and Human Services, “Nanoparticle-based Dual Gene Therapy for Lung Adenocarcinoma.”

**Troyer, Deryl L., Hua, Duy H.** (Chemistry), and **Tamura, Masaaki**, US Department of Health and Human Services, \$82,125, “Stem Cells as Vehicles for Therapeutic Nanoparticle Delivery to Breast Cancer.”

**Wangemann, A. Philine**, and **Marcus, Daniel C.**, US Department of Health and Human Services, “Cochlear and Vestibular Ion Transport.”

**Weiss, Mark L.**, Arthritis Foundation, \$4,320, “Umbilical Cord Stem Cells for Engineering TMJ Osteochondral Constructs.”

**Weiss, Mark L.**, Kansas State University Research Foundation, \$10,000, “Comparative Cell Isolation Studies.”

### **CLINICAL SCIENCES**

**Anderson, David E., Larson, Robert L., Renter, David G.** (Diagnostic Medicine/Pathobiology), and **White, Bradley J.**, Biomune Company, “Mycoplasma Bovis Prevalence in Field Cases of Bovine Respiratory Disease.”

**Apley, Michael D., Coetzee, Johann F.**, and **Higgins, James J.** (Statistics), US Department of Agriculture, “Validation of a Bovine Pain Model and Development of Effective Pain Relief Regimens Through Pharmacokinetic-Pharmacodynamic Modeling.”

**Armbrust, Laura J., Beard, Warren L., Davis, Elizabeth G.**, and **Lillich, James D.**, Grayson-Jockey Club Research Foundation, “Periosteal Manipulation of the Distal Cannon Bone Physis.”

**Beard, Warren L., Armbrust, Laura J., Davis, Elizabeth G.**, and **Lillich, James D.**, Grayson-Jockey Club Research Foundation, “Periosteal Manipulation of the Distal Cannon Bone Physis.”

**Carpenter, James W.**, and **Dryden, Michael W.** (Diagnostic Medicine/Pathobiology), Pfizer, Inc., \$15,000, “Efficacy and Pharmacokinetics of Selamectin in the Pet Rabbit.”

**Carpenter, James W.**, and **Van Der Merwe, Deon** (Diagnostic Medicine/Pathobiology), US Fish and Wildlife Service, \$38,000, “Survey of Potentially Toxic Metal Concentrations in Waterfowl, Water, and Soil in the Tri-state Mining District (Kansas, Oklahoma, Missouri).”

**Coetzee, Johann F., Apley, Michael D.**, and **Higgins, James J.** (Statistics), US Department of Agriculture, \$325,000, “Validation of a Bovine Pain Model and Development of Effective Pain Relief Regimens Through Pharmacokinetic-Pharmacodynamic Modeling.”

**Davis, Elizabeth G., Koopman, Tammy** (Diagnostic Medicine/Pathobiology), and **Wilkinson, Melinda** (Diagnostic Medicine/Pathobiology), Fort Dodge Animal Health, \$102,000, “Immune Responses in Foals following Vaccination: Effect of an Adjuvant to Overcome Maternal Antibody Blocking.”

**Davis, Elizabeth G., Armbrust, Laura J., Beard, Warren L.**, and **Lillich, James D.**, Grayson-Jockey Club Research Foundation, “Periosteal Manipulation of the Distal Cannon Bone Physis.”

**Davis, Elizabeth G.**, and **Nguyen, Thu A.** (Diagnostic Medicine/Pathobiology), Morris Animal Foundation, \$4,000 (includes \$2,000 from K-State Olathe), “Gap Junctional Intercellular Communication of Normal, Dysplastic, and Neoplastic Feline Mammary Tissues (Jennifer Darby).”

**Davis, Elizabeth G.**, and **Kukanich, Stanley P.** (Anatomy and Physiology), Morris Animal Foundation, \$4,000, “The Pharmacokinetics of Piroxicam in Horses (Michelle Hubin).”

**Davis, Elizabeth G.**, and **Kukanich, Stanley P.** (Anatomy and Physiology), Morris Animal Foundation, \$4,000 (includes \$2,000 from K-State Olathe), “The Pharmacokinetics and Antinociceptive Effects of Nalbuphine in Dogs (Julia Paul).”

**Gehring, Ronette, Hanzlicek, Andrew S., Kukanich, Stanley P., Margiocco, Marco**, and **Schermerhorn, Thomas**, Morris Animal Foundation, “Pharmacokinetics of Pimobendan in Healthy Cats.”

**Hanzlicek, Andrew S., Gehring, Ronette, Kukanich, Stanley P., Margiocco, Marco**, and **Schermerhorn, Thomas**, Morris Animal Foundation, “Pharmacokinetics of Pimobendan in Healthy Cats.”

**Kukanich, Stanley P., Gehring, Ronette, Hanzlicek, Andrew S., Margiocco, Marco, and Schermerhorn, Thomas,** Morris Animal Foundation, "Pharmacokinetics of Pimobendan in Healthy Cats."

**Larson, Robert L., Anderson, David E., Renter, David G.** (Diagnostic Medicine/Pathobiology), and White, Bradley J., Biomune Company, "Mycoplasma Bovis Prevalence in Field Cases of Bovine Respiratory Disease."

**Lillich, James D., Armbrust, Laura J., Beard, Warren L., and Davis, Elizabeth G.,** Grayson-Jockey Club Research Foundation, \$15,000, "Periosteal Manipulation of the Distal Cannon Bone Physis."

**Lillich, James D., and Schultz, Bruce D.** (Anatomy and Physiology), US Department of Health and Human Services, "Neuroendocrine-modulated Epithelial HCO<sub>3</sub>-transport."

**Marcus, Daniel C.,** US Department of Health and Human Services, \$240,915, "Epithelial Function in Health and Disease."

**Margiocco, Marco, Gehring, Ronette, Hanzlicek, Andrew S., Kukanich, Stanley P., and Schermerhorn, Thomas,** Morris Animal Foundation, \$16,093, "Pharmacokinetics of Pimobendan in Healthy Cats."

**Rush, Bonnie R.,** Saint George's University, \$40,944, "Clinical Training for St. George's University."

**Sanderson, Michael W.,** US Department of Agriculture, \$75,940, "Supplementing Beef Cattle Expertise for VS-CEAH."

**Schermerhorn, Thomas, Gehring, Ronette, Hanzlicek, Andrew S., Kukanich, Stanley P., and Margiocco, Marco,** Morris Animal Foundation, "Pharmacokinetics of Pimobendan in Healthy Cats."

**Schermerhorn, Thomas,** Winn Feline Foundation, \$15,000, "Identification of a Biomarker for Masked Renal Failure in Hyperthyroid Cats."

**Thomson, Daniel U.,** Epitopix, LLC, \$20,887, "Concentration of Antibodies and Passive Immunity to a Commercial E. coli SRP Vaccine in Beef Cattle Colostrum."

**Thomson, Daniel U.,** Fort Dodge Animal Health, \$135,000, "Graduate Student Support."

**Thomson, Daniel U., and Reinhardt, Christopher D.** (Animal Sciences and Industry), National Cattlemen's Beef Association, \$33,887 (includes \$12,500 from Intervet Schering Plough), "Effects of Delayed Steroid Implanting on Feeder Cattle Health and Carcass Quality."

**West, Gary D., and Kukanich, Stanley P.** (Anatomy and Physiology), Morris Animal Foundation, \$11,812, "Pharmacokinetics of Oral and Topical Moxidectin in the Giraffe (*Giraffa camelopardalis*)."

**White, Bradley J., Anderson, David E., Larson, Robert L., and Renter, David G.** (Diagnostic Medicine/Pathobiology), Biomune Company, \$57,976, "Mycoplasma Bovis Prevalence in Field Cases of Bovine Respiratory Disease."

**White, Bradley J., Blasi, Dale A.** (Animal Sciences and Industry), and **Renter, David G.** (Diagnostic Medicine/Pathobiology), Schering-Plough Animal Health Corporation, \$69,914, "Incorporation of Onset 5 PMH IN into Stocker/Background Receiving Programs with Safeguard and Vision Products Compared and Contrasted to Pfizer's StickVac Program."

## DEAN OF VETERINARY MEDICAL CENTER

**Anderson, Gary A.,** US Department of Agriculture, "Classical Swine Fever Surveillance."

**Freeman, Lisa C., and Kenney, Michael J.** (Anatomy and Physiology), US Department of State, \$2,460, "Afghanistan and Iraqi Engagement (PR 1005844)."

**Logan, Cynthia L., and Willard, Gayle K.,** State Library of Kansas, \$2,500, "Kansas Library ILDP Animals in Society."

**Richardson, Ralph C.,** Kansas State University Foundation, \$200,920, "Professorships/Chairs."

**Willard, Gayle K., and Logan, Cynthia L.,** State Library of Kansas, "Kansas Library ILDP Animals in Society."

## DIAGNOSTIC MEDICINE/PATHOBIOLOGY

**Akhunov, Eduard D.,** Kansas Wheat Commission, \$3,000, "Advancing Genomics at K-State: Ultra High-Throughput DNA Sequencing."

**Anderson, Gary A., Hollis, Larry C.** (Animal Sciences and Industry), **Houser, Terry A.** (Animal Sciences and Industry), **Nietfeld, Jerome C.,** and **Tokach, Michael D.** (Animal Sciences and Industry), National Pork Board, "Incidence and Severity of *Arcanobacterium Pyogenes* Injection Site Abscesses with Needle or Needle-Free Injection Methods."

**Anderson, Gary A.,** State of Nebraska \$50,000, "Nebraska Rabies."

**Anderson, Gary A., and Stockham, Steven L.,** US Department of Agriculture, \$50,000, "NAHLN:KS."

**Chang, Kyeong-Ok, and Hua, Duy H.** (Chemistry), US Department of Health and Human Services, \$865,110, "Development of Novel Therapeutic Agents for Norovirus Infections."

**Chang, Kyeong-Ok,** US Department of Health and Human Services, \$183,061, "Replication of Noroviruses in Cell Culture."

**Dritz, Steven S., DeRouchey, Joel M.** (Animal Sciences and Industry), **Goodband, Robert D.** (Animal Sciences and Industry), **Nelssen, Jim L.** (Animal Sciences and Industry), and **Tokach, Michael D.** (Animal Sciences and Industry), Elanco Animal Health, "Effects of Pellet Binders on Pellet Quality."

**Dritz, Steven S., DeRouchey, Joel M.** (Animal Sciences and Industry), **Goodband, Robert D.** (Animal Sciences and Industry), **Nelssen, Jim L.** (Animal Sciences and Industry), and **Tokach, Michael D.** (Animal Sciences and Industry), Engrain, LLC, "Evaluation of Novel Enzyme Blend on Nursery Pig Performance."

**Dritz, Steven S., DeRouchey, Joel M.** (Animal Sciences and Industry), **Goodband, Robert D.** (Animal Sciences and Industry), **Nelssen, Jim L.** (Animal Sciences and Industry), and **Tokach, Michael D.** (Animal Sciences and Industry), Environmental Care and Share, Inc., "An Evaluation of the Enzyme Blend "Livestock Answer" in Phase 1 and Phase 2 Nursery Diets Containing DDGS."

**Dritz, Steven S., DeRouchey, Joel M.** (Animal Sciences and Industry), **Goodband, Robert D.** (Animal Sciences and Industry), **Nelssen, Jim L.** (Animal Sciences and Industry), and **Tokach, Michael D.** (Animal Sciences and Industry), Environmental Care and Share, Inc., "Effects of "Livestock Answer" on Growth Performance of Wean to Finish Pigs."

**Dritz, Steven S., DeRouchey, Joel M.** (Animal Sciences and Industry), **Goodband, Robert D.** (Animal Sciences and Industry), **Nelssen, Jim L.** (Animal Sciences and Industry), and **Tokach, Michael D.** (Animal Sciences and Industry), Evonik Degussa Canada, Inc., "Effects of Feeding Programs Varying in Balanced Amino Acid Density on Growth Performance and Carcass Composition of Growing-Finishing Pigs."

**Dritz, Steven S., DeRouchey, Joel M.** (Animal Sciences and Industry), **Goodband, Robert D.** (Animal Sciences and Industry), **Nelssen, Jim L.** (Animal Sciences and Industry), and **Tokach, Michael D.** (Animal Sciences and Industry), National Pork Board, "Development of Alternative Ingredient Booklet."

**Dritz, Steven S.,** Pfizer, Inc., \$25,200, "Master Agreement Addendum: The Effect of Dietary Lysine Levels on Performance and Carcass Characteristics of Improvest Treated Male Pigs Raised in a Commercial Facility."

**Dritz, Steven S., DeRouchey, Joel M.** (Animal Sciences and Industry), **Goodband, Robert D.** (Animal Sciences and Industry), **Nelssen, Jim L.** (Animal Sciences and Industry), and **Tokach, Michael D.** (Animal Sciences and Industry), Protein Resources, LLC, "An Evaluation of PEP2 (Proteins Enzymatically Processed) in Diets for Nursery Pigs."

**Dritz, Steven S., DeRouchey, Joel M.** (Animal Sciences and Industry), **Goodband, Robert D.** (Animal Sciences and Industry), **Nelssen, Jim L.** (Animal Sciences and Industry), and **Tokach, Michael D.** (Animal Sciences and Industry), Purco, \$7,000, "Purco Project."

**Dryden, Michael W.,** Elanco Animal Health, \$97,270, "Comparative Speed of Kill and Residual Efficacy of Comfortis TM (spinosad), Frontline Plus (Fipronil/X)-Methoprene, and Advantage (imidacloprid) Administered to Dogs Against Fleas with Reduced Susceptibility to Various Insecticides."

**Dryden, Michael W., Bagladi-Swanson, Mary S.** (Veterinary Medical Teaching Hospital), and **Wilkerson, Melinda,** Fort Dodge Animal Health,

"Testing a Vaccine as a Preventative or Therapeutic in a Canine Model of Flea Allergic Dermatitis."

**Dryden, Michael W.**, Merial Limited, \$43,965, "Evaluation of Flea Colony Gender Structure as a Predictor of Successful Flea Control."

**Dryden, Michael W.**, Merial Limited, \$74,037, "Re-evaluation of the Efficacy of Frontline Plus to Control Flea Populations on Naturally Infested Pets and in Private Residences in Tampa, Florida 13 Years after Fipronil Introduction."

**Dryden, Michael W.**, and **Carpenter, James W.** (Clinical Sciences), Pfizer, Inc., "Efficacy and Pharmacokinetics of Selamectin in the Pet Rabbit."

**Ganta, Roman Reddy R.**, US Department of Health and Human Services, \$365,000, "Vector and Host Contributions to the Regulation of *E. chaffeensis* Gene Expression."

**Hesse, Richard**, and **Rowland, Raymond R. R.**, Fort Dodge Animal Health, \$100,000, "Heterotypic Immunity as a Platform for a New Generation of Modified Live PRRSV Vaccines."

**Hesse, Richard**, **Rowland, Raymond R. R.**, and **Wyatt, Carol R.**, National Pork Board, "Mapping T Cell Epitopes in PCV2 Capsid Protein."

**Hesse, Richard**, and **Rowland, Raymond R. R.**, National Pork Board, "The Role of Maternal Antibody in Determining PCV2 Vaccine Efficacy."

**Hesse, Richard**, and **Rowland, Raymond R. R.**, US Department of Agriculture, "Mapping Host Protection Immunity in the PCV2 Capsid Protein."

**Kastner, Justin J.**, **Fung, Daniel Y.C.** (Food Science Institute), **Kastner, Curtis L.** (Food Science Institute), and **Smith, J. Scott** (Animal Sciences and Industry), US Department of Agriculture, \$56,328, "Animal Science Food Safety Consortium - Kansas State University."

**Kastner, Justin J.**, US Department of Agriculture, \$15,568, "Food Standards/Codex."

**Kastner, Justin J.**, US Department of Homeland Security, \$64,897, "Frontier Interdisciplinary eXperiences (FIX) Coordinator."

**Kastner, Justin J.**, US Department of Homeland Security, \$160,085, "NCFPD Fellowships."

**Koopman, Tammy**, **Davis, Elizabeth G.** (Clinical Sciences), and **Wilkerson, Melinda**, Fort Dodge Animal Health, "Immune Responses in Foals following Vaccination: Effect of an Adjuvant to Overcome Maternal Antibody Blocking."

**Nagaraja, Tiruvoor G.**, **Oberst, Richard D.**, **Renter, David G.**, **Sanderson, Michael W.**, and **Zurek, Ludek**, US Department of Agriculture, \$140,751, "Ecology of *E. coli* O157:H7 in Beef Cow-Calf Operations from Ranch to Feedlot."

**Nagaraja, Tiruvoor G.**, and **Renter, David G.**, US Department of Agriculture, \$939,222, "The Impact of Dietary Distillers' Grains on *Escherichia Coli* O157:H7 in Cattle and Interventions to Reduce the Potential Food Safety Impact."

**Nguyen, Thu A.**, and **Davis, Elizabeth G.** (Clinical Sciences), Morris Animal Foundation, "Gap Junctional Intercellular Communication of Normal, Dysplastic, and Neoplastic Feline Mammary Tissues (Jennifer Darby)."

**Nietfeld, Jerome C.**, **Anderson, Gary A.**, **Hollis, Larry C.** (Animal Sciences and Industry), **Houser, Terry A.** (Animal Sciences and Industry), and **Tokach, Michael D.** (Animal Sciences and Industry), National Pork Board, "Incidence and Severity of *Arcanobacterium Pyogenes* Injection Site Abscesses with Needle or Needle-Free Injection Methods."

**Oberst, Richard D.**, **Nagaraja, Tiruvoor G.**, **Renter, David G.**, **Sanderson, Michael W.**, and **Zurek, Ludek**, US Department of Agriculture, "Ecology of *E. coli* O157:H7 in Beef Cow-Calf Operations from Ranch to Feedlot."

**Pickrell, John A.**, **Hargrove, William L.** (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), **Harner III, Joseph P.** (Biological and Agricultural Engineering), and **Maghirang, Ronaldo G.** (Biological and Agricultural Engineering), US Department of Agriculture, "Air Quality: Odor, Dust and Gaseous Emissions from Concentrated Animal Feeding Operations in the Southern Great Plains."

**Renter, David G.**, **Anderson, David E.** (Clinical Sciences), **Larson, Robert L.** (Clinical Sciences), and **White, Bradley J.** (Clinical Sciences), Biomune

Company, "Mycoplasma Bovis Prevalence in Field Cases of Bovine Respiratory Disease."

**Renter, David G.**, **Blasi, Dale A.** (Animal Sciences and Industry), and **White, Bradley J.** (Clinical Sciences), Schering-Plough Animal Health Corporation, "Incorporation of Onset 5 PMH IN into Stocker/Background Receiving Programs with Safeguard and Vision Products Compared and Contrasted to Pfizer's StickVac Program."

**Renter, David G.**, **Nagaraja, Tiruvoor G.**, **Oberst, Richard D.**, **Sanderson, Michael W.**, and **Zurek, Ludek**, US Department of Agriculture, "Ecology of *E. coli* O157:H7 in Beef Cow-Calf Operations from Ranch to Feedlot."

**Renter, David G.**, and **Nagaraja, Tiruvoor G.**, US Department of Agriculture, "The Impact of Dietary Distillers' Grains on *Escherichia Coli* O157:H7 in Cattle and Interventions to Reduce the Potential Food Safety Impact."

**Richt, Juergen**, Centers for Disease Control and Prevention, \$84,780, "IPA for Deborah Clouser."

**Richt, Juergen**, Centers for Disease Control and Prevention, \$78,900, "IPA for Wenjun Ma."

**Richt, Juergen**, US Department of Health and Human Services, \$3,406,059, "NIAID Centers of Excellence for Influenza Research and Surveillance (CEIRS)."

**Richt, Juergen**, US Department of Health and Human Services, \$365,092, "Pathogenesis, Transmission and Detection of Zoonotic Prion Diseases."

**Rowland, Raymond R. R.**, and **Hesse, Richard**, Fort Dodge Animal Health, "Heterotypic Immunity as a Platform for a New Generation of Modified Live PRRSV Vaccines."

**Rowland, Raymond R. R.**, **Hesse, Richard**, and **Wyatt, Carol R.**, National Pork Board, "Mapping T Cell Epitopes in PCV2 Capsid Protein."

**Rowland, Raymond R. R.**, and **Hesse, Richard**, National Pork Board, \$32,325, "The Role of Maternal Antibody in Determining PCV2 Vaccine Efficacy."

**Rowland, Raymond R. R.**, and **Murphy, James P.** (Agriculture and Natural Resources), US Department of Agriculture, \$1,200,000, "Integrated Strategies to Control and Reduce the Impact of PRRS Virus."

**Rowland, Raymond R. R.**, and **Hesse, Richard**, US Department of Agriculture, \$240,000, "Mapping Host Protection Immunity in the PCV2 Capsid Protein."

**Sanderson, Michael W.**, **Nagaraja, Tiruvoor G.**, **Oberst, Richard D.**, **Renter, David G.**, and **Zurek, Ludek**, US Department of Agriculture, "Ecology of *E. coli* O157:H7 in Beef Cow-Calf Operations from Ranch to Feedlot."

**Scott, Harvey M.**, US Department of Agriculture, \$27,966, "An Integrated Approach to Determine Salmonella Dynamics in the NicheMarket Antimicrobial Free (ABF) Swine Production System."

**Scott, Harvey M.**, US Department of Agriculture, \$20,132, "Molecular Epidemiology of Salmonella in Conventional and Antimicrobial Free (ABF) Swine Production Systems."

**Stockham, Steven L.**, and **Anderson, Gary A.**, US Department of Agriculture, "NAHLN:KS."

**Van Der Merwe, Deon**, and **Carpenter, James W.** (Clinical Sciences), US Fish and Wildlife Service, "Survey of Potentially Toxic Metal Concentrations in Waterfowl, Water, and Soil in the Tri-state Mining District (Kansas, Oklahoma, Missouri)."

**Wilkerson, Melinda**, **Davis, Elizabeth G.** (Clinical Sciences), and **Koopman, Tammy**, Fort Dodge Animal Health, "Immune Responses in Foals following Vaccination: Effect of an Adjuvant to Overcome Maternal Antibody Blocking."

**Wilkerson, Melinda**, **Bagladi-Swanson, Mary S.** (Veterinary Medical Teaching Hospital), and **Dryden, Michael W.**, Fort Dodge Animal Health, \$24,794, "Testing a Vaccine as a Preventative or Therapeutic in a Canine Model of Flea Allergic Dermatitis."

**Wyatt, Carol R.**, **Hesse, Richard**, and **Rowland, Raymond R. R.**, National Pork Board, \$58,158, "Mapping T Cell Epitopes in PCV2 Capsid Protein."

**Zurek, Ludek**, **Nagaraja, Tiruvoor G.**, **Oberst, Richard D.**, **Renter, David G.**, and **Sanderson, Michael W.**, US Department of Agriculture, "Ecology of *E. coli* O157:H7 in Beef Cow-Calf Operations from Ranch to Feedlot."

## VETERINARY DIAGNOSTIC LABORATORY

**Anderson, Gary A.**, US Department of Agriculture, \$65,527, "Classical Swine Fever Surveillance."

## **VETERINARY MEDICAL TEACHING HOSPITAL**

**Arck, Shirley T.**, University of Kansas, \$3,200, "Training of PharmD (doctor of pharmacy) Students."

**Bagladi-Swanson, Mary S., Dryden, Michael W.** (Diagnostic Medicine/ Pathobiology), and **Wilkerson, Melinda** (Diagnostic Medicine/ Pathobiology), Fort Dodge Animal Health, "Testing a Vaccine as a Preventative or Therapeutic in a Canine Model of Flea Allergic Dermatitis."

**Fingland, Roger B.**, City of Manhattan, KS, \$14,700, "Veterinary Services at the Sunset Zoological Park, Manhattan, Kansas."

**Fingland, Roger B.**, Friends of the Sunset Zoo, \$2,000, "Sunset Zoo Internship Program."

## **OFFICE OF THE PRESIDENT**

### **AUDITORIUM**

**Jackson, Thomas E.**, National Foundation on the Arts and the Humanities, \$476,745 (includes \$468,738 from in-kind support), "2008-09 Performance Series."

**Jackson, Thomas E.**, National Foundation on the Arts and the Humanities, \$4,300, "Jerusalem Symphony Orchestra."

### **BEACH ART MUSEUM**

**Render, Lorne E.**, Kansas Arts Commission, \$8,007, "Beach Museum of Art General Operating Support, 2009."

**Schlageck, Kathrine W.**, Kansas Arts Commission, \$8,000, "Centered on Art."

**Schlageck, Kathrine W.**, Kansas Arts Commission, \$8,000, "Growing Up ARTSmart at the Beach Museum of Art."

**Schlageck, Kathrine W.**, Mid-America Arts Alliance, \$990, "Pippa White "One's Company" Performance."

## **OFFICE OF THE PROVOST**

### **ASSESSMENT AND PROGRAM REVIEW**

**Verschelden, Cia**, Higher Learning Commission, \$88,604, "Higher Learning Commission."

### **CENTER FOR ENGAGEMENT AND COMMUNITY DEVELOPMENT**

**Procter, David E.**, Kettering Foundation, \$10,000, "Coming to Judgement."

**Procter, David E.**, State of Wyoming, \$17,050, "Wyoming Public Issues Facilitation Workshop."

**Procter, David E.**, US Department of Agriculture, \$81,484, "Developing Community Coaches."

**Steichen, Ethel M.**, Corporation for National and Community Service, \$50,401, "Evaluation for the Corporation for National and Community Service-Funded Service-Learning Project."

**Tolar, Mary H.**, and **Marston, Mary E.** (Educational Leadership), Corporation for National and Community Service, \$10,000, "Kansas AmeriCorps\*VISTA Service-Learning Project."

### **DEAN OF CONTINUING EDUCATION**

**Maes, Sue C., Anderson, Dawn L.** (Dean of Human Ecology), and **Hosni, Mohammad H.** (Mechanical and Nuclear Engineering), US Department of Education, "Inter-Institutional Collaboration: The Key to Affordable and Accessible High Quality Education."

### **DEAN OF GRADUATE SCHOOL**

**Lease, Kevin B.**, National Aeronautics and Space Administration, \$42,000, "Kansas Space Grant Consortium."

## **INTERNATIONAL PROGRAMS**

**Michie, Barry H.**, Republic of Kazakhstan, \$209,000, "Education of Recipients of the Bolashak International Scholarship."

**Michie, Barry H.**, and **Hargrove, William L.** (Kansas Center for Agricultural Resources & the Environment/Kansas Water Resource Research Institute), US Agency for International Development, \$25,029, "Cultural Interfacing for FATA Youth in the USA."

**Wood, Mary**, NCN Institute, \$15,393, "English Training Sponsorship."

**Young, Kristine A.**, Peace Corps, \$1,557, "Peace Corps - 2008."

## **LIBRARY**

**Beard, Regina M.**, and **Urton, Ellen R.**, State Library of Kansas, \$2,500, "Photography."

**Goetsch, Lori**, and **Gould, Thomas H.** (School of Journalism and Mass Communications), North Central Regional Planning Commission, \$8,000, "K-State Editorship of the Online Journal of Rural Research and Policy."

**Urton, Ellen R.**, and **Beard, Regina M.**, State Library of Kansas, "Photography."

## **SCHOOL OF LEADERSHIP STUDIES**

**Collins, Olivia P.**, American Humanics, Inc, \$5,645, "Connecting Campus and Community Through Volunteer Leadership."

**Scott, Susan M.**, and **Spencer, Gayle L.** (Office of Student Life), Manhattan Area Chamber of Commerce, \$50,000, "Leadership Manhattan."

**Tolar, Mary H.**, and **Lindsey, Matthew**, Corporation for Change, \$36,000, "Careers for the Common Good."

**Tolar, Mary H.**, Walt Disney Company, \$1,000, "Family Volunteer Day."

## **PUBLIC SAFETY**

### **KSU POLICE DEPARTMENT**

**Stubbings, Donald C.**, Kansas Department of Transportation, \$2,000, "Special Traffic Enforcement Program (STEP)."

**Stubbings, Donald C.**, Kansas Department of Transportation, \$6,497, "Underage Alcohol Enforcement."

## **VICE PRESIDENT FOR RESEARCH**

### **BIOSECURITY RESEARCH INSTITUTE**

**Rusk, John S.**, US Department of Agriculture, \$1,000, "Support of Biocontainment (Agricultural Diseases) Facility Design and Operations Meeting."

### **BIOTECHNOLOGY DESIGN LABORATORY**

**Tomich, John M.**, Multisponsor, \$70,948, "Biotechnology Laboratory Support."

### **ELECTRONICS DESIGN LABORATORY**

**Sobering, Timothy J.**, Multisponsor, \$199,139, "Electronics Design Laboratory Support."

### **NATIONAL AGRICULTURAL BIOSECURITY CENTER**

**Beardsley, Craig A.**, US Department of Defense, \$130,788, "Kansas National Guard - Afghan Agriculture Development Team Training Program."

**Tafanelli, Lee E.**, US Department of Agriculture, \$368,000, "Development and Delivery of a Targeted NALHN Technical Training Support Program."

**Tafanelli, Lee E.**, and **Vanier, Martha A.**, US Department of Defense, "Enabling Technologies for Detecting, Characterizing and Modeling Bioagents in Military Food Rations."

**Vanier, Martha A.**, and **Tafanelli, Lee E.**, US Department of Defense, \$2,988,000, "Enabling Technologies for Detecting, Characterizing and

Modeling Bioagents in Military Food Rations."

**Vanier, Martha A.**, US Department of Defense, \$11,165,800, "Infrastructure Support for the KSU Biosecurity Research Institute Facility."

## OFFICE OF THE VICE PRESIDENT FOR RESEARCH

**Freeman, Lisa C.**, and **Montelone, Beth A.** (Dean of Arts and Sciences), Kansas Health Foundation, \$1,079,654, "One Health Kansas."

**Guikema, James A.**, Kansas Bioscience Authority, \$15,000, "STC Red Team Support."

**Guikema, James A.**, National Science Foundation, \$40,500, "2007 National Science Foundation Graduate Research Fellowship Award - Matthew T. Basel."

**Guikema, James A.**, **Eckels, Steven J.** (Institute for Environmental Research), **Erickson, Larry E.** (Center for Hazardous Substance Research), and **Leven, Blase A.** (Center for Hazardous Substance Research), US Department of Defense, "Urban Operations Laboratory."

**Guikema, James A.**, US Department of Health and Human Services, \$473,707, "Midwest Institute for Comparative Stem Cell Biology Major Equipment Proposal."

**Montelone, Beth A.**, US Department of Health and Human Services, \$38,749, "Evaluation of Live Attenuated B. Melitensis Vaccines in Non-Human Primates."

## VICE PRESIDENT FOR STUDENT LIFE AND DEAN OF STUDENTS

### DEPARTMENT OF HOUSING

**Ring, Debra J.**, and **Bosco, Pat J.** (Office of Student Life), US Department of Education, \$200,522 (includes \$75,000 from KSU Student Governing Association), "K-State Childcare Access Means Parents in School (KCAMPIS)."

### EDUCATIONAL AND PERSONAL DEVELOPMENT

**Barragree, Cari D.**, US Department of Agriculture, \$4,482, "Kansas State University Upward Bound Program - Salina Summer Food Service Program."

**Cortez, Anita R.**, Kansas State University Foundation, \$47,000, "Edgerley-Franklin Urban Leadership Scholars Program."

**Greene, Kathleen V.**, Multisponsor, \$3,131, "Ronald E. McNair Post Baccalaureate Achievement Program - Travel."

**Greene, Kathleen V.**, National Science Foundation, \$46,156, "Kansas EPSCoR Summer Research Program."

**Greene, Kathleen V.**, US Department of Education, \$252,000, "Kansas State University McNair Scholars Program."

**Greene, Kathleen V.**, US Department of Education, \$289,134, "Student Support Services."

**Greene, Kathleen V.**, US Department of Education, \$222,581, "Student Support Services - KSU Salina."

**Holmes, JohnElla**, **Lynch, Michael L.**, and **Turner, Margaret A.**, US Department of Education, "Upward Bound Math and Science Program II."

**Lynch, Michael L.**, US Department of Agriculture, \$4,514, "Upward Bound Math and Science Program - Summer Food Service Program."

**Lynch, Michael L.**, **Holmes, JohnElla**, and **Turner, Margaret A.**, US Department of Education, "Upward Bound Math and Science Program II."

**Turner, Margaret A.**, US Department of Agriculture, \$5,514, "Kansas State University Upward Bound Program - Summer Food Service Program."

**Turner, Margaret A.**, **Holmes, JohnElla**, and **Lynch, Michael L.**, US Department of Education, \$248,680, "Upward Bound Math and Science Program II."

### KSU CHILD DEVELOPMENT CENTER, INC.

**Curry, Elizabeth W.**, and **Ring, Debra J.**, National Association of Child Care Resource & Referral Agencies, "Army Child Care in Your Neighborhood (ACCYN)."

**Ring, Debra J.**, Kansas Child Care Training Opportunities, Inc, \$53,358,

"Kansas Child Care Training Opportunities, Inc. - 2008."

**Ring, Debra J.**, and **Curry, Elizabeth W.**, National Association of Child Care Resource & Referral Agencies, \$279,724, "Army Child Care in Your Neighborhood (ACCYN)."

**Ring, Debra J.**, US Department of Agriculture, \$39,036, "Child and Adult Care Food Program - Jardine Site."

### OFFICE OF DIVERSITY AND DUAL CAREER DEVELOPMENT

**Gordon, Myra E.**, Kansas State University Foundation, \$14,400, "Project IMPACT Relationship Recruiting: Student Mentor/Assistants."

**Gordon, Myra E.**, and **Ehie, Ike C.** (Management), US Agency for International Development, \$19,838, "Advancing Economic Development through Strengthening the MBA Programs in Nigeria."

### OFFICE OF STUDENT LIFE

**Bosco, Pat J.**, and **Ring, Debra J.** (Department of Housing), US Department of Education, "K-State Childcare Access Means Parents in School (KCAMPIS)."

**Spencer, Gayle L.**, and **Scott, Susan M.** (School of Leadership Studies), Manhattan Area Chamber of Commerce, "Leadership Manhattan."

### UNIVERSITY COUNSELING SERVICES

**Arck Jr, William**, City of Manhattan, Kansas, \$25,463, "Youth-Oriented Alcohol Abuse Prevention Program."

**Pearson, Barbara**, US Department of Health and Human Services, \$75,000, "CollegeLifeCafe.com: An Online Program for Campus Suicide Prevention."

# UNIVERSITY SMALL RESEARCH GRANTS

University Small Research Grants are awarded by the Office of Research and Sponsored Programs to support the research, scholarly activity and other creative efforts of tenure-track faculty members.

## Fall 2008

- Aikens, Christine M.**, Chemistry, \$2,500; study entitled Chiroptical Properties and Protein Binding of Gold Nanoparticles
- Beck, Dylan**, Art, \$2,000; study entitled The Possibility of Producing Ceramic Art Objects Using 3-Dimensional Imaging
- Bemiller, Michelle**, Sociology, Anthropology, and Social Work, \$3,000; study entitled Family Violence and Child Custody Outcomes: An Assessment of Court Personnel Perceptions and Practices
- Borgarelli, Michele**, Clinical Sciences, \$1,500; study entitled Validate Contrast Ultrasound Agent for Evaluating Systolic Function and Myocardial Perfusion in Normal Dogs
- Chen, Xuanjuan (Jane)**, Finance, \$1,800; study entitled Background Risk and Bond Portfolio Risk: The Case of Insurance Companies
- Dilley, Paul**, History, \$750; study entitled Ancient Christian Comedy: A Critical Edition and Study of the Life of Eupraxia
- Dow, Douglas**, Art, \$2,000; study entitled Rebuilding Brotherhood: The Renewal of Florentine Confraternities in the Age of Reform
- Gordon, Joye C.**, School of Journalism and Mass Communications, \$1,000; study entitled Evacuation for Hurricane Gustav among Southeast Louisiana Residents
- Harris, Brandon S.**, Special Education, Counseling, and Student Affairs, \$600; study entitled A Model of Stress in Interscholastic Coaches: Burnout or Depression? and The Efficacy of a Structured, Stress Management Workbook in Collegiate Coaches
- Kaczynski, Andrew T.**, Kinesiology, \$2,500; study entitled Park Environments and Physical Activity
- Kraft, Stefan**, Chemistry, \$1,500; study entitled N-Hetexocyclic Carbene-based Platinum Anti-Cancer Drugs: A New Generation of Cisplatin
- Longmuir, Anne**, English, \$1,000; study entitled How to Survive a Dead Idea: The Fiction of Don DeLillo
- Martinez-Ortiz, Maria T.**, Modern Languages, \$1,500; study entitled Women Writers and Mexican Screenplay: Study and Selected Anthology of the Invisible Genre
- Muturi, Nancy W.**, School of Journalism and Mass Communications, \$2,500; study entitled Religiosity and HIV/AIDS Stigma in Rural Kenya: A Communication for Social and Behavior Change Perspective
- Mwangi, Sam**, School of Journalism and Mass Communications, \$3,500; study entitled The Role Interactive Media Played in Promoting Genocide in Kenya This Year and Possible Ways to Reform the Media Sector
- Pakaste, Mervi**, Art, \$2,000; study entitled Letterpress Techniques at the Hamilton Wood Type and Printing Museum
- Pederson-Archuleta, Kristy L.**, School of Family Studies and Human Services, \$2,000; study entitled Solution Focused Therapy with Financial Issues
- Siepl-Coates, Susanne**, Architecture, \$2,000; study entitled Living until Death: Perspectives on the Role of Architecture at the Palliative Care Center at the Georg-August University Hospital in Germany
- Swilley, Esther**, Marketing, \$2,000; study entitled Aesthetic Technology: Construct and Measurement
- With, Kimberly A.**, Biology, \$3,000; study entitled Current Land-Management Practices are Altering Landscape Permeability and Population Connectivity in the Flint Hills

## Spring 2009

- Aikens, Christine M.**, Chemistry, \$1,500; study entitled SERS Detection of Nitro-explosives
- Allbaugh, Rachel**, Clinical Sciences, \$2,000; study entitled Intraocular Pressure Measurement in Equine Athletes during Endurance Competitions
- Anderson, Jared R. and Macchi, C.R.**, School of Family Studies and Human Services, \$500; study entitled Systemic Health Behavior Change and Weight Maintenance Following Bariatric Surgery
- Bernstein, Kevin**, Art, \$3,000; study entitled The Unity of Knowledge
- Bergamasco, Luciana**, Clinical Sciences, \$2,000; study entitled Electroencephalographic and Bi-spectral Index Response to Noxious Stimuli in Horses
- Cai, Gangshu**, Management, \$1,500; study entitled Manufacturer Internet Referral
- Castano-Bernard, Ricardo**, Mathematics, \$2,000; study entitled Lagrangian Boundary Conditions for Open Gromov-Witten Theory with Professor Diego Matessi
- Daniels, Melinda**, Geography, \$1,500; study entitled Hydraulic, Geomorphologic and Thermal Dynamics at Small Tributary Confluences
- Datta, Saugata**, Geology, \$2,500; study entitled (Bio)Geochemical Investigation of Arsenic Mobility in Contaminated Aquifers of West Bengal, India
- Falsken, Joycelyn**, Apparel, Textiles, and Interior Design, \$1,900; study entitled Evolution of One Classic Bias Garment Design
- Fliter Jr, John A.**, Political Science, \$1,500; study entitled Home Building and Loan Association v. Blaisdell: The Contract Clause and the Great Depression
- Hoff, Derek S.**, History, \$1,500; study entitled Home Building and Loan Association v. Blaisdell: The Contract Clause and the Great Depression
- Kozar, Joy, and Hiller, Kim**, Apparel, Textiles, and Interior Design, \$2,000; study entitled Students' Attitude-Behavior Gap on Issues of Social Responsibility in the Apparel Industry in Manhattan, Kansas
- McDaniel, Brenda**, Psychology, \$5,000; study entitled Intimate Relationships in Emerging Adulthood: A Biopsychosocial Approach
- Marzluf, Phillip**, English, \$800; study entitled English in Mongolia: Linguistic Contact, Language Policy, and Identity
- Means, Armon**, Art, \$2,000; study entitled Photographic Research in the Fine Arts
- Raef, Abdelmoneam**, Geology, \$2,500; study entitled Enhanced Oil Recovery and Carbon Geo-sequestration: Laboratory Measurements and Potential of Seismic Attenuation Attributes
- Shapkina, Nadezda**, Sociology, Anthropology, and Social Work, \$2,000; study entitled Counter-trafficking Organizations in Turkey
- Smit, Ann B.**, School of Family Studies and Human Services, \$2,000; study entitled Expansion Points Intervention for Pre-schoolers with Speech Sound Disorders
- Teagarden, James M.**, Special Education, \$800; study entitled Factors Relating to Implementing Seclusion with Kansans (F.R.I.S.K.) Program, Phase II
- Wong, Brett J.**, Kinesiology, \$1,500; study entitled Contribution of TRPV-1 Channels to Coetaneous Thermal Hyperemia in Humans

# 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 to travel to international meetings, travel for foreign exchange, travel to the offices of potential external funding sponsors, and as matching funds on certain fellowships. They cannot be used for research travel.

## Fall 2008

**Anthony, Jennifer L.**, Chemical Engineering, \$1,500 to present at the Third Congress on Ionic Liquids in Australia

**Asano, Katsura**, Biology, \$2,000 to present at the Japan Society for Cell Biology Meeting, give an invited colloquium at Kobe University, and visit with colleagues at Tokyo Metropolitan Institute of Medical Sciences, all in Japan

**Askey, Dale S.**, Library, \$2,000 to present "Field Librarianship" at the Germany Library Association Meeting in Germany

**Auckly, David R.**, Mathematics, \$500 to attend "Interactions of Geometry and Topology in Dimensions 3 and 4" at Banff International Research Station

**Dogan, Hulya**, Grain Science and Industry, \$2,000 to attend The Cereals and Europe - Whole Grains Conference in the United Kingdom

**Exdell, John B.**, Philosophy, \$1,000 to present at the International Conference on Philosophy in Greece

**Hateley, Erica J.**, English, \$710 to present at the American Association of Australian Literary Studies Conference in Canada

**Long, Andrew G.**, Political Science, \$1,500 to present at the Jan Tinbergen European Peace Science Conference at Tinbergen Institute in The Netherlands

**Oropesa, Salvador A.**, Modern Languages, \$1,000 to present lectures in Spain

**Natarajan, Balasubramaniam**, Electrical and Computer Engineering, \$2,000 to present at the IEEE Communications Conference in Germany

**Peric, Dunja**, Civil Engineering, \$1,500 to present at the Symposium on Computational Mechanics in France

**Prins, Harald E.**, Sociology, Anthropology, and Social Work, \$800 to participate in a research seminar in Paris

**Riding, Kyle**, Civil Engineering, \$500 to attend an NSF Career Proposal Writing Workshop at George Mason University

**Rojkovskaia, Natalia**, Mathematics, \$1,500 to attend the Algebraic Lie Structures with Origins in Physics Workshop at the Isaac Newton Institute for Mathematical Sciences in United Kingdom

**Smit, David W.**, English, \$1,500 to present at the Society for Cinema and Media Studies Conference in Japan

**Ramm, Alexander G.**, Mathematics, \$500 to present at the Chaotic Modeling and Simulation Conference in Greece

**Rasheed, Hayder A.**, Civil Engineering, \$2,000 to present at the Modeling, Simulation and Applied Optimization and Composite Science and Technology Conferences both in Sharjah, United Arab Emirates

## Spring 2009

**Ben-Arieh, David H.**, Industrial and Manufacturing Systems Engineering, \$500 to present at the International Conference on Production Research in China

**Chikan, Viktor**, Chemistry, \$500 to present at the Gordon Research Conference on Clusters, Nanocrystals and Nanostructures in Massachusetts

**Clem, Rollie J.**, Biology, \$600 to present at the American Society for Virology Annual Meeting in British Columbia

**Dayton, Timothy A.**, English, \$1,000 to present at the Historical Materialism Conference, School of Oriental and African Studies in England

**Edgar, James H.**, Chemical Engineering, \$1,000 to attend the International Workshop on Bulk Nitride Semiconductors in Poland

**Fallin, Jana R.**, Music, \$2,500 to present "Music of the Cowboy" Research at the International Conference of Arts in Society in Venice

**Harrington, Lisa M.**, Geography, \$2,000 to present at the Colloquium of International Geographical Union Commission on Sustainability of Rural Systems in Slovenia

**Hillard, Derek**, Modern Languages, \$1,000 to present at the International Conference of the Nietzsche Society in Germany

**Kim, Jeong-Hee**, Secondary Education, \$800 to present at the British Educational Research Association Conference in the United Kingdom

**Lewis, Nora**, Music, \$3,000 to present at the International Double Reed Society Conference in the United Kingdom

**Logan, Cynthia L.**, Veterinary Medical Teaching Hospital, \$1,500 to present at the International Congress on Medical Librarianship in Australia

**Longmuir, Anne**, English, \$500 to present at the Association of Western United States Conference in Canada

**Mahoney, Jon**, Philosophy, \$750 to participate in the World Congress on Law and Social Philosophy in China

**Meyer, Ulf**, Architecture, \$700 to present at the SEAM 2009 Symposium on Spatial Phrases in Sydney, Australia

**Mwangi, Sam**, School of Journalism and Mass Communications, \$900 to present at the International Association of Mass Communication Research in Mexico

**Nel, Philip W.**, English, \$1,500 to present at the International Research Society for Children's Literature in Germany

**Paul, Bimal K.**, Geography, \$1,500 to attend the Asian Urbanization Conference in China

**Raef, Abdelmoneam**, Geology, \$1,000 to attend the Society of Exploration Geophysicist Development and Production Forum in Bahrain

**Renter, David G.**, Diagnostic Medicine/Pathobiology, \$1,000 to attend the XII International Symposium for Veterinary Epidemiology and Economics in South Africa

**Slough, Teresa L.**, Animal Sciences and Industry, \$1,000 to attend a joint meeting of the American Society of Animal Science, the Canadian Society of Animal Science and the American Dairy Science Association in Quebec

**Swilley, Esther**, Marketing, \$2,000 to attend the World Marketing Congress in Norway

**Wood, Naomi J.**, English, \$1,000 to present at the Diana Wynne Jones Conference in England

**Yu, Han**, English, \$500 to present at the International Professional Communications Conference in Hawaii

**Zolkiewska, Anna**, Biochemistry, \$1,000 to attend the Notch Meeting in Greece