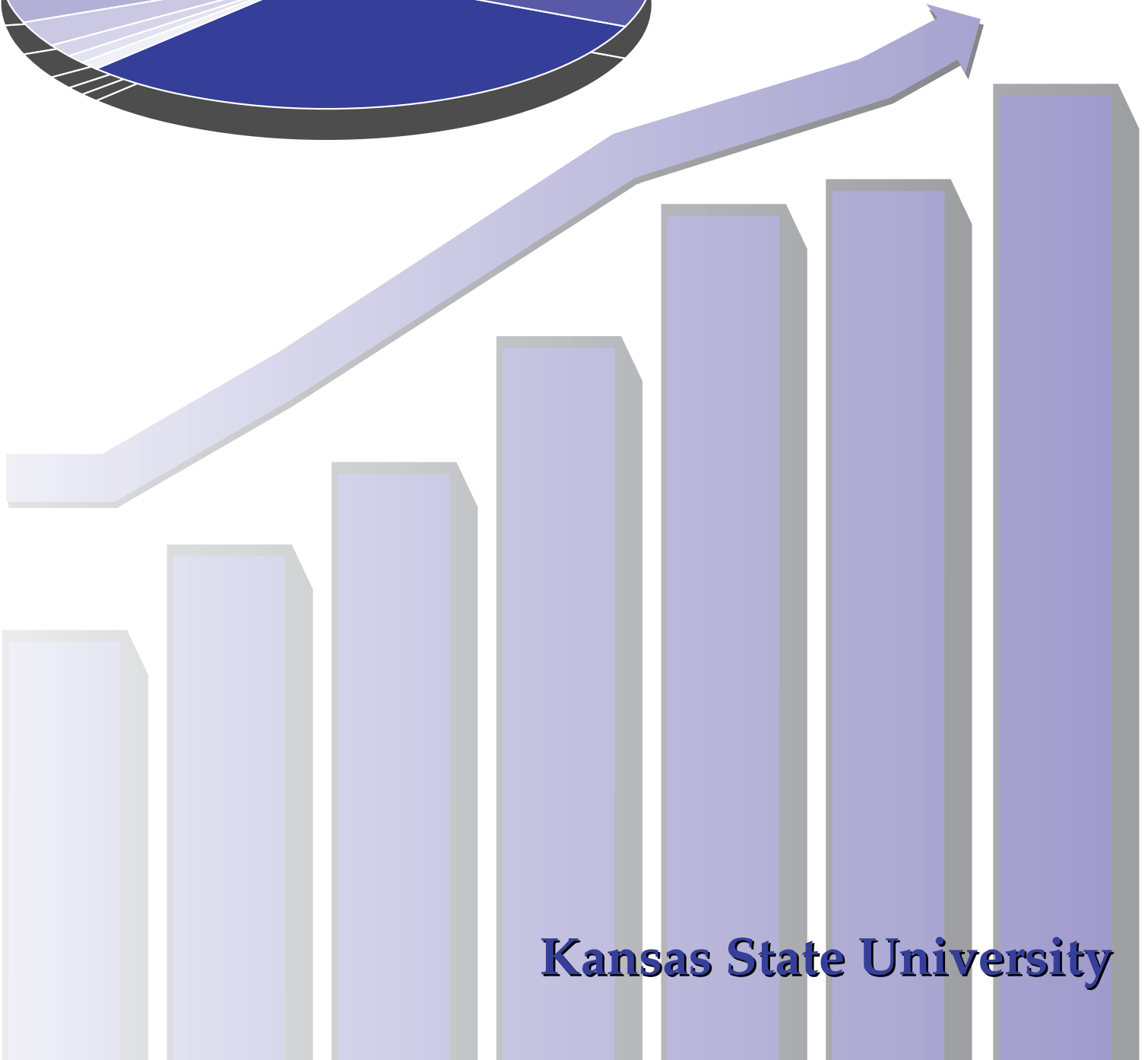
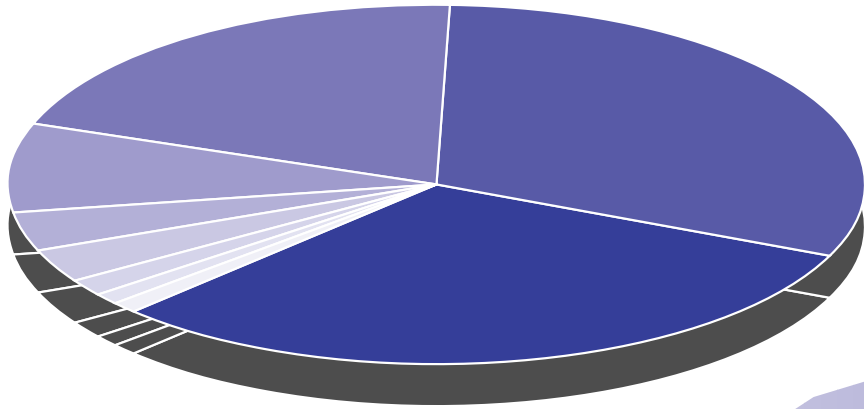


RESEARCH 98

A Report of Research and Sponsored Programs for Fiscal Year 1998



Kansas State University



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

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

Dear Colleagues:

In fiscal year 1998, Kansas State University received its highest level of extramural funding for research and scholarship—\$55.8 million. That is almost twice the level of support K-State had 10 years ago. Obviously, the pace has quickened: during FY98, K-State had 21 weeks in which awards totaled more than \$1 million, including 3 weeks of more than \$2 million!

K-State faculty members are to be congratulated: their track record of scholarship is strong, and they are preparing excellent proposals in record numbers. And in a harsh environment where R & D funds are scarce, competition is keen, and one proposal in 10 gets funded, K-State faculty were awarded 833 grants (100 more awards than the year before.) Consequently, the university's overall funding base for research has now reached a record \$87,167,809.

Such funding has broad impact, as the following pages will show. It sustains research and creative scholarship across the academic spectrum ... in the basic, applied, and social sciences, the arts, and the humanities.

Extramural funding also strengthens graduate education. Currently, 3,000 graduate students are pursuing advanced degrees in 107 programs. The external awards provided research assistantships for hundreds of graduate students last year.

Many graduate students opt to live and work in the state after graduation. Nearly 10,000 alumni in Kansas hold graduate or professional degrees from K-State: veterinarians, teachers, human services professionals, agricultural practitioners, architects, engineers, and business, industry, and community leaders. The list goes on. They were fortunate to have had the opportunity to study with a Kansas State University faculty known for its dedication to excellence in scholarship and instruction.

Commendations all around and keep up the great work!

Sincerely,

R.W. Trewyn
Interim Vice Provost for Research and
Dean of the Graduate School
President, KSU Research Foundation

KANSAS STATE
UNIVERSITY
**RESEARCH
FUNDING BASE**

Fiscal Year 1998

The research funding base at Kansas State University consists of awards of extramural funds from federal and state agencies, from foundations, and from various private and industrial organizations, mainly through the competitive grants process, together with other funds appropriated from federal and state sources as line items designated specifically for related activities.

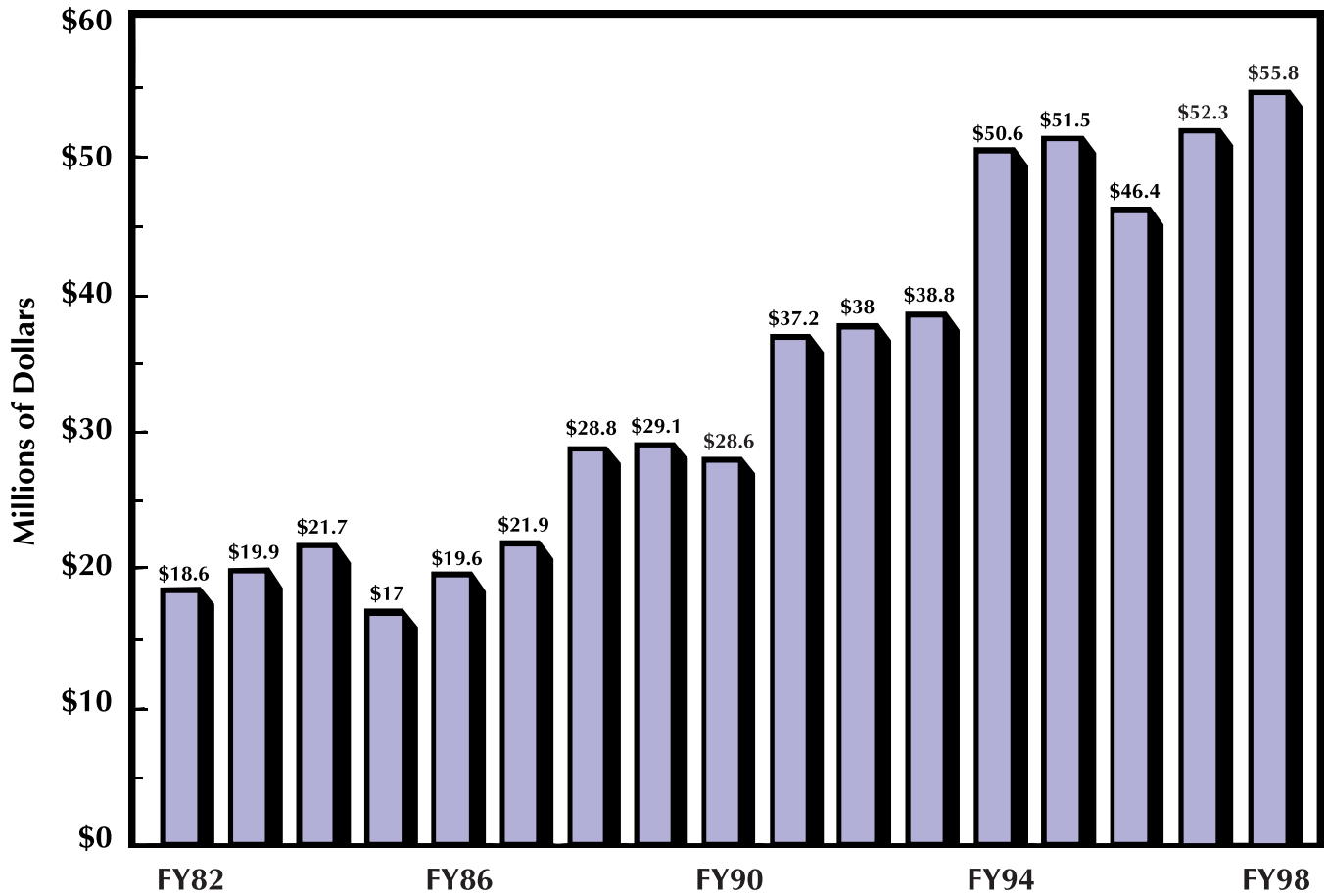
I. AWARDS:	
Competitive Grants and Contracts	\$55,758,959
<u>SUBTOTAL</u>	<u>\$55,758,959</u>
II. UNIVERSITY and EXPERIMENT STATIONS:	
University/Vice Provost for Research	579,937
Kansas Agricultural Experiment Station	
Federal Appropriation	3,203,820
State Appropriation	25,461,004
Engineering Experiment Station	
State Appropriation	1,679,074
Veterinary Medical Center	
Food Animal Health and Management Center	
State Appropriation	485,015
<u>SUBTOTAL</u>	<u>\$31,408,850</u>
<u>RESEARCH BASE GRAND TOTAL</u>	<u>\$87,167,809</u>

SECTION 1: AWARDS

KANSAS STATE
UNIVERSITY

TOTAL EXTRAMURAL AWARDS RECEIVED

Fiscal Years 1982–1998



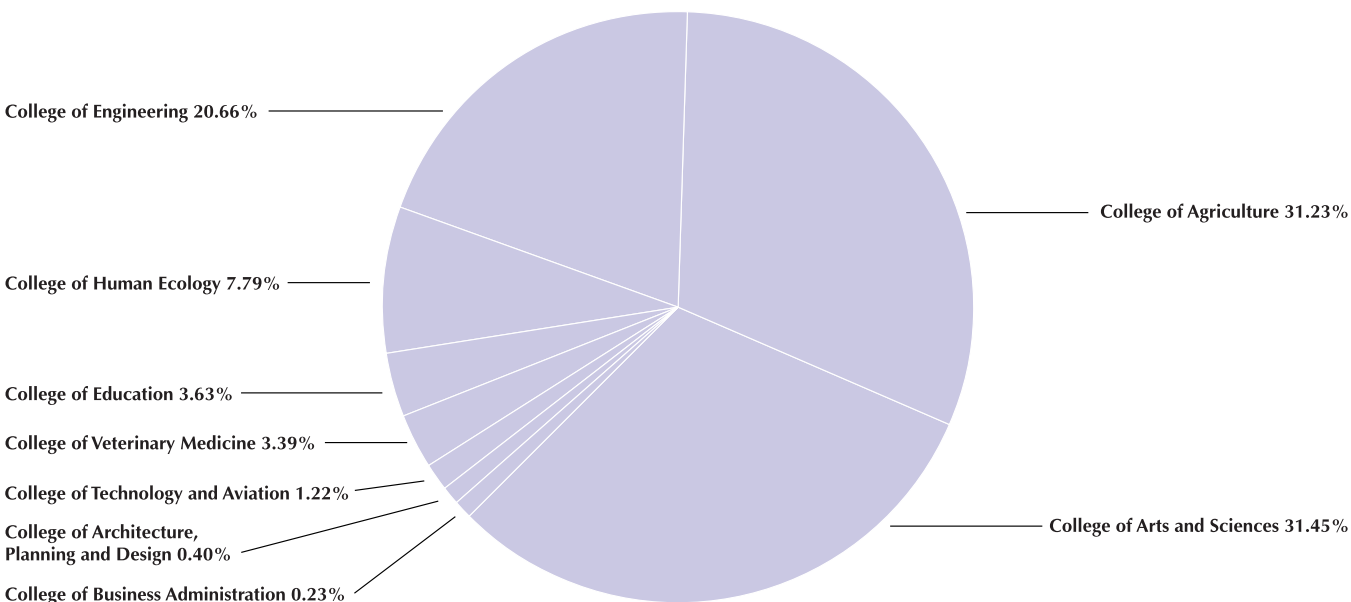
DISTRIBUTION OF NEW AWARDS AMONG COLLEGES AND OFFICES OF THE UNIVERSITY

Fiscal Year 1998

College/Office	Number of Awards	Dollar Value
College of Agriculture	322	\$16,927,793
College of Architecture, Planning and Design	10	215,244
College of Arts and Sciences	163	17,050,429
College of Business Administration	3	123,427
College of Education	21	1,969,970
College of Engineering	171	11,199,169
College of Human Ecology	59	4,220,744
College of Technology and Aviation	6	660,845
College of Veterinary Medicine	53	1,837,721
Office of the President	2	52,602
Office of the Provost	8	223,236
Vice President for Administration and Finance	2	17,513
Vice President for Institutional Advancement	8	1,050,706
Vice Provost for Research and Dean of Graduate School	5	209,560
UNIVERSITY TOTALS	833	\$55,758,959

AWARDS BY COLLEGE

Fiscal Year 1998



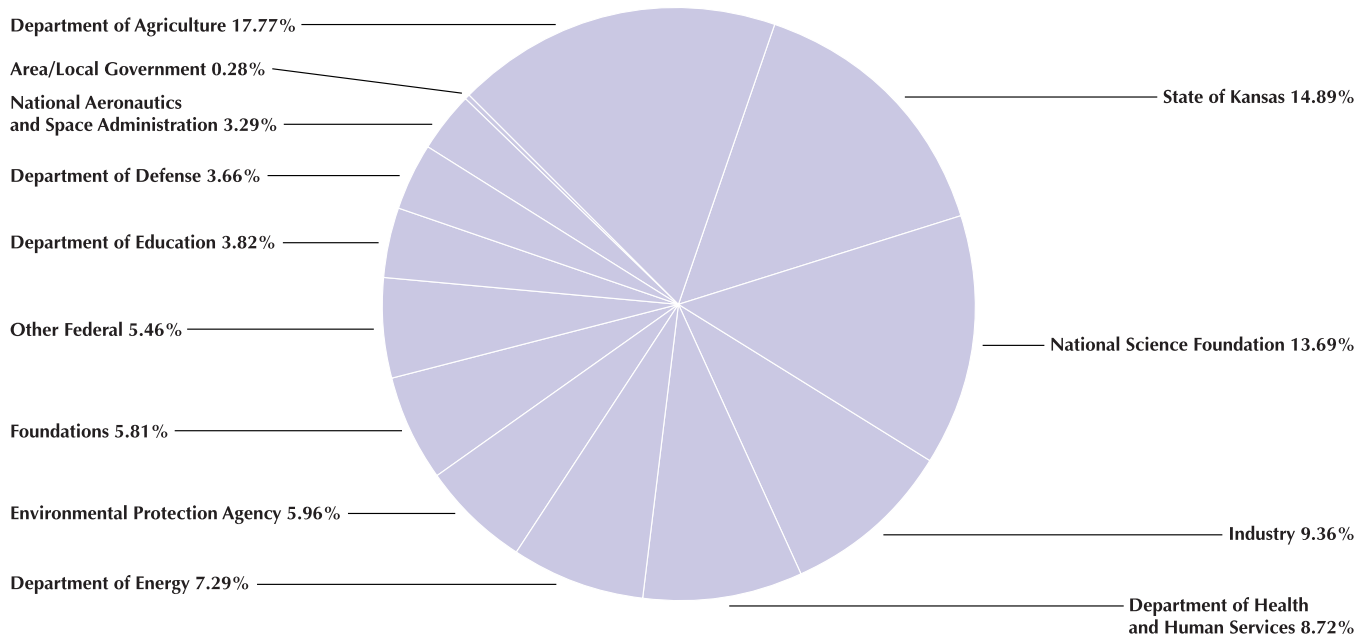
KANSAS STATE UNIVERSITY SOURCES OF AWARDS

Fiscal Year 1998

Source	Number of Awards	Dollar Value
Department of Agriculture	89	\$9,907,315
Department of Defense	27	2,038,310
Department of Education	15	2,129,680
Department of Energy	19	4,066,713
Department of Health and Human Services	47	4,861,856
Environmental Protection Agency	19	3,324,619
National Aeronautics and Space Administration	19	1,832,698
National Science Foundation	63	7,634,268
Other Federal	51	3,042,609
Area/Local Government	10	157,691
State of Kansas	157	8,303,181
Foundations	115	3,239,508
Industry	202	5,220,511
TOTAL	833	\$55,758,959

SOURCES OF AWARDS

Fiscal Year 1998



EXTRAMURAL AWARDS

Office of Research and Sponsored Programs

Fiscal Year 1998 (July 1, 1997–June 30, 1998)

COLLEGE OF AGRICULTURE

AGRICULTURAL ECONOMICS

Barton, D., Multisponsor, \$30,000, "Arthur Capper Cooperative Center."

Barton, D., (see **Boland, M.**, Ag Econ).

Bernardo, D., Featherstone, A., and Boland, M., USDA, \$104,851, "Virtual Degree for Agribusiness Professionals and Extension Educators."

Bernardo, D., (see **Hargrove, W.**, KS Water Resource Res Inst).

Boland, M., USDA, \$52,800, "Evaluating Food Marketing Industry Attitudes Towards a State-Grown Labeling Program."

Boland, M., Fox, J., Boyle, E., (Animal Sci & Ind), and **Barton, D.**, USDA, \$75,000, "Market Niche Identification and Education for Small Producer Marketing Cooperatives."

Boland, M., and **Fox, J.**, USDA, \$108,000, "National Need Fellowship—Management and Marketing/Agribusiness Food and Forest Products."

Boland, M., (see **Bernardo, D.**, Ag Econ).

Boland, M., (see **Fox, J.**, Ag Econ).

Boland, M., (see **Herrman, T.**, Grain Sci & Ind).

Brown, R., (see **Brown, R.**, NW Area Off).

Featherstone, A., Conservation, Food & Health Found, \$7,900, "Environmental and Economic Impacts of Soil Erosion and Soil Fertility Mining in Wheat Farms of Northern Tanzania."

Featherstone, A., (see **Bernardo, D.**, Ag Econ).

Fox, J., and **Boland, M.**, USDA, \$145,000, "Benefits and Costs of Pre- and Post-Harvest Hazard Analysis Critical Control Points for the Pork Industry."

Fox, J., (see **Boland, M.**, Ag Econ).

Fox, J., (see **Schroeder, T.**, Ag Econ).

Jones, R., (see **Ohlenbusch, P.**, Agronomy).

Jones, R., (see **Rice, C.**, Agronomy).

Langemeier, M., and **Nelson, R.** (Ext Engg), KS Dept of Health & Environment, \$81,000, "Water Quality Profit Optimization Project."

Langemeier, M., KS Dept of Wildlife & Parks, \$5,731, "Analysis of Small Game Harvest Survey Data."

Mintert, J., (see **Schroeder, T.**, Ag Econ).

Schroeder, T., Chicago Mercantile Exchange, \$11,425, "Comparing and Assessing Formula Pricing of Fed Cattle."

Schroeder, T., Fox, J., and **Mintert, J.**, Chicago Mercantile Exchange, \$21,600, "Consumer Willingness to Pay for Steak Tenderness."

Stiegert, K., Herrman, T. (Grain Sci & Ind), and **Sun, X.** (Grain Sci & Ind), USDA, \$82,934, "Quality Oriented Marketing of Hard Winter Wheat."

Stiegert, K., Nat'l Assoc of Wheat Growers Found, \$22,000 (includes \$1,000 from Midwest Grain Products and \$500 from Manildra Milling Corporation), "Analyzing the Impact of European Union Starch-Gluten Market Policies on the U.S.

Starch-Gluten Industry and Wheat Protein Market."

Williams, J., USDA, \$20,000, "Analysis of Farm-Level Risk Management."

AGRICULTURAL EXPERIMENT STATION

Ham, G., USDA, \$78,812, "Development and Management of Canola in the Great Plains Region."

Johnson, M., Multisponsor, \$42,739, "Farmland/KSU Research Alliance."

Johnson, M., (see **Buchholz, D.**, Prod Mgmt & Nat Res Dev).

AGRICULTURAL RESEARCH CENTER-HAYS

Kofoid, K., Multisponsor, \$2,700, "Sorghum Research."

Kofoid, K., Sloderbeck, P. (SW Area Off), **Tuinstra, M.** (Agronomy), **Wilde, G.** (Entomology), **Harvey, T.** (Entomology), **Reese, J.** (Entomology), and **Seifers, D.**, KS Dept of Ag, \$158,300, "Breeding Sorghum with Improved Grain Yield, Greenbug and Virus Resistance, and Pre-Flowering Drought Tolerance."

Kofoid, K., (see **Tuinstra, M.**, Agronomy).

Martin, T., Harvey, T. (Entomology), and **Seifers, D.**, KS Wheat Comm, \$70,000, "Genetic Development of Higher Disease Resistance and Grain Protein in New Wheat Varieties."

Martin, T., and **Seifers, D.**, KS Crop Improvement Assoc, \$7,500, "Operation of Disease-Screening Nurseries in Support of the KSU Wheat Breeding Program."

Martin, T., Harvey, T. (Entomology), and **Seifers, D.**, KS Wheat Comm, \$76,000, "Kansas Dual Purpose Pest Resistant White Wheats."

Martin, T., (see **Sears, R.**, Agronomy).

Seifers, D., (see **Kofoid, K.**, Ag Res Ctr-Hays).

Seifers, D., (see **Martin, T.**, Ag Res Ctr-Hays).

Stahlman, P., Multisponsor, \$38,800, "Weed Research."

Stahlman, P., Gordon, W. (Agronomy), **Maddux, L.** (Agronomy), **Warmann, G.** (SC Area Off), **Claassen, M.** (Agronomy), and **Peterson, D.** (Agronomy), KS Dept of Ag, \$30,000, "Weed Control in Solid-Seeded Versus Row-Planted Glyphosate-Resistant Soybean."

Stahlman, P., O'Brien, D. (NW Area Off), and **Thompson, C.**, KS Dept of Ag, \$21,700, "Economics of Integrated Weed Management in Dryland Grain Sorghum."

Stahlman, P., USDA, \$20,000, "Integrated Management Systems for Jointed Goatgrass in the Central Great Plains."

Stahlman, P., Nat'l Sunflower Assoc, \$2,500, "Evaluating Experimental and Non-Labeled Herbicides for Weed Control in Sunflower."

Thompson, C., Multisponsor, \$2,000, "HAYRC Crop Culture."

Thompson, C., Stockhausen, Inc., \$21,600, "Effects of Stockosorb Agro on Grain Sorghum Grown in Central Kansas."

Thompson, C., Stockhausen, Inc., \$21,600, "Effect of Stockosorb Agro on Winter Wheat Grown in Central Kansas."

Thompson, C., (see **Stahlman, P.**, Ag Res Ctr-Hays).

AGRONOMY

Al-Khatib, K., and Horak, M., Nat'l Sunflower Assoc, \$17,375, "Gene Flow, Distribution, Growth and Competitiveness of Pursuit-Resistant Common Sunflower."

Al-Khatib, K., and Peterson, D., KS Dept of Ag, \$8,800, "Soybean Response to Simulated Herbicide Drift."

Al-Khatib, K., Nat'l Sunflower Assoc, \$6,000, "Resistance to Acetolactate Synthase Inhibitor Herbicides in Common Sunflower."

Brown-Guedira, G., (see **Sears, R.,** Agronomy).

Burchett, L., KS Crop Improvement Assoc, \$81,710, "Seed and Plant Parts Certification."

Claassen, M., (see **Bockus, W.,** Plant Path).

Claassen, M., (see **Duncan, S.,** SC Area Off).

Claassen, M., (see **Stahlman, P.,** Ag Res Ctr-Hays).

Claassen, M., (see **Tuinstra, M.,** Agronomy).

Devlin, D., (see **Pierzynski, G.,** Agronomy).

Devlin, D., (see **Rice, C.,** Agronomy).

Devlin, D., (see **Staggenborg S.,** NE Area Off).

Eberle, W., (see **Nelson, R.,** Ext Engg).

Fjell, D., (see **Brown, R.,** NE Area Off).

Fjell, D., (see **Clark, G.,** Biol & Agri Engg).

Fjell, D., (see **Gordon, W.,** Agronomy).

Fjell, D., (see **Maddux, L.,** Agronomy).

Fjell, D., (see **Staggenborg S.,** NE Area Off).

Fjell, D., (see **Vanderlip, R.,** Agronomy).

Gordon, W., Martin, V., Dhuyvetter, K. (NE Area Off), **Fjell, D.,** and **Staggenborg, S.** (NE Area Off), KS Dept of Ag, \$16,040, "Influence of Row Spacing and Plant Population on Corn Production."

Gordon, W., (see **Duncan, S.,** SC Area Off).

Gordon, W., (see **Maddux, L.,** Agronomy).

Gordon, W., (see **Staggenborg S.,** NE Area Off).

Gordon, W., (see **Stahlman, P.** Ag Res Ctr-Hays).

Ham, J., Knapp, A. (Biology), and **Owensby, C.,** US Dept of Energy, \$40,000, "Carbon, Water, and Energy Fluxes from a Tallgrass Prairie: The Effect of Land Management and Environmental Factors on Surface-Atmosphere Exchange."

Ham, J., Rice, C., and Reddi, L. (Civil Engg), KS Water Office, \$100,000, "Animal Waste Lagoon Water Quality Study."

Ham, J., (see **Owensby, C.,** Agronomy).

Ham, J., (see **Welch, S.,** Agronomy).

Heer, W., (see **Duncan, S.,** SC Area Off).

Horak, M., and Peterson, D., KS Dept of Ag, \$30,190, "Integrated Weed Management."

Horak, M., Skinner, D., and Kulakow, P., USDA, \$120,000, "Pigweed (*Amaranthus* spp.) Identification, Hybridization, and Introgression."

Horak, M., (see **Al-Khatib, K.,** Agronomy).

Horak, M., (see **Peterson, D.,** Agronomy).

Janke, R., USDA, \$113,261, "Cluster Use of Whole-Farm Planning, with Decision Cases and Evaluation."

Janke, R., USDA, \$68,675, "Yesterday's Research for Tomorrow's Needs."

Janke, R., (see **Buchholz, D.,** Coop Ext).

Janssen, K., (see **Hargrove, W.,** KS Water Resource Res Inst).

Janssen, K., (see **Pierzynski, G.,** Agronomy).

Janssen, K., (see **Regehr, D.,** Agronomy).

Kirkham, M., (see **Welch, S.,** Agronomy).

Kok, H., USDA, \$28,354, "Site-Specific No-Till Information."

Kulakow, P., (see **Horak, M.,** Agronomy).

Lamond, R., Pierzynski, G., Kalita, P. (Biol & Agri Engg), **Whitney, D.,** and **Barnes, P.** (Biol & Agri Engg), KS Dept of Ag, \$24,000, "Monitoring and Modeling Nitrogen Management in Conservation Tillage Production Systems."

Lamond, R., Pierzynski, G., Maddux, L., and Marsh, B., Multisponsor, \$41,500, "Soil Fertility and Soil Management Investigations."

Lamond, R., (see **Kalita, P.,** Biol & Agri Engg).

Lamond, R., (see **Schmidt, J.,** Agronomy).

Liang, G., KS Crop Improvement Assoc, \$5,000, "Addition of Pest Resistance and Drought Tolerant Genes to Wheat Cultivar Jagger."

Liang, G., (see **Muthukrishnan, S.,** Biochemistry).

Maddux, L., Gordon, W., Dhuyvetter, K. (NE Area Off), **Fjell, D.,** and **Staggenborg, S.** (NE Area Off), KS Dept of Ag, \$6,000, "Environmental Stress Impacts on High Oil Corn Yields."

Maddux, L., (see **Barnes, P.,** Biol & Agri Engg).

Maddux, L., (see **Lamond, R.,** Agronomy).

Maddux, L., (see **Stahlman, P.,** Ag Res Ctr-Hays).

Marsh, B., (see **Lamond, R.,** Agronomy).

Marsh, B., (see **Staggenborg, S.,** NE Area Off).

Martin, V., Clark, G. (Biol & Agri Engg), and **Vanderlip, R.,** KS Dept of Ag, \$14,000, "Effect of Irrigation Rate, Planting Date and Tillage on Varied Maturity Corn Production."

Martin, V., (see **Buschman, L.,** Entomology).

Martin, V., (see **Clark, G.,** Biol & Agri Engg).

Martin, V., (see **Duncan, S.,** SC Area Off).

Martin, V., (see **Gordon, W.,** Agronomy).

Martin, V., (see **Hargrove, W.,** KS Water Resource Res Inst).

Martin, V., (see **Higgins, R.,** Entomology).

Mengel, D., Pioneer Hi-Bred Int'l, Inc., \$25,000, "Pioneer Plant Breeding Fellowship."

Mengel, D., USDA, \$120,000, "Simulation of Erosion-Induced Plant Stresses and PM-10 Production."

Ohlenbusch, P., and Jones, R. (Ag Econ), US Envir Prot Agency, \$94,600, "Developing a Grazing Land Water Quality Education Program."

Owensby, C., Rice, C., Ham, J., and Knapp, A. (Biology), US Dept of Energy, \$105,400, "Processes Affecting Carbon Fluxes of Grassland Ecosystems Under Elevated Atmospheric CO₂."

Owensby, C., (see **Ham, J.,** Agronomy).

Owensby, C., (see **Rice, C.,** Agronomy).

Paulsen, G., Gill, B. (Plant Path), and **Sears, R.,** KS Crop Improvement Assoc, \$4,000, "Agronomic and Physiological Traits from Wild Relatives for Developing Improved Wheat Cultivars."

Paulsen, G., (see **Sears, R.,** Agronomy).

Peterson, D., and Horak, M., KS Dept of Ag, \$4,800, "Reducing Herbicide Rates, Costs, and Carrier Volumes Using Methylated Seed Oils."

Peterson, D. (see **Al-Khatib, K.,** Agronomy).

Peterson, D. (see **Stahlman, P.,** Ag Res Ctr–Hays).

Peterson, D., (see **Horak, M.,** Agronomy).

Pierzynski, G., Janssen, K., and Devlin, D., US Dept of the Interior, \$45,000, "Phosphorus in Surface Runoff: Best Management Practices and Soil Dynamics."

Pierzynski, G., (see **Kalita, P.,** Biol & Agri Engg).

Pierzynski, G., (see **Lamond, R.,** Agronomy).

Ransom, M., USDA, \$10,000, "Providing Soil Sample Analyses for Soil Survey Activities."

Ransom, M., (see **Seyler, H.,** Geography).

Ransom, M., (see **Thien, S.,** Agronomy).

Regehr, D., and Barnes, P. (Biol & Agri Engg), KS Dept of Ag, \$46,750, "Weed Control and Atrazine Best Management Practices for Grain Sorghum."

Regehr, D., and Barnes, P. (Biol & Agri Engg), KS Dept of Ag, \$69,750, "Weed Control and Atrazine Best Management Practices for Corn."

Regehr, D., and Janssen, K., Multisponsor, \$102,250, "Field Herbicidal Evaluations."

Regehr, D., (see **Devlin, D.,** Ext Agronomy).

Regehr, D., (see **Hargrove, W.,** KS Water Resource Res Inst).

Rice, C., and Devlin, D., USDA, \$400,000, "Implementation of Best Management Practices in the Blue River Basin of Kansas and Nebraska."

Rice, C., and Owensby, C., US Dept of Energy, \$70,000, "Sequestration of Carbon Dioxide into Soil Organic Carbon Pools under Elevated Carbon Dioxide Environment."

Rice, C., Harner III, J. (Biol & Agri Engg), **Kalita, P.** (Biol & Agri Engg), **Marchin, G.** (Biology), and **Jones, R.** (Ag Econ), KS Dept of Ag, \$50,000, "Fecal Coliform Contamination in Kansas River Basins: Source, Monitoring and Development and Demonstration of Best Management Practices."

Rice, C., Harner III, J. (Biol & Agri Engg), **Kalita, P.** (Biol & Agri Engg), **Marchin, G.** (Biology), and **Jones, R.** (Ag Econ), KS Conservation Commission, \$40,000, "Fecal Coliform Contamination in Kansas River Basins: Source, Monitoring and Development and Demonstration of Best Management Practices."

Rice, C., Harner III, J. (Biol & Agri Engg), **Kalita, P.** (Biol & Agri Engg), **Marchin, G.** (Biology), and **Jones, R.** (Ag Econ), KS Water Office, \$10,000, "Fecal Coliform Contamination in Kansas River Basins: Source, Monitoring and Development and Demonstration of Best Management Practices."

Rice, C., KS Technology Enterprise Corp (KTEC), \$246,889, "Kansas EPA EPSCoR: Enhancement of Environmental Remediation Research."

Rice, C., US Dept of Energy, \$5,000, "Terrestrial Carbon Processes, II."

Rice, C., US Envir Prot Agency, \$493,778, "Kansas EPA EPSCoR: Enhancement of Environmental Remediation Research."

Rice, C., (see **Ham, J.,** Agronomy).

Rice, C., (see **Owensby, C.,** Agronomy).

Rice, C., (see **Thien, S.,** Agronomy).

Roozeboom, K., Multisponsor, \$321,562, "Crop Performance."

Schaffer, V., Multisponsor, \$7,704, "Foundation Seed Maintenance."

Schapaugh, W., KS Crop Improvement Assoc, \$7,000, "Development of Improved Soybean Varieties for Kansas."

Schapaugh, W., Todd, T. (Plant Path), and **Long, J.** (SE Ag Res Ctr), KS Dept of Ag, \$316,131, "Improving Soybean Profitability through Breeding."

Schapaugh, W., (see **Barnes, P.,** Biol & Agri Engg).

Schapaugh, W., (see **Herald, T.,** Animal Sci & Ind).

Schapaugh, W., (see **Todd, T.,** Plant Path).

Schapaugh, W., (see **Wang, X.,** Biochemistry).

Schmidt, J., Lamond, R., and Schrock, M. (Biol & Agri Engg), KS Dept of Ag, \$63,200, "Variable Nitrogen Management for Protecting Groundwater Quality."

Sears, R., and Brown-Guedira, G., KS Wheat Comm, \$6,000, "Development of Wheat Germplasm with Multiple Disease and Insect Resistance for the Southern Great Plains."

Sears, R., and Martin, T. (Ag Res Ctr-Hays), KS Wheat Comm, \$184,000, "Improvement of Hard Red Winter Wheat for Kansas."

Sears, R., and Paulsen, G., KS Wheat Comm, \$90,000, "Development of Hard White Winter Wheats for Kansas."

Sears, R., KS Crop Improvement Assoc, \$6,000, "Improvement of Yield and Quality in Hybrid Wheat."

Sears, R., (see **Bowden, R.,** Plant Path).

Sears, R., (see **Paulsen, G.,** Agronomy).

Skinner, D., (see **Horak, M.,** Agronomy).

Tatarko, J., USDA, \$53,425, "Educational Tools for Wind Erosion Control."

Thien, S., Rice, C., and Ransom, M., US Golf Association, \$10,000, "Impact of Golf Courses on Soil Quality."

Tuinstra, M., Claflin, L. (Plant Path), **Claassen, M., Kofoid, K. (Ag Res Ctr–Hays),** and **Witt, M.** (SW Res Ext Ctr), KS Dept of Ag, \$86,050, "Breeding Grain Sorghum for Improved Dryland Production."

Tuinstra, M., USDA, \$15,000, "Breeding for Ergot Avoidance in Sorghum: Mid-Season Cold Tolerance."

Tuinstra, M., (see **Kofoid, K.,** Ag Res Ctr–Hays).

Tuinstra, M., (see **Vanderlip, R.,** Agronomy).

Vanderlip, R., and Fjell, D., KS Dept of Ag, \$22,273, "Managing Corn Planting Decisions to Reduce Risks."

Vanderlip, R., Tuinstra, M., and Kofoid, K. (Ag Res Ctr–Hays), USDA, \$99,086, "Sorghum Research."

Vanderlip, R., (see **Martin, V.,** Agronomy).

Vanderlip, R., (see **Welch, S.,** Agronomy).

Welch, S., and Vanderlip, R., United Soybean Board, \$79,982, "Transferring Soybean Production Technology to Specific Sites Using Decision Support System."

Welch, S., Zhang, N. (Biol & Agri Engg), **Kirkham, M., Ham, J., and Knapp, A.** (Biology), Nat'l Sci Found, \$87,718, "Instrument Combining Computerized 3D Plant Photogrammetry with Automated Physiological Monitoring."

Whitney, D., (see **Kalita, P.,** Biol & Agri Engg).

Whitney, D., (see **Lamond, R.,** Agronomy).

ANIMAL SCIENCES AND INDUSTRY

Aramouni, F., KS Dept of Commerce & Housing, \$61,000, "Food and Feed Value Added Program."

Beyer, R., Shirley, J., and Behnke, K. (Grain Sci & Ind), KS Dept of Ag, \$38,922, "Processing Techniques to Improve Sorghum Digestibility."

Blasi, D., Kuhl, G., and Drouillard, J., KS Wheat Comm, \$15,000, "Characterization of the Feeding Value, Storage Conditions and Nutrient Variation of Wheat Middlings."

Boyle, E., Kastner, C., and Riley, J., KS Dept of Ag, \$45,864, "Position for Hazard Analysis Critical Control Points Assessment Development and Implementation."

Boyle, E., Kastner, C., and Riley, J., KS Dept of Commerce & Housing, \$10,000, "Position for Hazard Analysis Critical Control Points Assessment Development and Implementation."

Boyle, E., KS Dept of Commerce & Housing, \$5,000, "Development Award for Marketing All-Natural Beef."

Boyle, E., (see **Boland, M.**, Ag Econ).

Boyle, E., (see **Kastner, C.**, Animal Sci & Ind).

Davis, D., Goodband, R., Tokach, M., Musser, R., and Nelssen, J., Lonza, Inc., \$5,840, "Effect of L-Carnitine and Chromium Nicotinate on the Ovulation and Fertilization Rate of Gilts."

Drake, C., KSU Foundation, \$63,508, "Teaching Support - Livestock and Meat Industry Council."

Drouillard, J., and Blasi, D. (SC Area Off), KS Dept of Ag, \$31,820, "Utilization of Soapstock and Soybean Meal in Manufacturing a Novel, Value-Added Protein Source for Cattle."

Drouillard, J., Kuhl, G., and Behnke, K. (Grain Sci & Ind), KS Dept of Ag, \$39,252, "Increasing Sorghum Utilization in Kansas Feedlots by First Decortication then Steam Flaking."

Drouillard, J., ZO Resources, LLC, \$3,000, "ZO Resources Project."

Drouillard, J., (see **Blasi, D.**, Animal Sci & Ind).

Drouillard, J., (see **Blasi, D.**, SC Area Off).

Drouillard, J., (see **Kreikemeier, K.**, SW Res Ext Ctr).

Drouillard, J., (see **Shirley, J.**, Animal Sci & Ind).

Drouillard, J., (see **Spire, M.**, Food Animal Hlth & Mgmt Ctr).

Fung, D., (see **Kastner, C.**, Animal Sci & Ind).

Goodband, R., and Tokach, M. (NE Area Off), Daiichi Pharmaceutical Company LTD, \$10,302, "Effects of Increasing Pantothenic Acid on Growth Performance of High Health, Segregated Early Weaned Pigs."

Goodband, R., (see **Davis, D.**, Animal Sci & Ind).

Goodband, R., (see **Tokach, M.**, NE Area Off).

Grieger, D., (see **Minton, J.**, Animal Sci & Ind).

Gugle, T., (see **Hancock, J.**, Animal Sci & Ind).

Hancock, J., Hines, R., and Behnke, K. (Grain Sci & Ind), KS Dept of Ag, \$27,800, "Effects of Endosperm Waxiness and Processing on Nutritional Value of Sorghum in Swine and Poultry."

Hancock, J., Hines, R., Gugle, T., and Behnke, K. (Grain Sci & Ind), KS Dept of Ag, \$25,500, "Extrusion Conditions to Optimize Utilization of Full-Fat Soybeans by Finishing Pigs."

Herald, T., Schmidt, K., and Schapaugh, W. (Agronomy), KS Dept of Ag, \$22,366, "Characterizing the Structural and Functional Properties of Soybean Protein Fractions."

Herald, T., (see **Schmidt, K.**, Animal Sci & Ind).

Herald, T., (see **Wissman, J.**, Dean of Educ).

Hines, R., (see **Hancock, J.**, Animal Sci & Ind).

Hunt, M., and Kropf, D., Tenneco Packaging, Inc., \$56,794, "Evaluation of Tenneco Packaging System on Beef Rebloom and Display Color Stability Studies I, II and III."

Hunt, M., Nat'l Pork Producers Council, \$39,450, "Effects of Endpoint Temperature on Internal Cooked Color Development in Ground Pork and Loin Chops."

Hunt, M., (see **Kastner, C.**, Animal Sci & Ind).

Jeon, I., (see **Schmidt, K.**, Animal Sci & Ind).

Kastner, C., Fung, D., and Kropf, D., USDA, \$341,930, "Animal Sci & Ind Food Safety Consortium - Kansas State University."

Kastner, C., Phebus, R., Boyle, E., and Hunt, M., USDA, \$440,000, "Hazard Analysis Critical Control Points Implementation and Evaluation in Small and Very Small Meat/Poultry Plants."

Kastner, C., (see **Boyle, E.**, Animal Sci & Ind).

Kropf, D., (see **Hunt, M.**, Animal Sci & Ind).

Kropf, D., (see **Kastner, C.**, Animal Sci & Ind).

Kuhl, G., (see **Blasi, D.**, Animal Sci & Ind).

Kuhl, G., (see **Drouillard, J.**, Animal Sci & Ind).

Lee, C., USDA, \$500, "North Central Regional Aquaculture Center Extension Project."

Marsden, J., Koch Agriculture, Inc., \$7,500, "Effect of Ground Mustard on Microorganisms in Laboratory Medium and Influence of Ground Mustard on Sensory Characteristics, Survival and Destruction of E. coli I157:H7 in Ground Beef Patties."

Minton, J., and Grieger, D., USDA, \$154,000, "Regulation and Function of Interleukin 6 in the Porcine Anterior Pituitary."

Musser, R., (see **Davis, D.**, Animal Sci & Ind).

Nagaraja, T., and Chengappa, M. (Diag Med/Pathobiology), KSU Res Found, \$23,256, "Induced Hepatic Abscesses in Cattle Immunized with Leukotoxin of Fusobacterium Necrophorum."

Nagaraja, T., Eli Lilly & Company, \$25,000, "Effect of Monensin on Frothy Bloat in Cattle Fed Bloat-Provocative, High-Grain Diet."

Nagaraja, T., Pfizer Inc., \$25,000, "Effect of Virginiamycin on Frothy Bloat in Cattle Fed Bloat-Provocative, High-Grain Diet."

Nelssen, J., Lonza, Inc., \$4,580, "Influence of Conjugated Linoleic Acid (CLA) Source on Carcass Quality of Finishing Swine."

Nelssen, J., (see **Davis, D.**, Animal Sci & Ind).

Nelssen, J., (see **Tokach, M.**, NE Area Off).

Phebus, R., (see **Kastner, C.**, Animal Sci & Ind).

Riley, J., (see **Boyle, E.**, Animal Sci & Ind).

Riley, J., KS Beef Council, \$293,835, "Support of Regents Distinguished Professorship in Animal Sciences."

Schmidt, K., Herald, T., and Jeon, I., KS Dept of Ag, \$21,500, "Modification of the Flavor and Color of Extruded Mozzarella Soy Cheese Analogs."

Schmidt, K., Seib, P. (Grain Sci & Ind), and **Herald, T.**, KS Wheat Comm, \$24,403, "Wheat Starches Used as Stabilizers in Yogurt."

Schmidt, K., (see **Herald, T.**, Animal Sci & Ind).

Shirley, J., Titgemeyer, E., Drouillard, J., and Behnke, K. (Grain Sci & Ind), KS Dept of Ag, \$25,568, "Processed Grain Sorghum and Grain Sorghum Combinations for Dairy Cows."

Shirley, J., (see **Beyer, R.**, Animal Sci & Ind).

Titgemeyer, E., KS Dept of Ag, \$26,416, "Use of Grain Sorghum in Diets for Limit-Fed, Growing Steers."

Titgemeyer, E., (see **Blasi, D.**, SC Area Off).

Titgemeyer, E., (see **Shirley, J.**, Animal Sci & Ind).

Tokach, M., (see **Davis, D.**, Animal Sci & Ind).

COMMUNICATIONS

Jackson, W., Corp for Public Broadcasting, \$10,005, "National Program Production and Acquisition Grant."

Jackson, W., KS Dept of Administration, \$37,881, "KPBC Service and Incentive Program."

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

Johnson, M., USFT Other, \$65,467, "IAP USFT Other."

Johnson, M., USDA, \$2,215, "USDA, Research Apprenticeship Program."

Johnson, M., USDA, \$855,588, "USDA/ARS Research Support Agreement." (11 awards)

Wilson, R., KS Agriculture and Rural Leadership, \$15,114, "Secretarial Support—Huck Boyd National Institute for Rural Development."

Wilson, R., KS Agriculture and Rural Leadership, \$350, "Work-Study Student Hourly Support-Huck Boyd National Institute for Rural Development."

ENTOMOLOGY

Broce, A., Whitmire Micro-Gen Research Laboratory, Inc., \$25,000, "Support for Research on Cat Fleas."

Broce, A., (see **Charlton, R.**, Entomology).

Buschman, L., DeKalb Genetics Corp, \$7,500, "Evaluation of Refuge Planting Patterns for Corn Bore Resistance Management in Bt Corn."

Buschman, L., Martin, V. (Agronomy), **Sloderbeck, P.** (SW Res Ext Ctr), **Higgins, R.**, and **Wilde, G.**, KS Dept of Ag, \$32,400, "Evaluating Corn Borer Resistance and Resistance Management Strategies for Bt-Corn."

Buschman, L., Multisponsor, \$25,000, "Insecticide Management of Field Crop Insects in Southwestern Kansas."

Buschman, L., Novartis, \$15,500, "Evaluation of Refuge Planting Patterns for Corn Borer Resistance Management in Bt Corn."

Buschman, L., Sloderbeck, P. (SW Area Off), and **Higgins, R.**, Monsanto Company, \$7,500, "Evaluation of Refuge Planting Patterns for Corn Borer Resistance Management in Bt-Corn."

Buschman, L., Sloderbeck, P. (SW Area Off), and **Higgins, R.**, Mycogen Corp, \$6,000, "Evaluation of Refuge Planting Patterns for Corn Borer Resistance Management in Bt-Corn."

Buschman, L., (see **Higgins, R.**, Entomology).

Buschman, L., (see **Wilde, G.**, Entomology).

Charlton, R., Broce, A., and Dryden, M. (Diag Med/Pathobiology), Heska Corp, \$104,555, "Isolation and Identification of Semiochemicals that Mediate Attraction and Mating of the Cat Flea (*Ctenocephalides felis felis*)."

Charlton, R., Kaufman, D. (Biology), **Kaufman, G.** (Biology), **Whiles, M.**, and **Cully, Jr., J.** (Biology), KS Army Nat'l Guard, \$114,909, "Biotic Inventory to Support Land Condition Trend Analysis for KSARNG Training Area, Salina, Kansas."

Harvey, T., (see **Kofoid, K.**, Ag Res Ctr-Hays).

Harvey, T., (see **Martin, V.**, Ag Res Ctr-Hays).

Higgins, R., DeKalb Genetics Corp, \$4,000, "Efficacy of Bt Corn Against Corn Borers and Earworms - 1997."

Higgins, R., Elf Atochem North America, Inc., \$4,500, "First and Second Generation European Corn Borer/Southwestern Corn Borer Research."

Higgins, R., Martin, V. (Agronomy), **Sloderbeck, P.** (SW Area Off), **Buschman, L.**, and **Zhu, K.**, KS Dept of Ag, \$66,300, "BT Corn: Evaluation, Resistance Prevention, and Education."

Higgins, R., Sloderbeck, P. (SW Res Ext Ctr), and **Buschman, L.**, Monsanto Company, \$8,000, "Evaluation of European Corn Borer and Earworm Injury and Yield Effects on Corn Expressing Endotoxin from *Bacillus Thuringiensis*."

Higgins, R., Zeneca, Inc., \$2,900, "Second Generation European Corn Borer/Southwestern Corn Borer Research."

Higgins, R., (see **Buschman, L.**, Entomology).

Higgins, R., (see **Wilde, G.**, Entomology).

Kambhampati, S., USDA, \$23,000, "Molecular Basis of Wing Polymorphism in the Pea Aphid."

Margolies, D., Nat'l Research Council, \$2,200, "Travel Award."

Nechols, J., Multisponsor, \$500, "Aphid Biological Control for Greenhouse and Cut Flower Crops."

Ramaswamy, S., Cotton, Inc., \$41,500, "Identification of the Sex Pheromone of *Lygus lineolaris* (MIRIDAE)."

Ramaswamy, S., USDA, \$57,451, "Gonadotropic Imperative for Polyandry in Higher Lepidoptera."

Reese, J., (see **Kofoid, K.**, Ag Res Ctr-Hays).

Smith, C., USDA, \$13,400 (includes \$1,500 from Research Institute of Crop Protection), "Exchange of Triticeae Germplasm and Molecular Biochemical Techniques for Enhanced Aphid Resistance in Wheat."

Whiles, M., Platte River Whooping Crane Maintenance Trust, Inc., \$23,619, "Platte River Wet Meadow Amphibian Study."

Whiles, M., Platte River Whooping Crane Maintenance Trust, Inc., \$1,382, "Hyporheic Contract Study-Platte River."

Whiles, M., (see **Charlton, R.**, Entomology).

Wilde, G., Multisponsor, \$46,400, "Chemical Control of Insect Pests of Corn and Other Field Crops, Small Grain and Forage."

Wilde, G., Sloderbeck, P. (SW Res Ext Ctr), **Higgins, R., Zhu, K.**, and **Buschman, L.**, USDA, \$300,000, "Areawide Management of Corn Rootworms Using Semiochemical Baits."

Wilde, G., (see **Bockus, W.**, Plant Path).

Wilde, G., (see **Buschman, L.**, Entomology).

Wilde, G., (see **Hulbert, S.**, Plant Path).

Wilde, G., (see **Kofoid, K.**, Ag Res Ctr-Hays).

Zhu, K., (see **Higgins, R.**, Entomology).

Zhu, K., (see **Wilde, G.**, Entomology).

FOOD AND FEED GRAINS INSTITUTE

Acasio, U., and **Schenck-Hamlin, D.**, US Agency for Int'l Dev, \$100,000, "Post Harvest Handling/Uganda."

Borsdorf, R., US Agency for Int'l Dev, \$452,000, "Food and Feed Grains Institute Program for the Collaborative Agribusiness Support Project."

Borsdorf, R., US Agency for Int'l Dev, \$9,304, "Review Ag Marketing Proposals—Macedonia."

Lea, J., US Agency for Int'l Dev, \$200,000, "Haiti Productive Land Use Systems Project."

Norman, D., Food & Agriculture Organization of United Nations, \$9,500, "FAO Consultancy/Tonga."

Schenck-Hamlin, D., (see **Acasio, U.**, Food & Feed Grains Inst).

GRAIN SCIENCE AND INDUSTRY

Behnke, K., Novartis, \$14,892, "Processing and Stability Studies with Four Tiamulin Compounds and Two Valnemulin Formulations in Typical U. S. Grower Pig Diets."

Behnke, K., (see **Beyer, R.**, Animal Sci & Ind).

Behnke, K., (see **Drouillard, J.**, Animal Sci & Ind).

Behnke, K., (see **Hancock, J.**, Animal Sci & Ind).

Behnke, K., (see **Shirley, J.**, Animal Sci & Ind).

Brent, J., **Klopfenstein, C.**, and **Setser, C.** (Foods & Nutr), KS Dept of Ag, \$36,852, "Extrusion Technology for Adding Value to Corn Dry Milled Products."

Brent, J., (see **Sun, X.**, Grain Sci & Ind).

Deyoe, C., **Gwartz, J.**, and **McCluskey, J.**, USDA, \$70,180, "Utilization of Single Kernel Characterization System Data for Evaluation of Commercial Milling of Soft Red Winter, Soft White and Hard Red Spring Wheat."

Donnelly, B., and **McCluskey, J.**, KS Wheat Comm, \$93,000, "Quality Evaluation of Materials from KAES Wheat Breeding Programs."

Donnelly, B., and **Reed, C.**, USDA, \$296,596, "Development of a Stored Wheat Areawide Management Program in Kansas."

Donnelly, B., **Gwartz, J.**, and **Eustace, W.**, US Agency for Int'l Dev, \$50,000, "Training Program: Quality Assurance Program for Fortification of Wheat Flour with Selected Micro Nutrients in Latin America."

Donnelly, B., KS Dept of Ag, \$219,600, "Market Development Grant—International Grains Program and Grain Storage, Handling, and Sanitation Specialist."

Donnelly, B., KS Wheat Comm, \$10,000, "Support for the Research in Milling Science Laboratory."

Donnelly, B., KS Wheat Comm, \$368,000, "International Grains Program Support Project."

Donnelly, B., Multisponsor, \$5,000, "Graduate Seminar Program."

Donnelly, B., Nebraska Wheat Board, \$15,000, "International Grains Program Advisory Board."

Donnelly, B., **Seib, P.**, **Tilley, K.**, **MacRitchie, F.**, and **McCluskey, J.**, KS Wheat Comm, \$100,450, "Quality of Hard White Winter Wheat for Bread, Tortillas and Asian Noodles."

Eustace, W., (see **Donnelly, B.**, Grain Sci & Ind).

Eustace, W., (see **Herrman, T.**, Grain Sci & Ind).

Fairchild, F., AgriChem, Inc., \$9,563, "Controlled Moisture Addition to Enhance Pelletting Characteristics."

Fairchild, F., Foss North America, Inc., \$65,500, "Equipment Donation."

Flores, R., **Seib, P.**, and **Liang, G.** (Agronomy), KS Dept of Ag, \$25,500, "Development of a Dry/Wet Milling Method to Increase Starch Recovery from Sorghum."

Flores, R., USDA, \$47,148, "Development of Fish Meal Substitutes Based on Corn Gluten Meal, Low Oligosaccharide Soybeans and Stick Water."

Flores, R., and **Shanklin, C.**, State of Iowa, \$31,000, "State of Iowa Food Wastes Database Development."

Flores, R., (see **Herrman, T.**, Grain Sci & Ind).

Gwartz, J., (see **Deyoe, C.**, Grain Sci & Ind).

Gwartz, J., (see **Donnelly, B.**, Grain Sci & Ind).

Herrman, T., **Boland, M.** (Ag Econ), **Flores, R.**, and **Eustace, W.**, KS Wheat Comm, \$20,000, "Quality-Based Marketing of Wheat: Pilot-Scale Evaluation."

Herrman, T., USDA, \$62,655, "Extending Pelletized Feed Shelf Life."

Herrman, T., (see **Stiegert, K.**, Ag Econ).

Hoseney, R., (see **Klopfenstein, C.**, Grain Sci & Ind).

Klopfenstein, C., American Heart Assoc., KS Affiliate, Inc., \$27,560, "Extrusion Processing to Enhance the Cholesterol Lowering Activity of Common Dietary Fibers."

Klopfenstein, C., **Hoseney, R.**, and **Setser, C.** (Foods & Nutr), KS Dept of Ag, \$38,352, "Extrusion Technology for Novel, Extruded, Healthy Foods from Grains."

Klopfenstein, C., (see **Brent, J.**, Grain Sci & Ind).

Klopfenstein, C., (see **Sun, X.**, Grain Sci & Ind).

MacRitchie, F., (see **Donnelly, B.**, Grain Sci & Ind).

McCluskey, J., (see **Deyoe, C.**, Grain Sci & Ind).

McCluskey, J., (see **Donnelly, B.**, Grain Sci & Ind).

Reed, C., KS Dept of Ag, \$16,100, "Improving Efficacy and Safety of Fumigation in Kansas Grain Elevators."

Reed, C., US Envir Prot Agency, \$4,200, "Grain Fumigation Videotapes."

Reed, C., (see **Donnelly, B.**, Grain Sci & Ind).

Seib, P., KS Wheat Comm, \$30,150, "Gluten Proteins that Improve Bread Quality."

Seib, P., USDA, \$50,731, "Biochemical Properties that Relate to Quality of Wheat Grain and Functional Performance of Flours."

Seib, P., (see **Donnelly, B.**, Grain Sci & Ind).

Seib, P., (see **Flores, R.**, Grain Sci & Ind).

Seib, P., (see **Schmidt, K.**, Animal Sci & Ind).

Seib, P., (see **Sun, X.**, Grain Sci & Ind).

Sun, X., and Prakash, O. (Biochemistry), KS Dept of Ag, \$58,600, "Molecular Structure, Dynamic Behavior and Functional Properties of Soy Proteins."

Sun, X., Keebler Company, \$20,000, "Texture Characterization of Crunchy Foods during Chewing."

Sun, X., KS Technology Enterprise Corp (KTEC), \$52,305, "Enhancement of Dimension Stability and Mold Resistance of Reinforced Natural Fiber Boards."

Sun, X., Nat'l Sci Found, \$45,546, "New Plastics and Composite Materials from Biopolymers: Dynamic Behavior and Functional Properties of Biopolymer Matrix."

Sun, X., Proctor & Gamble Company, \$20,000, "Texture Characterization of Crunchy Foods during Chewing."

Sun, X., Seib, P., and Brent, J., KS Wheat Comm, \$22,625, "Compatibility of Starch and Polylactic Acid."

Sun, X., Walker, C., and Klopfenstein, C., KS Dept of Ag, \$69,315, "Characterizing Flavors of Sorghum Cultivars Potentially Useful for Foods."

Sun, X., (see **Stiegert, K.,** Ag Econ).

Tilley, K., (see **Donnelly, B.,** Grain Sci & Ind).

Walker, C., (see **Sun, X.,** Grain Sci & Ind).

HORTICULTURE, FORESTRY AND RECREATION RESOURCES

Erb, W., Nat'l Turfgrass Federation, \$6,000, "National Turfgrass Evaluation Program (National Bermudagrass Test)."

Fry, J., Nat'l Turfgrass Federation, \$6,000, "National Turfgrass Evaluation - Kentucky Bluegrass."

Fry, J., Wiest, S., Marcum, K., and Pair, J., Multisponsor, \$70,500, "Turfgrass Investigations."

Fry, J., (see **Huang, B.,** Hort, Forestry & Rec Res).

Fry, J., (see **Tisserat, N.,** Plant Path).

Huang, B., and Fry, J., US Golf Association, \$25,000, "Importance of Carbon Balance and Root Activity in Creeping Bentgrass Tolerance to Summer Stresses."

Huang, B., (see **Tisserat, N.,** Plant Path).

Keeley, S., (see **Tisserat, N.,** Plant Path).

Long, C., (see **Pair, J.,** Hort, Forestry & Rec Res).

Marcum, K., (see **Fry, J.,** Hort, Forestry & Rec Res).

Morgan, J., KS Dept of Commerce & Housing, \$2,175, "Study of Adjacent Landowners along the Kansas River."

Pair, J., and Long, C., Multisponsor, \$1,700, "Evaluation of Species and Cultivars for the Great Plains."

Pair, J., J. Frank Schmidt Family Charitable Trust, \$2,500, "Evaluation of Ornamental Species for the Great Plains."

Pair, J., (see **Fry, J.,** Hort, Forestry & Rec Res).

Reid, W., KS Nut Growers Association, \$1,000, "Pecan Cultivar Evaluation."

Reid, W., University of Missouri, \$5,000, "Missouri Pecan Growers."

Warner, T., US Dept of the Interior, \$22,434, "Reclamation of Native Tallgrass Prairie at the Kansas Army Ammunition Plant."

Warner, T., US Dept of the Interior, \$66,981, "Environmental Impacts of Reducing Pesticide Uses on Fort Riley."

Wiest, S., (see **Fry, J.,** Hort, Forestry & Rec Res).

INTERNATIONAL AGRICULTURAL PROGRAMS

Hugdens, R., Mid-America Universities International, \$1,000, "Visiting International Scholar - Dr. Julio Miguel Arias-Reveron."

KANSAS WATER RESOURCE RESEARCH INSTITUTE

Hargrove, W., Bernardo, D. (Ag Econ), **Janssen, K.** (Agronomy), **Regehr, D.** (Agronomy), **Barnes, P.** (Biol & Agri Engg), and **Kilgore, G.** (SE Area Off), KS Dept of Ag, \$150,000, "Integrated Agricultural Management Systems (IAMS): Using Best Management Practices (BMPs) to Improve the Quality of Kansas Surface Waters." (3 awards)

Hargrove, W., Bernardo, D. (Ag Econ), **Martin, V.** (Agronomy), and **Thompson, C.** (SW Area Off), KS Wheat Comm, \$12,500, "Integrated Agricultural Management Systems (IAMS): Using Best Management Practices (BMPs) to Improve the Quality of Kansas Surface Waters."

Hargrove, W., US Dept of the Interior, \$20,000, "State Water Research Institute Program."

NORTHWEST RESEARCH EXTENSION CENTER

Coyne, J., Multisponsor, \$23,760, "NWREC Sunflower Performance Testing Program."

Sunderman, H., Multisponsor, \$3,000, "Sunflower Investigations."

PLANT PATHOLOGY

Bockus, W., and Bowden, R., KS Crop Improvement Assoc, \$4,780, "Enhancing the Duration of Popularity of Winter Wheat Cultivars with New, Systemic Seed-Treatment Fungicides."

Bockus, W., Bowden, R., Wilde, G. (Entomology), and **Claassen, M.** (Agronomy), KS Wheat Comm, \$59,400, "Control of Residue-Borne Winter Wheat Diseases."

Bockus, W., Multisponsor, \$18,400, "Seed Treatment."

Bowden, R., and Sears, R. (Agronomy), USDA, \$5,150, "Evaluation of Scab Tolerance in Wheat."

Bowden, R., KS Crop Improvement Assoc, \$8,024, "Development of New Sources of Resistance to Wheat Scab."

Bowden, R., Multisponsor, \$7,490, "Winter Wheat Seed Treatment Tests."

Bowden, R., (see **Bockus, W.,** Plant Path).

Claflin, L., and Leslie, J., US Agency for Int'l Dev, \$114,300, "Agroecology and Biotechnology of Fungal Pathogens of Sorghum and Millet From the Greater Horn of Africa."

Claflin, L., USDA, \$20,250, "Determine the Survivability of Micro- and Macro-conidia of *Claviceps africana*."

Claflin, L., (see **Tuinstra, M.,** Agronomy).

Gill, B., KS Wheat Comm, \$160,000, "Wheat Genetics Resource Center and Its Contribution to Kansas Wheat Industry."

Gill, B., McKnight Foundation, \$149,800, "Collaborative Crop Research Program (China)."

Gill, B., USDA, \$243,976, "Wheat Genetics Resource Center at Kansas State University."

Gill, B., USDA, \$9,180, "Research Collaboration Group on Molecular Mapping in Wheat and Its Relatives."

Gill, B., (see **Paulsen, G.**, Agronomy).

Heaton, L., USDA, \$120,000, "Analyses of the Roles of Viral and Host Proteins in Virus Movement in Planta."

Hulbert, S., and **Wilde, G.** (Entomology), KS Dept of Ag, \$27,699, "Novel Approach Identifying Durable Genetic Resistance to Greenbug in Sorghum."

Hulbert, S., Nat'l Sci Found, \$120,000, "Molecular Characterization of Novel Rp1 Alleles."

Hulbert, S., (see **Wang, X.**, Biochemistry).

Jardine, D., Multisponsor, \$4,500, "Soybean Foliar Fungicide and Seed Treatment Tests."

Jardine, D., USDA, \$4,500, "Assembling of Data for the IR-4 Program."

Jardine, D., (see **Long, J.**, SE Ag Res Ctr).

Johnson, L., (see **Wang, X.**, Biochemistry).

Leach, J., and **Guikema, J.** (Biology), USDA, \$150,000, "Regulated Secretion of Defense Response Compounds: Role of Phospholipase D."

Leach, J., Rockefeller Foundation, \$10,000, "Research Expenses for Kamlesh Kukreja."

Leach, J., Rockefeller Foundation, \$10,000, "Rockefeller Postdoctoral Fellow (Edna Ardales)."

Leach, J., US Agency for Int'l Dev, \$25,920, "Predicting Durability of Disease Resistance Based on Analysis of the Cost of Pathogen Adaptation."

Leslie, J., American Society for Microbiology, \$40,601, "Editor Position for Applied and Environmental Microbiology."

Leslie, J., Ivy Laboratories, Inc., \$94,950, "Fusarium Metabolites."

Leslie, J., Multisponsor, \$8,000, "Fusarium Research."

Leslie, J., USDA, \$30,983, "Genetic Diversity in Cephalosporium Maydis and Other Stalk Rotting Fungi of Maize in Egypt."

Leslie, J., (see **Clafflin, L.**, Plant Path).

Schwenk, F., (see **Todd, T.**, Plant Path).

Tisserat, N., **Huang, B.** (Hort, Forestry & Rec Res), **Fry, J.** (Hort, Forestry & Rec Res), and **Keeley, S.** (Hort, Forestry & Rec Res), US Golf Association, \$21,247, "Biology and Management of Spring Dead Spot in Bermudagrass."

Tisserat, N., Multisponsor, \$14,750, "Evaluation and Testing of Fungicides and Nematicides on Horticultural Crops."

Todd, T., **Kelley, K.** (SE Ag Res Ctr), **Schapaugh, W.** (Agronomy), **Schwenk, F.**, and **Long, J.** (SE Ag Res Ctr), KS Dept of Ag, \$75,182, "Integrated Management of the Soybean Cyst Nematode and Charcoal Rot."

Todd, T., Mycogen Corp, \$5,000, "Mycogen Corp Project—Perform Evaluations."

Todd, T., (see **Schapaugh, W.**, Agronomy).

Todd, T., (see **Wang, X.**, Biochemistry).

White, F., (see **Wang, X.**, Biochemistry).

Zhou, J., Nat'l Sci Found, \$52,138, "Function of Tobacco EREBP Transcription Factors."

SOUTHEAST AGRICULTURAL RESEARCH CENTER

Kelley, K., Multisponsor, \$6,500, "Weed Control in Farm Crops."

Kelley, K., and **Sweeney, D.**, KS Dept of Ag, \$13,000, "Effects of Crop Rotation and Tillage Systems on Soybean Yield in Southeastern Kansas."

Kelley, K., (see **Todd, T.**, Plant Path).

Long, J., **Jardine, D.** (Plant Path), and **Kilgore, G.** (SE Area Off), KS Dept of Ag, \$10,000, "Testing Bt Hybrids and Other Cultural Practices to Reduce Corn Ear Diseases."

Long, J., (see **Schapaugh, W.**, Agronomy).

Long, J., (see **Todd, T.**, Plant Path).

Sweeney, D., (see **Kelley, K.**, SE Ag Res Ctr).

SOUTHWEST RESEARCH EXTENSION CENTER

Currie, R., Multisponsor, \$37,550, "Weed Control Research in Southwest Kansas."

Kreikemeier, K., **Drouillard, J.** (Animal Sci & Ind), **Sartwelle III, J.** (SW Area Off), and **Marston, T.** (SW Area Off), KS Dept of Ag, \$13,800, "Feeding Raw Soybeans to Finishing Steers."

Kreikemeier, K., Multisponsor, \$2,050, "Evaluation of New Products to Improve the Efficiency of Production in Feedlot."

Schlegel, A., Multisponsor, \$10,050, "Variety Testing of Alternative Crops."

Schlegel, A., Multisponsor, \$5,550, "SW Res Ext Ctr Soil Fertility and Soil Management Research for Western Kansas."

Sloderbeck, P., (see **Buschman, L.**, Entomology).

Sloderbeck, P., (see **Higgins, R.**, Entomology).

Trooien, T., (see **Alam, M.**, SW Area Off).

Witt, M., Multisponsor, \$5,500, "Yield Appraisal of Crops for Southwest Kansas - Yield Appraisals of Immature Corn."

Witt, M., (see **Tuinstra, M.**, Agronomy).

COLLEGE OF ARCHITECTURE, PLANNING AND DESIGN

ARCHITECTURE

Norris-Baker, C., Corp for Nat'l Service, \$11,197, "Successful Aging: Intergenerational Service-Learning in the Gerontology Seminar."

Selfridge, O., American Institute of Architects, \$3,500, "Student Design Charrette."

INTERIOR ARCHITECTURE

Borchers, V., and **Bullock, R.**, Wichita-Sedgwick County Department of Community Health, \$1,765, "Wichita-Sedgwick County Department of Community Health Site Analysis and Space Allocation Study."

Bullock, R., (see **Borchers, V.**, Int Arch).

LANDSCAPE ARCHITECTURE/REGIONAL AND COMMUNITY PLANNING

Brooks, K., KS Water Office, \$990, "Water Quality Planning Assistance Program."

Burns, R., and **Keithley, C.,** US Dept of Housing & Urban Development, \$117,100, "Community Development Work Study Program (1997-99)."

Keithley, C., (see **Burns, R.,** Land Arch/Reg & Comm Plan).

Page, R., Platin Properties, \$9,937, "Platin Properties Design Project."

Page, R., Serenata Farms, \$16,919, "Serenata Farms Design Project."

Page, R., South Platin Land Development LLC, \$12,000, "Platin Properties II."

Rolley, S., Nat'l Foundation on the Arts and the Humanities, \$17,000, "Your Town: Designing Its Future Regional Workshop."

Winslow III, W., Johnson County Community College, \$24,836, "Landscape Master Plan Design Initiatives for Johnson County Community College."

COLLEGE OF ARTS AND SCIENCES

BIOCHEMISTRY

Davis, L., (see **Erickson, L.,** Chemical Engg).

Kanost, M., US Dept of Health & Human Serv, \$206,478, "Serine Proteinase Inhibitors in Insects."

Kanost, M., US Dept of Health & Human Serv, \$118,193, "Biochemistry of Insect Hemocytes."

Krishnamoorthi, R., US Dept of Health & Human Serv, \$69,444, "NMR Studies of a Blood-Coagulation Factor Inhibitor."

Krishnamoorthi, R., American Chemical Society, \$5,000, "Solution NMR Structure of Putative Ca²⁺-Binding C2-Domain in Phospholipase D."

Krishnamoorthi, R., American Heart Assoc., KS Affiliate, Inc., \$31,800, "NMR Studies of Inactive and Active Forms of Blood Coagulation Factor XII."

Krishnamoorthi, R., Great Plains Diabetes Research, Inc., \$5,000, "Effect of Glucose on Blood Coagulation Factor XIIa Activity."

Muthukrishnan, S., and **Liang, G.** (Agronomy), KS Dept of Ag, \$61,100, "Construct Agronomically Useful Genes for Sorghum Plant Transformation."

Muthukrishnan, S., United Nations Educational, Scientific & Cultural Org., \$5,000, "Biotechnology Action Council Fellowship Award for Dr. Ajith."

Prakash, O., US Dept of Health & Human Serv, \$5,252, "Molecular Analysis of Mucin-Type O-Glycosylation."

Prakash, O., (see **Reeck, G.,** Biochemistry).

Prakash, O., (see **Sun, X.,** Grain Sci & Ind).

Reeck, G., and **Prakash, O.,** American Heart Assoc., KS Affiliate, Inc., \$31,800, "Cyclic Peptide Inhibitors of Enzymes of the Contact System."

Roche, T., US Dept of Health & Human Serv, \$191,701, "Regulation of Mammalian Pyruvate Dehydrogenase."

Smith, P., Nat'l Sci Found, \$47,280, "Effects of Salts on the Interactions of Polar and Nonpolar Molecules in Solution."

Smith, P., (see **Rahman, T.,** Physics).

Takemoto, D., (see **Brightman, A.,** Clinical Sciences).

Tomich, J., US Dept of Health & Human Serv, \$172,233, "Role of Ordered Helical Segments in Membrane Proteins."

Tomich, J., Cystic Fibrosis Foundation, \$15,000, "Induction of Chloride Secretion by Channel Forming Peptides."

Tomich, J., US Dept of Health & Human Serv, \$26,176, "Characterization of Synthetic C1-Conducting Peptides—Kathy E. Mitchell."

Wang, X., Johnson, L. (Plant Path), **Todd, T.** (Plant Path), **Schapaugh, W.** (Agronomy), **Hulbert, S.** (Plant Path), and **White, F.** (Plant Path), KS Dept of Ag, \$58,380, "Improvement of Soybean via Biotechnological Approach."

Wang, X., USDA, \$210,000, "Roles of Multiple Phospholipase Ds in Plant Reproduction and Senescence."

DIVISION OF BIOLOGY

Blair, J., (see **Hartnett, D.,** Biology).

Blair, J., (see **Knapp, A.,** Biology).

Briggs, J., NASA, \$22,000, "Using Spatio-Temporal Heterogeneity for Landcover Characterization: Multi-Sensor Analysis of a Tallgrass Prairie Gradient - Donna R. Rieck."

Briggs, J., (see **Harrington, Jr., J.,** Geography).

Briggs, J., (see **Knapp, A.,** Biology).

Cavitt, J., (see **Smith, C.,** Biology).

Center, M., US Dept of Health & Human Serv, \$163,476, "Mechanisms Regulating Cell Resistance to Adriamycin."

Chapes, S., American Heart Assoc., KS Affiliate, Inc., \$27,560, "Characterization of Receptors for Shock-Inducing Toxins on Macrophages."

Clem, R., US Dept of Health & Human Serv, \$97,325, "Functional Analysis of Anti-Apoptotic IAP Proteins."

Conrad, G., NASA, \$10,220, "Effects of Microgravity on Quail Eye Development."

Conrad, G., US Dept of Health & Human Serv, \$329,402, "Fibroblast Differentiation during Eye Development."

Consigli, R., US Dept of Health & Human Serv, \$74,821, "Virology and Tumor Biology."

Cully, Jr., J., and **Kaufman, G.,** KS Dept of Wildlife & Parks, \$45,000, "Gap Analysis in Kansas."

Cully, Jr., J., US Dept of the Interior, \$126,000, "Gap Analysis in Kansas."

Cully, Jr., J., US Dept of the Interior, \$9,895, "Effects of Size, Fragmentation and Management of Prairie Remnants on Biodiversity and Sustainability."

Cully, Jr., J., (see **Charlton, R.,** Entomology).

Denell, R., and **Justice, M.,** Nat'l Sci Found, \$512,395, "Evolutionary Conservation of the Molecular Mechanisms of Development."

Denell, R., Nat'l Sci Found, \$160,000, "Genetic Regulation of Developmental Fate."

Denell, R., US Dept of Health & Human Serv, \$244,766, "Genetic Control of Segmentation."

Dodds, W., Nat'l Sci Found, \$34,634, "Nitrogen Uptake, Retention and Cycling in Stream Ecosystems: An Intersite N-15 Tracer Experiment."

Dodds, W., (see **Smith, C.,** Biology).

Funderburgh, J., Alcon Laboratories, Inc., \$15,000, "Source of Corneal Haze after PRK."

Funderburgh, J., US Dept of Health & Human Serv, \$152,475, "Proteoglycans in Normal and Scarred Corneas."

Gipson, P., and **Kaufman, G.**, US Army, \$5,129, "Environmental Assessment of the Integrated Natural Resources Management Plan at Fort Riley."

Gipson, P., and **Pontius, J.** (Statistics), US Dept of the Interior, \$161,985, "Evaluation of Land Condition Trend Analysis as a Component of the Integrated Training Area Management Program at Fort Riley, Kansas."

Gipson, P., KS Dept of Wildlife & Parks, \$20,000, "Establishment and Operation of the Kansas Cooperative Fish and Wildlife Research Unit."

Gipson, P., US Dept of the Interior, \$54,717, "Effectiveness of Land Condition-Trend Analysis Transects for Monitoring Wildlife Abundance in Areas Used for Military Training."

Guikema, J., NASA, \$139,076, "Influence of Gravity as a Determinant in Cellular Biology."

Guikema, J., NASA, \$5,251, "Administrative Support for the Executive Committee of the Kansas NASA EPSCoR Program."

Guikema, J., NASA, \$99,609, "Starch Concentration, Metabolism, and Localization in Space-Grown Soybean Seedlings."

Guikema, J., (see **Leach, J.**, Plant Path).

Guikema, J., (see **Uhlarik, J.**, Psychology).

Guy, C., KS Dept of Wildlife & Parks, \$66,796, "Seasonal Movement and Habitat Use of Spotted Bass in Southeast Kansas Streams."

Guy, C., US Dept of the Interior, \$23,488, "Habitat Use and Population Dynamics of Benthic Fishes Along the Missouri River, Field Season 97."

Guy, C., US Dept of the Interior, \$25,000, "Age and Growth Analysis of Selected Missouri River Benthic Fishes."

Guy, C., US Dept of the Interior, \$42,000, "Population Structure and Habitat Use of Benthic Fishes Along the Missouri River, 1998."

Hartnett, D., **Blair, J.**, and **Knapp, A.**, Nat'l Sci Found, \$918,664 (includes donations of \$534,884 from various businesses and foundations), "Tallgrass Prairie of the Flint Hills of Kansas."

Hartnett, D., Nat'l Foundation on the Arts and the Humanities, \$70,046 (includes donations of \$55,046 from various businesses and foundations), "Last Stand of the Tallgrass Prairie: The Flint Hills of Kansas and Oklahoma."

Hartnett, D., Nat'l Sci Found, \$151,434, "FSML: Enhancement of Support Facilities for Visiting Scientists at Konza Prairie Research Natural Area."

Herman, M., US Dept of Health & Human Serv, \$95,829, "Control of Cell Polarity in *C. elegans*."

Johnson, L., NASA, \$426,880, "Land-Cover Change in the Great Plains: Predicting Impacts of Regional Forest Expansion on Biogeochemical Processes."

Johnson, L., Nat'l Sci Found, \$34,779, "Belowground Sinks for Carbon in Arctic Ecosystems."

Johnson, T., Howard Hughes Medical Institute, \$8,297, "Undergraduate Biological Sciences Education Initiative."

Johnson, T., KSU Foundation, \$14,300, "Cancer Center Core."

Johnson, T., NASA, \$249,647, "BioServe Space Technologies - A NASA Center for the Commercial Development of Space."

Justice, M., (see **Denell, R.**, Biology).

Kaufman, D., (see **Charlton, R.**, Entomology).

Kaufman, G., (see **Charlton, R.**, Entomology).

Kaufman, G., (see **Cully, Jr., J.**, Biology).

Kaufman, G., (see **Gipson, P.**, Biology).

Knapp, A., and **Blair, J.**, Nat'l Sci Found, \$5,000, "Evaluating the Role of Resource Heterogeneity in Restoring Grasslands."

Knapp, A., **Blair, J.**, and **Briggs, J.**, Nat'l Sci Found, \$570,000, "Long-Term Ecological Research in Tallgrass Prairie: The Konza LTER Program."

Knapp, A., (see **Ham, J.**, Agronomy).

Knapp, A., (see **Hartnett, D.**, Biology).

Knapp, A., (see **Owensby, C.**, Agronomy).

Knapp, A., (see **Welch, S.**, Agronomy).

Li, Y., US Dept of Energy, \$55,000, "Genetic Improvement of Aspen for Wood Production."

Li, Y., USDA, \$110,097, "Production of Seedless Watermelons via a Gene Transfer Approach."

Marchin, G., (see **Reddi, L.**, Civil Engg).

Marchin, G., (see **Rice, C.**, Agronomy).

Roufa, D., US Dept of Health & Human Serv, \$219,178, "Densely Methylated DNA and Mammalian Replication Origins."

Smith, C., **Cavitt, J.**, and **Dodds, W.**, Nat'l Sci Found, \$50,279, "REU in Grassland Ecology at Konza Prairie Research Natural Area."

Spooner, B., NASA, \$22,000, "Determining Lymphocyte Responsiveness to Low Gravity Environments - Luis Cubanom"

Takemoto, L., US Dept of Health & Human Serv, \$229,930, "Lens Membrane in Relation to Human Cataractogenesis."

Upton, S., Nat'l Sci Found, \$55,975, "Coccidia of the World."

Upton, S., US Dept of Health & Human Serv, \$159,876, "dsRNAs of *Cryptosporidium parvum*."

Upton, S., US Dept of Health & Human Serv, \$63,143, "In vitro Assay for Cryptosporidiosis."

Urban, J., NASA, \$10,000, "Biological Wastewater Processor Experiment Definition."

Welti, R., Republic of Philippines, \$4,000, "Scholarship Grant to Ms. Norma D. Flores under the Overseas Sandwich Program."

Wilson, F., Nat'l Sci Found, \$76,000, "Thyroxine and Seasonality in American Tree Sparrows."

CHEMISTRY

Aakeroy, C., Nat'l Sci Found, \$26,068, "Design, Function and Dynamics of Supramolecular Materials."

Baures, P., Nat'l Sci Found, \$48,465, "Importance of CH...O, CH...N, and CH...Cl Hydrogen Bonds in the Molecular Recognition and Conformation of Small Molecules."

Collinson, M., Nat'l Sci Found, \$61,000, "Electroanalytical Applications of Organically Modified Sol-Gel Materials."

Collinson, M., US Dept of Defense, \$100,000, "Electroanalytical Applications of Organically Modified Sol-Gel Materials."

Fateley, W., KS Dept of Transportation, \$20,732, "Development of a Field-Portable Near-Infrared Water-Cement Ratio Meter - Phase I: Investigation of Spectral Feasibility."

Higgins, D., Nat'l Sci Found, \$48,000, "High Resolution Optical Microscopy Studies of Mesostructured Polymer-Dispersed Liquid Crystal Films."

Higgins, D., (see **Sherwood, P.**, Chemistry).

Klabunde, K., Center for Indoor Air Research, \$97,764, "Nanoscale Metal Oxides as Destructive Adsorbents."

Klabunde, K., KS Technology Enterprise Corp (KTEC), \$28,688, "Metal Vapor Synthesis of Metal-Organic Precursors for High Temperature Superconductors."

Klabunde, K., Nat'l Sci Found, \$17,218, "Nanoscale Metal/Boride Particles Containing Rare Earth Elements."

Klabunde, K., US Army, \$110,000, "Nanoscale Metal and Metal Oxide Particle Chemistry. Reagents for Decontamination and Remediation."

Klabunde, K., US Dept of Defense, \$262,425, "Identification of Chemical Agent (Mimics) Residues after Destructive Adsorption, Using Laser Desorption Mass Spectrometry."

Maatta, E., US Dept of Energy, \$115,000, "Homogeneous Models of Ammoxidation Catalysis."

Muino, P., Nat'l Sci Found, \$46,600, "Research Experiences for Undergraduates in Chemistry at Kansas State University."

Muino, P., Nat'l Sci Found, \$47,594, "Effects of Local Environment on the Electronic Spectra of Tryptophan and Tryptophan-Containing Proteins."

Muino, P., (see **Sherwood, P.**, Chemistry).

Ortiz, J., Nat'l Sci Found, \$23,523, "Prediction and Analysis in Electron Propagator Theory."

Setser, D., US Air Force, \$35,138, "Chemical Reactions of NC1 (a1): Generation and Removal."

Sherwood, P., Higgins, D., and Muino, P., Nat'l Sci Found, \$168,350, "Purchase of a Tunable Ultrafast Laser System for Time-Resolved Spectroscopy and Microscopy."

Sherwood, P., KS Technology Enterprise Corp (KTEC), \$110,961, "Kansas DEPCoR: Kansas Defense 2000 Program for Year One."

Sherwood, P., Luxfer, Inc., \$148,820, "Purchase of a SAGE 100 XPS System."

Sherwood, P., Nat'l Sci Found, \$130,000, "Corrosion and Oxidation Studied by Surface Analytical Methods."

Sherwood, P., Wang, Y. (Mech & Nuc Engg), and **Lease, K.** (Mech & Nuc Engg), NASA, \$140,795, "Studies of the Role of Surface Treatment and Sizing of Carbon Fiber Surfaces on the Mechanical Properties of Composites Containing Carbon Fibers."

ECONOMICS

Babcock, M., (see **Russell, E.**, Civil Engg).

Bratsberg, B., (see **Shanteau, J.**, Inst Soc & Behavioral Res).

Ragan, Jr., J., Multisponsor, \$15,000, "Roe R. Cross Chair of Economics."

Weisman, D., American Enterprise Institute for Public Policy Research, \$10,000, "Competition, Deregulation, and the Telecommunications Act of 1996."

GEOGRAPHY

Goodin, D., (see **Harrington, Jr., J.**, Geography).

Goodin, D., (see **Harrington, L.**, Geography).

Goodin, D., (see **Uhlarik, J.**, Psychology).

Goodin, D., (see **White, S.**, Geography).

Harrington, Jr., J., Briggs, J. (Biology), and **Goodin, D.**, NASA, \$144,799, "Spatial and Spectral Scale Dimensions for Modeling Kansas Rural Resource Systems: Projections for Global Change."

Harrington, Jr., J., NASA, \$44,000, "Radar Backscatter—Soil Moisture Relationships over Tallgrass Prairie—James M. S. Hutchinson."

Harrington, Jr., J., (see **Harrington, L.**, Geography).

Harrington, Jr., J., (see **White, S.**, Geography).

Harrington, L., Harrington, Jr., J., Kromm, D., White, S., and **Goodin, D.**, US Dept of Energy, \$40,000, "Global Change in Local Places."

Harrington, L., (see **White, S.**, Geography).

Kromm, D., (see **Harrington, L.**, Geography).

Kromm, D., (see **White, S.**, Geography).

Seyler, H., and **Ransom, M.** (Agronomy), USDA, \$114,500, "SSURGO Certification of Soil Surveys in Kansas."

Seyler, H., US Dept of the Interior, \$24,000, "GIS Coverages for Flint Hills National Wildlife Refuge."

Seyler, H., (see **White, S.**, Geography).

White, S., Harrington, Jr., J., Kromm, D., Seyler, H., Harrington, L., and **Goodin, D.**, NASA, \$75,593, "Global Change in Local Places."

White, S., (see **Harrington, L.**, Geography).

GEOLOGY

Archer, A., NASA, \$25,000, "Aspects and Control of Tidal Sedimentation and the Extraction and Modeling of Tidal Parameters from Modern and Ancient Tidal Rhythmites."

Archer, A., and **Martin, S.**, US Army, \$40,183, "Analysis of Geological Stratigraphy, Structure, and Hydrology of the Open Burn/Open Detonation (OB/OD) Area Fort Riley, Kansas."

Chaudhuri, S., US Army, \$62,000, "Monitoring Well and Surface Water Sampling for Chemical and Isotope Analysis, Southwest Funston Landfill, Camp Funston Cantonment Area, Southeast Funston Landfill, Fort Riley, Kansas."

Hubbard, M., (see **Uhlarik, J.**, Psychology).

Martin, S., (see **Archer, A.**, Geology).

Oviatt, C., US Dept of the Interior, \$2,500, "Carbonate Mineralogy of Lake Bonneville Cores."

HIGH ENERGY PHYSICS

Reay, N., Bolton, T. (Physics), **Stanton, N.** (Physics), **Naples, D.** (Physics), and **Sidwell, R.** (Physics), US Dept of Energy, \$695,000, "Heavy Quark and Neutrino Physics."

HISTORY

Higham, R., Journal of the West, Inc., \$41,633, "Journal of the West."

Mrozek, D., US Army, \$2,499, "Military Asymmetry in Vietnam."

Sherow, J., US Army, \$26,000, "Fort Riley's Interaction with Native Americans: 1853-1911."

INSTITUTE FOR SOCIAL AND BEHAVIORAL RESEARCH

Bloomquist, L., (see **Bloomquist, L.**, Soc, Anthro & Social Work).

Cozzarelli, C., (see **Cozzarelli, C.**, Psychology).

Downey, R., (see **Shanteau, J.**, Inst Soc & Behavioral Res).

Fullagar, C., (see **Shanteau, J.**, Inst Soc & Behavioral Res).

Shanteau, J., **Downey, R.**, **Bloomquist, L.** (Soc, Anthro & Social Work), **Fullagar, C.**, and **Bratsberg, B.** (Economics), KS Dept of Social & Rehabilitation Services, \$80,078, "Community Service Provider Direct Care Staff Turnover Study."

Shanteau, J., (see **Azadivar, F.**, Advanced Manuf Inst).

Wilkinson, A., (see **Rolf, J.**, Community Hlth).

KINESIOLOGY

Barstow, T., and **McAllister, R.** (Anatomy & Physiology), US Dept of Health & Human Serv, \$204,965, "Control of Muscle PCr, H+ and V02 Kinetics."

Dziewaltowski, D., KS Farm Bureau & Affiliated Services, \$7,590, "Kansas Farm Bureau Employee Wellness Program."

Dziewaltowski, D., KS Health Foundation, \$30,000, "Older Kansans Nutrition and Physical Activity Project."

Dziewaltowski, D., KS Health Foundation, \$35,462, "Kansas LEAN School Health Project."

Harms, Craig A., Francis Families Foundation, \$31,250, "Cardiopulmonary Interactions during Exercise."

Musch, T., (see **Poole, D.**, Kinesiology).

Poole, D., and **Musch, T.**, US Dept of Health & Human Serv, \$258,737, "Muscle Capillary Geometry, Flow, and Oxygen Transfer."

MATHEMATICS

Kapitanski, L., Nat'l Sci Found, \$36,477, "Local and Global Behavior of Solutions of Schrodinger Equations."

Nagy, G., Nat'l Sci Found, \$15,200, "Homological Methods in the Deformation Theory of Operator Algebras."

Nagy, G., Nat'l Sci Found, \$12,000, "Great Plains Operator Theory Symposium 1998."

Wu, F., Nat'l Sci Found, \$22,126, "Higher Index for Coverings of Manifolds with Boundary."

PHYSICS

Bolton, T., (see **Reay, N.**, Physics).

Bolton, T., (see **Reay, N.**, High Energy Physics).

Chakrabarti, A., (see **Rahman, R.**, Physics).

Chakrabarti, A., (see **Sorensen, C.**, Physics).

Coffman, J., and **Zollman, D.**, Nat'l Sci Found, \$20,309, "Integrating Research and Education: Contemporary Research in the Education of Teachers."

DePaola, B., (see **Weaver, O.**, Physics).

Jiang, H., and **Lin, J.**, Nat'l Sci Found, \$73,010, "U.S.-China Cooperative Research: Fabrication and Optical Studies of GaN Microcavities."

Jiang, H., and **Lin, J.**, US Army, \$75,000, "Dynamics of Optical Recombination in GaN and Al_xGa_{1-x}N—Applications for High Power Blue Lasers."

Jiang, H., and **Lin, J.**, US Dept of Defense, \$140,000, "Instrumentation for Study Ultrafast Optical Processes in GaN Quantum Wells and Devices - Application for High-Power UV-Blue Lasers."

Jiang, H., and **Lin, J.**, US Dept of Energy, \$50,000, "Optical and Electrical Properties of III-V Nitride Wide Bandgap Semiconductors."

Jiang, H., (see **Lin, J.**, Physics).

Law, B., Nat'l Sci Found, \$104,500, "Interfacial Phenomena Near Critical Points."

Lin, C., US Dept of Energy, \$153,000, "Atomic Physics of Strongly Correlated Systems."

Lin, C., (see **Rahman, R.**, Physics).

Lin, J., and **Jiang, H.**, Nat'l Sci Found, \$46,000, "Dynamics of Fundamental Optical Transitions in GaN and Al_xGa_{1-x}N."

Lin, J., and **Jiang, H.**, US Army, \$131,666, "Switching Characteristics of AlGaN/GaN Heterojunction Field-Effect Transistors."

Lin, J., and **Jiang, H.**, US Dept of Defense, \$125,000, "Instrumentation for Fabrication of GaN and AlGaN Microcavities—Applications for UV Microcavity Lasers and Detectors."

Lin, J., and **Jiang, H.**, US Dept of Defense, \$302,780, "Characterization of GaN Materials and High Power Electronic Devices by Time-Resolved Photoluminescence and Hall Measurements."

Lin, J., KS Technology Enterprise Corp (KTEC), \$46,000, "Dynamics of Fundamental Optical Transitions in GaN and Al_xGa_{1-x}N."

Lin, J., (see **Jiang, H.**, Physics).

Naples, D., (see **Reay, N.**, High Energy Physics).

O'Shea, M., US Dept of Defense, \$236,292, "Nanostructured Rare-Earth Transition Metal Materials."

Rahman, T., Argonne Nat'l Laboratory, \$10,000, "Theoretical Studies of Phonon Density of States."

Rahman, T., **Dwyer, M.** (Comp & Info Sci), **Jiang, S.** (Chemical Engg), **Lin, C.**, **Shultis, J.** (Mech & Nuc Engg), **Chakrabarti, A.**, and **Smith, P.** (Biochemistry), Nat'l Sci Found, \$350,000, "Acquisition of Upgraded High Performance Multiprocessors for Computational Research in Science and Engineering."

Rahman, T., Nat'l Sci Found, \$58,026, "Kansas Center for Advanced Scientific Computing."

Rahman, T., US Dept of Energy, \$40,633, "Structure, Dynamics and Thermodynamics of Metal Surfaces."

Reay, N., **Bolton, T.**, **Stanton, N.**, and **Sidwell, R.**, Nat'l Sci Found, \$535,168, "Kansas Alliance for Cosmology—Interdisciplinary Astrophysics (KACIA)."

Richard, P., US Dept of Energy, \$2,288,000, "Atomic Physics with Highly Charged Ions."

Sidwell, R., (see **Reay, N.**, Physics).

Sidwell, R., (see **Reay, N.**, High Energy Physics).

Sorensen, C., Hosni, M. (Mech & Nuc Engg), **Chakrabarti, A., Fox, R.** (Elect & Comp Engg), and **Meng, H.** (Mech & Nuc Engg), Nat'l Sci Found, \$423,294 (includes \$96,298 from the University of Kansas Center for Research, Inc., and Wichita State University), "Kansas Program for Complex Fluid Flows."

Sorensen, C., Nat'l Sci Found, \$80,000, "Aerosol Fractal Aggregate Optics and Kinetics in Laminar and Turbulent Flows."

Stanton, N., (see **Reay, N.**, Physics).

Stanton, N., (see **Reay, N.**, High Energy Physics).

Thumm, U., Nat'l Sci Found, \$80,000, "Charge Exchange, Resonance Formation and Electron Emission in Ion-Surface Interactions."

Weaver, O., and **DePaola, B.**, Nat'l Sci Found, \$55,562, "Undergraduate Summer Research in Experimental and Theoretical Physics."

Zollman, D., Nat'l Sci Found, \$207,300, "Creating a Modern Physics Course: Visualization and Computation for Undergraduate Physics Majors."

Zollman, D., US Dept of Educ, \$29,311, "Teaching about Lasers and Quantum Science for Middle and High School Students."

Zollman, D., (see **Coffman, J.**, Physics).

PSYCHOLOGY

Cozzarelli, C., US Dept of Health & Human Serv, \$68,343, "Social-Cognitive Model of Change in Attachment Styles."

Downey, R., (see **Shanteau, J.**, Inst Soc & Behavioral Res).

Downey, R., (see **Fullagar, C.**, Psychology).

Fogg, R., (see **Fullagar, C.**, Psychology).

Fullagar, C., Downey, R., Fogg, R., and King, C., Nat'l Academic Advising Association, \$5,000, "Graduate Student Advising as a Mentor-Protege Relationship: Protege and Mentor Contributions and Outcomes."

Fullagar, C., (see **Shanteau, J.**, Inst Soc & Behavioral Res).

King, C., (see **Fullagar, C.**, Psychology).

Shanteau, J., (see **Shanteau, J.**, Inst Soc & Behavioral Res).

Uhlarik, J., Kelkar, A. (Mech & Nuc Engg), **Hubbard, M.** (Geology), **Guikema, J.** (Biology), **Goodin, D.** (Geography), and **Gorder, P.** (Mech & Nuc Engg), NASA, \$41,000, "Kansas Space Grant Consortium."

A. Q. MILLER SCHOOL OF JOURNALISM AND MASS COMMUNICATIONS

Simon, T., KSU Foundation, \$22,000, "Huck Boyd National Center for Community Media."

SOCIOLOGY, ANTHROPOLOGY, AND SOCIAL WORK

Bloomquist, L., American University, \$1,027, "PBS Viewer's Poll."

Bloomquist, L., (see **Shanteau, J.**, Inst Soc & Behavioral Res).

Ciccantell, P., Canadian Embassy, \$5,000, "Free Trade, Globalization, and Coal-Dependent Communities: Southeastern British Columbia Coal Communities in the World Economy."

Roper, D., US Dept of the Interior, \$52,942, "Archeological Investigations at Medicine Creek Reservoir, NE."

STATISTICS

Pontius, J., (see **Gipson, P.**, Biology).

COLLEGE OF BUSINESS ADMINISTRATION

SMALL BUSINESS DEVELOPMENT CENTER

Rice, F., US Small Business Administration, \$86,576, "Small Business Development Center." (2 awards)

Rice, F., US Small Business Administration, \$36,851, "Kansas State University Small Business Development Center."

COLLEGE OF EDUCATION

OFFICE OF THE DEAN OF THE COLLEGE OF EDUCATION

Borchers, C., Assoc for the Education of Teachers in Science, \$12,622, "Administrator of the Association for the Education of Teachers in Science."

Flaherty, R., Nat'l Academic Advising Association, \$210,128, "National Academic Advising Association Executive Office."

Flaherty, R., (see **Thurston, L.**, Spec Ed).

French, M., Nat'l Sci Found, \$8,000, "Operation Primary Physical Science Subcontract."

Havlicek, B., Educational Computer Assistance, \$67,218, "Educational Computer Assistance."

Havlicek, B., KS Foundation for Agriculture in the Classroom, \$32,584, "Kansas Foundation for Agriculture in the Classroom."

Havlicek, B., (see **Thurston, L.**, Spec Ed).

Hoyt, K., DeWitt Wallace-Reader's Digest Fund, \$342,254, "Toward High Skills Job Readiness for Youth: Creating a National System to Counsel High School Leavers About Postsecondary Vocational-Technical Training Options."

Rankin, C., US Dept of Educ, \$750,649, "Midwest Desegregation Assistance Center."

Weyrauch, J., (see **Thurston, L.**, Spec Ed).

White, W., US Dept of Educ, \$19,322, "Research and Demonstration of a Model for Successfully Accommodating Adults with Disabilities in Adult Education Programs."

Wissman, J., US Dept of Educ, \$20,000, "Continuous Improvement Model for Teacher Education."

Wissman, J., and **Herald, T.** (Animal Sci & Ind), US Dept of Educ, \$28,486, "Promoting Relevance in Science Teaching and Learning: A Collaborative Professional Development Project for Middle-level and High School Teachers."

Wright, E., US Dept of Educ, \$102,100 (includes \$21,694 from the Voronezh Government and \$2,406 from Kansas Water Office), "Water-Related Environmental Issues Curriculum and Inservice Education Project for Rural Schools in Kansas and Voronezh (Russia)."

Wright, E., US Information Agency, \$143,000, "Kansas/Voronezh Connection: Involving Rural Schools in Land Stewardship."

Wright, E., American Chemical Society, \$10,219, "Chemistry in a Biology Context Textbook Project."

Wright, E., Multisponsor, \$18,850, "Educational, Cultural and Scientific Cooperation Between the Oblast of Voronezh, the Russian Federation, and the State of Kansas."

EDUCATIONAL ADMINISTRATION

Thompson, D., US Dept of Educ, \$23,000, "Council of Education Deans: Leadership, Personnel, Preparation and Improvement."

ELEMENTARY EDUCATION

Smith, B., Nat'l Geographic Society, \$18,000, "Kansas Geographic Alliance - Governor's Water Quality Initiative."

SECONDARY EDUCATION

Kane, M., KS State Department of Education, \$65,036, "FFA-YF/YFW Organizations."

SPECIAL EDUCATION

Thurston, L., **Havlicek, B.** (Dean of Educ), **Flaherty, R.** (Dean of Educ), and **Weyrauch, J.** (Dean of Educ), American Council on Rural Special Education, \$46,480, "American Council on Rural Special Education Headquarters Management."

Thurston, L., US Dept of Health & Human Serv, \$36,159, "Rural Child Welfare Project Supplemental Funds."

Zabel, R., US Dept of Educ, \$10,000, "Restructuring Teacher, Administrator and Counselor Education Programs at Kansas State University."

COLLEGE OF ENGINEERING

ADVANCED MANUFACTURING INSTITUTE

Azadivar, F., Mid-America Manufacturing Technology Center, \$28,514, "MAMTC Regional Office."

Azadivar, F., KS Technology Enterprise Corp (KTEC), \$865,000, "Advanced Manufacturing Institute (AMI)."

Azadivar, F., **Ordoobadi, S.**, and **Shanteau, J.** (Psychology), Nat'l Sci Found, \$117,689, "Tools for Managing Technological Innovation for Small Manufacturers."

Azadivar, F., International Breads Inc., \$8,952, "Steam Hood Detail Design and Fabrication."

Azadivar, F., International Breads Inc., \$2,936, "Depositor Concept Design."

Azadivar, F., Hasenbank, Larry, \$2,180, "Detail Design and Prototype Fabrication for Tailgate Flag Pole."

Azadivar, F., Great Western Manufacturing, Inc., \$3,356, "Equipment Testing."

Azadivar, F., Great Western Manufacturing, Inc., \$2,260, "Component Redesign."

Azadivar, F., Great Western Manufacturing, Inc., \$2,260, "Component Redesign."

Azadivar, F., American Econo-Clad Services, \$6,000, "Automated Taping Machine."

Azadivar, F., and **Krishnaswami, P.** (Mech & Nuc Engg), Vektex, Inc., \$9,364, "'Fixture Kit' Software Development."

Azadivar, F., Vektex, Inc., \$18,636, "Solid Modeling and UDF Development."

Azadivar, F., International Breads Inc., \$14,412, "Baking Equipment Modification - Phase 1."

Azadivar, F., Concrete Systems, Inc., \$1,274, "Design and Build of Timer/Controller."

Azadivar, F., Hasenbank, Larry, \$1,692, "Specification Development/Conceptual Design of Tailgate Event System."

Azadivar, F., GEC Precision Corp, \$4,500, "Spar Mill Control System Upgrade-Feasibility Analysis."

Azadivar, F., Excel Industries, \$19,826, "Cellular Manufacturing Transition."

Azadivar, F., Philips Lighting Company, \$2,240, "Heat Transfer Analysis."

Azadivar, F., American Econo-Clad Services, \$3,000, "Detailed Design-Automated Taping Machine."

Azadivar, F., Reyes, Louis, \$3,000, "Mechanic's Handtool Product Development."

Azadivar, F., American Econo-Clad Services, \$3,000, "Conceptual Design of Taping Equipment."

Azadivar, F., Great Western Manufacturing, Inc., \$1,680, "Stream Divider Conceptual Design Improvements."

Azadivar, F., Relight America, Inc., \$2,616, "Analytical and Computer Models of Field Strengths."

Azadivar, F., A/C Enterprises, \$3,930, "Dreamsteamer Home Model-Concept Design."

Azadivar, F., **Jiang, S.** (Chemical Engg), **Walawender, W.** (Chemical Engg), and **Schlup, J.** (Chemical Engg), KS Technology Enterprise Corp (KTEC), \$99,561 (includes \$49,906 from Nantek, Inc.), "Process Development for the Production of Destructive Adsorbent Nanoparticles."

Azadivar, F., Bradbury Company Inc., \$7,846, "Pro/E Modeling of Duplexer - Phase 1 Component Modeling."

Azadivar, F., Kuecker Equipment Company, \$9,110, "Air Logic Conveying System-Phase 1 Conceptual Design."

Azadivar, F., Stoltz & Murphy, Inc., \$7,834, "Plumbing Tool Development - Phase 1."

Azadivar, F., Reyes, Louis, \$1,989, "Mechanic's Handtool—Rapid Prototype Phase 1."

Azadivar, F., Great Plains Industries, \$7,389, "Piston Hand Pump Design—Phase 1."

Azadivar, F., Vektex, Inc., \$5,136, "Solid Modeling."

Azadivar, F., Mega Manufacturing, \$1,745, "Pro/E Modeling of Piranha/Allsteel 65-8 - Phase 1 Modeling."

Azadivar, F., Multisponsor, \$239,082, "Advanced Manufacturing Institute Support."

Azadivar, F., (see **Marinescu, I.**, Ind & Manuf Sys Engg).

BIOLOGICAL AND AGRICULTURAL ENGINEERING

Barnes, P., **Maddux, L.** (Agronomy), **Schapaugh, W.** (Agronomy), and **Kilgore, G.** (SE Area Off), KS Dept of Ag, \$23,200, "Cover Crop and Crop Rotation Used to Meet Conservation Compliance for Soybeans."

Barnes, P., Novartis, \$26,233, "Atrazine Monitoring Project: Joint Nebraska/Kansas Blue River Study."

Barnes, P., (see **Devlin, D.**, Agronomy).

Barnes, P., (see **Hargrove, W.**, KS Water Resource Res Inst).

Barnes, P., (see **Kalita, P.**, Biol & Agri Engg).

Barnes, P., (see **Lamond, R.**, Agronomy).

Barnes, P., (see **Regehr, D.**, Agronomy).

Clark, G., Martin, V. (Agronomy), **Fjell, D.** (Agronomy), and **Rogers, D.**, KS Dept of Ag, \$20,000, "Field Verification of Irrigation Scheduling for Corn (South Central Kansas Irrigation Scheduling and Water Management Demonstration)."

Clark, G., Martin, V. (Agronomy), **Fjell, D.** (Agronomy), and **Rogers, D.**, KS Water Office, \$38,500, "South Central Kansas Irrigation Scheduling and Water Management Project."

Clark, G., Multisponsor, \$8,000, "Irrigation Research."

Clark, G., (see **Martin, V.**, Agronomy).

Clark, S., KSU Foundation, \$500, "Use of Electricity in Agriculture."

Harner III, J., (see **Rice, C.**, Agronomy).

Kalita, P., Pierzynski, G. (Agronomy), **Whitney, D.** (Agronomy), **Lamond, R.** (Agronomy), and **Barnes, P.**, KS Dept of Ag, \$21,000, "Monitoring and Modeling Nitrogen Management in Conservation Tillage Systems."

Kalita, P., US Dept of the Interior, \$42,732, "Modeling Soil Erosion and Surface Runoff from Military Training Land at Fort Riley, Kansas."

Kalita, P., (see **Lamond, R.**, Agronomy).

Kalita, P., (see **Rice, C.**, Agronomy).

Koelliker, J., and **Mankin, K.**, KS Dept of Health & Environment, \$29,291, "Clinton Reservoir Watershed Assessment Project."

Mankin, K., (see **Koelliker, J.**, Biol & Agri Engg).

Rogers, D., (see **Alam, M.**, SW Area Off).

Rogers, D., (see **Clark, G.**, Biol & Agri Engg).

Schrock, M., Case Corp, \$37,856, "Grain Combine Sampler and Sensor Development."

Schrock, M., USDA, \$21,001, "Pulse-Width Modulation of Anhydrous Ammonia."

Schrock, M., (see **Schmidt, J.**, Agronomy).

Zhang, N., (see **Welch, S.**, Agronomy).

CENTER FOR HAZARDOUS SUBSTANCE RESEARCH

Erickson, L., US Envir Prot Agency, \$61,406, "Great Plains/Rocky Mountain Hazardous Substance Research Center." (2 awards)

Erickson, L., and **Hayter, R.** (Ext Engg), US Envir Prot Agency, \$425,000, "Collateral Great Plains/Rocky Mountain Hazardous Substance Research Center Program."

Erickson, L., and **Hayter, R.** (Ext Engg), US Envir Prot Agency, \$1,857,978, "Great Plains/Rocky Mountain Hazardous Substance Research Center."

Erickson, L., US Dept of Health & Human Serv, \$8,000, "NIEHS Travel Support for 1998 Conference."

CHEMICAL ENGINEERING

Edgar, J., Nat'l Sci Found, \$92,950, "Synthesis and Characterization of Silicon Carbide—Group III Nitrides Layered Structures and Alloys."

Edgar, J., US Dept of Defense, \$18,000, "Comprehensive AIN Source Materials, Single Crystal and Substrate Development Program."

Edgar, J., US Navy, \$10,000, "Sublimation Crystal Growth of Aluminum Nitride."

Edgar, J., US Dept of Defense, \$23,000, "Pressure Dependence of AIN Growth Rate."

Edgar, J., US Dept of Defense, \$19,999, "Optimization of Seeding for AIN Growth."

Erickson, L., and **Davis, L.** (Biochemistry), Bayer Corp, \$17,059, "Vegetation-Based Remediation of Contaminated Soil and Ground Water —Phase I."

Erickson, L., and **Davis, L.** (Biochemistry), CH2M Hill, \$5,000, "Vegetation-Based Remediation of Petroleum Contaminated Soil and Ground Water."

Fan, L., KSU Foundation, \$913, "Modernization and Upgrading of Undergraduate Laboratories."

Fan, L., Nat'l Corn Growers Association, \$29,147, "Systematic Method for the Synthesis and Design of Separation Systems Involving Azeotropes for Separating Organic Chemicals from the Broth of Corn Fermentation Producing Butanol."

Fox, R., (see **Sorensen, C.**, Physics).

Glasgow, L., (see **Reddi, L.**, Civil Engg).

Jiang, S., (see **Azadivar, F.**, Advanced Manuf Inst).

Jiang, S., (see **Rahman, T.**, Physics).

Schlup, J., (see **Azadivar, F.**, Advanced Manuf Inst).

Walawender, W., (see **Azadivar, F.**, Advanced Manuf Inst).

CIVIL ENGINEERING

Banks, M., Govindaraju, R., and **Schwab, A.** (Agronomy), US Dept of Defense, \$61,697, "Phytoremediation of Soil Contaminated with Hazardous Chemicals."

Govindaraju, R., (see **Banks, M.**, Civil Engg).

Hossain, M., and **Devore, J.** (Elect & Comp Engg), Surface Systems and Instruments, LLC, \$3,580, "Evaluation of SSI-1000 Automated Profilograph."

Hossain, M., KS Dept of Transportation, \$1,989, "Development of Correlation Between Dynamic CPT Results and FWD Backcalculated Subgrade Resilient Moduli."

Hossain, M., KS Dept of Transportation, \$17,684, "Evaluation of SHRP Superpave Level-1 Mixtures."

Hossain, M., (see **Devault, J.**, Elect & Comp Engg).

Hossain, M., (see **Russell, E.**, Civil Engg).

Koelliker, J., KS Water Office, \$54,000, "Evaluation of Wet Walnut Water Supply Availability."

Melhem, H., US Dept of Transportation, \$127,500, "Accelerated Testing for Studying Pavement Design and Performance - FY98."

Najjar, Y., KS Dept of Transportation, \$25,000, "Dynamic Auto-Associative Neural Networks (DAN2): Development and Validation on Transportation Applications."

Najjar, Y., Russell, E., and **Stokes, R.**, KS Dept of Transportation, \$40,000, "Assessing the Impact of Raising the Speed Limit on Kansas Highways."

Reddi, L., Glasgow, L. (Chemical Engg), and **Marchin, G.** (Biology), Nat'l Sci Found, \$24,877, "Physicochemical and Biological Approach to Soil Filter Clogging Prevention in Infrastructure Systems."

Reddi, L., Glasgow, L. (Chemical Engg), and **Marchin, G.** (Biology), Nat'l Sci Found, \$109,152, "Development of Soil Filter Design Nomograms Incorporating Physicochemical and Biological Mechanisms."

Reddi, L., (see **Ham, J.**, Agronomy).

Russell, E., Rys, A. (Elect & Comp Engg), and **Rys, M. J.** (Ind & Manuf Sys Engg), US Dept of Transportation, \$43,867, "Study to Determine the Characteristics and Needs for Overhead Guide Sign Illumination from Vehicular Headlamps."

Russell, E., Stokes, R., Babcock, M. (Economics), and **Hossain, M.**, US Dept of Transportation, \$125,000, "Mid-America Transportation Center (MATC)."

Russell, E., US Dept of Transportation, \$1,150, "Eisenhower Faculty Fellowship."

Russell, E., US Dept of Transportation, \$88,185, "Traffic Assistance Services for Kansas (TASK)—A Joint KSU-KU Project."

Russell, E., (see **Najjar, Y.**, Civil Engg).

Russell, E., (see **Stokes, R.**, Civil Engg).

Starrett, S., US Golf Association, \$23,630, "Comparing Nutrient Losses via Runoff from a New Golf Course and the Golf Course Site's Previous Native Condition."

Stokes, R., KS Dept of Transportation, \$20,000, "Metric Guidelines for Design of 3R Projects."

Stokes, R., Russell, E., and Rys, M. (Ind & Manuf Sys Engg), KS Dept of Transportation, \$20,000, "Analysis of Rural Intersection Accidents Caused by Stop Sign Violation and Failure to Yield Right-of-Way."

Stokes, R., (see **Najjar, Y.**, Civil Engg).

Stokes, R., (see **Russell, E.**, Civil Engg).

Stokes, R., (see **Rys, M.**, Ind & Manuf Sys Engg).

COMPUTING AND INFORMATION SCIENCES

Dwyer, M., (see **Rahman, T.**, Physics).

Dwyer, M., (see **Schmidt, D.**, Computing & Info Sci).

Neilsen, M., USDA, \$67,000, "Integrated Development System for Water Resource Site Analysis."

Schmidt, D., and **Dwyer, M.**, Defense Advanced Research Projects Agency, \$193,064, "Model Construction for Finite-State Verification: Application of Abstract Interpretation and Partial Evaluation Techniques."

Wallentine, V., AT&T Technologies, \$42,935, "AT&T Summer on Campus."

Wallentine, V., Lucent Technologies, \$121,509, "Lucent Technologies Summer on Campus."

Wallentine, V., HTX, Inc., \$7,658, "Open Database Connectivity."

Wallentine, V., IBES, Inc., \$13,530, "IBES Internship Program."

OFFICE OF THE DEAN OF THE COLLEGE OF ENGINEERING

Rathbone, D., Multisponsor, \$19,000, "Pre-Enrollment Mathematics and Sciences Tutoring of Minority Engineering Recruits."

ELECTRICAL AND COMPUTER ENGINEERING

Carpenter, K., US Dept of Energy, \$49,533, "Integrated Firing-System/Initiation Train Model."

Devault, J., Hudson, W., and Hossain, M. (Civil Engg), US Dept of Transportation, \$83,352, "Robotic System for Underwater Bridge Inspection and Scour Evaluation."

Devore, J., (see **Hossain, M.**, Civil Engg).

Devore, J., (see **Madanshetty, S.**, Mech & Nuclear Engg).

Dillman, N., KS Electric Utilities Research Program, \$60,000, "Electric Vehicle Battery Management."

Fox, R., Nat'l Sci Found, \$98,591, "Efficient In-Situ and Reduced Chemistry Algorithms for Chemical Process Flow Simulation."

Fox, R., (see **Sorensen, C.**, Physics).

Gruenbacher, D., NASA, \$56,989, "Timed GPS Tracking ASIC."

Hudson, W., (see **Devault, J.**, Elect & Comp Engg).

Kuhn, W., Nat'l Sci Found, \$16,169, "RF Microelectronics for Micro/pico-cellular Wireless Systems."

Morcros, M., Nat'l Sci Found, \$91,682, "Control of Metallic Particle Contaminants in Compressed Gas Insulated Sub-Station (GIS) Equipment by Conductor Coating."

Pahwa, A., and **Starrett, S.**, Nat'l Sci Found, \$9,605, "Combined Research Curriculum Development: Flexible Power System Control."

Rys, A., (see **Russell, E.**, Civil Engg).

Simons, G. (see **Madanshetty, S.**, Mech & Nuclear Engg).

Starrett, S., Nat'l Sci Found, \$215,000, "Secure and Flexible Transmission Systems."

Starrett, S., (see **Pahwa, A.**, Elect & Comp Engg).

ENGINEERING EXPERIMENT STATION

Jones, B., (see **Hosni, M.**, Inst for Environmental Res).

INDUSTRIAL AND MANUFACTURING SYSTEMS ENGINEERING

Azadivar, F., (see **Marinescu, I.**, Ind & Manuf Sys Engg).

Ben-Arieh, D., Society of Manufacturing Engineers, \$69,612, "Enhancing Manufacturing Engineering Education."

Harnett, R., US Army, \$15,722, "Part-Time M.S. Program in Industrial Engineering—Summer 1998."

Harnett, R., US Army, \$35,855, "Part-Time M.S. Program in Industrial Engineering—Fall 1997."

Harnett, R., US Army, \$42,086, "Part-Time M.S. Program in Industrial Engineering—Spring 1998."

Harnett, R., US Army, \$431, "Part-Time M. S. Program in Industrial Engineering—Summer 1997."

Hwang, C., KSU Foundation, \$18,755, "Fuzzy Multiple Criterion Decision Making."

Kramer, B., KSU Foundation, \$22,791, "Applications of Artificial Intelligence to Decision Making for Logistic Systems."

Kramer, B., (see **Marinescu, I.**, Ind & Manuf Sys Engg).

Marinescu, I., Azadivar, F., Wu, C., and Kramer, B., Nat'l Sci Found, \$15,822, "High-Frequency Data Acquisition and Signal Process System for In-Process Abrasive Machining Damage Assessment Using Acoustic Emission."

Ordoobadi, S., (see **Azadivar, F.,** (Advanced Manuf Inst).

Rys, M., and Stokes, R. (Civil Engg), US Dept of Transportation, \$10,220, "Object Markers at Narrow Bridges."

Rys, M., (see **Russell, E.,** Civil Engg).

Rys, M., (see **Stokes, R.,** Civil Engg).

Wilson, C., US Dept of Energy, \$51,550, "Wear Testing of BPDC Materials."

Wu, C., (see **Madanshetty, S.,** Mech & Nuclear Engg).

Wu, C., (see **Marinescu, I.,** Ind & Manuf Sys Engg).

INSTITUTE FOR ENVIRONMENTAL RESEARCH

Hosni, M., and Jones, B., Steelcase North America, \$25,500, "Design, Instrumentation, and Evaluation of a Sweating Buttocks Apparatus for Determination of Moisture Dissipation in Fabrics."

Hosni, M., and Jones, B., American Society Heat Ref-Air Cond Engg Inc., \$60,381, "Measurement of Heat Gain and Radiant/Convective Split from Equipment in Buildings."

Hosni, M., Steelcase North America, \$20,148, "Experimental Determination of the Thermal and Evaporative Properties of Selected Fabrics and Foams."

Hosni, M., Multisponsor, \$120,388, "Institute for Environmental Research Support."

Hosni, M., (see **Jones, B.,** Mech & Nuclear Engg).

Jones, B., American Society Heat Ref-Air Cond Engg Inc., \$7,500, "ASHRAE Graduate Grant-In-Aid."

KANSAS INDUSTRIAL EXTENSION SERVICES

Nelson, R., KS Corp Commission, \$20,000, "Prestige, Inc. and Riley County/City of Manhattan Wood Waste Assessment and Utilization."

Nelson, R., KS Corp Commission, \$20,000, "SODAR Wind Resource Data Collection."

Nelson, R., KS Dept of Health & Environment, \$31,500, "Wood Waste Assessment and Utilization Study."

Nelson, R., and Eberle, W. (Agronomy), KS Dept of Health & Environment, \$40,000, "Waste Characterization Study."

Nelson, R., Riley County, \$7,500, "Wood Waste Assessment and Utilization Study."

Snead, B., KS Dept of Health & Environment, \$155,215, "Radon Projects for Kansas."

Snead, B., US Envir Prot Agency, \$9,797, "Regional Radon Training Center."

Snead, B., US Envir Prot Agency, \$4,841, "Radon Training in Michigan."

Snead, B., US Envir Prot Agency, \$19,988, "State Indoor Radon Program - Missouri."

Waters, J., KS Dept of Health & Environment, \$157,000, "Proposed Activities for the Small Business Stationary Source Technical and Environmental Compliance Assistance Program."

MECHANICAL AND NUCLEAR ENGINEERING

Beck, B., American Society Heat Ref-Air Cond Engg Inc., \$4,990, "Construction of a General-Purpose Conduction Apparatus for the Undergraduate Engineering Laboratory."

Beck, B., (see **Madanshetty, S.,** Mech & Nuc Engg).

Beck, B., (see **White, W.,** Mech & Nuc Engg).

Chapman, K., and Reichert, B., American Gas Association, \$50,000, "National Gas Machinery Laboratory."

Chapman, K., and Reichert, B., Gas Research Institute, \$100,000, "Development and Construction of the Turbocharger Test and Research Facility."

Chapman, K., and Reichert, B., KS Technology Enterprise Corp (KTEC), \$300,000, "National Gas Machinery Laboratory."

Eckhoff, N., Nat'l Academy for Nuclear Training, \$13,000, "Fellowships of the National Academy for Nuclear Training."

Fenton, D., American Society Heat Ref-Air Cond Engg Inc., \$34,171, "Secondary Properties of Ammonia/Water Solutions."

Gorder, P., KS Technology Enterprise Corp (KTEC), \$4,000, "SIU Administration."

Gorder, P., (see **Uhlarik, J.,** Psychology).

Hosni, M., (see **Sorensen, C.,** Physics).

Jones, B., Hosni, M., and Meng, H., American Society Heat Ref-Air Cond Engg Inc., \$97,331, "Interaction of Air Motion and the Human Body in Confined Spaces."

Kelkar, A., and Madanshetty, S., Nat'l Sci Found, \$305,604, "Energy Extraction-Based Feedback Control Methods for Silencing Noise."

Kelkar, A., NASA, \$29,094, "Passivity-Based Robust Control of Aerospace Systems."

Kelkar, A., NASA, \$47,681, "Generalized Predictive and Neural Generalized Predictive Control of Aerospace Systems."

Kelkar, A., Nat'l Sci Found, \$25,000, "Robust Control of Passive and Non-Passive Aerospace Systems."

Kelkar, A., (see **Uhlarik, J.,** Psychology).

Krishnaswami, P., (see **Azadivar, F.,** Advanced Manuf Inst).

Lease, K., KS Technology Enterprise Corp (KTEC), \$47,850, "Development of a Digital Image Based Inspection Technique for the Quality Control of Phosphoric Acid Anodized Surfaces Used in Structural Adhesive Bonding."

Lease, K., Nat'l Sci Found, \$24,500, "Graduate Research Fellowship (Stroede)."

Lease, K., Wichita State University, \$58,115, "Fatigue Analysis Software for Use in Civil Aviation."

Lease, K., (see **Sherwood, P.,** Chemistry).

Madanshetty, S., Beck, B., Wu, C. (Ind & Manuf Sys Engg), **Devore, J.** (Elect & Comp Engg), **Simons, G.** (Elect & Comp Engg), and **Meng, H.,** Nat'l Sci Found, \$599,541 (includes \$100,000 from Kansas Technology Enterprise Corporation), "Non-Contact Diagnostics in Manufacturing: A New Precision Measurement Laboratory."

Madanshetty, S., Nat'l Sci Found, \$33,000, "Acoustic Microcavitation Assisted Fine Cleaning of Post CMP Wafers."

Madanshetty, S., US Navy, \$2,500, "Demonstration of Hydrodynamic Cavitation."

Madanshetty, S., (see **Kelkar, A.**, Mech & Nuc Engg).

Meng, H., Multisponsor, \$75,000, "New Approaches of Holographic Particle Velocimetry for Studying Turbulence."

Meng, H., Nat'l Sci Found, \$98,100, "New Approaches of Holographic Particle Velocimetry for Studying Turbulence."

Meng, H., US Dept of Defense, \$154,909, "Nonequilibrium Turbulence Study Using Holographic Particle Image Velocimetry."

Meng, H., (see **Jones, B.**, Mech & Nuc Engg).

Meng, H., (see **Madanshetty, S.**, Mech & Nuc Engg).

Meng, H., (see **Sorensen, C.**, Physics).

Reichert, B., (see **Chapman, K.**, Mech & Nuc Engg).

Ryan, B., US Dept of Energy, \$6,500, "University Reactor Sharing."

Shultis, K., (see **Rahman, T.**, Physics).

Swenson, D., NASA, \$50,000, "Crack Growth Prediction Methodology for Multi-Site Damage: Layered Analysis and Growth During Plasticity."

Swenson, D., US Dept of Energy, \$152,227, "Modeling Production/Injection Strategies in Fracture-Dominated Geothermal Reservoirs."

Walker, H., KS Dept of Transportation, \$140,200, "Redesign and Testing of Composite Bridge Deck Panels."

Walker, H., US Dept of Transportation, \$34,999, "Redesign and Testing of Composite Bridge Deck Panels."

Wang, Y., Fastenix Corp, \$1,950, "Finite Element Modeling of Screws."

Wang, Y., Fastenix Corp, \$11,250, "Design Analysis of Fasteners."

Wang, Y., Nat'l Sci Found, \$18,000, "Exploration of the Manufacture of Protein Polymer Composites."

Wang, Y., (see **Sherwood, P.**, Chemistry).

White, W., and **Beck, B.**, American Society Heat Ref-Air Cond Engg Inc., \$4,900, "Apparatus to Demonstrate Thermal Environmental Control for the Undergraduate Controls Laboratory."

NATIONAL GAS MACHINERY LABORATORY

Chapman, K., American Society Heat Ref-Air Cond Engg Inc., \$56,537, "Development of a Simplified Methodology to Incorporate Radiant Heaters over 300 Degrees F into Thermal Comfort Calculators."

NATIONAL INSTITUTE FOR LAND MANAGEMENT AND TRAINING

Biles, B., Multisponsor, \$6,500, "GRANT Project."

Steichen, J., US Envir Prot Agency, \$60,025, "Integrated Pest Management Instructional Video Program."

Steichen, J., City of Manhattan, KS, \$4,150, "Development of Street Segment Coverage Using ArcInfo and Linkage of PMS and GIS."

COLLEGE OF HUMAN ECOLOGY

CLOTHING, TEXTILES, AND INTERIOR DESIGN

Bode, M., USDA, \$2,500, "Healthy Indoor Air for Kansas Homes."

Cushman, L., (see **LeHew, M.**, Cloth, Textiles & Int Des).

Gatewood, B., United Soybean Board, \$83,500, "Soybean Alkyd Resins in Pigment Printing of Textiles and Materials."

LeHew, M., and **Cushman, L.**, Int'l Council of Shopping Centers Educational Foundation, \$9,511, "Time Sensitive Consumers' Preference for Concept Clustering: An Investigation of Mall Tenant Placement Strategy."

Ramaswamy, G., USDA, \$8,100, "Weathering Studies to Evaluate Flammability and Water Repellancy of Kenaf Textiles."

White, B., and **Bode, M.**, KS Dept of Commerce & Housing, \$1,847, "Kansas Housing Template Development."

FOODS AND NUTRITION

Chambers IV, E., Frito Lay, Inc., \$291,976, "Consumer Perception of Products Under Extended Use."

Chambers IV, E., USDA, \$5,152, "Subcontract for Dietary Recall Research."

Chambers IV, E., Fort James Corp, \$23,010, "Odor of Plastics."

Chambers IV, E., US Dept of Health & Human Serv, \$24,851, "NHANES IV Dietary Interview Methodology Research."

Chambers IV, E., and **Chambers, D.**, Peryam & Kroll Research Corp, \$28,750, "Evaluation of Product Characteristics."

Chambers IV, E., Coca-Cola Company, \$14,000, "Product Methods Testing."

Chambers, IV, E., Multisponsor, \$282,954, "Sensory Analysis Center Support."

Chambers, D., USDA, \$5,500, "Validation of Portion-Size Estimation Aids."

Chambers, D., (see **Chambers IV, E.**, Foods & Nutr).

Peters, P., USDA, \$954,080, "Kansas Family Nutrition Program."

Setser, C., (see **Brent, J.**, Grain Sci & Ind).

Setser, C., (see **Klopfenstein, C.**, Grain Sci & Ind).

HOTEL, RESTAURANT, INSTITUTION MANAGEMENT AND DIETETICS

Canter, D., American School Food Service Association, \$6,000, "Editorship of School Food Service Research Review."

Gould, R., KS Health Foundation, \$8,199, "Kansas LEAN Validation Study."

Miller, J., US Dept of Educ, \$67,306, "Re-Engineering the Distance 'Classroom' Using Desktop Videoconferencing."

Shanklin, C., (see **Flores, R.**, Grain Sci & Ind).

SCHOOL OF FAMILY STUDIES AND HUMAN SERVICES

Bollman, S., DeLuccie, M., Murray, J., Glasscock, M., and Olsen, C., USDA, \$160,000, "Children, Youth and Families Network for Action: Child Care."

Bollman, S., KS Child Care Training Opportunities, Inc, \$25,722, "Flint Hills Resource and Referral Project."

Bollman, S., KS Child Care Training Opportunities, Inc, \$3,000, "Concordia Family Resource Council."

Bollman, S., KS Child Care Training Opportunities, Inc, \$321,783, "Kansas Child Care Training Opportunities."

Bollman, S., (see **Griffin, C.**, Fam Studies & Human Serv).

DeLuccie, M., and Glasscock, M., US Dept of Health & Human Serv, \$33,650, "Bringing Essential Support and Training (B.E.S.T.) to Kansas Infant-Toddler Caregivers Project."

DeLuccie, M., US Dept of Educ, \$83,757, "Beyond the Child Development."

DeLuccie, M., US Dept of Health & Human Serv, \$108,803 (includes \$68,712 from USD #383), "Kindergarten Day Care at Roosevelt Elementary."

DeLuccie, M., US Dept of Health & Human Serv, \$7,382, "Stone House Child Care Center Quality Enhancement Project."

DeLuccie, M., USD 383, Manhattan KS, \$16,107, "Early Childhood Lab."

DeLuccie, M., USD 383, Manhattan KS, \$27,451, "USD 383 —ASC (After School Care)."

DeLuccie, M., (see **Bollman, S.**, Fam Studies & Human Serv).

Glasscock, M., (see **Bollman, S.**, Fam Studies & Human Serv).

Glasscock, M., (see **DeLuccie, M.**, Fam Studies & Human Serv).

Griffin, C., and Bollman, S., US Dept of Health & Human Serv, \$153,663, "Social and Rehabilitation Services Mediation Training and Curriculum Development."

Jurich, A., and O'Conner, N., KS Dept of Social & Rehabilitation Services, \$169,036, "Family Preservation Services."

McFarland, M., (see **McFarland, M.**, Extension Family and Consumer Science).

Miller, R., KS Dept on Aging, \$13,500, "Evaluation of Aging Problems."

Miller, R., KS Dept on Aging, \$33,600, "Senior Care Act Evaluation."

Murray, J., (see **Bollman, S.**, Fam Studies & Human Serv).

O'Conner, N., (see **Jurich, A.**, Fam Studies & Human Serv).

Olsen, C., (see **Bollman, S.**, Fam Studies & Human Serv).

Poresky, R., KS Commission on Veterans Affairs, \$66,000, "Kansas Persian Gulf War Veterans Health Initiative Survey."

Poresky, R., US Dept of Health & Human Serv, \$181,345, "Pilot Study of State Performance and Outcome Measurement for Substance Abuse Treatment: State of Kansas."

Schumm, W., and Webb, F., State of Ohio, \$16,019, "Ohio Women Veterans Survey Project."

Webb, F., (see **Schumm, W.**, Fam Studies & Human Serv).

Wilken, C., KS Health Foundation, \$1,227, "Health Promotion for Older Kansans."

Wilken, C., US Dept of Health & Human Serv, \$49, "Social and Rehabilitation Services/KSU Para-Professional Training Program."

Wilken, C., (see **Wilken, C.**, Extension Family and Consumer Sciences).

COLLEGE OF TECHNOLOGY AND AVIATION

OFFICE OF THE DEAN OF THE COLLEGE OF TECHNOLOGY AND AVIATION

Homolka, R., State of Kansas Department of Education, \$50,000, "Kansas Tech Prep."

ARTS, SCIENCE AND BUSINESS

Handley, M., and Swanson, S. (Engg Tech), Nat'l Sci Found, \$28,000, "Development of a Spectroscopy Laboratory."

Thompson, S., KS Water Office, \$26,050, "Geodetic Control of the PLSS Plan."

Thompson, S., KS Water Office, \$47,542, "GPS Base Station Operation and Technical Support."

ENGINEERING TECHNOLOGY

Buchwald, D., Society of Manufacturing Engineers, \$447,740, "Automated Manufacturing Laboratory."

Buchwald, D., (see **Spaulding, G.**, Engg Tech).

Spaulding, G., and Buchwald, D., Nat'l Sci Found, \$31,500, "Rapid Prototyping Supported Plastic Injection Molding Education."

Swanson, S., (see **Handley, M.**, Arts, Sci & Bus).

COLLEGE OF VETERINARY MEDICINE

ANATOMY AND PHYSIOLOGY

Claassen, D., (see **Kenney, M.**, Anat & Phys).

Dunn, J., US Dept of Health & Human Serv, \$28,616, "Short-Term Training Students in Health Professional Schools."

Erickson, H., KS Racing and Gaming Commission, \$10,000, "Is There a Limitation in Cardiac Function that Leads to Exercise-Induced Pulmonary Hemorrhage in the Sprinting Horse?"

Kenney, M., and Claassen, D., US Dept of Health & Human Serv, \$34,144, "Control of Sympathetic Nerve Responses to Hypothermia."

Kenney, M., US Dept of Health & Human Serv, \$100,471, "Control of Rhythmic Sympathetic Activity in Acute Stress."

McAllister, R., US Dept of Health & Human Serv, \$92,863, "Exercise: Muscle Blood Flow, Vascular Adaptations."

McAllister, R., American Heart Assoc., KS Affiliate, Inc., \$31,800, "Nitric Oxide Synthase: Control by Shear Stress and Humoral Agents."

McAllister, R., (see **Barstow, T.**, Kinesiology).

Pickar, J., Foundation for Chiropractic Education and Research, \$78,273, "Neurophysiological Responses to Lumbar Facet Movement."

Pickar, J., US Dept of Health & Human Serv, \$10,800, "Creating the Consortial Center for Chiropractic Research."

Quadri, S., US Dept of Health & Human Serv, \$115,153, "Neuroendocrinology of Reproductive Aging in Rats."

Schultz, B., Cystic Fibrosis Foundation, \$90,000, "Sulfonylureas and CFTR."

Weiss, M., US Dept of Health & Human Serv, \$142,730, "Neural Circuitry of the Kidney."

Westfall, J., Nat'l Sci Found, \$13,852, "Neurons and Neuropeptides in Sea Anemones."

CLINICAL SCIENCES

Brightman, A., Fenwick, B. (Diag Med/Pathobiology), and **Takemoto, D.** (Biochemistry), ISIS Pharmaceuticals, \$25,920, "Preliminary Evaluation of Antisense on the Course of Experimentally Induced Diabetic Retinopathy and Proliferative Vitreoretinopathy in the Rat Eye."

Carpenter, J., City of Manhattan, KS, \$16,000, "Veterinary Services at the Sunset Zoological Park, Manhattan, Kansas."

DeBowes, R., Ross University, \$8,266, "Clinical Training for Ross University School of Health Sciences."

Finley, M., (see **Kapil, S.**, Diag Med/Pathobiology).

Fortney, W., KS Racing and Gaming Commission, \$5,000, "Surveillance and Diagnostic Correlation of Enterotoxigenic Clostridium Perfringens Diarrhea in Kansas Greyhounds."

Gaughan, E., KS Racing and Gaming Commission, \$4,000, "Biomechanical Characteristics of a Multiplanar Circular External Fixator for Use in Equine Long Bone Fracture Repair."

Gaughan, E., (see **Lillich, J.**, Clinical Sci).

Hickman, M., US Dept of Health & Human Serv, \$29,956, "Amino Acid Regulation of Gene Expression in Neural Cells."

Lillich, J., van Herrevelde, P., and Gaughan, E., KS Racing and Gaming Commission, \$16,000, "Cast Immobilization Followed by Exercise as a Model for Osteoarthritis in Horses."

McMurphy, R., Burroughs Wellcome Fund, \$4,148, "Use of Transesophageal Echocardiography in Anesthetized Horses to Evaluate the Effects of Dobutamine Infusion for Treatment of Hypotension."

Rush, B., 3M Corp, \$11,355, "Dose-Response of Aerosolized Beclomethasone Dipropionate in Horses with Recurrent Airway Obstruction."

Rush, B., 3M Corp, \$5,740, "Pulmonary Distribution of Radiolabelled Aerosol in Horses with Chronic Obstructive Pulmonary Disease."

Rush, B., 3M Corp, \$6,754, "Endogenous Cortisol Production in Response to Dose-Titration of Aerosolized Beclomethasone Dipropionate."

Rush, B., Bayer Corp, \$70,080, "Characterization of Peripheral Blood and Pulmonary Leukocyte Function in Foals."

van Herrevelde, P., (see **Lillich, J.**, Clinical Sci).

OFFICE OF THE DEAN OF THE COLLEGE OF VETERINARY MEDICINE

Stewart, P., (see **Kapil, S.**, Diag Med/Pathobiology).

Willard, G., KS Library Network, \$6,950, "Kansas Library Network, Animals in Society."

DIAGNOSTIC MEDICINE/PATHOBIOLOGY

Briggs, D., Chiron Behring, \$70,000, "Investigation of Antibody Response to Rabies Purified Chick Embryo Cell Vaccine (PCECV) of HDCV in Healthy Adult Volunteers."

Briggs, D., Morris Animal Foundation, \$15,000, "Pathogenesis of Bat Rabies Variants in Ferrets."

Chengappa, M., (see **Nagaraja, T.**, Animal Sci & Ind).

Chowdhury, S., Fort Dodge Laboratories, \$15,000, "Construction and In Vitro Characterization of a Multiple Gene-Deleted Recombinant Bovine Herpesvirus 1."

Chowdhury, S., Kennedy, G., and Mosier, D., USDA, \$180,000, "BHV-1 and BHV-5 Neuropathogenesis Studies."

Dryden, M., and Ridley, R., DowElanco, \$42,536, "Evaluation of Orally Administered, Systemically Active Insect Growth Regulators."

Dryden, M., Fort Dodge Animal Health, \$33,101, "Efficacy Determination of Topically Applied AC-395191 Against Fleas on Cats."

Dryden, M., (see **Charlton, R.**, Entomology).

Fenwick, B., KS Racing and Gaming Commission, \$26,000, "Why Do Current Vaccines Fail to Reliably Prevent Kennel Cough in Racing Greyhounds?."

Fenwick, B., US Dept of Health & Human Serv, \$176,785, "Development of a Canine Model of E. coli Induced Hemorrhagic Colitis and Hemolytic Uremic Syndrome."

Fenwick, B., (see **Brightman, A.**, Clinical Sciences).

Kapil, S., and Nietfeld, J., DeKalb Swine Breeders, Inc., \$360, "Confidentiality Agreement—In-Kind Gift of Pigs."

Kapil, S., and Stewart, P., Schering Plough Animal Health, \$14,275, "Development of Challenge Virus Stock of Bovine Coronavirus (Types I and III)."

Kapil, S., Schering Plough Animal Health, \$16,538, "Preparation of Vaccine Master Seed Stocks for Antigenic Subtypes I and III of Bovine Coronavirus."

Kapil, S., Stewart, P., Kennedy, G., and Finley, M. (Clinical Sci), Schering Plough Animal Health, \$34,803, "Development of a Bovine Coronavirus Challenge Model in Nursing Calves."

Kennedy, G., (see **Chowdhury, S.**, Diag Med/Pathobiology).

Kennedy, G., (see **Kapil, S.**, Diag Med/Pathobiology).

Mosier, D., (see **Chowdhury, S.**, Diag Med/Pathobiology).

Nietfeld, J., (see **Kapil, S.**, Diag Med/Pathobiology).

Ridley, R., (see **Dryden, M.**, Diag Med/Pathobiology).

Stewart, G., US Dept of Health & Human Serv, \$139,781, "Cell Division Gene Products of Bacillus Subtilis."

Stewart, P., (see **Kapil, S.**, Diag Med/Pathobiology).

FOOD ANIMAL HEALTH AND MANAGEMENT CENTER

Dritz, S., (see **Tokach, M.**, NE Area Off).

Gillespie, J., USDA, \$198,172, "Ecology of E.Coli 0157:H7 in Beef Cow-Calf Operations from Ranch Through Feedlot."

Spire, M., and Drouillard, J. (Animal Sci & Ind), Fort Dodge Animal Health, \$7,849, "Early Detection of Problem Implants Using Infrared Thermography."

Spire, M., Fort Dodge Animal Health, \$7,933, "Determination of Thermal Characteristics of Bovine Ears Using Infrared Thermography Following the Administration of Growth Promoting Implants."

KANSAS COOPERATIVE EXTENSION SERVICE

AGRICULTURAL ECONOMICS

Barnaby, G., Sartwelle III, J. (SW Area Off), **Tierney, W.**, and **O'Brien, D.** (NW Area Off), KS Dept of Ag, \$25,933, "Managing Marketing and Production Risk in the Post Deficiency Payment Period."

Barnaby, G., Sartwelle III, J. (SW Area Off), **Tierney, W.**, and **O'Brien, D.** (NW Area Off), KS Dept of Ag, \$20,000, "Managing Marketing and Production Risk in the Post Deficiency Payment Period."

Flinchbaugh, B., USDA, \$150,000, "Risk Management Education: A Risk Management Club Approach."

Flinchbaugh, B., USDA, \$62,500, "Establishment of Risk Management Clubs."

Leatherman, J., KS Dept of Health & Environment, \$55,000, "Kansas Local Government Water Quality Planning and Management Guide and Education Program."

Tierney, W., (see **Barnaby, G.**, Ext Ag Econ).

AGRONOMY

Devlin, D., Regehr, D., Staggenborg, S. (NE Area Off), and **Barnes, P.** (Biol & Agri Engg), US Envir Prot Agency, \$80,000, "Reducing Atrazine Runoff—Blue River and Delaware River."

Devlin, D., (see **Pierzynski, G.**, Agronomy).

Fjell, D., (see **Duncan, S.**, SC Area Off).

Fjell, D., (see **Gordon, W.**, Agronomy).

Fjell, D., (see **Maddux, L.**, Agronomy).

Fjell, D., (see **Shroyer, J.**, Ext Agronomy).

Fjell, D., (see **Staggenborg, S.**, NE Area Off).

Horak, M., (see **Peterson, D.**, Agronomy).

Peterson, D., (see **Staggenborg, S.**, NE Area Off).

Regehr, D., (see **Devlin, D.**, Ext Agronomy).

Shroyer, J., and **Fjell, D.**, Finnup Foundation, \$15,000, "On-Farm Wheat Action Research: An Educational Program."

Shroyer, J., and **Fjell, D.**, KS Wheat Comm, \$15,000, "On-Farm Wheat Action Research: An Educational Program."

ANIMAL SCIENCES AND INDUSTRY

Aramouni, F., KS Dept of Commerce & Housing, \$8,500, "Quick Reference Guide for Food Processors."

Blasi, D., Multisponsor, \$11,100, "Wheat Middling Evaluations."

Boyle, E., KS Dept of Commerce & Housing, \$14,000, "Food and Feed Value Added Program."

BIOLOGICAL AND AGRICULTURAL ENGINEERING

Harner III, J., US Envir Prot Agency, \$150,000, "Black Vermillion Dairy Environmental Cooperative."

Harner III, J., US Envir Prot Agency, \$4,950, "Wetland Cell for Treating Milk Parlor Wash Water."

Harner III, J., US Envir Prot Agency, \$27,000, "Nichols Dairy Livestock Pollution Control Demonstration Project."

Rogers, D., (see **Clark, G.**, Biol & Agri Engg).

Taylor, R., (see **Staggenborg, S.**, NE Area Off).

COMMUNITY HEALTH

Johannes, E., US Dept of Health & Human Serv, \$25,000, "Immunize for Life Promotion and Education Grant."

Johannes, E., US Dept of Health & Human Serv, \$6,375, "Public Health Distance Learning."

Johannes, E., US Dept of Health & Human Serv, \$105,244 (includes \$43,840 from Kansas Mental Health and Aging Coalition), "Mental Health and Aging: Distance Learning Addressing the Mental Health Needs of Older Adults of Whom Many are Medicaid-Eligible."

Johannes, E., USDA, \$215,000, "Offender Prevention and Education Network of Kansas (OPEN-K)."

Nansel, T., (see **Rolf, J.**, Community Hlth).

Rolf, J., and **Terry, R.** (Communications), USDA, \$27,720, "National Network for Health."

Rolf, J., Robert Wood Johnson Foundation, \$1,000, "Agreement Between Kansas Smokeless Kids Initiative, Inc. and KSU Research and Extension Office of Community Health."

Rolf, J., KS Dept of Health & Environment, \$3,574, "Cooperative Agreement Between KS Dept of Health & Environment and Cooperative Extension Service, Kansas State University."

Rolf, J., US Dept of Health & Human Serv, \$16,789, "Testing Theoretical Model for AODA and HIV Prevention."

Rolf, J., US Dept of Health & Human Serv, \$26,653, "Rural Network Development Grant Program."

Rolf, J., USDA, \$18,000, "Cooperative Agreement Between Kansas State Board of Education and Kansas State University."

Rolf, J., Wilkinson, Anna V. (Inst for Social & Behav Res), and **Nansel, T.**, Cloud County Community Resources Council, \$8,555, "Health Needs Assessment for Children Ages 12 and Under in Cloud County, Kansas."

DIRECTOR OF COOPERATIVE EXTENSION

Henley, G., KS State Department of Education, \$23,373, "Kansas Health and Safety Extension Corps."

Henley, G., KS Office for Community Service, \$1,400, "Kansas Health and Safety Extension Corps PDAT Training."

Lindquist, J., KS Agriculture and Rural Leadership, \$50,286, "Kansas Agriculture and Rural Leadership, Inc."

Wootton, R., and **Lindquist, J.** (NE Area Off), USDA, \$66,000, "Haskell Extension Program for American Indian Youth."

ENTOMOLOGY

Cress, D., USDA, \$41,515, "Pesticide Applicator Training Program."

Cress, D., USDA, \$20,712, "Kansas Pesticide Impact Assessment Program."

EXTENSION ENERGY

Hayter, R., KS Dept of Commerce & Housing, \$9,350, "Technical Assistance and Training for the Kansas Weatherization Assistance Programs."

Matteson, D., US Dept of Energy, \$36,941, "Achieve Compliance with the Model Energy Code (1993) for Residential Buildings and ASHRAE/IES Standard 1989-90.1 for Commercial Buildings as Adopted by the State of Kansas."

Meyer, G., US Dept of Energy, \$112,929, "Increase Public and Building Industry Awareness of Kansas Energy Standards Statutes."

Meyer, G., Nat'l Institute of Standards & Technology, \$9,937, "Life Cycle Cost Workshop."

Meyer, G., KS Corp Commission, \$59,636, "Kansas Energy Extension Service."

Meyer, G., KS Dept of Health & Environment, \$104,596, "Pollution Prevention Project."

Nelson, R., (see **Langemeier, M.**, Ag Econ).

Snead, B., Michigan Department of Public Health, \$4,231, "Radon Resistant New Construction Workshops in Michigan."

Snead, B., US Envir Prot Agency, \$8,000, "Tools for Schools Presentations - Nebraska Department of Health."

Snead, B., State of Iowa, \$11,677, "Tools for Schools Presentations."

Snead, B., US Envir Prot Agency, \$21,426, "Indoor Air Quality Tools for Schools Demonstrations and Workshop for U. S. EPA Region 7."

EXTENSION ENGINEERING

Hayter, R., (see **Erickson, L.**, Hazardous Sub Res Ctr).

Meyer, G., US Envir Prot Agency, \$1,630, "Pollution Prevention Incentives for States."

EXTENSION FAMILY AND CONSUMER SCIENCES

Bode, M., (see **White, B.**, Clothing, Textiles & Int Design).

Clarke, M., Philip Morris Foundation, \$10,000, "Kansas Nutrition Network."

McFarland, M., USDA, \$780,021, "Army School-Age and Teen Project, Task 1."

Olsen, C., and **Price, M.** (SE Area Off), United Methodist Health Ministry Fund, \$260, "Step by Step: A Program for Stepfamilies."

Wilken, C., KS Health Foundation, \$171,960, "PATH—What Works."

HORTICULTURE, FORESTRY AND RECREATION RESOURCES

Cress, D., USDA, \$2,000, "NC Region IR-4 Leader Lab Program to Clear Pest Control Agents for Minor Uses."

KANSAS FOREST SERVICE

Aslin, R., USDA, \$19,475, "Environmental Quality Incentives Program."

Aslin, R., USDA, \$1,000, "Forestry Incentives Program."

Aslin, R., USDA, \$6,000, "Natural Resource Conservation Education."

Aslin, R., USDA, \$6,000, "Stewardship Incentive Program."

Aslin, R., USDA, \$5,000, "Rural Development Program."

Aslin, R., USDA, \$137,600 (includes \$68,800 from Rural Fire Districts), "Rural Fire Prevention and Control—Cooperative Forestry Financial Assistance."

Aslin, R., USDA, \$7,800, "Conservation Reserve Program (CRP-15)."

Aslin, R., USDA, \$1,062,738 (includes \$398,038 from Rural Fire Districts), "Consolidated Grants Program—Cooperative Forestry Assistance."

NORTHEAST AREA OFFICE

Dhuyvetter, K., (see **Gordon, W.**, Agronomy).

Dhuyvetter, K., (see **Maddux, L.**, Agronomy).

Dhuyvetter, K., (see **Staggenborg, S.**, NE Area Off).

Killian, E., USDA, \$15,000, "Evaluation: Children Cluster."

Staggenborg, S., **Gordon, W.** (Agronomy), **Dhuyvetter, K.** (SW Res Ext Ctr), **Fjell, D.** (Prod Mgmt & Nat Resource Dev), **Devlin, D.** (Agronomy), and **Marsh, B.** (Agronomy), KS Dept of Ag, \$10,020, "Effect of Variable Rate-Precision Planting on Corn Yields"

Staggenborg, S., **Gordon, W.** (Agronomy), **Dhuyvetter, K.**, **Fjell, D.** (Agronomy), and **Peterson, D.** (Agronomy), KS Dept of Ag, \$8,000, "Evaluating Roundup-Ready Soybean Yield Potential Under Different Weed Management Strategies."

Staggenborg, S., **Taylor, Randel K.** (Biol & Agri Engg), **Dhuyvetter, K.**, and **Fjell, D.** (Agronomy), KS Dept of Ag, \$15,000, "Assessing the Role of Infrared Images and Yield Maps in Corn Production."

Staggenborg, S., (see **Devlin, D.**, Agronomy).

Staggenborg, S., (see **Duncan, S.**, SC Area Off).

Staggenborg, S., (see **Gordon, W.**, Agronomy).

Staggenborg, S., (see **Maddux, L.**, Agronomy).

Tokach, M., Earthrise Animal Health, \$13,007, "Influence of Spirulina Platensis on Starter Pig Performance."

Tokach, M., **Nelssen, J.** (Animal Sci & Ind), **Goodband, R.** (Animal Sci & Ind), and **Dritz, S.** (Food Animal Health & Mgmt Ctr), Griffin Industries, \$10,058, "Evaluation of Flash-Dried Poultry Protein as a Protein Source for Phase II Starter Pig Diets."

Tokach, M., (see **Goodband, R.**, Animal Sci & Ind).

NORTHWEST AREA OFFICE

Brown, R., **O'Brien, D.**, and **Fjell, D.** (Agronomy), KS Dept of Ag, \$6,800, "Hybrid Maturity and Plant Population on Yields in a Wheat-Corn Fallow Rotation."

O'Brien, D., (see **Barnaby, G.**, Ag Econ).

O'Brien, D., (see **Brown, R.**, NW Area Off).

O'Brien, D., (see **Stahlman, P.**, Ag Res Ctr-Hays).

PRODUCTION MANAGEMENT AND NATURAL RESOURCE DEVELOPMENT

Buchholz, D., and **Johnson, M.** (Dean of Agri & Dir of AES), USDA, \$266,315, "Farmers Assistance Counseling and Training Service (FACTS) Including the Agricultural Mediation Program."

Buchholz, D., KS Farm Service Agency, \$1,781, "Memorandum of Understanding Between Kansas Agricultural Mediation Service (KAMS) and Kansas Farm Service Agency (FSA)."

Buchholz, D., USDA, \$2,080, "Memorandum of Understanding Between Kansas Agricultural Mediation Services (KAMS) and Kansas Natural Resources Conservation Service (NRCS)."

Buchholz, D., and **Janke, R.** (Agronomy), USDA, \$11,500, "North Central Sustainable Agriculture Education Program."

SOUTH CENTRAL AREA OFFICE

Blasi, D., **Titgemeyer, E.** (Animal Sci & Ind), and **Drouillard, J.** (Animal Sci & Ind), KS Dept of Ag, \$33,014, "Soyhulls as an Energy Source in Roughage-Free Diets for Growing Cattle."

Blasi, D., (see **Drouillard, J.**, Animal Sci & Ind).

Duncan, S., **Martin, V.** (Agronomy), **Gordon, W.** (Agronomy), **Heer, W.** (Agronomy), **Warmann, G.**, **Fjell, D.** (Agronomy), **Staggenborg, S.** (NE Area Off), and **Claassen, M.** (Agronomy), KS Dept of Ag, \$7,500, "Grain Sorghum in the Central Corridor of Kansas - An Extension Education Program."

Duncan, S., **Martin, V.** (Agronomy), **Gordon, W.** (Agronomy), **Heer, W.** (Agronomy), **Warmann, G.**, **Fjell, D.** (Agronomy), **Staggenborg, S.** (NE Area Off), and **Claassen, M.** (Agronomy), KS Dept of Ag, \$7,500, "Soybeans in the Central Corridor of Kansas - An Extension Education Program"

Warmann, G., (see **Duncan, S.**, SC Area Off).

Warmann, G., (see **Stahlman, P.**, Ag Res Ctr-Hays).

SOUTHEAST AREA OFFICE

Fausett, M., (see **Kilgore, G.**, SE Area Off).

Kilgore, G., and **Fausett, M.**, KS Dept of Ag, \$22,360, "Extension Program to Determine Optimum Seedbed Preparation Method and Plant Population for Double Cropped Soybeans in Eastern Kansas."

Kilgore, G., and **Fausett, M.**, KS Dept of Ag, \$6,762, "Short Season Corn Extension Educational Program in Southeast Kansas."

Kilgore, G., (see **Barnes, P.**, Biol & Agri Engg).

Kilgore, G., (see **Hargrove, W.**, KS Water Resource Res Inst).

Kilgore, G., (see **Long, J.**, SE Ag Res Ctr).

SOUTHWEST AREA OFFICE

Alam, M., **Sartwelle III, J.**, **Trooien, T.** (SW Res Ext Ctr), and **Rogers, D.** (Biol & Agri Engg), KS Dept of Ag, \$24,710, "Irrigation Scheduling Demonstration of Efficient Water Use by Corn in Western Kansas."

Marston, T., (see **Kreikemeier, K.**, SW Res Ext Ctr).

Sartwelle III, J., (see **Alam, M.**, SW Area Off).

Sartwelle III, J., (see **Barnaby, G.**, Ag Econ).

Sartwelle III, J., (see **Kreikemeier, K.**, SW Res Ext Ctr).

Sloderbeck, P., (see **Buschman, L.**, Entomology).

Sloderbeck, P., (see **Higgins, R.**, Entomology).

Sloderbeck, P., (see **Kofoed, K.**, Ag Res Ctr-Hays).

Sloderbeck, P., (see **Wilde, G.**, Entomology).

Thompson, C., Nat'l Sunflower Assoc, \$4,500, "Weed Control/No-Till Weed Control (Evaluation of New Herbicides for Weed Control in No-Till/Reduced Till Sunflower)."

Thompson, C., Multisponsor, \$2,000, "Chemical Evaluation."

OFFICE OF THE PRESIDENT

BEACH ART MUSEUM

North, B., Richard Florsheim Art Fund, \$9,225, "Shirley Smith: A Retrospective."

MCCAIN AUDITORIUM PERFORMANCES

Martin, R., KS Arts Commission, \$43,377 (includes \$6,000 Corporate Support-Commerce Bank, First Savings Bank, Security National Bank, Manhattan Medical Center and Mercy Health Center; \$22,250 Private Support-Alan and Karen Bell Endowment for the Performing Arts and Jean Wells Durkee Memorial Fund and Friends of McCain), "McCain Performance Series FY1998."

OFFICE OF THE PROVOST

KANSAS CENTER FOR RURAL INITIATIVES

Peak, C., US Dept of Commerce, \$50,000, "University Center Program - Kansas Center for Community Economic Development."

Peak, C., Corp for Nat'l Service, \$140,280, "New Linkages for Service Learning Through the Kansas State University Community Service Program."

Peak, C., US Dept of Commerce, \$13,164, "301 (a) Local Technical Assistance Grant."

Peak, C., Ctr for Enterprise Dev, \$5,000, "Kansas Microenterprise Network."

LIBRARY

Farmer, D., KS Library Network, \$4,000, "Horticultural Therapy."

Gates, R., (see **McDonald, M.**, Library).

McDonald, M., **Verhage, E.**, and **Gates, R.**, KS State Library, \$8,780, "Hale Library Assistive Technology Upgrade Project."

Sprehe, N., KS State Library, \$2,000, "Small Business Start-Up/Entrepreneurship."

Verhage, E., (see **McDonald, M.**, Library).

VICE PRESIDENT FOR ADMINISTRATION AND FINANCE

KSU POLICE DEPARTMENT

Heaton-Lehne, Z., (see **Lambert J.**, KSU Police Dept).

Lambert, J., and **Heaton-Lehne, Z.**, US Dept of Justice, \$9,000, "Campus Action Towards Safety (CATS) Equipment."

PHYSICAL FACILITIES

Carter, G., US Dept of Transportation, \$8,513, "Pedestrian/Bicycle Trail Path: Transportation Enhancement Project."

VICE PRESIDENT FOR INSTITUTIONAL ADVANCEMENT

EDUCATIONAL AND PERSONAL DEVELOPMENT

Arck, W., City of Manhattan, KS, \$17,500, "Youth Oriented Alcohol Abuse Prevention Program."

Greene, K., US Dept of Educ, \$197,600, "Ronald E. McNair Academic Achievement Program."

McGowan, R., US Dept of Educ, \$350,981, "Kansas State University Upward Bound Program."

McGowan, R., US Dept of Educ, \$441,168, "Kansas State University Upward Bound Math/Science Initiative Program."

McGowan, R., USDA, \$14,614, "Kansas State University Upward Bound Math/Science Food Service Program."

McGowan, R., USDA, \$22,843, "Kansas State University Upward Bound Food Service Program."

OFFICE OF DIVERSITY AND DUAL CAREER DEVELOPMENT

Taylor-Archer, M., US Dept of Educ, \$6,000, "Health Careers Pathways Program—Satellite Center."

OFFICE OF THE VICE PROVOST FOR RESEARCH

BIOTECHNOLOGY CORE LABORATORY

Tomich, J., Multisponsor, \$61,337, "Biotechnology Laboratory Support."

OFFICE OF RESEARCH AND SPONSORED PROGRAMS

Trewyn, R. W., KSU Res Found, \$116,223, "KSU Research Foundation Staff Compensation."

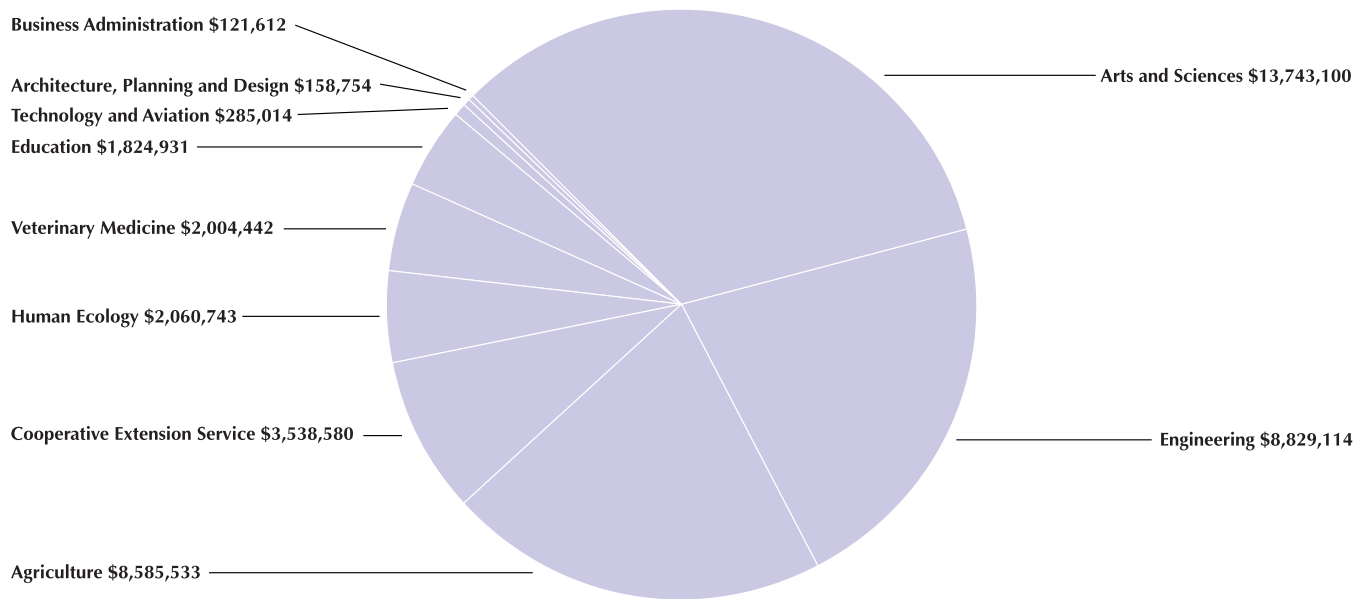
DEAN OF THE GRADUATE SCHOOL

Donoghue, T., KS Board of Regents, \$32,000, "Kansas Minority Graduate Fellowship Awards."

SECTION 2: EXPENDITURES

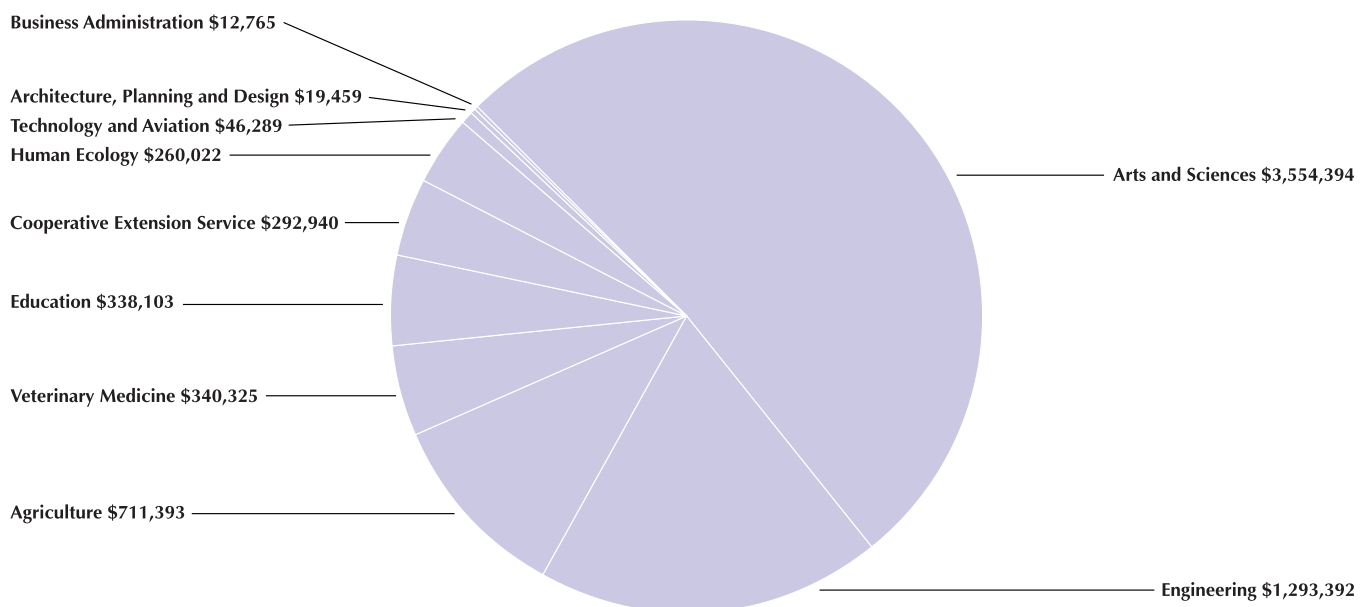
DIRECT COST EXPENDITURES BY COLLEGE AND EXTENSION*

Fiscal Year 1998



FACILITIES AND ADMINISTRATIVE COST RECOVERY BY COLLEGE AND EXTENSION*

Fiscal Year 1998



*Note: Data provided by the KSU Controller's Office, Sponsored Projects Accounting

EXPENDITURES FOR SPONSORED EXTRAMURAL FUNDING BY COLLEGE AND EXTENSION DEPARTMENT*

Fiscal Year 1998

	DIRECT COSTS	FACILITIES AND ADMINISTRATIVE COSTS	TOTAL
COLLEGE OF AGRICULTURE			
Dean of Agriculture and Director of AES	\$14,531.96	\$2.01	\$14,533.97
Agricultural Economics	\$330,450.45	\$26,616.40	\$357,066.85
Agronomy	\$2,250,883.49	\$150,441.09	\$2,401,324.58
Animal Sciences and Industry	\$1,463,907.94	\$90,472.57	\$1,554,380.51
Communications	\$40,225.94	\$126.93	\$40,352.87
Entomology	\$887,845.50	\$74,255.29	\$962,100.79
Grain Science and Industry	\$1,263,981.30	\$101,073.13	\$1,365,054.43
Horticulture, Forestry and Recreation Resources	\$117,247.01	\$7,964.75	\$125,211.76
International Agricultural Programs	\$88,321.15	\$1,759.05	\$90,080.20
Plant Pathology	\$1,076,871.75	\$111,967.56	\$1,188,839.31
Food and Feed Grains Institute	\$349,017.00	\$112,101.22	\$461,118.22
Kansas Center for Ag. Resource & Env/Ks	\$29,436.37	\$0.00	\$29,436.37
Agricultural Experiment Station	\$123,975.80	\$0.00	\$123,975.80
Northwest Research Extension Center	\$40,290.24	\$0.00	\$40,290.24
Agricultural Research Center-Hays	\$301,453.85	\$29,500.31	\$330,954.16
Southwest Research Extension Center	\$165,013.50	\$5,113.71	\$170,127.21
Southeast Agricultural Research Center	\$42,079.82	(\$0.74)	\$42,079.08
Total-College of Agriculture	\$8,585,533.07	\$711,393.28	\$9,296,926.35
COLLEGE OF ARCHITECTURE, PLANNING AND DESIGN			
Dean of Architecture, Planning and Design	\$6,342.59	\$7,784.57	\$14,127.16
Architecture	\$3,435.40	\$0.00	\$3,435.40
Interior Architecture	\$1,765.00	\$0.00	\$1,765.00
Landscape Architecture/Regional & Community Plan.	\$147,211.43	\$11,674.65	\$158,886.08
Total-College of Architecture & Design	\$158,754.42	\$19,459.22	\$178,213.64
COLLEGE OF ARTS AND SCIENCES			
Dean of Arts and Sciences	(\$9,257.17)	\$9,274.92	\$17.75
Biochemistry	\$839,366.24	\$266,836.82	\$1,106,203.06
Biology	\$5,149,100.94	\$1,235,241.22	\$6,384,342.16
Chemistry	\$1,662,374.24	\$304,780.21	\$1,967,154.45
Economics	\$41,986.67	\$170.20	\$42,156.87
Geography	\$363,734.53	\$39,717.33	\$403,451.86
Geology	\$105,076.39	\$39,311.88	\$144,388.27
History	\$75,410.80	\$5,169.13	\$80,579.93
Institute for Social & Behavioral Research	\$83,678.34	\$4.99	\$83,683.33
James R. MacDonald Laboratory	\$1,882,866.77	\$849,664.83	\$2,732,531.60
School of Journalism and Mass Communication	\$25,737.31	\$302.05	\$26,039.36
Mathematics	\$209,082.48	\$94,945.30	\$304,027.78
Kinesiology	\$116,198.57	\$24,266.50	\$140,465.07
Physics	\$1,887,648.47	\$366,544.66	\$2,254,193.13
High Energy Physics	\$1,052,232.15	\$260,430.11	\$1,312,662.26
Psychology	\$86,413.87	\$27,048.38	\$113,462.25
Sociology, Anthropology, & Social Work	\$125,948.65	\$17,914.47	\$143,863.12
Statistics	\$45,501.28	\$12,771.52	\$58,272.80
Total-College of Arts and Sciences	\$13,743,100.53	\$3,554,394.52	\$17,297,495.05

*Note: Data provided by the KSU Controller's Office, Sponsored Projects Accounting

COLLEGE OF BUSINESS ADMINISTRATION

Management	\$12,654.77	\$6,997.13	\$19,651.90
Small Business Development Center	\$108,957.46	\$5,768.23	\$114,725.69
Total-College of Business Administration	\$121,612.23	\$12,765.36	\$134,377.59

COOPERATIVE EXTENSION SERVICE

Director of Cooperative Extension	\$311,127.92	\$0.00	\$311,127.92
Community Development	\$41,377.80	\$0.00	\$41,377.80
Extension Engineering	\$116,208.85	\$11,477.21	\$127,686.06
Extension Family & Consumer Sciences	\$852,981.39	\$34,758.51	\$887,739.90
Extension Communications	\$5,600.00	\$0.00	\$5,600.00
Nutrition Program	\$784,143.58	\$185,365.28	\$969,508.86
Kansas Forest Service	\$534,189.83	\$12,583.78	\$546,773.61
Production Management & Natural Resource Dev.	\$322,572.69	\$0.00	\$322,572.69
Extension Energy	\$273,373.10	\$34,027.59	\$307,400.69
Northwest Area Office	\$3,177.79	\$0.00	\$3,177.79
Northeast Area Office	\$41,043.54	\$4,299.63	\$45,343.17
Southeast Area Office	\$46,151.39	\$0.00	\$46,151.39
Southwest Area Office	\$25,819.52	\$0.00	\$25,819.52
Extension Office of Community Health	\$180,813.30	\$10,428.79	\$191,242.09
Total-Cooperative Extension Services	\$3,538,580.70	\$292,940.79	\$3,831,521.49

COLLEGE OF EDUCATION

Dean of Education	\$8,158.96	\$0.00	\$8,158.96
Dean of Educational Instructional Support	\$1,101,555.52	\$210,965.67	\$1,312,521.19
Educational Administration	\$3,586.28	\$0.00	\$3,586.28
Foundations & Adult Education	\$67,945.13	\$1,277.85	\$69,222.98
Special Education	\$541,499.01	\$125,860.31	\$667,359.32
Elementary Education	\$36,726.71	\$0.00	\$36,726.71
Secondary Education	\$65,459.53	\$0.00	\$65,459.53
Total-College of Education	\$1,824,931.14	\$338,103.83	\$2,163,034.97

COLLEGE OF ENGINEERING

Dean of Engineering	\$37,073.53	\$0.00	\$37,073.53
Biological & Agricultural Engineering	\$749,072.89	\$62,971.78	\$812,044.67
Architectural Engineering and Construction Science	\$62,885.08	\$14,809.56	\$77,694.64
Chemical Engineering	\$375,731.17	\$62,932.14	\$438,663.31
Civil Engineering	\$793,998.70	\$217,527.81	\$1,011,526.51
Computing & Information Sciences	\$386,751.17	\$72,115.93	\$458,867.10
Electrical & Computer Engineering	\$311,328.83	\$96,027.07	\$407,355.90
Institute for Environmental Research	\$66,729.04	\$12,272.45	\$79,001.49
Institute for Computational Research	\$4,000.00	\$400.00	\$4,400.00
Industrial & Manufacturing Systems Engineering	\$172,146.30	\$23,725.32	\$195,871.62
Mechanical and Nuclear Engineering	\$1,500,387.71	\$177,782.90	\$1,678,170.61
Advanced Manufacturing Institute	\$1,810,439.21	\$57,611.70	\$1,868,050.91
Kansas Industrial Extension Services	\$332,532.22	\$11,584.71	\$344,116.93
Center for Hazardous Substance Research	\$1,575,340.97	\$306,980.16	\$1,882,321.13
National Institute for Land Management & Training	\$650,697.74	\$176,651.08	\$827,348.82
Total-College of Engineering	\$8,829,114.56	\$1,293,392.61	\$10,122,507.17

COLLEGE OF HUMAN ECOLOGY

Dean of Human Ecology	\$232,811.18	\$12,429.87	\$245,241.05
Clothing, Textiles, & Interior Design	\$55,417.40	\$1,627.34	\$57,044.74
Hotel, Restaurant, Institution Management & Dietetics	\$114,701.24	\$12,137.16	\$126,838.40
Foods & Nutrition	\$406,120.33	\$101,814.54	\$507,934.87
School of Family Studies & Human Services	\$1,251,693.05	\$132,013.91	\$1,383,706.96
Total-College of Human Ecology	\$2,060,743.20	\$260,022.82	\$2,320,766.02

COLLEGE OF TECHNOLOGY AND AVIATION

Dean of College of Technology and Aviation	\$80,563.87	\$23,797.10	\$104,360.97
Salina Arts, Science & Business	\$135,053.03	\$0.00	\$135,053.03
Salina Engineering Technology	\$55,767.75	\$22,493.34	\$78,261.09
Salina Continuing Education	\$10,236.00	(\$1.07)	\$10,234.93
Salina Library	\$3,393.47	\$0.00	\$3,393.47
Total-Salina College of Technology	\$285,014.12	\$46,289.37	\$331,303.49

VETERINARY MEDICAL CENTER

Dean of Veterinary Medical Center	\$10,005.78	\$12.68	\$10,018.46
Anatomy and Physiology	\$990,697.69	\$232,633.21	\$1,223,330.90
Food Animal Health & Management Center	\$322,323.51	\$6,873.27	\$329,196.78
Diagnostic Medicine/Pathobiology	\$454,726.54	\$82,522.18	\$537,248.72
Clinical Sciences	\$226,689.23	\$18,283.89	\$244,973.12
Total-Veterinary Medical Center	\$2,004,442.75	\$340,325.23	\$2,344,767.98

UNIVERSITY SMALL RESEARCH GRANTS

Fiscal Year 1998

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.

Fall 1997 Awards:

Baures, P.W., Chemistry, \$2,000, "Synthesis of Histamine H₃ Receptor Agonists."

Britton, D.M., Sociology, Anthropology, & Social Work, \$3,500, "A Preliminary Exploration of Variations in Perceptions of Work Among Federal Correctional Officers."

Coppin, K.S., Art, \$800, "The Electronic Darkroom & Iris Inkjet Printing."

Foster, L., Anatomy & Physiology, \$1,400, "Exercise & Weight Maintenance."

Garavito, L., Modern Languages, \$1,200, "Women as Healers: Images of Empowerment in Latin Am. Lit."

Grossman, W., Management, \$800, "Institutional Investors & Firm Innovation: The Influence of the Mutual Fund Industry."

Hunt, D.W., Art, \$4,350, "Equipment for Sculptural Research."

Kren, M., Art, \$1,500, "Presentation of Art Works for Traveling Exhibitions."

Martin, C.W., Geography, \$2,500, "Fluvial Dispersal of Heavy Metals, SE Kansas."

McElroy, M., Kinesiology, \$900, "Resistance to Exercise: Sedentary Lifestyles in Contemporary Society."

Sherow, J.E., History, \$1,200, "Research Trip to the Missouri Historical Society."

Swanson, D.L., Management, \$290, "Case Development: Hudson Foods Beef Recall."

Warmuth, R., Chemistry, \$2,000, "NMR Investigation of Tetrafluoracyclobutadiene."

Williams, L.S., Sociology, Anthropology, & Social Work, \$913, "Schools as Construction Sites for Self Esteem."

Spring 1998 Awards:

Boyer, C., History, \$2,121, "Archival Research in Michoacan, Mexico."

Brown, G., Art, \$653, "Modern Painting in Honduras."

Buszek, K.R., Chemistry, \$2,000, "Total Synthesis of Gonioheptolide A."

Chun, R., Clinical Sciences, \$2,000, "Phase II Clinical Trial of Vinblastine in Dogs."

Clark, R.L., Modern Languages, \$500, "Edition and Translation of Sainte Hostie."

Coppin, K.S., Art, \$2,000, "Iris Inkjet Prints from the Electronic Darkroom."

Daniel, D.K., Journalism and Mass Communication, \$2,000, "Harry Reasoner and the Rise of Television News."

Dodd, E., English, \$500, "Funding for Creative Nonfiction Projects."

Frey, M., History, \$1,800, "A Dialogue for the Deaf: French Revolutionaries."

Hamscher, A., History, \$125, "Judicial Administration in Early Modern France."

Harms, C.A., Kinesiology, \$1,235, "Impaired Lung Diffusion Capacity."

Janette, M., English, \$800, "Archival Research at LaSalle University."

Knox, M., Architecture, \$500, "The Digital Panorama as a Tool."

McHaney, R., Management, \$1,400, "Information Systems Development and Implementation."

McMurphy, R., Clinical Sciences, \$500, "Compound A in the Breathing Circuit."

Muino, P., Chemistry, \$1,000, "Computational Methods in Chemistry."

Noblett, D., Art, \$500, "Drawing Solo Exhibition Support."

Olsen, D., Clinical Sciences, \$1,650, "Intraosseous Infusions in Small Animals."

Ornelas, W., Architecture, \$700, "A Comparison of Architecture Practice."

Prins, H., Sociology, Anthropology, and Social Work, \$915, "Apache Cultural Preservation Video Project."

Routson, R., Art, \$500, "Illustration Research in New York City."

Rumsey, D., Statistics, \$2,000, "A Statistics Teaching and Resource Library."

Sauter, S., Modern Languages, \$500, "Computer Formatting Assistance and Transcribing."

Stewart, G., Diagnostic Medicine, \$2,000, "Molecular I.D. from Carnivore Scat Samples."

Swanson, D., Management, \$300, "Case Development of Cloning Technology."

Turnley, W., Management, \$720, "Impression Management and Organizational Citizenship."

Wilkerson, M., Diagnostic Medicine, \$2,400, "Bovine Virus Diarrhea Virus Induced."

FACULTY DEVELOPMENT AWARDS

Fiscal Year 1998

Faculty Development Awards are awarded by the Office of Research and Sponsored Programs and serve primarily as travel awards. They may be used for travel to international meetings, travel for foreign exchange, travel to offices of potential external funding sponsors, and as matching funds on certain fellowships, but may not be used for research travel.

Fall 1997 Awards:

- Boland, M.A.**, Agricultural Economics, \$500, "Visit NSF & USD on Funding Opportunities."
- Britton, D.M.**, Sociology, Anthropology, & Social Work, \$1,078, "Gender, Work and Organization Conference."
- Cooper, C.**, Music, \$3,500, "Fifth Festival of Women Composers, International March."
- Eiselein, G.**, English, \$1,973, "Crossroads in Cultural Studies Conference."
- Fox, R.O.**, Chemical Engineering, \$400, "TU Delft Spring Semester 1998."
- Frey, M.L.**, History, \$1,400, "Revolutionaries & the Constraints of Diplomacy."
- Glymour, B.**, Philosophy, \$1,387, "1998 4th Bariloche Colloquium of Philosophy."
- Hedrick, D.**, English, \$1,900, "Developing Czech Exchanges."
- Hossain, M.**, Civil Engineering, \$1,800, "6th Int'l Conf. on Fly Ash, Silica Fume, Slag & Natural Pozzolans in Concrete."
- Ikeda, Y.**, Art, \$2,200, "Visit Scotland."
- Jiang, S.**, Chemical Engineering, \$931, "Fundamentals of Adsorption."
- Katz, J.P.**, Management, \$500, "Presentation of Research on Int'l Strategy."
- Lin, Z.**, Mathematics, \$1,466, "Int'l Conference on Representation Theory on Shanghai, China."
- Mathews, A.P.**, Civil Engineering, \$1,100, "6th Int'l Conference on Fundamentals of Adsorption."
- Perchellet, J. H.**, Biology, \$844, "To Give Oral Communication & Poster Presentation at the Int'l Conf. on New Anticancer Agents."
- Ramaswamy, G.N.**, Clothing, Textiles, and Interior Design, \$1,000, "American Association of Textiles Chemist & Colorists 97/98 Symposia."
- Sabates, M.**, Philosophy, \$1,387, "4th Int'l Colloquium of Philosophy, Bariloche."
- Simon, M.**, Architecture, \$1,200, "European Association for Architectural Education."
- Singh, G.**, Computing and Information Sciences, \$1,700, "Int'l Conference on Advanced Computing."
- Stock, W.A.**, Economics, \$200, "Creating Career Opportunities for Female Economists & Allied Social Science Assoc./American Economic Assoc. Annual Convention."
- Strecker, G.E.**, Mathematics, \$950, "Int'l Symposium on Applications of Categorical Methods."
- Swanson, D.L.**, Management, \$1,540, "Presentation: Business

Conference."

Woodward, G.L., Art, \$1,151, "Exchange Norwich School of Art & Design."

Spring 1998 Awards

- Arens, R.**, Architecture, \$925, "Constructing New Worlds."
- Arnds, P.**, Modern Languages, \$1,916, "A United Europe and the Third Reich in the Contemporary Novel of Germany, Austria, and Switzerland" and "Hansel and Gretel and Auschwitz."
- Auckly, D.**, Mathematics, \$200, "Four Manifolds that are Diffeomorphic After One Stabilization."
- Baures, P.**, Chemistry, \$1,710, "International Symposium on Medicinal Chemistry."
- Benson, D.**, Modern Languages, \$500, "Building a New Curriculum: A Media-Supported, Individualized Program in Spanish 1-4 at the College Level."
- Bode, M.**, Clothing, Textiles, and Interior Design, \$200, "Occupant Radon Exposure in Houses with Basements" and "The Kansas Housing Template."
- Boger, C.**, Hotel, Restaurant, Institution Management, and Dietetics, \$885, "Personal Characteristics of Travelers Who Visit Southeast Asia."
- Boland, M.**, Agricultural Economics, \$2,150, "A Virtual Degree for Agribusiness Professionals and Extension Educators."
- Chambers, E.**, Foods and Nutrition, \$704, "Effects of Repeated Product Consumption over Several Weeks on Product Acceptance."
- Chapes, S.K.**, Biology, \$1,394, "Influence of Gravity on the Immune System and the Musculo-Skeletal System" and "The Role of Gravity in Living Systems."
- Clark, R.L.A.**, Modern Languages, \$200, "The Crowning Blow: The Role of French Royal Justice in the Demise of the Sacred Mystery Play" and "Ideology, Land, and the Laity: Towards a Sociohistorical Analysis of the Anglo-Norman Adam."
- Coates, G.**, Architecture, \$728, "Architecture, Form, Ecology: An International Architecture Conference."
- Erickson, H.H.**, Anatomy and Physiology, \$1,540, "Fifth International Conference on Equine Exercise Physiology."
- Exdell, J.**, Philosophy, \$500, "Racial Identity in the United States: The Contemporary Philosophical Debate."
- Garavito, L.**, Modern Languages, \$1,224, "Street Performance in Informal Economy Practices."
- Gray, M.**, History, \$1,472, "Formatting Gender."
- Hall, D.**, English, \$1,367, "NEH Institute Post- Colonial Literature and Theory."
- Higgins, D.**, Chemistry, \$200, "Near-Field Scanning Optical Microscopy Studies of Polymer-Dispersed Liquid Crystal Films" and "Single Molecular Studies of Local Environments in Silicate Glasses."
- Holcombe, A.**, Art, \$200, "Visit Artist in Scotland and Attend US/COT Consortium Meeting."
- Janda, S.**, Marketing and International Business, \$858, "Annual International Western Academy of Management Conference in Istanbul, Turkey."
- Johnson, D.E.**, Statistics, \$500, "International Biometrics Conference in Cape Town, South Africa."
- Kalita, P.**, Biological and Agricultural Engineering, \$1,350,

"Application of Biological Systems Engineering for Environmental Protection."

Kluitenberg, G.J., Agronomy, \$1,276, "Scientific Exchange in Townsville, Australia."

Knupfer, N.N., Foundations and Adult Education, \$500, "Centre for Higher Education Transformation in the Republic of South Africa Conference" and "The Sharing Data for Research, Teaching, and Development, Challenges in Africa for the 21st Century Conference."

Knupfer, P., History, \$200, "H-Net: Building Scholarly Communities Online."

Linder, R., History, \$1,000, "Seventh International Congress on Calvin Research."

Lu, M., Geography, \$744, "The Determinants of Residential Satisfaction: An Analysis Using Ordered Logit Models."

McHaney, R., Management, \$200, "Annual International Conference on Advances in Management."

Melhem, H., Civil Engineering, \$900, "Development of an Accelerated Testing Laboratory for Highway Research in Kansas."

Morcos, M., Electrical and Computer Engineering, \$200, "A Comparative Study of the Performance of Two Microprocessor-Based Battery Chargers for Electric Vehicles and on the Particle Contaminated Gas-Insulated Systems."

Noble, L., Kinesiology, \$500, "Inertial and Vibrational Characteristics of Softball and Baseball Bats: Research and Design Implications."

O'Brien, P., Sociology, Anthropology, and Social Work, \$200, "West African Languages and Boundaries: Linguistic Diversity and African Unity."

Peller, V., Mathematics, \$500, "International Workshop on Operator Theory and Applications in Groninger, Netherlands."

Pierzynski, G., Agronomy, \$200, "Remediation of Metal-Contaminated Sites in the Tri-State Mining Region, USA."

Ramm, A.G., Mathematics, \$200, "Operator Theory and Applications."

Reddi, L.N., Civil Engineering, \$618, "Fractal Representation of Poromechanics Involved in the Consolidation Process."

Rolley, S., Landscape Architecture, \$1,508, "Making Decisions on Plans."

Russell, E., Civil Engineering, \$200, "European Transport Conference."

Sauter, S., Modern Languages, \$1,500, "End of the Century in Latin-American Literature: Crisis, Apocalypses, and Utopias."

Seamon, D., Architecture, \$200, "The Phenomenological Contribution to Environment Behavior Research: Themes, Problems, and Possibilities."

Shanklin, C.W., Hotel, Restaurant, Institution Management, and Dietetics, \$500, "The Role of Dietitians in Protecting the Environment."

Siepl-Coates, S., Architecture, \$500, "Patterns of Healing in Erik Asmussen's Vidarkliniken."

Soibelman, I., Mathematics, \$200, "International Congress of Mathematicians."

Unruh, J.A., Animal Sciences and Industry, \$500, "Quality Variations in Pork Loins."

Vaninsky, K., Mathematics, \$680, "Symposium on Symplectic Geometry."

Warmuth, R., Chemistry, \$500, "NATO Advanced Research Workshop Supramolecular Science."

Watts, C.M., Architecture, \$1,767, "Arts Festival in Traditional Environments: Vernacular Settings for Art and as Art."

Watts, D., Architecture, \$1,067, "Tourism of Development and Development of Tourism: House of German Tourism and the Infobox at Potsdammer Platz, Berlin."

White, B.J., Clothing, Textiles, and Interior Design, \$200, "Consumer Evaluation of Universally-Designed Bathing Fixtures: A Cross-Cultural Comparison" and "Developing a Statewide Housing Template: A Policy Case Study."

Wood, N., English, \$200, "Creating the Sensual Child: Paterian Aesthetics and Oscar Wilde's Fairy Tales."

Yetter, D., Mathematics, \$958, "Conference on Knot Theory and Its Ramifications."

DISTINGUISHED PROFESSORS

UNIVERSITY DISTINGUISHED PROFESSOR

C. LEWIS COCKE Physics

GARY A. CONRAD, Biology

RICHARD CONSIGLI Biology

L.T. FAN Chemical Engineering

NORMAN J. FEDDER Speech

BIKRAM S. GILL Plant Pathology

JONATHAN HOLDEN English

KENNETH HOYT Counseling and Educational Psychology

TERRY C. JOHNSON Biology

KENNETH J. KLABUNDE Chemistry

JAN E. LEACH, Plant Pathology

CHII-DONG LIN Physics

JAMES L. MARSDEN Regents Distinguished Professor of Animal Sciences

NEVILLE W. (BILL) REAY Physics

JON ROLF The Kansas Health Foundation Distinguished Professor in Community Health

PATRICK RICHARD Cortelyou–Rust Distinguished Professor of Physics

SADAHIRO SAEKI Mathematics

DONALD W. SETSER Chemistry

PETER M. A. SHERWOOD Chemistry

ERNEST E. SHULT Regents Distinguished Professor of Mathematics

MICHAEL W. SULEIMAN Political Science

DISTINGUISHED PROFESSOR EMERITUS

TIMOTHY R. DONOGHUE Honorary Distinguished Professor Emeritus of Physics

WILLIAM FATELEY Distinguished Professor Emeritus of Chemistry

JOHN IANDOLO Distinguished Professor Emeritus of Pathology and Microbiology

DAVID LEITH Regents Distinguished Professor Emeritus of Pathology

DUDLEY WILLIAMS Regents Distinguished Professor Emeritus of Physics

RECIPIENTS OF THE DISTINGUISHED GRADUATE FACULTY AWARD

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JOHN F. HELM Architecture and Applied Arts 1955–56
HILMER H. LAUDE Agronomy 1955–56

ALVIN B. CARDWELL Physics 1956–57
CHARLES H. SCHOLER Applied Mechanics 1956–57

HOWARD T. HILL Speech 1957–58
ARTHUR D. WEBER College of Agriculture 1957–58

CHARLES M. CORRELL History 1958–59
LEON R. QUINLAN Landscape Architecture 1958–59

FRANCIS D. FARRELL President Emeritus 1959–60
FRED L. PARRISH History 1959–60

KLING L. ANDERSON Agronomy 1960–61
HOLLY C. FRYER Statistics 1960–61

A.M. GUHL Zoology 1961–62
H. HENLEY HAYMAKER Botany 1961–62

ROBERT KATZ Physics 1962–63

ERLE E. BARTLEY Dairy and Poultry Science 1963–64

ROY LANGFORD Psychology 1964–65

V. D. FOLTZ Bacteriology 1965–66

BREWSTER ROGERSON English 1966–67

JOHN A. JOHNSON Grain Science and Industry 1967–68

R. KENNETH BURKHARD Biochemistry 1968–69

CLIFTON E. MELOAN Chemistry 1969–70

ROBIN HIGHAM History 1970–71

ANGELO C. GARZIO Art 1971–72

L.T. FAN Chemical Engineering 1972–73

IVAN D. TEARE Agronomy 1973–74

STANLEY E. LELAND Veterinary Pathology 1974–75

RICHARD CONSIGLI Biology 1975–76

DUDLEY WILLIAMS Physics 1976–77

FREDERICK W. OEHME Surgery and Medicine 1977–78

ELMER G. HEYNE Agronomy 1978–79

DONALD W. SETSER Chemistry 1979–80

JAMES F. SHEPARD Plant Pathology 1980–81

ROGER FEDDE Anatomy and Physiology 1981–82

NASIR AHMED Electrical Engineering 1982–83

WILLIAM FATELEY Chemistry 1983–84

BURTON I. KAUFMAN History 1984–85
PATRICK RICHARD Physics 1984–85

JONATHAN HOLDEN English 1985–86
HORST LEIPOLD Pathology 1985–86

TERRY C. JOHNSON Biology 1986–87
MICHAEL W. SULEIMAN Political Science 1986–87

CORNELIA BUTLER FLORA Sociology 1987–88
RICHARD N. McDONALD Chemistry 1987–88

MARGO KREN Art 1988–89
GERALD R. REECK Biochemistry 1988–89

BIKRAM S. GILL Plant Pathology 1989–90
PATRICIA J. O'BRIEN Anthropology 1989–90

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ALEXANDER RAMM Mathematics 1996–97
CHRISTOPHER SORENSEN Physics 1996–97

FRANK BLECHA Anatomy and Physiology 1997–98
TALAT RAHMAN Physics 1997–98
ROLLIN SEARS Agronomy 1997–98

U.S. PATENTS

*Issued from July 1, 1993 to June 30, 1998
to the KSU Research Foundation*

(Listed in reverse chronological order)

Bradley W. Fenwick, Maureen A. Rider, and Alan H. Brightman, II "Method of Culturing *M. Bovis* in Low Available Iron Media and Isolation of Outer Membrane Proteins" (#5,766,607)

Kenneth J. Klabunde and Abbas Khaleel "Composite Metal Oxide Adsorbents" (#5,759,939)

Bruce M. Law "Ellipsometric Microscope" (#5,754,296)

Kenneth J. Klabunde and Abbas Khaleel "Iron Oxide Magnesium Oxide Composites and Method for Destruction Of Chlorinated Hydrocarbon Using Such Composites" (#5,712,219)

John J. Iandolo and Scott Crupper "Broad Spectrum Antibiotic Peptide" (#5,703,040)

Xuemin Wang "Recombinant DNA Sequences Encoding Phospholipase" (#5,670,366)

Kuo-Kuang Hu, Philip G. Kirmser, and Stuart E. Swartz "Stiffness Decoupler for Base Isolation of Structures" (#5,660,007)

Jan A. Delcour and R. C. Hosney "Rye Extract Bread-Making Additives and Method of Use Thereof" (#5,658,606)

Carl D. Clayberg "Muskmelon—Earlibush Crenshaw" (Plant #9,300,212)

Michael Tilley and Steven J. Upton "DNA Sequence Encoding Surface Protein of *Cryptosporidium Parvum*" (#5,591,434)

Keswara R. Vadlamani and Paul A. Seib "Metal Ion Compositions and Methods for Improving Wheat-Based Products" (#5,556,655)

Carole Setser "Low Calorie Chemically Leavened Cakes and Surfactant Systems Therefor" (#5,534,285)

Jeffrey A. Hansen, Jim L. Nelssen, Stephen A. Blum, Mike D. Tokach, and Robert D. Goodband "Supplementation of Protein Diets with Di- and Tripeptides" (#5,525,350)

Rebecca A. Miller and Russell C. Hosney "Method and Apparatus for Determining Toughness of Baked Products" (#5,515,718)

Alexander P. Mathews "Process for the Production of Road Deicers from Water Plant Residuals" (#5,498,362)

Tiruvoor G. Nagaraja and Muckatira M. Chengappa "*Fusobacterium Leukotoxoid* Vaccine" (#5,492,694)

Daniel Y.C. Fung "Enzymatic Method for Accelerating Fermentation of Comestible Products" (#5,486,367)

Randall S. Senock and Jay M. Ham "Sap Flow Gauge" (#5,481,090)

Mike D. Tokach, Jim L. Nelssen, and Robert D. Goodband "Sow Lactation Diet Containing Valine" (#5,480,659)

Eddie R. Fowler and Chen-Kang Wang "System for Determining the Development Status of a Mass such as Bread Dough in a Powered Mixer" (#5,472,273)

Kuo-Kuang Hu, Philip G. Kirmser, Stuart E. Swartz, and Mustaque Hossain "Expansion Joint Assembly Having Load Transfer Capacity" (#5,470,174)

George L. Marchin and Jack L. Lambert "Method of Treating Aqueous Iodide Solutions" (#5,464,603)

George L. Marchin and Jack L. Lambert "Composition for Treating Water With Resin Bound Ionic Silver" (#5,464,559)

Tiruvoor G. Nagaraja and Muckatira M. Chengappa "*Fusobacterium Necrophorum* Leukotoxoid Vaccine" (#5,455,034)

Richard D. Oberst and Michael P. Hays "Bovine Respiratory Syncytial Virus Detection and Primers" (#5,424,189)

Randall S. Senock and Jay M. Ham "Sap Flow Gauge" (#5,423,211)

Daniel Y.C. Fung and Linda Yu "Assay for Motile Facultative Anaerobic Pathogens" (#5,405,773)

John R. Brethour "System for Measurement of Intramuscular Fat in Cattle" (#5,398,290)

James K. Koelliker and Mustaque Hossain "Method and Apparatus for the Rapid Determination of Water-Cement Ratios" (#5,396,790)

Kuo-Kuang Hu, Philip G. Kirmser, and Stuart E. Swartz "Stiffness Decoupler for Base Isolation of Structures" (#5,386,671)

Obed M. Fricke "Method and Apparatus for Concrete Casting of a Unitary Structure" (#5,376,315)

Jeffrey A. Hansen, Jim L. Nelssen, Stephen A. Blum, Mike D. Tokach, and Robert L. Goodband "Supplementation of Protein Diets with Di- and Tripeptides" (#5,374,428)

Bertram R. Biles "Data Storage and Retrieval System with Improved Data Base Structure" (#5,369,763)

Randall S. Senock and Jay M. Ham "Sap Flow Gauge" (#5,367,905)

George L. Marchin and Jack L. Lambert "Oxidizing Resin for Iodide Conversion and Retention" (#5,367,031)

George L. Marchin and Jack L. Lambert "Method of Treating Water with Resin Bound Ionic Silver" (#5,366,636)

Kuo-Kuang Hu, Philip G. Kirmser, Stuart E. Swartz, and Mustaque Hossain "Expansion Joint Assembly Having Load Transfer Capacity" (#5,366,319)

Eric A. Maatta "Homogeneous, Low-Temperature Transition Metal-Mediated Synthesis of Nitriles" (#5,359,119)

Richard D. Oberst, Sharon M. Gwaltney, and Michael P. Hays "Specific DNA Primers and Method to use Same to Detect *Eperythrozoon Suis*" (#5,350,672)

David Ovadia "Heat Processing of a Product" (#5,334,402)

Pamela A. Harris and Phillip W. Stahlman "Application of Native Soil Bacteria as Selective Biological Control Agents of the Weeds Downy Brome, Japanese Brome, and Jointed Goatgrass in Wheat" (#5,332,673)

David Ovidia "Microwave Baking Pan" (#5,331,135)

Obed M. Fricke "Monolithic Cast Picnic Table" (#5,330,247)

Alexander P. Mathews "Fermentation Process for the Production of Calcium Magnesium Road Deicer" (#5,324,442)

Andra J. Cullen, Russell C. Hosenev, and Jon M. Faubion "Identification of Wheat Cultivars by Visual Imaging" (#5,321,764)

Paul A. Seib and Feng Guan "Multi-Faced Probe and Method of Measuring the Stickiness of Cooked String Pasta Products" (#5,311,768)

Chi-Tai Huang "Method for Cracking Walnuts and Recovery of Nut Meat Therefrom" (#5,296,248)

Alexander P. Mathews "Tapered Bed Filtration Apparatus" (#5,292,436)

Hugh S. Walker and Robert J. Dorgan "Preassembled, Easily Mountable Strain Gage" (#5,289,722)

Russell C. Hosenev and Wei Z. Chen "Adhesion Testing Apparatus and Method for Flowable Materials such as Wheat Doughs" (#5,280,717)

David Ovidia "Combination Microwave and Convection Oven and Method of Using" (#5,272,299)

Frank E. Cunningham, Paul E. Neumann, and Gordon R. Huber "Extruded Meat-Based Snack Food and Method for Preparing Same" (#5,262,190)

Paul E. Neumann and Paul A. Seib "Starch-Based, Biodegradable Packing Filler and Method of Preparing Same" (#5,248,702)

Michael W. Dryden, Alberto B. Broce, and Kent E. Hampton "Flea Trap" (#5,231,790)

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