

EXTRAMURAL AWARDS

55 Million Dollars

**RESEARCH
AWARDS
FISCAL YEAR
1995
KANSAS STATE UNIVERSITY**

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55 Million Dollars



INTRODUCTION

This report presents a comprehensive summary of all awards made by extramural sponsors to faculty at Kansas State University during the period July 1, 1994, through June 30, 1995, in support of our research and scholarly activity mission. Many of these awards result from national competitions conducted by federal agencies. Because the competitive federal programs typically fund only about 10 percent of new proposals submitted, these awards made to K-State faculty speak especially well to their competitiveness nationally. Other awards, particularly those made by industry, foundations, and state agencies, recognize equally well the special expertise and competitiveness of the faculty. This report addresses only extramural awards received during the year, thereby recognizing but one mark of excellence in research and scholarly activity that is particularly applicable in scientific and engineering disciplines. Other equally recognized marks of excellence representative of distinguished scholarship and creative activity, such as books authored, chapters in books, publications in refereed journals, exhibitions of creative activities, and invited presentations at prestigious international conferences, are recognized in other ways at the University.

In FY95, competitive awards had another sharp upsurge, increasing from \$41,469,935 to \$51,145,000, setting a new University record in extramural awards received. This increase of nearly \$10 million in competitive awards represents a gain in excess of 23 percent, a percentage well above the national norm. Collectively, these increases highlight the strong achievements of the faculty and are particularly noteworthy when contrasted to the level of the awards received in the 1980s that fell in the low to mid-\$20 million interval. The increase in awards from \$27.2 million in 1990 to \$51.1 million this year amounts to an 88 percent increase, an astonishing increase that places Kansas State University in the ranks of the "top 70" public research universities in the nation.

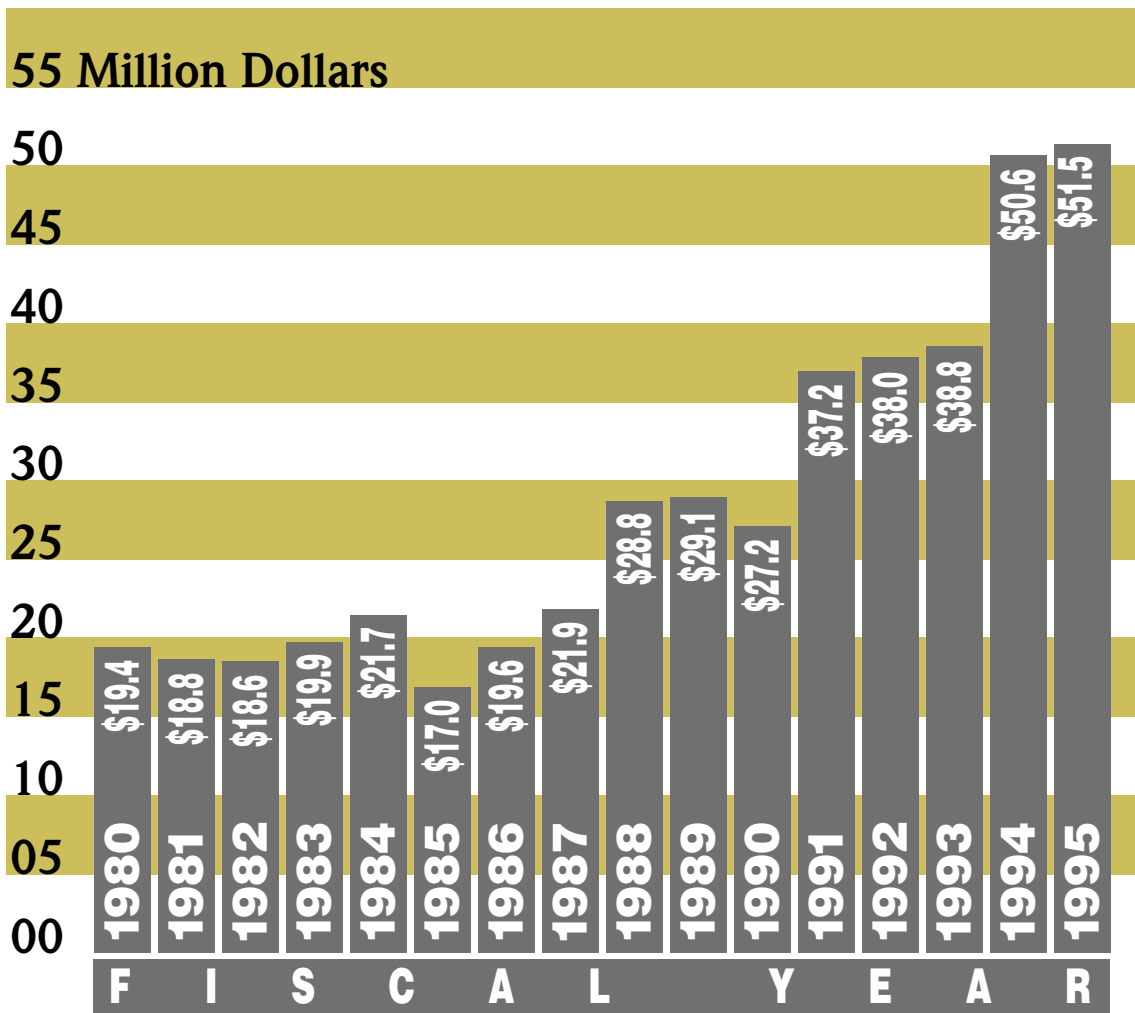
So that the appreciable contributions of all faculty receiving awards may be recognized appropriately, awards are listed under the name of the Principal Investigator as well as the name(s) of the Co-Principal Investigator(s) with cross-referencing to all home academic departments. One benefit is that faculty involved in interdisciplinary research programs receive recognition commensurate with single investigator awards.

Research performed by faculty results in the generation of new knowledge. Sometimes that also results in a novel idea or invention that may have commercial applications if protected by a patent. To recognize these accomplishments, this report also contains a listing of all U.S. patents awarded to K-State personnel during the 1995 fiscal year. Following Regents Policy, these patents are assigned by the inventors to the University which may use a designated agent. KSU has designated responsibility for the commercialization of intellectual property to the KSU Research Foundation (KSURF), and KSURF fulfills that responsibility either by licensing such University property to local or national corporations or by encouraging the creation of new companies that rely on that new technology. To facilitate the commercialization of its intellectual property, especially to foster the creation of new companies based on that technology, the University entered into a partnership this year to form the Mid-America Commercialization Corporation (MACC). MACC, formed in partnership with the City of Manhattan, the Manhattan Chamber of Commerce, and the Kansas Technology Enterprise Corporation (KTEC), provides a broad range of services to facilitate startup companies ranging from basic business acumen through access to venture capital funds. To facilitate its obligations with respect to the commercialization of University intellectual property, KSURF has now entered into a contractual relationship with MACC.

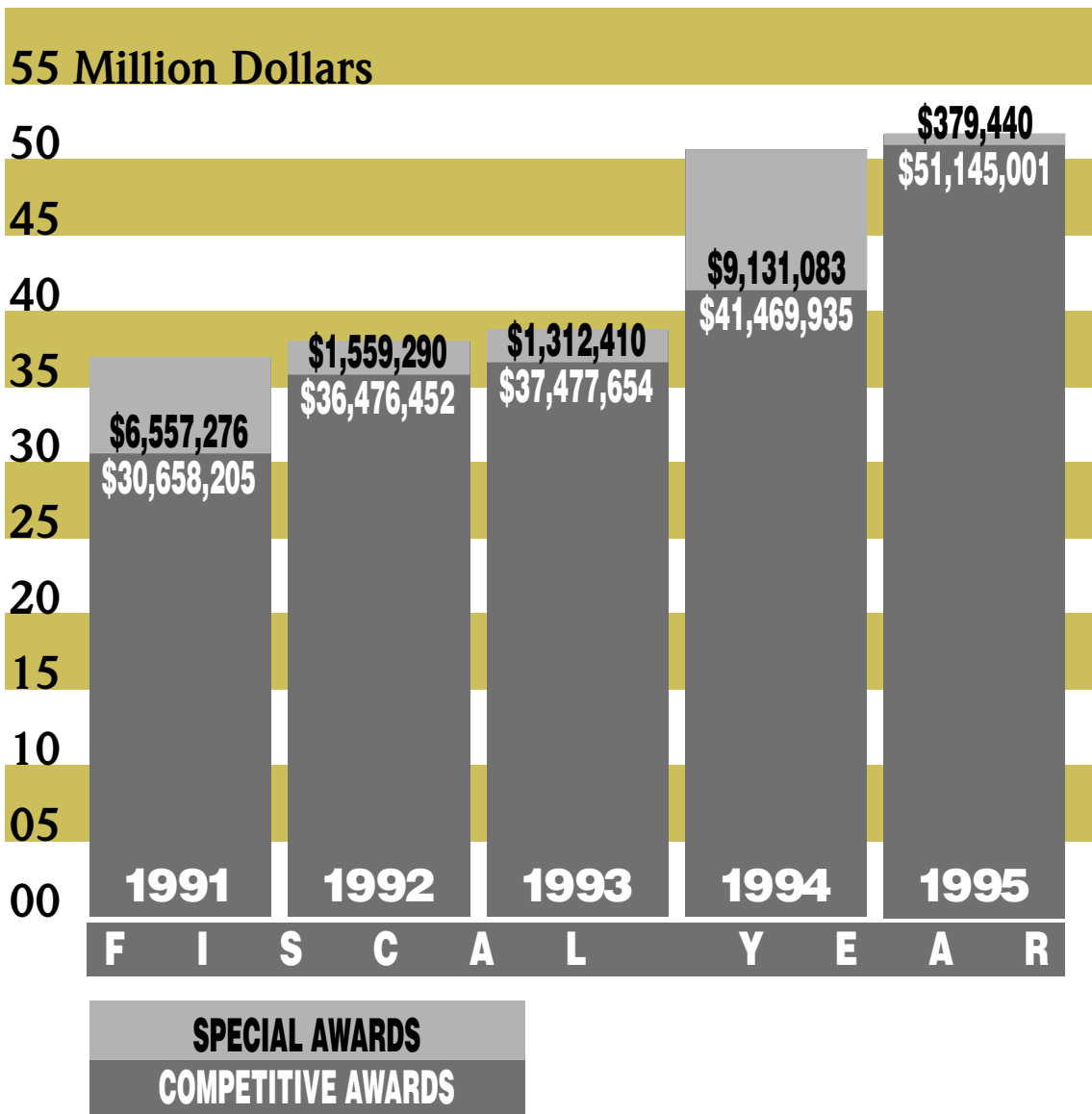
The Office of Research also publishes other reports from time to time that highlight the high impact that research has on the Manhattan and Kansas economies. During this last year, the report *Kansas State University: 1995 Economic Impact Report* was issued, summarizing the economic benefits of K-State research and of the value-added components resulting from that research to Kansas. A principal conclusion of this report was that the Kansas economy benefitted in excess of \$1.3 billion dollars, a surprising ten-fold leveraging of the annual state funds appropriated in support of the total entire educational mission of this University. That, coupled with the increase of nearly \$10 million in competitive awards reported here, makes it clear why K-State, along with the other leading research universities of the nation, are engines of significant economic stimulus.

*Timothy R. Donoghue
Vice Provost for Research
Dean of the Graduate School
March 1995*

KANSAS STATE UNIVERSITY TOTAL EXTRAMURAL AWARDS

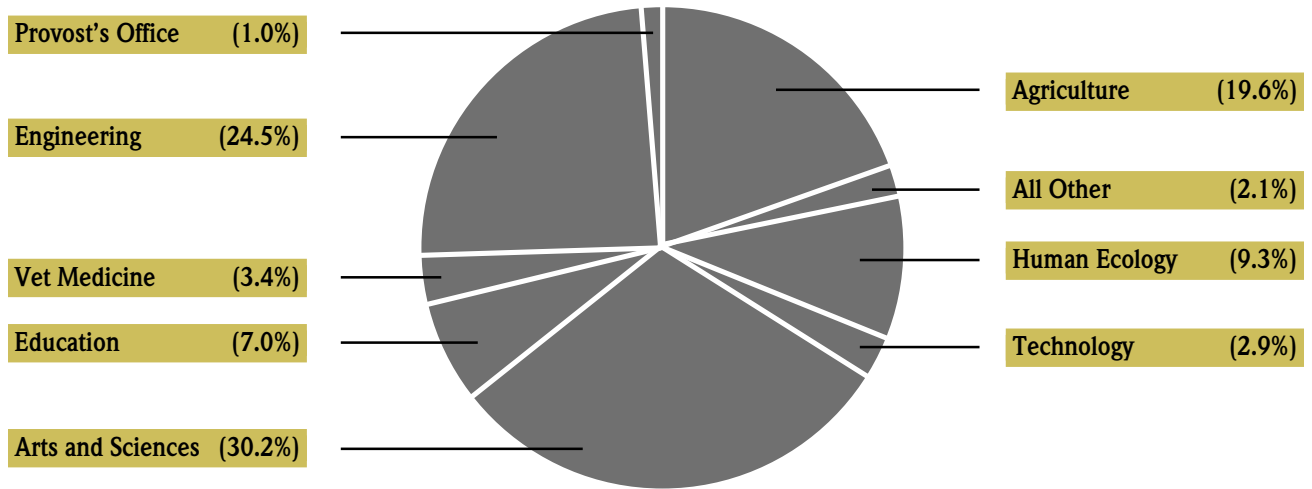


KANSAS STATE UNIVERSITY COMPETITIVE & SPECIAL AWARDS



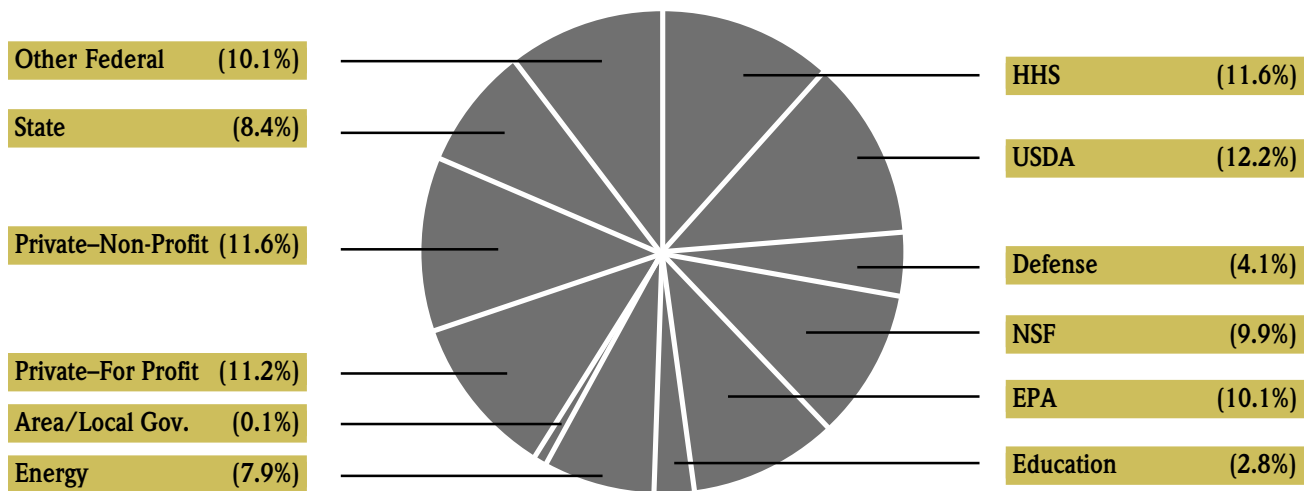
AWARDS BY COLLEGE/OFFICE

for Fiscal Year 1995



SOURCES OF AWARDS

for Fiscal Year 1995



DISTRIBUTION OF NEW AWARDS AMONG COLLEGES AND OFFICES OF THE UNIVERSITY

Fiscal Year 1995

College/Office	Number of Awards	Dollar Value
College of Agriculture	257	\$10,111,016
College of Architecture	5	\$149,164
College of Arts and Sciences	165	\$15,562,098
College of Business	4	\$108,754
College of Education	20	\$3,584,237
College of Engineering	122	\$12,600,752
College of Human Ecology	47	\$4,802,009
College of Technology	14	\$1,495,934
College of Veterinary Medicine	53	\$1,726,676
Office of Public Safety	1	\$6,589
Office of the President	2	\$27,688
Office of the Provost	10	\$512,514
Vice President for Administration and Finance	1	\$211,200
Vice President for Institutional Affairs	8	\$479,823
Vice Provost for Research/Dean of Graduate School	4	\$145,987
TOTALS	713	\$51,524,441

DISTRIBUTION OF NEW AWARDS AMONG DEPARTMENTS OF THE UNIVERSITY

Fiscal Year 1995

Department/Office*	Number of Awards	Dollar Value
Accounting	1	\$8,254
Advanced Manufacturing Institute	5	\$1,628,315
Agricultural Economics	7	\$197,118
Agricultural Experiment Station Administration	6	\$317,375
Agricultural Research Center-Hays	15	\$249,059
Agronomy	48	\$2,290,388
Anatomy and Physiology	19	\$795,379
Animal Sciences and Industry	26	\$1,446,190
Architectural Engineering and Construction Science	8	\$381,109
Art	1	\$0
Biochemistry	19	\$1,333,020
Biological and Agricultural Engineering	15	\$1,133,077
Biology	64	\$6,471,354
Center for Hazardous Substance Research	5	\$4,389,595
Chemical Engineering	6	\$399,563
Chemistry	17	\$2,123,031
Civil Engineering	24	\$1,482,660
Clinical Sciences	14	\$174,375
Clothing, Textiles and Interior Design	3	\$65,603
College of Technology	14	\$1,495,934
Communications	2	\$56,778
Computing and Information Sciences	8	\$895,942
Dean of Agriculture	1	\$6,660
Dean of Education	10	\$2,085,194
Dean of Engineering	2	\$65,338
Dean of Human Ecology	1	\$60,485
Dean of Student Life	1	\$60,411
Dean of Veterinary Medical Center	2	\$5,825
Diagnostic Medicine/Pathobiology	18	\$751,097
Economics	4	\$71,584
Educational Administration	1	\$3,255
Educational and Personal Development	3	\$391,834

* Some departments appear on this list with an awarded dollar amount. This is a result of sharing funds with another department. Reporting credit is not necessarily given to all departments involved in an award.

Department/Office	Number of Awards	Dollar Value
Electrical and Computer Engineering	10	\$522,840
Entomology	24	\$799,011
Environmental Research Institute	1	\$113,398
Extension Agronomy	0	\$26,236
Extension Animal Science	0	\$2,325
Extension Area Offices	4	\$6,480
Extension Communications	2	\$42,023
Extension Community Development	3	\$100,460
Extension Director	1	\$172,229
Extension Engineering	9	\$431,725
Extension Home Economics	2	\$42,060
Extension Seat Belt Program	1	\$16,566
Food and Feed Grains Institute	11	\$820,412
Foods and Nutrition	10	\$127,431
Foundation and Adult Education	1	\$43,240
Four-H and Other Extension Youth Programs	1	\$30,381
Geography	7	\$106,215
Geology	4	\$79,978
Grain Science and Industry	26	\$1,264,147
History	2	\$127,533
Horticulture, Forestry and Recreation Resources	9	\$128,195
Hotel, Restaurant, Institution Management and Dietetics	8	\$364
Huck Boyd Institute	1	\$13,767
Industrial and Manufacturing Systems Engineering	6	\$260,116
Institute for Computational Research in Engineering	0	\$10,423
Institute for Social and Behavioral Research	3	\$152,893
Interior Architecture	2	\$1,200
International Agriculture Programs	4	\$262,583
International Programs	1	\$5,250
Kansas Center for Rural Initiatives	5	\$304,764
Kansas Industrial Extension Services	10	\$345,234
Kansa Water Resources Research Institute	1	\$78,545

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Department/Office	Number of Awards	Dollar Value
Kinesiology	4	\$122,753
Landscape Architecture/Regional and Community Planning	3	\$147,964
Library	3	\$30,000
Mathematics	5	\$233,770
McCain Auditorium	1	\$13,921
Mechanical Engineering	11	\$485,780
Modern Languages	0	\$35,685
Multicultural Affairs	1	\$6,300
Northwest Research-Extension Center	6	\$125,711
Nuclear Engineering	2	\$55,637
Office of the Provost	1	\$172,500
Physical Facilities	1	\$211,200
Physics	19	\$4,299,082
Plant Pathology	38	\$1,365,752
Production Management and Natural Resource Development	4	\$94,699
Psychology	5	\$121,428
Public Safety	1	\$6,589
School of Family Studies and Human Services	22	\$4,302,157
School of Journalism and Mass Communications	2	\$43,434
Secondary Education	4	\$130,512
Sensory Analysis Center	1	\$203,909
Small Business Development Center	3	\$100,500
Sociology, Anthropology and Social Work	6	\$52,716
Southeast Agricultural Research Center	8	\$60,451
Southwest Research-Extension Center	9	\$151,242
Special Education	4	\$1,322,036
Statistics	3	\$187,622
Student Financial Assistance	3	\$21,278
Vice Provost for Research Biotechnology Core Facility	1	\$78,138
Vice Provost for Research and Dean of Graduate School	3	\$67,849
TOTALS	713	\$51,524,441

AWARDS

Office of Research and Sponsored Programs

Fiscal Year 1994 (July 1, 1994 – June 30, 1995)

COLLEGE OF AGRICULTURE

AGRICULTURAL ECONOMICS

Barton, D. and **Featherstone, A.**, USDA, \$32,000, "Optimal Capital Structure of Local Grain Marketing and Farm Supply Cooperatives."

Barton, D., Coop Dev Found, \$53,199, "Cooperative Development Foundation Subgrant."

Barton, D., Multisponsor, \$24,000, "Arthur Capper Cooperative Center."

Barton, D., **Erickson, D.** (Prod Mgmt & Nat Resource Dev), and **Williams, C.** (Prod Mgmt & Nat Resource Dev), KS Value Added Ctr, \$6,000, "Small Scale Kansas Food Processors Marketing Study: An Evaluation of Distribution Channel Alternatives."

Biere, A., KS Value Added Ctr, \$500, "Wheat Producer Survey."

Biere, A., KS Wheat Comm, \$2,500, "White Wheat Producer's Attitudes Towards Growing White Wheat."

Brester, G. (see **Hahn, R.**, Grain Sci & Ind).

Diebel, P. (see **Norman, D.**, Ag Econ).

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

Norman, D., Rockefeller Found, \$4,010, "Credit Accessibility to Low Income Women in Uganda—A Multi-Nominal Logit Analysis."

Norman, D., Overseas Development Inst, \$14,211, "Midterm ASSF Project Review."

Norman, D., Ministry of Agriculture, \$17,450, "Tanzania National Agriculture Extension Program II."

Norman, D., **Diebel, P.**, and **Schurle, B.**, Kellogg Found, \$40,237, "Financial Analysis of Alternative Agricultural Systems."

Norman, D., Royal Netherlands Embassy, \$28,861, "Western Kenya Project Identification Mission for Research and Extension."

Schurle, B. (see **Norman, D.**, Ag Econ).

Vandevveer, M. (see **Devlin, D.**, Agronomy).

Williams, J. (see **Lamm, F.**, NW Res-Ext Ctr).

AGRICULTURAL EXPERIMENT STATION

Ham, G. (see **Ransom, M.**, Agronomy).

Ham, G. (see **Seyler, H.**, Geography).

Ham, G., USDA, \$79,216, "Development and Management of Canola in the Great Plains Region."

Ham, G., Multisponsor, \$100,000, "Commissions Growth Chambers Fund—Throckmorton II" (2 awards).

AGRICULTURAL RESEARCH CENTER—HAYS

Harris, P. (see **Leach, J.**, Plant Path).

Harris, P. (see **Stahlman, P.**, Ag Res Ctr—Hays).

Kofoed, K., **Harvey, T.** (Entomology), **Reese, J.** (Entomology) and **Seifers, D.**, KS Dept of Ag, \$57,000, "Development of Sorghum Germplasm with Enhanced Tolerance to Greenbug, Sugarcane Mosaic Virus, Maize Dwarf Mosaic Virus and Drought."

Kofoed, K., Multisponsor, \$3,500, "Sorghum Research."

Martin, T., and **Seifers, D.**, KS Crop Improvement Assoc, \$900, "Operation of Disease-Screening Nurseries in Support of the KSU Wheat Breeding Program."

Martin, T., KS Wheat Comm, \$45,000, "Genetic Development of Higher Disease Resistance and Grain Protein in New Wheat Varieties."

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

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

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

Seifers, D. (see **Kofoed, K.**, Ag Res Ctr—Hays).

Seifers, D., **Harvey, T.** (Entomology), and **Martin, T.**, Monsanto Co, \$9,859, "Field and Growth Chamber Testing of Wheat Lines from the Monsanto Company for Wheat Streak Mosaic Virus Resistance."

Seifers, D., and **Martin, T.**, KS Wheat Comm, \$12,600, "Replacement of Titanium Centrifuge Rotor."

Stahlman, P. (see **Leach, J.**, Plant Path).

Stahlman, P., and **Harris, P.**, KS Wheat Comm, \$34,900, "Biological Control of Winter Annual Grass Weeds in Winter Wheat."

Stahlman, P., USDA, \$11,000, "Jointed Goatgrass Competition and Management in Western US Winter Wheat."

Stahlman, P. (see **Peterson, D.**, Prod Mgmt & Nat Resource Dev).

Stahlman, P., Multisponsor, \$13,260, "Weed Research."

Stahlman, P., CIBA-GEIGY Corp, \$13,000, "Biocontrol Project for Weed Control."

Stegmeier, W., and **Harvey, T.** (Entomology), US Agency for Intl Development, \$36,250, "Pearl Millet/Germplasm Enhancement for Semiarid Regions" (2 awards).

Stegmeier, W. (see **Rife, C.**, Agronomy).

Thompson, C., Donlar Corp, \$10,000, "Effect of Synthetic Protein, Aspartic Acid, on Winter Wheat Grown in a 22.5-Inch Precipitation Area."

Vanzant, E., PM Ag Products, Inc., \$7,500, "Consumption of Chlortetracycline by Grazing Beef Heifers Offered Free-Choice Feed Blocks."

Vanzant, E., Multisponsor, \$5,000, "Range Research."

AGRONOMY

Bramel-Cox, P., **Claassen, M.**, **Clafin, L.** (Plant Path), and **Witt, M.** (SW Res-Ext Ctr), KS Dept of Ag, \$29,500, "Breeding Grain Sorghum for Improved Dryland Production."

Bramel-Cox, P. (see **Wilde, G.**, Entomology).

Bramel-Cox, P. (see **Hancock, J.**, Animal Sci & Ind).

Burchett, L., KS Crop Improvement Assoc, \$70,203, "Seed and Plant Parts Certification."

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

Claassen, M. (see **Bramel-Cox, P.**, Agronomy).

Cox, T. (see **Paulsen, G.**, Agronomy).

Cox, T. (see **Bowden, R.**, Plant Path).

Devlin, D. (see **Barnes, P.**, Biol & Agric Engg).

Devlin, D., **Fjell, D.** (Prod Mgmt & Nat Resource Dev), **Gordon, W.** (Agronomy), **Marsh, B.** (Agronomy), **Shroyer, J.** (Prod Mgmt & Nat Resource Dev), and **Vandevveer, M.** (Ag Econ), KS Dept of Ag, \$13,118, "Effect of Corn Hybrid Maturity, Planting Date, and Plant Population on Grain Yields and Weed Infestations in No-Till Planted Dryland Corn."

Devlin, D., **Fjell, D.** (Prod Mgmt & Nat Resource Dev), **Gordon, W.** (Agronomy), **Shroyer, J.** (Prod Mgmt & Nat Resource Dev), and **Vandevveer, M.** (Ag Econ), KS Dept of Ag, \$13,118, "Effect of Hybrid Maturity, Planting Date, Plant Population, and Row Spacing on Grain Yields and Weed Infestations in Grain Sorghum."

Feltner, K., NCR AES, \$137,134, “Director-At-Large North Central Region—AES.”

Fritz, J., Cochran, R. (Animal Sci & Ind), and **Skinner, D.**, USDA, \$99,576, “Alfalfa Research.”

Gordon, W. (see **Lamm, F.**, NW Res-Ext Ctr).

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

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

Ham, J., USDA, \$110,000, “Carbon and Water Fluxes from Irrigated Corn: A Field-Scale, Full Season Study.”

Ham, J., and **Knapp, A.** (Biology), US Dept of Energy, \$30,000, “Carbon, Water, and Energy Fluxes from a Tallgrass Prairie—A Long-term Investigation of Environmental, Biological, Land-Management Factors.”

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

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

Havlin, J. (see **Heer, W.**, Agronomy).

Heer, W. (see **Rife, C.**, Agronomy).

Heer, W., Bowden, R. (Plant Path), **Havlin, J.** and **Warmann, G.** (SC Area Office), KS Dept of Ag, \$5,800, “Introducing Soybeans into Crop Rotations in South Central Kansas.”

Horak, M., and **Nechols, J.** (Entomology), KS Wheat Comm, \$16,390, “Biological Control of Field Bindweed.”

Janssen, K., Multisponsor, \$700, “Double-Crop Soybean Performance Tests, Agronomy.”

Janssen, K. (see **Peterson, D.**, Prod Mgmt & Nat Resource Dev).

Kluitenberg, G. (see **Welch, S.**, Agronomy).

Kok, H. (see **Ransom, M.**, Agronomy).

Kok, H. (see **Seyler, H.**, Geography).

Lamond, R., and **Whitney, D.** (Prod Mgmt & Nat Resource Dev), KS Dept of Ag, \$9,500, “Nitrogen Fertilizer Effects on Soybean Yield and Seed Protein and Oil Contents.”

Lamond, R., Maddux, L., Marsh, B., and **Pierzynski, G.**, Multisponsor, \$36,220, “Soil Fertility and Soil Management Investigations.”

Liang, G., and **Skinner, D.**, USDA, \$50,000, “Biostic Gametophyte Transformation of Alfalfa.”

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

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

Marsh, B. (see **Devlin, D.**, Agronomy).

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

Martin, V., Duncan, S. (SC Area Office), and **Warmann, G.** (SC Area Office), KS Dept of Ag, \$6,500, “Yield Effects of Double- and Inter-Cropping Soybeans into Wheat Stubble on Irrigated Sandy Soils.”

Owensby, C., Ham, J., Knapp, A. (Biology), and **Rice, C.**, US Dept of Energy, \$50,000, “Rangeland—Plant Response to Elevated CO₂.”

Owensby, C., Ham, J., Knapp, A. (Biology), and **Rice, C.**, US Dept of Energy, \$264,692, “Processes Affecting Carbon Fluxes of Grassland Ecosystems Under Elevated Atmospheric CO₂.”

Paulsen, G., KS Crop Improvement Assoc, \$4,448, “Simultaneous Selection for Drought and Heat Resistance in Wheat.”

Paulsen, G. (see **Leach, J.**, Plant Path).

Paulsen, G., and **Cox, T.**, KS Crop Improvement Assoc, \$5,600, “Agronomic and Physiological Traits from Wild Relatives for Developing Improved Wheat Cultivars.”

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

Posler, G., Pioneer Hi-Bred Intl, Inc, \$25,000, “Pioneer Plant Breeding Fellowship.”

Posler, G., USDA, \$142,000, “Simulation of Erosion-Induced Plant Stresses and PM-10 Production.”

Ransom, M., Ham, G. (Agric Exp Sta), **Kok, H., Nellis, M.** (Geography), and **Seyler, H.** (Geography), USDA, \$40,000, “Digitizing of Soil Surveys.”

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

Ransom, M., USDA, \$3,000, “Providing Soil Sample Analyses for Soil Survey Activities.”

Regehr, D., and **Barnes, P.** (Biol & Agric Engg), KS Dept of Ag, \$10,000, “Improving Atrazine Management for Weed Control in Grain Sorghum.”

Regehr, D., and **Barnes, P.** (Biol & Agric Engg), KS Dept of Ag, \$20,000, “Atrazine Management—Efficacy, Formulations, Alternatives, Run-off Losses, and Buffer Zones.”

Regehr, D. (see **Peterson, D.**, Prod Mgmt & Nat Resource Dev).

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

Rice, C. (see **Blair, J.**, Biology).

Rice, C. (see **Schwab, A.**, Agronomy).

Rife, C., Heer, W., Stegmeier, W. (Ag Res Ctr—Hays) and **Sunderman, H.** (NW Res-Ext Ctr), USDA, \$79,848, “Canola Research.”

Rooney, W., KS Crop Improvement Assoc, \$4,000, Identification of Tolerance to Autotoxicity in Alfalfa.”

Rooney, W., USDA, \$2,335, “Screening Alfalfa Genotypes for Reduced Autotoxicity.”

Rooney, W., KS Crop Improvement Assoc, \$3,500, “Recurrent Selection for Reduced Autotoxicity in Alfalfa.”

Roozeboom, K., Multisponsor, \$252,473, “Crop Performance.”

Schaffer, V., Multisponsor, \$5,486, “Foundation Seed Maintenance.”

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

Schapaugh, W., KS Crop Improvement Assoc, \$12,100, “Development of Commercial Soybean Varieties for Kansas.”

Schapaugh, W. (see **Long, J.**, SE Ag Res Ctr).

Schapaugh, W., Long, J. (SE Ag Res Ctr), and **Todd, T.** (Plant Path), KS Dept of Ag, \$110,525, “Development and Evaluation of Commercial Soybean Varieties for Kansas.”

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

Schwab, A., Banks, M. (Civil Engg), and **Erickson, L.** (Chem Engg), US Envir Prot Agency, \$394,000, “Enhancement of Bioremediation Research in Kansas.”

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

Schwab, A., Banks, M. (Civil Engg), **Blair, J.** (Biology), **Davis, L.** (Biochemistry), **Erickson, L.** (Ctr for Hazardous Sub Res), **Oehme, F.** (Clinical Sci), and **Pickrell, J.** (Clinical Sci), Natl Sci Found, \$98,443, “Acquisition of High Performance Liquid Chromatograph and Gas Chromatograph/Mass Spectrometer for Studying Dissipation of Organic Contamina.”

Schwab, A., Banks, M. (Civil Engg), **Dodds, W.** (Biology), and **Rice, C.**, Natl Sci Found, \$193,500, “Biotic and Abiotic Factors Controlling Nitrogen Flux in Pristine and Agricultural Subsurface Systems.”

Schwab, A., Sherwin-Williams Co, \$0, “Phytoremediation Field Study.”

Schwab, A., Banks, M. (Civil Engg), and **Erickson, L.** (Ctr for Hazardous Sub Res), KS Technology Enterprise Corp, \$200,000, “Kansas EPA EPSCoR: Enhancement of Bioremediation Research in Kansas R82-1829-010.”

Sears, R., KS Wheat Comm, \$32,000, “Development of Hard White Winter Wheats for Kansas.”

Sears, R., and **Martin, T.** (Ag Res Ctr—Hays), KS Wheat Comm, \$66,252, “Improvement of Hard Red Winter Wheat for Kansas.”

Sears, R., KS Crop Improvement Assoc, \$6,000, “Development of a New Heterotic Group in Wheat.”

Sears, R., KS Crop Improvement Assoc, \$9,000, "Improvement of Yield and Quality in Hybrid Wheat."

Skinner, D. (see **Fritz, J.**, Agronomy).

Skinner, D. (see **Liang, G.**, Agronomy).

Stone, L. (see **Lamm, F.**, NW Res-Ext Ctr).

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

Vanderlip, R., Multisponsor, \$3,000, "Corn and Grain Sorghum Production and Management."

Welch, S., and **Vanderlip, R.**, United Soybean Board, \$12,000, "Improving Soybean Profitability and Reducing Risks of Environmental Effects: Determining Best Management Practices Using Decision Support Systems."

Welch, S., **Ham, J.**, and **Kluitenberg, G.**, USDA, \$12,465, "Computer Work Station for Soil-Plant-Atmosphere Continuum Studies."

ANIMAL SCIENCES AND INDUSTRY

Arns, M. (see **Raub, R.**, Animal Sci & Ind).

Bolsen, K., and **Shirley, J.**, Pioneer Hi-Bred Intl, Inc, \$45,762, "Forage Preservation Additives Trials."

Boyle, E., KS Value Added Ctr, \$10,500, "Kansas Value-Added Meats Graduate Assistantship."

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

Cochran, R. (see **Fritz, J.**, Agronomy).

Cohran, R. (see **Hartnett, D.**, Biology).

Corah, L., Ivy Laboratories, Inc, \$10,000, "Determining the Efficacy of Calf-Oid Implants Used at Birth."

Drake, C., KSU Found, \$23,588, "Teaching Support-Livestock and Meat Industry Council."

Goodband, R. (see **Nelssen, J.**, Animal Sci & Ind).

Hancock, J., Midwest Grain Products, Inc, \$9,800, "Use of Wheat Gluten in Phase 2 Nursery Pig Diets."

Hancock, J., **Behnke, K.** (Grain Sci & Ind), **Bramel-Cox, P.** (Agronomy), and **Witt, M.** (SW Res-Ext Ctr), KS Dept of Ag, \$35,450, "Digestibility and Feeding Value of Grain Sorghum—Manipulating Genotype and Processing Techniques to Improve Nutritive Value."

Hancock, J., High Plains Technologies, Inc, \$4,000, "Soy Concentrates for Baby Pigs."

Hunt, M., **Kastner, C.**, and **Kropf, D.**, Am Meat Inst Found, \$94,200, "Palatability, Color and Shelf Life of Beef Subjected to Low-Dose Irradiation."

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

Kastner, C., USDA, \$407,990, "Animal Science Food Safety Consortium - Kansas State University."

Kastner, C. (see **Kuhl, G.**, Animal Sci & Ind).

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

Kastner, C., Am Meat Inst Found, \$47,540, "Microbiological Baseline Tracking for Beef."

Kastner, C., and **Boyle, E.**, KS Value Added Ctr, \$5,000, "Support of Value-Added Workshop for Food Processors."

Kastner, C., USDA, \$0, "Support for Food Safety Conference "Tracking Foodborne Pathogens from Farm to Table: Data Needs to Evaluate Control Options."

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

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

Kropf, D., **Chambers IV, E.** (Foods & Nutr), **Hunt, M.**, and **Kastner, C.**, Natl Live Stock and Meat Board, \$104,700, "Quality Study of Whole Muscle Pork Subjected to Two Types of Low-Dose Irradiation."

Kuhl, G., **Behnke, K.** (Grain Sci & Ind), **Eck, T.** (SW Res-Ext Ctr), **Kastner, C.**, and **Kreikemeier, K.** (SW Res-Ext Ctr), KS Dept of Ag, \$23,900, "Influence of Various Ratios of Steam-Flaked Grain Sorghum and Corn in Feedlot Rations on Steer Finishing Performance, Carcass Characteristics, Beef Composition and Palatability, and Feedyard Mill Efficiency."

Kuhl, G. (see **Eck, T.**, SW Res-Ext Ctr).

Morrill, J., Midwest Grain Products, Inc, \$2,851, "Evaluation of a Calf Starter Protein Source."

Nagaraja, T., and **Chengappa, M.** (Diag Med/Pathobiology), KSU Res Found, \$64,430, "Induced Hepatic Abscesses in Cattle Immunized with Leukotoxin of *Fusobacterium Necrophorum*."

Nagaraja, T., Eli Lilly & Co, \$25,000, "Evaluation of the Effectiveness of Monensin in Controlling Bloat in Feedlot Cattle."

Nagaraja, T., Pfizer Inc, \$32,037, "Virginiamycin Effects on Rumen Metabolism in Cattle During Adaptation to a High Concentrate Diet."

Nelssen, J., and **Goodband, R.**, AVEBE America, Inc, \$20,662, "Effects of Potato Proein on Starter Pig Growth Performance."

Phebus, R. (see **Smith, J.**, Animal Sci & Ind).

Raub, R., and **Arns, M.**, KS Racing Comm, \$2,900, "Kansas Horse Industry Economic Impact Survey."

Riley, J., KS Beef Council, \$325,000, "Support of Regents Distinguished Professorship in Animal Sciences."

Schmidt, K., Natl Dairy Promotion & Research Board, \$17,500, "Novel Milk Products Produced Through High Hydrostatic Pressure Processing."

Shirley, J., and **Behnke, K.** (Grain Sci & Ind), KS Dept of Ag, \$16,512, "Roasting Grain Sorghum to Improve Digestibility and Enhance Nutritional Value in Lactating Dairy Cattle Diets."

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

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

Simms, D. (see **Eck, T.**, SW Res-Ext Ctr).

Smith, J., **Phebus, R.**, and **Pickrell, J.** (Clinical Sci), KS Dept of Ag, \$31,950, "Biological Detoxification of Aflatoxin and Fumonisin in Corn Products and Determination of Degradation Metabolites."

Titgemeyer, E., **Behnke, K.** (Grain Sci & Ind), and **Shirley, J.**, KS Dept of Ag, \$13,500, "Evaluation of Heated Soybean Meal Products Containing Different Levels of Lipid in Lactating Dairy Cows."

Woods, W., USDA, \$131,911, "Walter R. Woods, Assistant Administrator for Regional Research, USDA Cooperative State Research Service."

COMMUNICATIONS

Mintert, S., KS Dept of Admin, \$29,278, "KPBC Service and Incentive Program."

Mintert, S., KS Dept of Admin, \$27,500, "KKSU Transmitter Matching."

DEAN OF AGRICULTURE AND DIRECTOR OF AES

Johnson, M., USDA, \$600,216, "USDA-ARS Research Support Agreement" (12 awards).

Johnson, M., USDA, \$1,025, "CSRS-Cooperative Research Agreement."

Johnson, M., and **Buchholz, D.** (Community Development), KS Dept of Ag, \$150,000, "Farmers Assistance Counseling and Training Service (FACTS) Including the Agricultural Mediation Program."

ENTOMOLOGY

Beeman, R., and **DeCamillis, M.** (Biology), Intl Human Frontier Science Program Organization, \$39,500, "Genetic and Molecular Analysis of Anterior Development in *Tribolium Castaneum*."

Broce, A., and Urban, J., S.C. Johnson & Sons, Inc, \$5,000, "Bacteria in Filth Flies in Greyhound Kennels and in Airborne Insect Particles Generated by Electrocuting Insect Traps."

Broce, A., Multisponsor, \$1,500, "Methods for Control of Livestock Insects."

Broce, A., USDA, \$50,000, "Ecology of Screwworms in Panama."

Broce, A., KS Dept of Health & Environment, \$75,950, "Arboviral Surveillance and Control in 1993 Flood Affected Areas of Kansas."

Broce, A. (see **Dryden, M.,** Diag Med/Pathobiology).

Broce, A., Charlton, R., and Urban, J. (Biology), Farnam Co, Inc, \$15,124, "Bacterial Volatiles Attractive to Stable Flies."

Broce, A., and Dryden, M. (Diag Med/Pathobiology), Ecto Development Corp, \$8,954, "Dispersal of Insecticide Pour-On Formulations over the Animal's Body."

Buschman, L., Dhuyvetter, K. (SW Res-Ext Ctr), **Sloderbeck, P.** (SW Res-Ext Ctr), and **Spurgeon, W.** (SW Res-Ext Ctr), USDA, \$74,680, "Management of Corn Insect Pests by Changing Corn Maturity and Planting Date—Entomologic, Agronomic & Economic Consequences."

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

Buschman, L., Dhuyvetter, K. (SW Res-Ext Ctr), **Sloderbeck, P.** (SW Res-Ext Ctr), and **Spurgeon, W.** (SW Res-Ext Ctr), KS Dept of Ag, \$22,500, "Management of Corn Insect Pests by Changing Corn Maturity and Planting Date."

Buschman, L., Multisponsor, \$17,500, "Insecticide Management of Field Crop Insects in Southwestern Kansas."

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

Cress, D. (see **Seyler, H.,** Geography).

Dover, B., USDA, \$60,000, "Suppression of JH Esterase During Parasitism."

Harvey, T., Multisponsor, \$300, "Insecticide Management of Field Crop Insects at Hays, Kansas."

Harvey, T. (see **Stegmeier, W.,** Ag Res Ctr—Hays).

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

Harvey, T. (see **Seifers, D.,** Ag Res Ctr—Hays).

Higgins, R., Multisponsor, \$19,500, "Insecticide Management of Foliar and Stalk-Boring Insects Affecting Alfalfa, Corn, and Soybeans in Northeastern Kansas."

Higgins, R., and Buschman, L., Monsanto Co, \$48,000, "Evaluation of European Corn Borer."

Higgins, R., Northrup King Co, \$4,500, "University Testing Agreement - Bt Corn."

Hopkins, T., Natl Sci Found, \$270,000, "Insect Cuticle Sclerotization: Interactions of Structural Proteins with Catecholamine Metabolites."

Kambhampati, S., USDA, \$114,000, "Molecular Phylogenetics, Speciation and Evolution of Host Range in Aphidid Wasps."

Kambhampati, S., Multisponsor, \$5,000, "Insect Genetics."

Nechols, J. (see **Horak, M.,** Agronomy).

Nechols, J., Multisponsor, \$600, "Aphid Biological Control for Greenhouse and Cut Flower Crops."

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

Wilde, G., Multisponsor, \$1,180, "Testing for Greenbug Biotype and Resistance."

Wilde, G., and Bramel-Cox, P. (Agronomy), KS Dept of Ag, \$14,500, "Development of Grain and Forage Sorghums Resistant to Chinch Bugs."

Wilde, G., Multisponsor, \$39,300, "Chemical Control of Insect Pests of Corn and Other Field Crops, Small Grain, and Forage."

FOOD AND FEED GRAINS INSTITUTE

Borsdorf, R., US Agency for Intl Development, \$341,694, "Food and Feed Grains Inst Program for the Collaborative Agribusiness Support Project."

Borsdorf, R., US Agency for Intl Development, \$59,000, "Crop Postharvest Handling Analysis—Uganda."

Deyoe, C. (see **Seib, P.,** Grain Sci & Ind).

Deyoe, C. (see **Bequette, R.,** Grain Sci & Ind).

Deyoe, C., KS Wheat Comm, \$154,000, "International Grains Program Support Project."

Deyoe, C., KS Dept of Ag, \$ 82,260, "Market Development Grant—International Grains Program and Grain Storage, Handling, and Sanitation Specialist."

Gwartz, J. (see **Haque, E.,** Grain Sci & Ind).

Lea, J., US Agency for Intl Development, \$129,118, "Haiti Productive Land Use Systems Project."

Schenck-Hamlin, D., Natl Assoc of Wheat Growers, \$15,000, "Crop Utilization Research Database-Wheat Option."

Schenck-Hamlin, D., Natl Corn Growers Assoc, \$8,500, "Database of Funded Research on Corn Quality and Utilization."

Schenck-Hamlin, D., Sosland Publishing Co, \$11,936, "Research on Latin-American Grain-Based Foods Companies—II."

Schenck-Hamlin, D., Natl Grain Sorghum Producers, \$27,500, "Crop Utilization Research Database—Sorghum Option."

GRAIN SCIENCE AND INDUSTRY

Acasio, U., US Agency for Intl Development, \$24,411, "Location, Condition and Availability of Parts of Grain Storage Complexes within Kazakhstan."

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

Behnke, K. (see **Titgemeyer, E.,** Animal Sci & Ind).

Behnke, K. (see **Kuhl, G.,** Animal Sci & Ind).

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

Bequette, R., and Deyoe, C. (Food & Feed Grains Inst), KS Wheat Comm, \$30,000, "Quality Evaluation of Materials from KAES Wheat Breeding Programs."

Curran, S. (see **Hoseney, R.,** Grain Sci & Ind).

Curran, S., USDA, \$20,000, "Asian Products Laboratory."

Eustace, D., Wheat Quality Council, \$3,000, "Large Scale Milling and Baking Trials of New Wheat Varieties."

Faubion, J., USDA, \$73,565, "Alkali Preprocessing of Corn for Value-Added Products."

Faubion, J. (see **Hoseney, R.,** Grain Sci & Ind).

Hahn, R., and Brester, G. (Ag Econ), USDA, \$199,151, "Value Added Wheat Products."

Hahn, R., USDA, \$98,500, "Effects of Wheat Processing on Integrity and Distribution of TCK Spores."

Hahn, R., KS Dept of Ag, \$110,000, "Grain Science Program Enhancement— 3/4 Inch Laboratory Extruder Equipment Acquisition."

Hahn, R., KS Dept of Ag, \$40,000, "Grain Science Program Enhancement— Fat/Oil Analytical System Equipment Acquisition."

Hahn, R., KS Dept of Ag, \$60,000, "Grain Science Program Enhancement— Macro Nitrogen Analyzer Equipment Acquisition."

Haque, E. (see **Spillman, C.,** Biol & Agric Engg).

Haque, E., and Gwartz, J. (Food & Feed Grains Inst), Satake UK LTD, \$27,500, "Optimization of Technical Parameters for Milling of Debranned Heat."

Hoseney, R., Friskies R & D Center Missouri, \$76,338, “Factors Affecting the Extrusion of Cereal Based Foods.”

Hoseney, R., Novo Nordisk, \$27,000, “Mechanism of Glucose Oxidase in Bread Making.”

Hoseney, R., Anheuser-Busch Co, Inc, \$27,500, “Development of a Bromate Replacement System.”

Hoseney, R., Anheuser-Busch Co, Inc, \$26,825, “Determination of Factors Controlling Crumb Grain of Bread.”

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

Hoseney, R., **Curran, S.**, and **Faubion, J.**, Campbell-Taggart, Inc, \$64,191, “Toward a Fundamental Understanding of the New Crop Year Phenomenon in Hard Wheats.”

Klopfenstein, C., **Hoseney, R.**, and **Setser, C.** (Foods & Nutr), KS Dept of Ag, \$21,600, “Extrusion Technology for Novel, Extruded, Healthy Foods from Grains.”

Klopfenstein, C., **Hoseney, R.**, and **Setser, C.** (Foods & Nutr), KS Dept of Ag, \$12,500, “Extrusion Technology for Novel, Extruded, Healthy Foods from Grains.”

Ponte, J., KS Value-Added Ctr, \$15,750, “Wheat as a Source of Non-Functional Food Protein.”

Ponte, J., KS Value-Added Ctr, \$22,029, “Acquisition of Chopin Alveograph for Wheat Flour Quality Testing.”

Reddy, P., KS Wheat Comm, \$18,000, “Value-Added Flour Fractions from Hard White Wheats.”

Seib, P. and **Deyoe, C.** (Food & Feed Grains Inst), KS Wheat Comm, \$17,400, “Behavior of Starch in Top-Quality Flours for Oriental Noodles.”

Seib, P. (see **Meloan, C.**, Chemistry).

Seib, P., and **Chung, D.** (Biol & Agric Engg), KS Dept of Ag, \$14,000, “Process to Isolate Readily Accessible Starch from Grain Sorghum with Production of Ensiled Cattle Feed.”

Seib, P. (see **Chung, D.**, Biol & Agric Engg).

Seib, P., Sealed Air Corp, \$23,980, “Foamed Plastics Containing Starch.”

Walker, C., Natl Manufacturing, Division of TMCO, \$9,600, “Computer Interface to the Mixograph.”

Wetzel, D. (see **Meloan, C.**, Chemistry).

HORTICULTURE, FORESTRY AND RECREATION RESOURCES

Cable, T., USDA, \$16,145, “Fuelwood Consumption Survey.”

Fry, J., **Leuthold, L.**, **Marcum, K.**, and **Pair, J.**, Multisponsor, \$67,092, “Turfgrass Investigations.”

Jennings, P., Am Seed Research Found, \$27,600, “Increasing Chilling Tolerance of Seeds During Imbibition and Early Stages of Germination.”

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

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

Marcum, K., Natl Turfgrass Federation, \$6,000, “Perennial Ryegrass Evaluation.”

Marr, C., Multisponsor, \$500, “Efficacy of Insecticides Against Vegetable Feeding Insect Pests.”

Naughton, G., Winrock Intl Inst Agricultural Development, \$1,658, “Pakistan Forestry Planning and Development.”

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

Pair, J., Multisponsor, \$6,000, “Evaluation of Species and Cultivars for the Great Plains.”

Reid, W., KS Nut Growers Assoc, \$3,000, “Pecan Cultivar Evaluation.”

Reid, W., KS Dept of Ag, \$200, “Pecan Cultivar Evaluation in Kansas.”

INTERNATIONAL AGRICULTURAL PROGRAMS

Jorns, W., Royal Netherlands Embassy, \$30,577, “IAPRG Tanzania/Netherlands NFSP Training Program (Massawe).”

Jorns, W., Royal Netherlands Embassy, \$30,525, “IAPRG Tanzania/Netherlands NFSP Training Program (Kaliba).”

Jorns, W., Royal Netherlands Embassy, \$11,197, “IAPRG Tanzania/Netherlands NRSP Training Program (Nkonya).”

Jorns, W., USFT Other, \$190,283, “IAP USFT Other.”

KANSAS WATER RESOURCES RESEARCH INSTITUTE

Jacobs, H., US Dept of the Interior, \$78,545, “FY 1995 State Water Research Inst Program.”

NORTHWEST RESEARCH-EXTENSION CENTER

Lamm, F., **Rogers, D.** (Biol & Agric Engg), **Stone, L.** (Agronomy), and **Williams, J.** (Ag Econ), USDA, \$74,212, “Water Conservation—Increased Efficiency in Usage.”

Lamm, F., **Gordon, W.** (Agronomy), and **Schlegel, A.** (SW Res-Ext Ctr), KS Dept of Ag, \$32,300, “Water-Efficient Practices for Corn Production.”

Sunderman, H. (see **Rife, C.**, Agronomy).

Sunderman, H., KS Crop Improvement Assoc, \$6,450, “Increasing Yield, Seed Quality, and Water Use Efficiency of Wheat with Foliarly Applied Methanol.”

Sunderman, H. and **Sweeney, D.** (SE Ag Res Ctr), KS Dept of Ag, \$10,200, “Increasing Yield and Water-Use Efficiency of Soybeans with Foliarly Applied Methanol.”

Sunderman, H., Multisponsor, \$500, “Sunflower Investigations.”

White, R., Multisponsor, \$22,330, “Sunflower Performance Testing Program.”

PLANT PATHOLOGY

Bockus, W., **Bowden, R.**, **Claassen, M.** (Agronomy), and **Shroyer, J.** (Prod Mgmt & Nat Resource Dev), KS Crop Improvement Assoc, \$3,425, “Effects of Timing of Foliar Fungicides and Winter Wheat Genotype on Large Seed Production.”

Bockus, W., Multisponsor, \$3,045, “Seed Treatment.”

Bockus, W., and **Bowden, R.**, KS Crop Improvement Assoc, \$4,000, “Enhancing the Duration of Popularity of Winter Wheat Cultivars with New, Systemic Seed-Treatment Fungicides.”

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

Bowden, R., Multisponsor, \$3,000, “Winter Wheat Seed Treatment Tests.”

Bowden, R. (see **Heer, W.**, Agronomy).

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

Bowden, R., **Cox, T.** (Agronomy), and **Gill, B.**, KS Crop Improvement Assoc, \$2,141, “Characterization and Mapping of Five New Leaf Rust Resistance Genes from Wild Relatives of Wheat.”

Clafin, L., and **Leslie, J.**, US Agency for Intl Development, \$24,500, “Agroecology and Biotechnology of Stalk Rot Pathogens of Sorghum and Millet.”

Clafin, L., and **Leslie, J.**, Univ of Nebraska, \$176,592, “Stalk and Root Rot Complexes and Associated Diseases of Sorghum in Egypt.”

Clafin, L. (see **Bramel-Cox, P.**, Agronomy).

Clafin, L., and **Leslie, J.**, US Agency for Intl Development, \$40,000, “Agroecology and Biotechnology of Stalk Rot Pathogens of Sorghum and Millet.”

Clafin, L., US Agency for Intl Development, \$10,000, “Dissertation Research Expenses for Mamourou Diourte.”

Clafin, L., Holden’s Found Seeds, \$0, “Materials Transfer of the Holden’s Line of Hybrids LH82, LH168, LH172, LH181, LH185, LH192, LH195, LH197, LH198, LH200, LH202, LH216.”

Gill, B., KS Wheat Comm, \$55,000, “Wheat Genetics Resource Center and Its Contributions to Kansas Wheat Industry.”

Gill, B. and **Jiang, J.**, USDA, \$64,000, “Molecular Cytogenetics and Plant Genome Mapping.”

Gill, B., USDA, \$165,333, “Wheat Genetics Resource Center at Kansas State University.”

Gill, B., Univ of California-Davis, \$12,000, “Research Collaboration Group on Molecular Mapping in Wheat and Its Relatives.”

Gill, B., McKnight Found, \$5,000, “Collaborative Crop Research Program— Planning Grant.”

Gill, B. (see **Bowden, R.**, Plant Path).

Gill, B., McKnight Found, \$131,500, “Collaborative Crop Research Program (China).”

Heaton, L., KS Crop Improvement Assoc, \$10,000, “Engineering Resistance to Wheat Streak Mosaic Virus.”

Hetrick, B. (see **Hartnett, D.**, Biology).

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

Jardine, D., USDA, \$14,000, “Soybean Cyst Nematode in the North Central Region.”

Jardine, D., Multisponsor, \$2,250, “Soybean Foliar Fungicide and Seed Treatment Tests.”

Jiang, J. (see **Gill, B.**, Plant Path).

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

Johnson, L., Samuel Roberts Noble Found, Inc, \$0, “Transfer of Biological Materials.”

Leach, J., **Harris, P.** (Ag Res Ctr—Hays) and **Stahlman, P.** (Ag Res Ctr—Hays), USDA, \$55,000, “Application of Rhizobacteria for the Biocontrol of Weeds in Wheat.”

Leach, J., USDA, \$50,000, “Role of Peroxidases in Resistance to Bacterial Pathogens in Rice.”

Leach, J. (see **White, F.**, Plant Path).

Leach, J., Univ of Hawaii, \$7,000, “Molecular and Genetic Methods of Plant Pathogenic Bacteria.”

Leach, J. (see **Guikema, J.**, Biology).

Leach, J., Rockefeller Found, \$39,100, “Genetic Diversity of *Xanthomonas oryzae* pv. *oryzae* in Nepal (Tika Adhikari).”

Leach, J., Rockefeller Found, \$7,000, “Research Funds for Qi Zhang.”

Leach, J. and **Paulsen, G.** (Agronomy), Rockefeller Found, \$6,250, “Rockefeller Foundation Unrestricted Grant.”

Leach, J., CIBA-GEIGY Corp, \$0, “Transfer of Biological Materials pCIB137).”

Leach, J., USDA, \$0, “Transfer of Biological Materials: *Pseudomonas fluorescens* strains 2-79, 2-79.B46, 02-87, and 02-87::Tn5.”

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

Leslie, J., Myco Pharmaceuticals, \$30,000, “Fusarium Culture Collection.”

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

Leslie, J., USDA, \$130,000, “Genetics of Fumonisin Production by *Fusarium moniliforme*.”

Leslie, J., Multisponsor, \$4,250, “Fusarium Research.”

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

Leslie, J., Pioneer Hi-Bred Intl, Inc, \$60,000, “Study of the Genetics of Fumonisin Production by *Fusarium moniliforme*.”

Pfender, W., US Envir Prot Agency, \$369,025, “Impacts of Introduced Bioremediation Agents on Ecological Parameters Affecting Plant Productivity.”

Schwenk, F. (see **Long, J.**, SE Ag Res Ctr).

Stuteville, D., KS Crop Improvement Assoc, \$6,000, “Biology and Control of Seed Smut of Switchgrass.”

Tisserat, N., Multisponsor, \$14,995, “Evaluation and Testing of Fungicides and Nematicides on Horticultural Crops.”

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

Todd, T. (see **Blair, J.**, Biology).

Todd, T. (see **Long, J.**, SE Ag Res Ctr).

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

Todd, T., Multisponsor, \$6,000, “Nematode and Soybean Research.”

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

White, F., and **Leach, J.**, USDA, \$100,000, “Role of *avrXa10* and *hrp* Genes of *X.o. pv. oryzae* in Race-specific Resistance.”

SOUTHEAST AGRICULTURAL RESEARCH CENTER

Coffey, K., Kent Feeds, Inc, \$3,600, “Consumption of Lasalocid From Free-Choice Molasses Blocks.”

Coffey, K., MicroLite Inc, \$7,200, “Effect of Magnesium-Mica on Performance and Carcass Characteristics of Feedlot Cattle.”

Coffey, K., Conklin Co, Inc, \$12,000, “Effect of Fastrack Probiotic Pack on the Performance of Receiving Calves.”

Coffey, K., MicroLite Inc, \$9,000, “Effect of Monensin with Magnesium-Mica on Performance of Grazing Cattle.”

Coffey, K., KS Dept of Ag, \$8,400, “Replacement of Titanium Centrifuge Rotor for Use in Research and Resistance Screening for Virus Diseases of Sorghum.”

Kelley, K. (see **Long, J.**, SE Ag Res Ctr).

Kelley, K., Multisponsor, \$9,200, “Weed Control in Farm Crops.”

Long, J., Multisponsor, \$850, “Double Crop Soybean Performance Tests—SE Agricultural Research Center.”

Long, J., **Kelley, K.**, **Schapaugh, W.** (Agronomy), **Schwenk, F.** (Plant Path), and **Todd, T.** (Plant Path), KS Dept of Ag, \$31,884, “Management of the Soybean Cyst Nematode and Charcoal Rot in Soybeans Through Cropping Systems.”

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

Sweeney, D. (see **Sunderman, H.**, NW Res Ext-Ctr).

SOUTHWEST RESEARCH-EXTENSION CENTER

Currie, R., Multisponsor, \$37,150, “Weed Control Research in Southwest Kansas.”

Currie, R. (see **Norwood, C.**, SW Res-Ext Ctr).

Dhuyvetter, K. (see **Buschman, L.**, Entomology).

Dhuyvetter, K. (see **Eck, T.**, SW Res-Ext Ctr).

Dhuyvetter, K. and **Rogers, D.** (Biol & Agric Engg), KS Dept of Ag, \$19,918, “Low Pressure In-Canopy Sprinkler Management for Corn on Slope Over One Percent.”

Eck, T., and **Kreikemeier, K.**, Multisponsor, \$9,066, “Evaluation of New Products to Improve the Efficiency of Production in Feedlot Cattle (Influence of SarTemp Additions to Steam Flanked Corn...”

Eck, T. (see **Kuhl, G.**, Animal Sci & Ind).

Eck, T., Dhuyvetter, K., Kuhl, G. (Animal Sci & Ind), and **Simms, D.** (Animal Sci & Ind), KS Dept of Ag, \$7,750, "Increasing the Use of Grain Sorghum in Kansas Feedlot Cattle Rations—Survey of Current Feeder Attitudes of Grain Sorghum Feed Value, Cultivar."

Greene, G., Fly Management Corp, \$46,000, "Cattle Feedlot Fly Management Program."

Kreikemeier, K. (see **Eck, T.**, SW Res-Ext Ctr).

Kreikemeier, K. (see **Kuhl, G.**, Animal Sci & Ind).

Schlegel, A., Multisponsor, \$1,500, "Variety Testing of Alternative Crops."

Schlegel, A. (see **Lamm, F.**, NW Res-Ext Ctr).

Schlegel, A., Multisponsor, \$6,000, "Southwest Research-Extension Center Soil Fertility and Soil Management Research for Western Kansas."

Schlegel, A., USDA, \$6,000, "Adapted Woody Plant Materials and Establishment/Growth Technology for Western Kansas, Eastern Colorado, and Northern New Mexico."

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

Spurgeon, W. (see **Buschman, L.**, Entomology).

Witt, M., Multisponsor, \$3,000, "Yield Appraisal of Crops for Southwest Kansas—Yield Appraisals of Immature Corn."

Witt, M. (see **Bramel-Cox, P.**, Agronomy).

Witt, M. (see **Hancock, J.**, Animal Sci & Ind).

COLLEGE OF ARCHITECTURE AND DESIGN

ARCHITECTURE

Norris-Baker, C., US Dept of Health & Human Serv, \$60,485, "Subcontract from the University of Kansas Medical Center for the AOA National Rural Long-Term Care Resource Center."

INTERIOR ARCHITECTURE

Dubois, J., Historic Jayhawk Theatre, Inc, \$450, "Jayhawk Theatre Design Studies."

Dubois, J., Metropolitan Lutheran Ministry, \$750, "Metropolitan Lutheran Ministry Design Studies."

LANDSCAPE ARCHITECTURE/REGIONAL AND COMMUNITY PLANNING

Burns, R., US Dept of Housing & Urban Development, \$116,064, "Community Development Work Study Program."

Burns, R. (see **Rolley, S.**, Land Arch/Reg-Plan).

Page, R., US Dept of Housing & Urban Development, \$6,900, "Wichita South Sector Plan/LAR 702."

Rolley, S. and **Burns, R.**, Natl Trust for Historic Preservation, \$25,000, "Your Town: Designing its Future."

COLLEGE OF ARTS AND SCIENCES

ART

Hower, R. (see **Zollman, D.**, Physics).

Hower, R., US Dept of the Interior, \$0, "Basic Ordering Agreement between Badlands National Park, National Park Service and Kansas State University."

BIOCHEMISTRY

Andersson, L., Am Heart Assoc, Inc, \$132,000, "Structure/Function Analysis of Engineered Human Myoglobins and *Glycera dibranchiata* Monomeric Hemoglobins."

Davis, L. (see **Schwab, A.**, Agronomy).

Hedgcoth, C., USDA, \$120,000, "Wheat Mitochondrial DNA and Cytoplasmic Male Sterility."

Kanost, M., US Dept of Health & Human Serv, \$191,178, "Serine Proteinase Inhibitors in Insects."

Kanost, M., Arizona Tech Development Corp, \$0, "Arizona Technology Development Corporation Biological Materials Transfer Agreement."

Krishnamoorthi, R., US Dept of Health & Human Serv, \$97,025, "2D NMR Studies of Protein-Inhibitors of a Blood Coagulation Factor."

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

Krishnamoorthi, R., Am Heart Assoc, KS Affiliate, Inc, \$23,320, "Thermodynamics of Hydrolysis of Blood-Coagulation Factor Inhibitors."

Krishnamoorthi, R., Fed of Am Societies for Experimental Biology, \$5,000, "Visiting Professor of High Field Protein NMR."

Muthukrishnan, S., Rockefeller Found, \$167,500, "Management of Sheath Blight of Rice by Engineering of Genes Encoding Defense Proteins."

Muthukrishnan, S., Rockefeller Found, \$12,300, "Biotechnology Career Fellowship for Dr. Sam Gnanamanickam."

Reeck, G., USDA, \$46,600, "Stored Grain Insect Control by Inhibition of Digestive Enzymes with Proteinaceous Inhibitors."

Roche, T., US Dept of Health & Human Serv, \$193,321, "Regulation of Mammalian Pyruvate Dehydrogenase."

Takemoto, D., Am Heart Assoc, KS Affiliate, Inc, \$21,200, "Structure of Recombinant and Mutant Cyclic Nucleotide Phosphodiesterase."

Takemoto, D., Am Heart Assoc, KS Affiliate, Inc, \$46,640, "Protein Kinase C and Signal Transduction."

Tomich, J., US Dept of Health & Human Serv, \$140,000, "Studies of Human Lysosomal Glucocerebrosidase."

Wang, X., USDA, \$27,795, "Function of Phosphatidylcholine Hydrolysis by Phospholipases D and C in Plants."

Wang, X., Hulbert, S. (Plant Path), **Johnson, L.** (Plant Path), **Schapaugh, W.** (Agronomy), **Todd, T.** (Plant Path), and **White, F.** (Plant Path), KS Dept of Ag, \$33,565, "Improvement of Soybean via Biotechnological Approach."

Wang, X., Pioneer Hi-Bred Intl, Inc, \$45,803, "Isolation and Promoter Analysis of Phospholipase D Gene from Castor Bean."

Willott, E., US Dept of Health & Human Serv, \$104,309, "Immune Proteins of *M. sexta* and *A. aegypti* Hemocytes."

BIOLOGY

Blair, J., Knapp, A., Rice, C. (Agronomy), and **Todd, T.** (Plant Path), US Dept of Energy, \$82,500, "Effects of Altered Soil Moisture and Temperature on Soil Communities, Primary Producers and Ecological Processes in Grassland."

Blair, J. (see **Briggs, J.**, Biology).

Blair, J. (see **Schwab, A.**, Agronomy).

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

Briggs, J. (see **Henebry, G.**, Biology).

Briggs, J., Blair, J., Dodds, W., Goodin, D. (Geography), **Henebry, G., Knapp, A., Nellis, M.** (Geography), and **Turner, C.**, US Envir Prot Agency, \$137,852, "Use of Remotely Sensed Data on Phenological Activity and Heterogeneity to Detect Changes in Grassland Species Composition in Response to Stress."

Center, M., US Dept of Health & Human Serv, \$144,333, "Mechanisms Regulating Cell Resistance to Adriamycin."

Chapes, S., Am Heart Assoc, KS Affiliate, Inc, \$46,640, "Characterization of Receptors for Shock-Inducing Toxins on Macrophages."

Chitnis, P., Natl Sci Found, \$180,000, "Function and Organization of Photosystem I."

Chitnis, P., USDA, \$100,000, “Mutational Analysis of Interactions and Function of Ferredoxin.”

Chitnis, P. (see **Ulug, E.**, Biology).

Conrad, G., Am Heart Assoc, KS Affiliate, Inc, \$23,320, “The Relationship between v-myc Expression, Cell Division, and Differentiation in Embryonic Cardiomyocytes.”

Conrad, G., US Dept of Health & Human Serv, \$227,586, “Fibroblast Differentiation During Eye Development.”

Conrad, G., NASA, \$122,803, “Effects of Silver and Other Metals on the Cytoskeleton.”

Conrad, G., Am Heart Assoc, KS Affiliate, Inc, \$23,320, “Changes in Growth and Biochemical Differentiation in Immortalized Cardiomyocytes Following v-myc Protein Abrogation.”

Conrad, G., US Dept of Health & Human Serv, \$22,608, “Role of Lumican in Mouse Corneal Development.”

Consigli, R. (see **Meloan, C.**, Chemistry).

Consigli, R., US Dept of Health & Human Serv, \$60,853, “Virology and Tumor Biology.”

Cully, Jr., J., US Dept of the Interior, \$90,000, “Gap Analysis in Kansas.”

Cully, Jr., J. (see **Tomb, A.**, Biology).

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

DeCamillis, M. (see **Beeman, R.**, Entomology).

Denell, R., USDA, \$70,000, “Transposon-Mediated Molecular Cloning and Germline Transformation in Beetles.”

Denell, R., and **DeCamillis, M.**, Intl Human Frontier Science Program Organization, \$39,500, “Genetic and Molecular Analysis of Anterior Development in *Tribolium castaneum*.”

Denell, R., Natl Sci Found, \$130,000, “Genetic Control of Developmental Decisions.”

Denell, R., US Dept of Health & Human Serv, \$186,412, “Genetic Control of Segmentation.”

Dodds, W. (see **Briggs, J.**, Biology).

Dodds, W. (see **Schwab, A.**, Agronomy).

Fay, P. (see **Hartnett, D.**, Biology).

Funderburgh, J., US Dept of Health & Human Serv, \$134,621, “Proteoglycans in Normal and Scarred Corneas.”

Funderburgh, J., Am Heart Assoc, KS Affiliate, Inc, \$46,640, “Biological Roles of Arterial Lumican.”

Guikema, J., Natl Sci Found, \$190,000, “Laser Scan Confocal Fluorescence Microscope.”

Guikema, J. and **Leach, J.** (Plant Path), NASA, \$20,000, “Starch Concentration, Metabolism, and Localization in Space-Grown Soybean Seedlings.”

Guikema, J. (see **Cogley, A.**, Mech Engg).

Guy, C., KS Dept of Wildlife & Parks, \$48,341, “Assessment of Best Management Practices on Riparian Areas.”

Guy, C., KS Dept of Wildlife & Parks, \$70,574, “Seasonal Variation of Fish Population Characteristics in Warmwater Streams.”

Guy, C., KS Dept of Wildlife & Parks, \$59,560, “Evaluation of Spotted Bass in Kansas Streams.”

Guy, C., KS Dept of Wildlife & Parks, \$62,240, “Licensed Angler Use and Preference Survey and Attitudes Toward Angling by Secondary Education Students.”

Hartnett, D., **Hetrick, B.** (Plant Path), and **Schwab, A.** (Agronomy), Natl Sci Found, \$110,265, “Mycorrhizal Mediation of Grassland Biotic Interactions and Plant Community Structure.”

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

Hartnett, D. (see **Reichman, O.**, Biology).

Hartnett, D., Natl Sci Found, \$192,161, “Enhancement of Research Capacity for Konza Prairie Research Natural Area Phase II.”

Hartnett, D., and **Cochran, R.** (Animal Sci & Ind), USDA, \$151,500, “Grazing System Effects on Plant Community Biodiversity and Stability.”

Hartnett, D., and **Fay, P.**, Nature Conservancy, \$20,207, “Identification of Great Plains Invertebrates for The Nature Conservancy’s Ecosystem Research Project.”

Henebry, G., Earth Observation Satellite Co, \$0, “Constructing Landscape Trajectories: Using TM Data for Ecological Remote Sensing.”

Henebry, G., **Briggs, J.**, and **Knapp, A.** European Space Agency, \$0, “Spatio-Temporal Variability of Soil Moisture in Tallgrass Prairie—Landscape Perceived at Multiple Scales.”

Henebry, G. (see **Briggs, J.**, Biology).

Henebry, G., Natl Sci Found, \$2,200, “Spatio-Temporal Modeling of Landscapes in Kiskunsag, Hungary.”

Johnson, T., NASA, \$722,600, “BioServe Space Technologies—A NASA Center for the Commercial Development of Space.”

Johnson, T., KSU Found, \$20,000, “Cancer Center Core.”

Justice, M., US Dept of Health & Human Serv, \$99,151, “The Molecular Genetic Basis of Mouse B-Cell Lymphomas.”

Justice, M., Am Cancer Soc, Inc, \$90,500, “Molecular Genetic Basis of Mouse B-cell Lymphoma.”

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

Kaufman, G., KS Dept of Wildlife & Parks, \$5,000, “Study to Determine the Prevalence of Hantavirus in Deer Mice in Preselected Areas of Kansas.”

Knapp, A., **Briggs, J.**, **Hartnett, D.**, and **Kaufman, D.**, Natl Sci Found, \$617,236, “Fire, Grazing and Climatic Interactions in Tallgrass Prairie.”

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

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

Knapp, A. (see **Henebry, G.**, Biology).

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

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

Knapp, A., US Dept of the Interior, \$65,083, “Capacity of Fort Riley Tallgrass Prairie to Support Military Training Activity—Preliminary Analysis.”

Murray, J., Am Heart Assoc, KS Affiliate, Inc, \$23,320, “Molecular Requirements of Type-IV Human Collagen-Induced Interferon- γ Production.”

Murray, J. (see **Ulug, E.**, Biology).

Murray, J., US Dept of Health & Human Serv, \$0, “Materials Transfer Agreement.”

Perchellet, J., US Dept of Health & Human Serv, \$152,305, “Tumor-Promoting Effects of Okadaic Acid and Palytoxin.”

Post, D., **Weis, J.**, and **Zimmerman, J.**, Natl Sci Found, \$4,000, “Research Experience for Undergraduates in Prairie Ecology at Konza Prairie Research Natural Area.”

Reichman, O., and **Hartnett, D.**, Nature Conservancy, \$42,500, “Relationship Between Landscape Patterns, Ecological Processes, and Biological Diversity in Native Great Plains Grasslands.”

Rintoul, D., Am Heart Assoc, KS Affiliate, Inc, \$23,320, “Lipid Metabolism in the Hibernating Marmot.”

Rintoul, D., Natl Sci Found, \$100,000, “Reconstitution of the EGF Receptor.”

Robel, R., KS Dept of Wildlife & Parks, \$40,000, "Establishment and Operation of the Kansas Cooperative Fish & Wildlife Research Unit."

Robel, R., Max McGraw Wildlife Found, \$1,000, "Productivity of Avian Species in Diverted Farmland."

Robel, R., Multisponsor, \$3,000, "Usable Energy Content of Seeds of Wildlife Plantings."

Spooner, B., NASA, \$1,000,000, "The Center for Gravitational Studies in Cellular and Developmental Biology—A NASA Specialized Center for Research and Training."

Spooner, B., NASA, \$21,025, "NASA/University Joint Venture (JOVE)."

Takemoto, L., US Dept of Health & Human Serv, \$269,182, "Lens Membrane in Relation to Human Cataractogenesis."

Tomb, A., and **Cully, Jr., J.**, Natl Wild Turkey Federation, \$2,000, "Wild Turkey Damage to Corn Seedlings in the Flint Hills of Kansas."

Turner, C. (see **Briggs, J.**, Biology).

Ulug, E., US Dept of Health & Human Serv, \$197,936, "Cell Transformation by Polyomavirus."

Ulug, E., **Chitnis, P.** and **Murray, J.**, Natl Sci Found, \$25,000, "Core Facility for Instruction in Molecular Biology."

Ulug, E., Washington Univ School of Medicine, \$0, "Washington University Material Transfer Agreement."

Upton, S., GelTex Pharmaceuticals, Inc, \$47,091, "Non-Clinical Research Studies of GelTex Proprietary Polymers."

Upton, S., Salt Lake Clinic Research Found, \$5,103, "ELISA Titers on Serum and Stool Samples."

Upton, S., US Dept of Health & Human Serv, \$0, "Materials Transfer Agreement—cDNA library *C. parvum*."

Upton, S., Marion Merrell Dow Inc., \$0, "Materials Transfer Agreement: Difluoromethylarginine."

Upton, S., ERC Bioservices, \$0, "Materials Transfer Agreement: Toxoplasma cDNA Library."

Upton, S., Abbott Laboratories, \$0, "Materials Transfer Agreement—Clarithromycin Powder."

Urban, J. (see **Broce, A.**, Entomology).

Weis, J. (see **Post, D.**, Biology).

Welti, R., and **Pickrell, J.** (Clinical Sci), Am Heart Assoc, KS Affiliate, Inc, \$46,640, "Effect of Copper on Synthesis, Secretion, and Uptake of Pulmonary Surfactant Lipids by Rat Alveolar Type II Cells."

Wilson, F., Sigma Xi, \$500, "Determining the Physiologically Active Thyroid Hormone Programming Photorefractoriness in American Tree Sparrows (*Spizella arborea*)—Bryan K. Reinert."

Zimmerman, J. (see **Post, D.**, Biology).

CHEMISTRY

Borovik, A., US Dept of Health & Human Serv, \$101,178, "Helical and Cavity Motifs About Metal Ions."

Borovik, A. (see **Maatta, E.**, Chemistry).

Buszek, K. (see **Gatewood, B.**, Clothing, Textiles & Int Des).

Fateley, W. (see **Hammaker, R.**, Chemistry).

Hammaker, R., and **Fateley, W.**, US Dept of Energy, \$85,000, "Multi-Dimensional Hadamard Transform Spectrometry: A New Analytical Technique."

Hawley, M., Natl Sci Found, \$72,825, "Integration of Fourier Transform Nuclear Magnetic Resonance into the Undergraduate Chemistry Curriculum."

Hua, D., Research Corp, \$25,000, "Asymmetric Catalysis."

Klabunde, K., US Army, \$139,075, "Nano Scale Metal Oxide Particles as New Materials for Destructive Adsorption of Toxic Chemicals."

Klabunde, K., Natl Sci Found, \$226,000, "Chemistry of Free Atoms and Reactive Clusters/Particles."

Klabunde, K. (see **Sherwood, P.**, Chemistry).

Klabunde, K., US Small Business Admin, \$60,000, "Destructive Adsorbents for Chemical Agents and Hazardous Chemicals."

Maatta, E., **Borovik, A.**, and **Riordan, C.**, NSF EPSCoR (CRINC), \$72,951, "Kansas Program for Molecular Design, Synthesis, and Applications of Macromolecular Materials and Supramolecular Systems."

Maatta, E., US Dept of Energy, \$124,535, "Homogeneous Models of Ammoxidation Catalysis."

Meloan, C., **Consigli, R.** (Biology), **Seib, P.** (Grain Sci & Ind) and **Wetzel, D.** (Grain Sci & Ind), Natl Sci Found, \$110,793, "Chemical Microstructure by Molecular Microspectroscopy."

Riordan, C. (see **Maatta, E.**, Chemistry).

Riordan, C., Natl Sci Found, \$125,000, "Young Investigator Awards Program."

Riordan, C., Exxon Education Found, \$10,000, "Chemistry of Tetrakis (Methylthiomethyl) Borate, A Sulfur-Rich Counterpart to Tris (pyrazoly) Borates."

Setser, D., Natl Sci Found, \$157,100, "State Resolved Reaction Dynamics."

Setser, D., Natl Sci Found, \$40,000, "Spectroscopy and Reaction Dynamics of Electronically Excited C1F ($E^* > 8.5\text{eV}$) and Van der Waals Molecules of XE with Molecules Containing Chlorine."

Setser, D., Natl Sci Found, \$122,501, "Applications of State Resolved Reaction Dynamics."

Sherwood, P., **Klabunde, K.**, and **Sorensen, C.** (Physics), Natl Sci Found, \$368,719, "Material Synthesis and Processing."

Sherwood, P., Natl Sci Found, \$172,000, "Corrosion and Oxidation Studied by Surface Analytical Methods."

ECONOMICS

Babcock, M., and **Russell, E.** (Civil Engg), KS Dept of Transportation, \$25,000, "Economic Impact of General Aviation Airport Deterioration on Kansas Communities."

Emerson, M., Multisponsor, \$3,496, "Roe R Cross Chair of Economics."

McNulty, M., USDA, \$25,794, "Part-Time Fellowship Appointment."

Olson, E., KS Dept of Revenue, \$1,800, "Bias Correction for Ratio Study Statistics."

ENGLISH

Cokinos, C. (see **Sherow, J.**, History).

GEOGRAPHY

Goodin, D. (see **Briggs, J.**, Biology).

Nellis, M., and **Smith, B.** (Elem Educ), Natl Geographic Soc and KS Water Office, \$40,987, "Kansas Geographic Alliance."

Nellis, M., NASA, \$33,338, "Development of Land-Use Mapping and Monitoring Protocol for the Great Plains Region: A Multitemporal Remote Sensing Application."

Nellis, M. (see **Ransom, M.**, Agronomy).

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

Nellis, M. (see **Briggs, J.**, Biology).

Nellis, M. (see **Cogley, A.**, Mech Engg).

Paul, B., Natural Hazards Res & Applications Info Ctr, \$3,000, "Farmers' and Public Responses to 1994 Drought in Bangladesh: A Case Study."

Seyler, H. (see Ransom, M., Agronomy).

Seyler, H., and Cress, D. (Entomology), USDA, \$11,216, "A Geographical Information System for Pesticide Impact Assessment."

Seyler, H., Ham, G. (Agric Exp Sta), Kok, H. (Agronomy), Nellis, M. (Geography), and Ransom, M. (Agronomy), KS Water Office, \$104,667, "Digitization of the Kansas Soil Survey."

GEOLOGY

Archer, A., Natl Sci Found, \$27,962, "Tidal Rhythmites in the Proterozoic Big Cottonwood Formation, Central Utah—Sedimentology, Sequence Stratigraphy, and Astrophysical Implications."

Archer, A., Natl Sci Found, \$10,950, "Sedimentology of the Fluvial to Mid-Estuarine Facies of PA-Aged Valley-Fill Deposits."

Chaudhuri, S., Centre Natl de la Recherche Scientifique, \$18,518, "Clay Isotope Geochemistry and Burial Diagenesis."

Oviatt, C., Natl Sci Found, \$19,307, "Pliocene and Early Pleistocene Continental Paleoclimate Records from the Eastern Great Basin, Utah."

Underwood, J. (see Cogley, A., Mech Engg).

HISTORY

Higham, R., J of the West, Inc, \$34,033, "Journal of the West."

Sherow, J., and Cokinos, C. (English), Natl Found on the Arts and the Humanities, \$187,000, "People, Prairies and Plains: The Historical Role of People in the Environment."

INSTITUTE FOR SOCIAL AND BEHAVIORAL RESEARCH

Shanteau, J., Bloomquist, L. (Soc, Anthro & Social Work), and Rumsey, D. (Statistics), KS Dept of Health & Environment, \$30,000, "Systematic Assessment of the Long-Term Results of the Infant-Toddler Program in Kansas."

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

Shanteau, J., KS Dept of Social & Rehab Serv, \$123,495, "SRS Minimum Family Income Project."

KINESIOLOGY

Acevedo, E., KS Farm Bureau & Affiliated Serv, \$6,820, "Kansas Farm Bureau Employee Wellness Program."

Dzewaltowski, D. (see Noble, L., Kinesiology).

Musch, T., US Dept of Health & Human Serv, \$109,281, "Vascular Transport Capacity of Muscle in Heart Failure."

Noble, L., and Dzewaltowski, D., Easton Aluminum, Inc, \$17,580, "Field Test to Determine the Efficacy of Innovative Aluminum Softball Bats" (2 awards).

MATHEMATICS

Crane, L. (see Yetter, D., Math).

Moore, C., Natl Sci Found, \$73,800, "Probabilistic Properties of Orthogonal and Almost Orthogonal Sequences."

Peller, V., Natl Sci Found, \$22,552, "Hankel Operators and Their Applications."

Shult, E., Natl Sci Found, \$63,620, "Mathematical Sciences - Geometries and Groups."

Vaninsky, K., Natl Sci Found, \$45,000, "On Some Problems Which Arise in the Study of Invariant Measures on Nonlinear Evolutionary Equations."

Yetter, D., and Crane, L., Natl Sci Found, \$38,900, "Topological Quantum Field Theories and Related Invariants in 3- and 4-Manifold Topology."

MODERN LANGUAGES

Shaw, B., US Dept of Educ, \$71,370, "Students in Development."

PHYSICS

Chakrabarti, A., Natl Sci Found, \$40,000, "Ordering Processes in Porous Media."

Law, B., Natl Sci Found, \$74,500, "Interfacial Phenomena at the Surfaces of Critical Ionic Mixtures."

Legg, J., US Dept of Energy, \$20,000, "Kansas EPSCoR Planning Grant/Kansas Energy 2000."

Lin, C., and Weaver, O., Natl Sci Found, \$73,871, "Undergraduate Summer Research in Experimental and Theoretical Atomic Physics."

Lin, C., US Dept of Energy, \$147,000, "Atomic Physics of Strongly Correlated Systems."

Lin, C. (see Zollman, D., Physics).

Lin, J., Natl Sci Found, \$55,000, "Nature of Quantum Localization Probed by Exciton Dynamics in II-VI Semiconductor Alloys."

Manney, M. (see Manney, T., Physics).

Manney, T., and Manney, M., Natl Sci Found, \$21,475, "Materials for Using Yeast Genetics and the Effects of Radiation."

Rahman, T., Fox, R. (Elect & Comp Engg), and Shultis, J. (Nuclear Engg), Natl Sci Found, \$380,530, "Acquisition of a High-end/Visualization Computing Facility."

Rahman, T. (see Zollman, D., Physics).

Reay, N., US Dept of Energy, \$625,000, "Heavy Quark and Neutrino Physics."

Richard, P., US Dept of Energy, \$2,427,000, "Atomic Physics with Highly Charged Ions" (2 awards).

Sorensen, C. (see Sherwood, P., Chemistry).

Sorensen, C., Natl Sci Found, \$95,000, "Aerosol Fractal Aggregates: Light Scattering, Diffusion and Aggregation."

Sorensen, C., US Dept of Commerce, \$38,206, "Post-Flame Soot."

Weaver, O. (see Lin, C., Physics).

Weaver, O. (see Zollman, D., Physics).

Wysin, G., Natl Sci Found, \$120,000, "Properties of Vortices in Two-Dimensional Magnets."

Wysin, G., Natl Academy of Sciences/Natl Research Council, \$5,300, "Excited States of Magnetic Vortices and 2D Solitons."

Zollman, D., Natl Sci Found, \$82,688, "Preparation of Retrieval Software and Workshops for Every Physics Teacher's CD-ROM Toolkit."

Zollman, D., Hower, R. (Art), Lin, C., Rahman, T., and Weaver, O., Natl Sci Found, \$315,126, "Visual Quantum Mechanics: A Qualitative, Computer-Based Introduction to Principles of Modern Physics."

Zollman, D., Assoc of Big Eight Universities, \$5,000, "Bicycle in Science, Engineering and Culture—A Planning Event to Launch an International Multimedia Science Project."

Zollman, D., Natl Sci Found, \$16,925, "U. S. Participation in Two Workshops on Science and Technology Education; Milton Keynes, UK, May 15-17, 1995, and Enschede, The Netherlands, May 19-20, 1995."

PSYCHOLOGY

Cozzarelli, C., Research Found of State Univ of New York, \$16,915, "Predicting Psychological Adjustment to Abortion."

Kiefer, S., US Dept of Health & Human Serv, \$64,589, "Taste Reactivity to Alcohol in Mice."

Kiefer, S., US Dept of Health & Human Serv, \$13,008, "Memory Mechanisms of Learned Alcohol Aversions in Rats."

Knight, P., US Army, \$23,675.94, "Environmental Awareness Research (Hill)" (2 awards).

Uhlarik, J. (see **Cogley, A.**, Mech Engg).

SCHOOL OF JOURNALISM AND MASS COMMUNICATIONS

Neibergall, J., KSU Found, \$37,674, "Huck Boyd National Center for Community Media."

Neibergall, J., Mid-Continent Regional Educational Laboratory, Inc, \$5,760, "KMSEC Public Relations Internship Program."

SOCIOLOGY, ANTHROPOLOGY, AND SOCIAL WORK

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

Bloomquist, L., S & N Design, \$4,200, "Focus Group Study of First National Bank and Trust's Service Area."

Bloomquist, L., Lake Region Resource, Conservation and Development Council, \$6,100, "Housing Needs Survey."

Denning, J. (see **Thurston, L.**, Spec Educ).

Roper, D., US Army, \$968, "Services of Students at Research and Development Labr (Lane)."

Roper, D., US Army, \$729, "Services of Students at Research and Development Laboratories (Tomasic)."

Roper, D., US Army, \$757, "Services of Students at Research and Development Labs (Beal)."

Roper, D., US Army, \$2,916, "Services of Students at Research and Development Labs (Whitehill)."

Roper, D., US Army, \$2,916, "Services of Students at Research and Development Laboratories (Cotton)."

Roper, D., US Dept of the Interior, \$6,054, "Cooperative Agreement to Conduct Archaeological Investigations at Harry Strunk Lake (Medicine Creek Valley), Frontier County, Nebraska."

Verschelden, C. (see **Thurston, L.**, Spec Educ).

STATISTICS

McNulty, S., Natl Sci Found, \$10,025, "Natl Sci Found IPA Assignment Agreement."

McNulty, S., University of California, \$81,200, "Statistical Data Analysis to Support Workplan Development for Low Level Radioactive Waste Management Areas at Los Alamos National Laboratory" (1994).

Milliken, G., Sematech, \$168,097, "Design and Analysis of Experiments that Involve Multiple Processing Steps."

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

Schwenke, J., USDA, \$2,000, "Continued Funding for the Kansas State University Conference on Applied Statistics in Agriculture."

COLLEGE OF BUSINESS ADMINISTRATION

ACCOUNTING

Stark, M., KSU Found, \$8,254, "Accounting Research."

SMALL BUSINESS DEVELOPMENT CENTER

Rice, F., US Small Business Admin, \$45,000, "Kansas State University Small Business Development Center."

Rice, F., KS Dept of Commerce & Housing, \$45,000, "Small Business Development Center."

Rice, F., US Small Business Admin, \$5,000, "Management Counseling."

COLLEGE OF EDUCATION

DEAN OF EDUCATION

Angle, D., KS Dept of Human Resources, \$8,500, "Kansas Career Development Training Program for Program Year 1994."

Borchers, C., Assoc for the Educ of Teachers in Sci, \$7,865, "Administrator of the Association for the Education of Teachers in Science."

Burden, P., Natl Staff Development Council, \$22,300, "National Staff Development Administrator."

Havlicek, B., Multisponsor, \$197,446, "Educational Computer Assistance."

Havlicek, B. (see **Wissman, J.**, Dean of Educ).

Havlicek, B., SW Bell Found, \$10,000, "Using Telecommunications to Support School Restructuring."

Hoyt, K., DeWitt Wallace-Reader's Digest Fund, \$1,142,691, "Toward High Skills Job Readiness for Youth—Creating a Nat'l System to Counsel H.S. Leavers About Postsecondary Vocational-Tech Training Op."

Rankin, C., US Dept of Educ, \$603,509, "Midwest Desegregation Assistance Center."

Wissman, J., and **Havlicek, B.**, US Dept of Educ, \$37,150, "Consumer and Homemaking."

EDUCATIONAL ADMINISTRATION

Stewart, G., KS State Board of Educ, \$3,255, "Violence in Kansas Schools."

ELEMENTARY EDUCATION

Smith, B. (see **Nellis, M.**, Geography).

FOUNDATIONS AND ADULT EDUCATION

Marshall, S., US Dept of Educ, \$40,000, "Displaced Homemakers, Single Parents."

Price, F. (see **Cogley, A.**, Mech Engg).

Shroyer, M., US Dept of Educ, \$92,883, "Promoting Reform through Innovation, Development, and Experimentation in Science and Mathematics Education."

SECONDARY EDUCATION

Jankovich, A., KS State Board of Educ, \$9,846, "Staff Development."

Kane, M., KS State Board of Educ, \$60,102, "FFA-YF/YFW Organizations."

Yahnke, S., KS State Board of Educ, \$23,414, "Consumer and Homemaking Curriculum."

SPECIAL EDUCATION

Dyck, N., KS State Board of Educ, \$20,044, "Restructuring Teacher Education and Administrator Education at Kansas State University."

Thurston, L., **Denning, J.** (Soc, Anthro & Social Work), and **Verschelden, C.** (Soc, Anthro & Social Work), KS Dept of Soc & Rehab Serv, \$1,285,242, "Kansas Rural Child Welfare Project."

Zabel, M., KS State Board of Educ, \$13,490, "Early Childhood Special Education Practicum Restructuring at Kansas State University."

Zabel, R., KS State Board of Educ, \$3,260, "Survey of Special Education and General Education Administrators and Teachers Perceptions of the Preassessment Process—Michael Hughes."

COLLEGE OF ENGINEERING

ADVANCED MANUFACTURING INSTITUTE

Azadivar, F., Manufacturers Enterprise Corp, \$100,000, "Manufacturing Processes Prototyping Program."

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

Azadivar, F., Kansas Technology Enterprise Corp (KTEC), \$38,099, "Mid-America Commercialization Corporation."

Azadivar, F., Ben-Arieh, D. (Ind & Manuf Sys Engg), **Dillman, N.** (Elect & Comp Engg), and **Krishnaswami, P.** (Mech Engg), Natl Sci Found, \$324,664, "Learning Center Manufacturing Education and Training."

Ulrich, J., Mid-America Manufacturing Tech Center, \$495,350, "MAMTC Regional Office."

ARCHITECTURAL ENGINEERING AND CONSTRUCTION SCIENCE

Bluhm, M. (see **Moser, S.**, Arch Engg & Constr Sci).

Burton, C., US Army, \$2,327, "Maintenance Guidelines for HVAC Control—Maskil."

Burton, C., US Army, \$5,222, "Maintenance Guidelines for HVAC Control—Urich."

Burton, C., US Army, \$7,312, "Testing Procedures for Air Supply and Distribution Systems" (2 awards).

Garrett, S. (see **Moser, S.**, Arch Engg & Constr Sci).

Goodman, A. (see **Moser, S.**, Arch Engg & Constr Sci).

Hague, J., Multisponsor, \$13,000, "Participation in the Department of Energy's Electric and Hybrid Vehicle Site Operators Program."

Hague, J., US Dept of Energy, \$220,000, "Participation in the DOE's Electric Site Operator Program."

Hague, J., KS Electric Utilities Research Program, \$80,004, "Participation in the Department of Energy's Electric and Hybrid Vehicle Site Operators Program."

Hague, J., KSU Found, \$1,837, "Electric Vehicle Site Operator Program."

Moser, S., Bluhm, M., Garrett, S., and Goodman, A., US Dept of Educ, \$64,405, "Application Oriented Engineering Education: An Integrated Approach."

BIOLOGICAL AND AGRICULTURAL ENGINEERING

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

Barnes, P., Devlin, D. (Agronomy), **Kilgore, G.** (SE Area Office), **Maddux, L.** (Agronomy), and **Schapaugh, W.** (Agronomy), KS Dept of Ag, \$35,700, "Cover Crop and Crop Rotation Used to Meet Conservation Compliance for Soybeans."

Barnes, P., KS Dept of Ag, \$38,000, "Evaluating Field-Scale Atrazine and Alachlor Movement in Surface Water in Northeast Kansas."

Chung, D. (see **Seib, P.**, Grain Sci & Ind).

Chung, D., Fan, L. (Chem Engg) and **Seib, P.** (Grain Sci & Ind), KS Value-Added Ctr, \$35,300, "Development of Small Scale Wet-Processing Laboratory Facility for Wheat and Other Kansas Grains for Food and Non-Food Uses Phase III."

Chung, D., KS Value-Added Ctr, \$34,652, "Small-Scale Study of Corn In-bin Drying and Aeration with a Desiccant System."

Clark, S., KSU Found, \$1,700, "The Use of Electricity in Agriculture."

Clark, S. (see **Slocombe, J.**, Biol & Agric Engg).

Murphy, J., USDA, \$44,588, "Pesticide Applicator Training Program."

Murphy, J., KS Dept of Transportation, \$200,000, "Safety Belt Intervention Project."

Murphy, J., KS Dept of Transportation, \$16,566, "Safety Belt Intervention Project—Van."

Rogers, D. (see **Lamm, F.**, NW Res-Ext Ctr).

Rogers, D. (see **Dhuyvetter, K.**, SW Res-Ext Ctr).

Slocombe, J., and Clark, S. (Biol & Agric Engg), Caterpillar, Inc, \$96,991, "Effects of Prime Mover Soil Compaction on Soil Physical Properties and Winter Wheat and Grain Sorghum Yields."

Smithey, S., KS Value-Added Ctr, \$500, "Travel Support to the Bioprocess Technology Seminar."

Spillman, C., and Haque, E. (Grain Sci & Ind), USDA, \$60,000, "Effect of Single Kernel Physical Properties of Wheat on Milling and Energy Requirements."

Steichen, J., Grant, S. (Nuclear Engg), and **Swanson, S.** (KSU-Salina), "US Dept of Defense, \$858,598, "KSU/DoD Environmental Scholarships/Fellowships Grant Program; KSU/DoD Environmental Education Program."

Steichen, J., US Dept of Defense, \$440,221, "KSU/DoD Environmental Scholarships/Fellowships Grant Program; KSU/DoD Environmental Education Program."

CENTER FOR HAZARDOUS SUBSTANCE RESEARCH

Erickson, L. (see **Glasgow, L.**, Chem Engg).

Erickson, L., US Envir Prot Agency, \$7,592,743, "Great Plains/Rocky Mountain Hazardous Substance Research Center" (3 awards).

Erickson, L. (see **Schwab, A.**, Agronomy).

Erickson, L. (see **Grant, S.**, Nuclear Engg).

Erickson, L., Natl Inst of Envir Health & Sci, \$5,000, "NIEHS Travel Support for 10th Annual Conference."

CHEMICAL ENGINEERING

Edgar, J., Natl Sci Found, \$120,000, "Improved Silicon Carbide on Silicon Crystal Quality by Epitaxial Necking."

Edgar, J., Am Chemical Soc, \$50,000, "Chemical Vapor Deposition of Diamond-Cubic Boron Nitride Alloys."

Edgar, J., Natl Sci Found, \$15,000, "Improved Silicon Carbide on Silicon Crystal Quality by Epitaxial Necking."

Erickson, L. (see **Schwab, A.**, Agronomy).

Fan, L., KSU Found, \$24,675, "Modernization and Upgrading of Undergraduate Laboratories."

Fan, L. (see **Chung, D.**, Biol & Agric Engg).

Fan, L., KSU Found, \$2,437, "Evaluation of Petroleum Coke, Petroleum-Coke Product, Other Environmental Products and/or Technologies, Processes and Related Systems."

Glasgow, L., and Erickson, L. (Ctr for Hazardous Sub Res), Natl Sci Found, \$60,225, "Energetics of Interfacial Phenomena: Cellular Disruption in Sparged Reactors."

CIVIL ENGINEERING

Banks, M. (see **Schwab, A.**, Agronomy).

Banks, M., Exxon Production Research Co, \$0, "Phytoremediation Field Study Project."

Govindaraju, R. (see **Koelliker, J.**, Civil Engg).

Hossain, M., KS Dept of Transportation, \$1,075, "Falling Weight Deflectometer (FWD) Study."

Hossain, M., and Koelliker, J., KS Dept of Transportation, \$14,988, "Testing and Validation of Kansas Water-Cement Ratio Meter."

Hossain, M., KS Dept of Transportation, \$2,550, "Evaluation of the SHRP Alkali-Silica Reactivity Test."

Hossain, M., KS Dept of Transportation, \$6,104, "Analysis of ACP Smoothness and Bridge Deck Membrane Interlayers in Kansas."

Hossain, M., KS Dept of Transportation, \$27,991, "Assessment of Pavement Condition of General Aviation Airports in Kansas."

Hossain, M., and Swartz, S., KS Dept of Transportation, \$24,889, “Study of Flexural Fatigue Behavior of Asphalt-Rubber Mixes.”

Hossain, M., and Devore, J. (Elect & Comp Engg), “Surface Systems and Instruments, LLC, \$4,376, “Evaluation of SSI-1,000 Automated Profilograph.”

Hu, K. (see **Melhem, H.**, Civil Engg).

Hu, K., and Melhem, H., KS Dept of Transportation, \$127,383, “Development of an Accelerated Testing Laboratory for Experimental Studies to Mitigate the Deterioration of Highway Pavement in Kansas.”

Kirmser, P. (see **Melhem, H.**, Civil Engg).

Koelliker, J., and Govindaraju, R., KS Dept of Ag, \$112,500, “Computer Model Selection and Data Assimilation for the Sub-Basin Water Resources Management Program.”

Koelliker, J., and Govindaraju, R., US Envir Prot Agency, \$29,999, “Comprehensive Computer Simulation Modeling of Cheyenne Bottoms Water Supply.”

Koelliker, J. (see **Hossain, M.**, Civil Engg).

Koelliker, J., and Govindaraju, R., KS Water Office, \$62,400, “Evaluation of Marion and Council Grove Lakes Water Supply Capabilities.”

Mathews, A., Natl Sci Found, \$78,237, “Analysis of Adsorption in Variable Area Beds for Water and Wastewater Treatment.”

Melhem, H., Hu, K., Kirmser, P., and Swartz, S., KS Technology Enterprise Corp, \$100,000, “Development of an Accelerated Pavement Testing Facility for the Development of an Innovative Load Transfer System for Concrete Pavement: X-Flex.”

Melhem, H. (see **Hu, K.**, Civil Engg).

Melhem, H., Hu, K., Kirmser, P., and Swartz, S., Cardwell International, LTD \$158,000, “Development of an Accelerated Pavement Testing Facility for the Development of an Innovative Load Transfer System for Concrete Pavement: X-Flex.”

Melhem, H., KS Dept of Transportation, \$5,200, “Targeting Expert Systems for Bridge Engineering.”

Najjar, Y., KS Dept of Transportation, \$20,000, “Use of Artificial Neural Networks in Selected Geotechnical/Transportation Applications.”

Reddi, L., Natl Sci Found, \$30,125, “Vibratory Phase Separation of Immiscible Contaminants in Soils.”

Russell, E., KS Dept of Transportation, \$149,046, “Traffic Assistance Services for Kansas (TASK)—A Joint KSU-KU Project.”

Russell, E. (see **Babcock, M.**, Economics).

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

Russell, E., KS Dept of Transportation, \$61,387, “Assistance for Implementation of the ISTEA Mandated Safety Management System for Local Governments.”

Russell, E., US Dept of Transportation, \$21,410, “Establish the Kansas First Annual Safety Management System Forum.”

Stokes, R., US Dept of Transportation, \$5,150, “Eisenhower Faculty Fellowship.”

Stokes, R., and Russell, E., KS Dept of Transportation, \$40,000, “Warrants for Right Turn Lanes at Unsignalized Intersections.”

Swartz, S. (see **Melhem, H.**, Civil Engg).

Swartz, S. (see **Hossain, M.**, Civil Engg).

Swartz, S., Natl Sci Found, \$11,550, “Group Travel for U. S. Participants in the Workshop on Standards for Measurement of Mode I Fracture Properties of Concrete, Cardiff, United Kingdom, July 20-21, 1995.”

COMPUTING AND INFORMATION SCIENCES

Gustafson, D. (see **Cogley, A.**, Mech Engg).

Mizuno, M., Natl Sci Found, \$20,500, “Theory and Implementation of Strongly Consistent Distributed Shared Memory Systems.”

Ravindran, K., US Air Force, \$152,000, “Data Multicasting in High Speed Multi-Service Networks.”

Schmidt, D., and Stoughton, A., Natl Sci Found, \$146,000, “Analysis and Classification of Programming Languages.”

Schmidt, D., and Stoughton, A., U.S. Navy, \$115,000, “Type Theories in ML”

Singh, G., Natl Sci Found, \$5,000, “Distributed Composite Protocols.”

Singh, G., Natl Sci Found, \$101,432, “Modular Design of Protocols.”

Singh, G., Natl Sci Found, \$15,640, “Distributed Composite Protocols .”

Stoughton, A. (see **Schmidt, D.**, Comp & Info Sci).

Wallentine, V., AT&T Technologies, \$336,032, “AT&T Summer on Campus.”

DEAN OF ENGINEERING

Rathbone, D., Tutor Recruits, \$45,088, “Pre-Enrollment Mathematics and Sciences Tutoring of Minority Engineering Recruits.”

Walters, J., KS Entrepreneurial Cntr, \$20,250, “Kansas Entrepreneurial Center.”

ELECTRICAL AND COMPUTER ENGINEERING

Day, D., Hopkins Manufacturing Corp, \$6,526, “European Style Headlamp Aim Algorithm.”

Devore, J. (see **Hossain, M.**, Civil Engg).

Dillman, N. (see **Nelson, R.**, Ext Engg).

Dillman, N. (see **Azadivar, F.**, Adv Manuf Inst).

Fowler, E., US Army, \$117,769, “Visiting Professor, Electrical Engineering and Computer Science Department, U S Military Academy, West Point.”

Fox, R., Natl Sci Found, \$62,500, “Presidential Young Investigator Award.”

Fox, R., KSU Found, \$37,500, “Computational Fluid Dynamics.”

Fox, R. (see **Rahman, T.**, Physics).

Fox, R., Natl Sci Found, \$0, “Chemical Reactor Modeling Using Probability Density Function Methods.”

Miller, R., KS Electric Utilities Research Program, \$52,346, “Characterization of Electric and Magnetic Fields Produced by Transmission Lines in Kansas: A Continuation of Project KRD-424.”

Pahwa, A., Natl Sci Found, \$52,920, “The Impacts of Cold Load Pickup on Design and Operation of Power Distribution Systems.”

Rys, A., Natl Sci Found, \$55,735, “Solid State Emitter Arrays for Near-infrared Spectrophotometers.”

Soldan, D., USDA, \$40,000, “Acoustical Monitoring and Modeling for Stored-Grain Insects.”

ENGINEERING EXPERIMENT STATION

Simons, G. (see **Nelson, R.**, Ext Engg).

INDUSTRIAL AND MANUFACTURING SYSTEMS ENGINEERING

Ben-Arieh, D. (see **Lee, Y.**, Ind & Manuf Sys Engg).

Ben-Arieh, D. (see **Azadivar, F.**, Adv Manuf Inst).

Chang, S. (see **Lee, Y.**, Ind & Manuf Sys Engg).

Chang, S., Natl Sci Found, \$6,800, “Neural Networks and Fuzzy Control Application for Quality Engineering in Short-Run Manufacturing Environments.”

Harnett, R., US Army, \$35,005, “Part-time M.S. Program in Industrial Engineering—Fall 94.”

Harnett, R., US Army, \$33,093, "Part-Time M.S. Program in Industrial Engineering—Spring 1995."

Harnett, R., US Army, \$17,878, "Part-Time M.S. Program in Industrial Engineering—Summer 1995."

Hwang, C., KSU Found, \$64,000, "Fuzzy Material Criterion Decision Making."

Lee, Y., Ben-Arieh, D., Chang, S., Wilson, C., Soc of Manufacturing Engineers, \$38,407, "Enhancing Manufacturing Engineering Education."

Wilson, C. (see **Lee, Y.**, Ind & Manuf Sys Engg).

INSTITUTE FOR ENVIRONMENTAL RESEARCH

McCullough, E., Kimberly-Clark Corp, \$26,790, "Effects of Use, Laundering, and Sterilization on the Barrier Properties of Surgical Gowns."

Jones, B., Multisponsor, \$97,392, "Institute for Environmental Research Support."

KANSAS INDUSTRIAL EXTENSION SERVICE

Meyer, G., US Dept of Energy, \$15,000, "DOE/HUD Base System Analysis Maintenance Programs."

Meyer, G. (see **Hayter, R.**, Ext Engg).

Meyer, G., Midwest Energy, Inc, \$10,408, "Evaluate the Potential for Load Shifting in Grain Elevators."

Meyer, G., Centech Group, Inc, \$3,200, "Building Life Cycle Costing."

Meyer, G., State of Ohio, \$24,600, "Qualified Life-Cycle Cost Analysis Course for the State of Ohio."

Meyer, G., General Serv Admin, \$15,937, "Life Cycle Cost Analysis Courses."

Snead, B., US Envir Prot Agency, \$18,354, "Newsletters for the National Radon Training Center Network."

Snead, B., State of Nebraska, \$28,655, "Radon Projects for Nebraska."

Snead, B., KS Dept of Health & Envir, \$126,019, "Radon Projects for Kansas."

Snead, B., US Envir Prot Agency, \$11,011, "Regional Radon Training Center."

MECHANICAL ENGINEERING

Chapman, K. (see **Swenson, D.**, Mech Engg).

Cogley, A., Gustafson, D. (Comp & Info Sci), and **White, W.**, NASA, \$17,350, "Advanced Design Program."

Cogley, A., Gorder, P., Guikema, J. (Biology), **Nellis, M.** (Geography), **Price, F.** (Found & Adult Educ), **Uhlarik, J.** (Psychology), and **Underwood, J.** (Geology), NASA, \$27,000, "Kansas Space Grant Consortium."

Eckels, S. (see **Fenton, D.**, Mech Engg).

Eckels, S., Am Soc Heat Ref-Air Cond Engg Inc, \$15,000, "New Investigator Award."

Fenton, D., and **Eckels, S.**, Am Soc Heat Ref-Air Cond Engg, Inc, \$120,169, "In-Tube Evaporation of Ammonia in Smooth and Enhanced Tubes With and Without Miscible Oil."

Gorder, P., NASA, \$63,503, "Impact of General Aviation on the Center-TRACON Automation System (CTAS)."

Gorder, P. (see **Cogley, A.**, Mech Engg).

Jones, B., Ford Motor Co, \$18,406, "Comfort Models for Highly Transient Environments."

Krishnaswami, P. (see **Azadivar, F.**, Adv Manuf Inst).

Swenson, D., NASA, \$55,896, "Crack Growth Prediction Methodology for Multi-Site Damage: Layered Analysis and Growth During Plasticity."

Swenson, D., and **Chapman, K.**, Univ of California-Davis, \$45,000, "Continued Development of a Coupled Fluid/Stress/Thermal Model of Fluid Flow in Jointed Rock."

Swenson, D., Boeing Co Defense & Space Group, \$5,000, "Install Updates of CASCA Mesh Generator Software and FRAN2D Analysis."

Tordesillas, A., US Army, \$13,783, "Contact Mechanics Approach to the Soil-Tire Interaction Problem."

Walker, H., KSU Found, \$7,003, "Analysis and Evaluation of Sporting Equipment."

White, W. (see **Cogley, A.**, Mech Engg).

NUCLEAR ENGINEERING

Eckhoff, N., Natl Academy for Nuclear Training, \$24,000, "Fellowships of the National Academy for Nuclear Training."

Faw, R., US Dept of Energy, \$5,000, "University Reactor Sharing."

Grant, S. (see **Steichen, J.**, Biol & Agric Engg).

Grant, S., and **Erickson, L.** (Ctr for Hazardous Sub Res), US Envir Prot Agency, \$473,358, "Environmental Research, Technology Transfer, Training Program: Administration and Management."

Shultis, J. (see **Rahman, T.**, Physics).

COLLEGE OF HUMAN ECOLOGY

CLOTHING, TEXTILES, AND INTERIOR DESIGN

Gatewood, B., KS Dept of Ag, \$19,735, "High Tenacity Biogenic Fibers and Films from Products and By-products of Corn, Grain Sorghum, and Soybean."

Gatewood, B., Buszek, K. (Chemistry), and **Strauss, M.** (Clothing, Textiles & Int Des), KS Value-Added Ctr, \$16,000, "Equipment Grant to Support Value-Added Agricultural Research in Textiles and Related Polymeric Materials."

McCullough, E., NASA, \$13,227, "Physiological Evaluation of an Advanced Worker Protection System."

Strauss, M. (see **Gatewood, B.**, Clothing, Textiles & Int Des).

FOODS AND NUTRITION

Aramouni, F., Multisponsor, \$1,583, "Food Product Development Lab in Justin Hall."

Aramouni, F., KS Value-Added Ctr, \$6,500, "Preparation and Application of Edible Wheat Protein Coatings on Snack Food."

Aramouni, F., KS Value-Added Ctr, \$15,500, "Snack Food Processing Equipment."

Aramouni, F., KS Value-Added Ctr, \$19,200, "Two Food Product Development Assistants."

Baybutt, R., Am Heart Assoc, KS Affiliate, Inc, \$23,045, "Epidermal Growth Factor and Surfactant Preservation."

Chambers IV, E., Rockefeller Found, \$4,360 "Travel Funding."

Chambers IV, E., Kellogg USA, Inc, \$0, "Basic Agreement for Consumer Testing of Food Products."

Chambers IV, E. (see **Kropf, D.**, Animal Sci & Ind).

Chambers IV, E., KS Value-Added Ctr, \$11,540, "Expert Evaluation of Products for Kansas Processors."

Chambers IV, E., Multisponsor, \$203,909, "Sensory Analysis Center Support."

Herald, T., KS Dept of Ag, \$23,050, "Preparation, Properties, and Food Applications of Degradable Films and Coatings from Corn Proteins."

Koo, S., Am Heart Assoc., KS Affiliate, Inc., \$22,653, “Estrogen Replacement: Its Effect on Intestinal Fat Absorption.”

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

HOTEL, RESTAURANT, INSTITUTION MANAGEMENT AND DIETETICS

Canter, D., Am School Food Service Assoc, \$364, “Editorship of School Food Service Research Review.”

Canter, D., KS Dept of Health & Environment, \$0, “Evaluation of Credentials for Dietetics Licensing.”

Canter, D., Stormont-Vail Regional Med Ctr, \$0, “Affiliation Agreement between Stormont-Vail Regional Medical Center and Kansas State University.”

Canter, D., Immanuel Med Ctr, Inc, \$0, “Agreement of Affiliation Between Immanuel Medical Center, Inc and Kansas State University.”

Canter, D., Salina Family Physicians, \$0, “Agreement Between KSU and Salina Family Physicians.”

Canter, D., St. Francis Regional Med Ctr, Inc, \$0, “Affiliation Agreement Between St. Francis Regional Medical Center and Kansas State University.”

Canter, D., Overland Park Regional Med Ctr, \$0, “Agreement of Affiliation Between Kansas State University and Overland Park Regional Medical Center.”

Canter, D., St. Mary Hospital, \$0, “Agreement of Affiliation Between Kansas State University and the Saint Mary Hospital of Manhattan, Kansas.”

SCHOOL OF FAMILY STUDIES AND HUMAN SERVICES

Bollman, S., KS Child Care Training Opportunities, Inc, \$291,309, “Kansas Child Care Training Opportunities.”

Bollman, S., US Army, \$22,532, “U. S. Army Chaplain Advanced Training.”

Bollman, S. (see **Jurich, A.**, Fam Studies & Human Serv).

Bollman, S. (see **Griffin, C.**, Fam Studies & Human Serv).

Bollman, S., **Schumm, W.**, and **Ward-Robinson, J.**, KS Dept of Soc & Rehab Serv, \$116,513, “Cultural Issues in Out of Home Placement of Minority Children.”

Bollman, S., and **Murray, J.**, KS Dept of Soc & Rehab Serv, \$113,812, “SRS Training for Private Residential Providers.”

Bollman, S., USDA, \$29,000, “Children, Youth and Families Network for Action: Child Care.”

Bollman, S., US Army, \$33,368, “U. S. Army Chaplain Advanced Training” (2 awards).

Bollman, S., **Griffin, C.**, **Jurich, A.**, **Smith, C.**, and **Webb, F.**, KS Dept of Social & Rehab Serv, \$682,809, “Title IV-E Training Task Orders 2-8.”

Bradshaw, M., US Dept of Transportation, \$17,690, “Kansas Motorcycle Safety.”

DeLuccie, M., USD 383, Manhattan KS, \$16,277, “Early Childhood Lab.”

Griffin, C., and **Bollman, S.**, KS Dept of Soc & Rehab Serv, \$102,869, “SRS Mediation Training.”

Griffin, C. (see **Bollman, S.**, Fam Studies & Human Serv).

Jurich, A., KS Assoc Marriage & Family Therapy, \$6,500, “KS Association for Marriage and Family Therapy Administration.”

Jurich, A., and **Bollman, S.**, KS Dept of Soc & Rehab Serv, \$87,395, “Incorporating Family Therapy into SRS Field Offices.”

Jurich, A., and **Bollman, S.**, KS Dept of Soc & Rehab Serv, \$109,115, “Juvenile Sex Offenders Curriculum Development and Training.”

Jurich, A. (see **Bollman, S.**, Fam Studies & Human Serv).

McFarland, M., USDA, \$2,198,000, “Army School-Age and Teen Project, Task 1.”

Miller, R., KS Dept on Aging, \$28,570, “Senior Care Act Evaluation.”

Murray, J. (see **Bollman, S.**, Fam Studies & Human Serv).

Murray, J., USDA, \$10,000, “Establishing a Network Training Concept for Distance Education.”

Poresky, R., KS Dept of Social & Rehab Serv, \$69,897, “Alcohol and Drug Treatment Effectiveness Evaluation—1995.”

Poresky, R., NE Kansas Community Action Program, Inc, \$39,845, “Evaluation Proposal for the Head Start Family Services Center Demonstration Project.”

Poresky, R., KS Dept of Social & Rehab Serv, \$132,285, “Alcohol and Drug Abuse Services 1995 Household Drug Abuse Prevention.”

Schumm, W. (see **Bollman, S.**, Fam Studies & Human Serv).

Smit, A., Capper Found for Crippled Children, \$74,105, Capper-KSU Clinical Affiliation in Speech Pathology.”

Smith, C., Texas Methodist Found, \$19,700, “ParentShare: A Parent Mentoring Program.”

Smith, C. (see **Bollman, S.**, Fam Studies & Human Serv).

Ward-Robinson, J. (see **Bollman, S.**, Fam Studies & Human Serv).

Webb, F. (see **Bollman, S.**, Fam Studies & Human Serv).

Wilken, C., KS Health Found, \$112,030, “Health Promotion for Older Kansans.”

COLLEGE OF TECHNOLOGY

KSU—SALINA CAMPUS

Barnes, J., Natl Sci Found, \$29,910, “Machine Vision Application Teaching Laboratory.”

Barnes, J., Mid-America Manufacturing Tech Center, \$37,500, “Robotic Simulation and Off-Line Programming.”

Crutchfield, C., Acustep, Inc, \$0, “Acustep, Inc, Confidential Disclosure Agreement.”

Keating, J., Natl Sci Found, \$50,000, “Two-Year Associate of Technology Curriculum Development for GIS/GPS Technologies.”

Kissick-Grob, B., KS Library Network, \$2,000, “1995 Interlibrary Loan Development Grant Application.”

Kissick-Grob, B., KS Library Network, \$2,000, “Interlibrary Loan Development Program, FY 1996.”

Mills, P., US Small Business Admin, \$57,000, “Small Business Development Center.”

Mills, P., KS Dept of Commerce & Housing, \$46,500, “Small Business Development Center.”

Riblett, L., KS State Board of Educ, \$100,000, “Kansas Tech Prep.”

Swanson, S. (see **Steichen, J.**, Biol & Agric Engg).

Thompson, S., KS Water Office, \$5,594, “GPS Base Station Operation.”

Thompson, S., KS Water Office, \$13,268, “Douglas County Digital Ortho Pilot Project.”

Thompson, S., KS Dept of Revenue, \$1,996, “GPS of Selected Section Corners in Osage County.”

Thompson, S., KS Dept of Revenue, \$1,966, “GPS of Photo-Identifiable Ground Locations for Osage County Digital Ortho Photo Pilot Project.”

Thompson, S., KS Water Office, \$24,820, “GPS Research and Support.”

COLLEGE OF VETERINARY MEDICINE

ANATOMY AND PHYSIOLOGY

Dunn, J., Am Heart Assoc, KS Affiliate, Inc, \$23,093, "Mechanisms Involved in Bed Nucleus Influence on Cardiovascular Dynamics."

Dunn, J., Merck & Co, Inc, \$0, "Donation of Beagles for Instructional Use."

Erickson, H. and **Fedde, M.** (Anat & Physiology), Am Quarter Horse Assoc, \$39,424, "Redistribution of Pulmonary Blood Flow During Exercise."

Fedde, M. (see **Erickson, H.**, Anat & Physiology).

Freeman, L., Am Physiological Soc, \$4,000, "Research Career Enhancement Award—Travel."

Freeman, L., Am Heart Assoc, KS Affiliate, Inc, \$23,055, "Cloning, Expression and Modulation of a Sino-Atrial Node Slow Delayed Rectifier K⁺ Channel."

Kenney, M., US Dept of Health & Human Serv, \$100,929, "Control of Rhythmic Sympathetic Activity in Acute Stress."

Kenney, M., Am Heart Assoc, KS Affiliate, Inc, \$46,118, "Mechanisms of Prolonged Sympathetic Nerve Inhibition."

Kruckenberg, S., Upjohn Co of Kalamazoo, MI, \$20,000, "Pivotal Dose Confirmation of U-64279 Ceftiofur Crystalline Free Acid-Sterile Suspension Compared to a Positive Control for the Treatment of Bovine Respiratory Diseases."

Pickar, J., US Dept of Health & Human Serv, \$100,312, "Mechanism of Exercise Inhibition During Lung Congestion."

Pickar, J., Am Heart Assoc, KS Affiliate, Inc, \$22,672, "Cardiac-Mediated Inhibition of Skeletal Muscle Activity."

Quadri, K., KS Racing Comm, \$70,000, "Induction of Heat in Retired Greyhound Bitches."

Quadri, K., US Dept of Health & Human Serv, \$19,779, "Aging and Changes in Dopamine Neurons."

Ross, C., Am Heart Assoc, KS Affiliate, Inc, \$69,367, "Expression of Heparan Sulfate Proteoglycans, Heparanase, & Interleukin-8 Following Myocardial Infarction."

Ross, C., Am Type Culture Collection, \$0, Materials Transfer—DNA Probes."

Sharp, J., Am Heart Assoc, KS Affiliate, Inc, \$69,960, "Limiting Neurological Damage from Stroke."

Troyer, D., USDA, \$170,000, "Sequence Tagged Site (STS) Mapping of the Pig Genome by Rapid On-slide PCR."

Weiss, M., Am Heart Assoc, KS Affiliate, Inc, \$23,281, "Examination of Neural Circuitry Involved with Baroreflexes and Renal Afferents."

Weiss, M., Am Heart Assoc, KS Affiliate, Inc, \$23,320, "Neural Circuitry of the Kidney."

Westfall, J., Natl Sci Found, \$5,500, "Neurons and Neuropeptides in Sea Anemones."

CLINICAL SCIENCES

Brown, M., Am College of Veterinary Ophthalmologists, \$3,000, "Identification of Lactoferrin in Bovine Tears and Its Effect on in Vitro Growth of *Moraxella bovis*."

Brown, M., Am Soc of Veterinary Ophthalmology, \$2,000, "Identification of Lactoferrin in Bovine Tears and Its Effect on in Vitro Growth of *Moraxella bovis*."

Carpenter, J., City of Manhattan, KS, \$8,000, "Veterinary Services at the Sunset Zoological Park, Manhattan, Kansas."

Carpenter, J., Assoc of Avian Veterinarians, \$6,500, "Use of Serum Bile Acids to Evaluate Hepatobiliary Function in the Cockatiel (*Nymphicus hollandicus*)."

Cowan, L., KS Racing Comm, \$8,346, "Comparison of 99mDTPA Nuclear Imaging, Creatinine Clearance, and Serum Urea Nitrogen and Creatinine for Quantitative Determination of the Glomer."

Cowan, L. (see **Fenwick, B.**, Diag Med/Pathobiology).

Cowan, L., Morris Animal Found, \$7,745, "Cellular and Humoral Immunity in Dogs with Chronic Renal Failure."

DeBowes, R., Monsanto Co, \$10,000, "Duel Energy X-Ray Absorptiometry and Histomorphometric Investigations of Canine Somatotropin Hormone Induced Osteogenesis Using a Canine Cortical Defect Model."

Fortney, W., and **Vorhies, M.** (Diag Med/Pathobiology), KS Racing Comm, \$30,000, "Establishment and Maintenance of a Greyhound Epizootic Intervention Team."

Fortney, W., **Galland, J.**, and **Layton, C.**, Morris Animal Found, \$18,766, "Pediatric Neutering—Comparison of Physical, Behavioral, and Health Effects."

Galland, J. (see **Fortney, W.**, Clinical Sci).

Gaughan, K., KS Racing Comm, \$26,350, "Thyroid Function Testing in Greyhound Dogs: Establishment of a Diagnostic Approach."

Hoskinson, J., **Basaraba, R.** (Diag Med/Pathobiology), and **Smith, T.**, Morris Animal Found, \$14,825, "Establishment of the Minimum Iodine Requirement in the Adult Cat."

Kellerman, D., and **Lewis, D.**, Winn Found, \$7,180, "Measurement of Plasma Heparin Levels and Activated Partial Thromboplastin Times in Normal Heparinized Cats."

Layton, C. (see **Fortney, W.**, Clinical Sci).

Lewis, D. (see **Kellerman, D.**, Clinical Sci).

Oehme, F. (see **Schwab, A.**, Agronomy).

Pickrell, J. (see **Welti, R.**, Biology).

Pickrell, J. (see **Schwab, A.**, Agronomy).

Pickrell, J. (see **Smith, J.**, Animal Sci & Ind).

Schoneweis, D., MVP Laboratories, Inc, \$2,594, "Persistence of Colostral Antibodies Against Strep Suis in Swine."

Smith, T. (see **Hoskinson, J.**, Clinical Sci).

Yvorchuk-St. Jean, K., Solvay Animal Health, Inc, \$3,250, "Clinical Evaluation of an Equine Rhinopneumonitis/Influenza Vaccine - Field Safety Study."

DEAN OF COLLEGE OF VETERINARY MEDICINE

Elmore, R., USDA, \$1,325, "Plant and Animal Disease, Pest Control, and Animal Care."

Willard, G., KS Library Network, \$4,500, "Kansas Library ILDP Animal Welfare."

DIAGNOSTIC MEDICINE/PATHOBIOLOGY

Basaraba, R. (see **Hoskinson, J.**, Clinical Sci).

Basaraba, R. (see **Briggs, D.**, Diag Med/Pathobiology).

Briggs, D., **Basaraba, R.**, and **McVey, D.**, KS Racing Comm, \$24,033, "Vitamin E Adjuvanted Vaccination Immune Response in Racing Greyhounds."

Briggs, D., Morris Animal Found, \$14,900, "Rabies Pathogenesis in Ferrets—Viral Excretion."

Chengappa, M. (see **Oberst, R.**, Diag Med/Pathobiology).

Chengappa, M. (see **Nagaraja, T.**, Animal Sci & Ind).

Dryden, M., and **Broce, A.** (Entomology), S.C. Johnson & Sons, Inc, \$82,500, "Investigations of the Impact of Pupae on a Flea Control Program."

Dryden, M., KS Racing Comm, \$2,500, "Short Proposal to Investigate the Effectiveness of BT Toxins and Chitin Inhibitors to Inhibit the Development of Roundworm and Hookworm Eggs in Soil."

Dryden, M. (see **Broce, A.**, Entomology).

Fenwick, B., USDA, \$5,000, "USDA NRI-CGP Contribution in Support of HAP'94."

Fenwick, B., **Cowan, L.** (Clinical Sci), **Hertzke, D.**, and **Iandolo, J.**, KS Racing Comm, \$71,800, "Confirming the Cause and Refining Methods to Treat and Prevent Alabama Rot in Greyhounds—The Next Step."

Fenwick, B., Pfizer Inc, \$0, "Materials Transfer from KSU to SBAH—Actinoleacillers Pleuropneumoniae."

Hertzke, D. (see **Fenwick, B.**, Diag Med/Pathobiology).

Iandolo, J. (see **Fenwick, B.**, Diag Med/Pathobiology).

Iandolo, J., US Dept of Health & Human Serv, \$194,143, "Studies on Staphylococcal Toxins."

Leipold, H., Multisponsor, \$5,000, "Pathogenesis, Diagnosis, and Control of Congenital Defects in Cattle (Congenital Defects in Simmental Cattle in the AI Industry)."

McVey, D. (see **Oberst, R.**, Diag Med/Pathobiology).

McVey, D. (see **Briggs, D.**, Diag Med/Pathobiology).

Minocha, H., US Dept of Health & Human Serv, \$91,164, "Molecular Studies on BIV and BHV Interaction."

Mosier, D., Biotechnology Research & Development Corp, \$0, "*Pasteurella haemolytica* Characterization."

Mosier, D., US Dept of Health & Human Serv, \$7,842, "*Cryptosporidium parvum* - Enterocyte Interactions."

Oberst, R., **Chengappa, M.**, **McVey, D.**, and **Stone, G.**, KS Racing Comm, \$20,868, "Application of a DNA Amplification Technique for the Rapid Identification of Salmonella in Greyhounds."

Ridley, R., Merck & Co, Inc, \$37,639, "L-653, 648/Cattle/Clinical/Dos Confirmation/Endo Parsites/Induced."

Ridley, R., Merck & Co, Inc, \$107,798, "Conduct a Trial to Evaluate the Efficacy of MK-324 Against Somatic Ascarids in Greyhounds."

Stewart, G., US Dept of Health & Human Serv, \$65,138, "Cell Division Gene Products of Bacillus Subtilis."

Stewart, G., USDA, \$13,908, "Role of Staphylococcus Aureus Teichuronic Acid in Vivo."

Stone, G. (see **Oberst, R.**, Diag Med/Pathobiology).

Vorhies, M. (see **Fortney, W.**, Clinical Sci).

COOPERATIVE EXTENSION

SOUTH CENTRAL AREA OFFICE

Duncan, S. (see **Martin, V.**, Agronomy).

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

Warmann, G. (see **Heer, W.**, Agronomy).

SOUTHEAST AREA OFFICE

Kilgore, G. (see **Robbins, B.**, SE Area Office).

Kilgore, G. (see **Barnes, P.**, Biol & Agric Engg).

Kilgore, G., and **Fausett, M.** (Prod Mgmt & Nat Resource Dev), KS Dept of Ag, \$3,380, "Short-Season Corn Extension Educational Program in Southeast Kansas."

Robbins, B., and **Kilgore, G.**, SE Area Office, Multisponsor, \$775, "Double-Crop Soybean Performance Tests—Extension Area Offices."

COMMUNITY DEVELOPMENT

Buchholz, D., KS Arts Comm, \$36,500, "Kansas Arts Commission Grassroots Circuit Rider."

Buchholz, D. (see **Johnson, M.**, Dean of Agric & Dir of AES).

Johannes, E., US Dept of Health & Human Serv, \$42,060, "Crisis Counseling Training Technical Assistance Agreement."

Young, R., US Dept of Health & Human Serv, \$8,000, "Diabetes and Head Injury Cost Control."

DIRECTOR OF COOPERATIVE EXTENSION

Eberle, W., USDA, \$55,960, "Kansas Rural Development Council."

EXTENSION COMMUNICATIONS

Titus, R., Corp for Public Broadcasting, \$11,704, "National Program Production and Acquisition Grant."

Titus, R., US Dept of Commerce, \$30,319, "KKSU Transmitter Replacement Matching Grant."

EXTENSION ENGINEERING

Feenstra, M., and **Matteson, D.**, US Envir Prot Agency, \$30,800, "Pollution Prevention and Energy Efficiency for the Electroplating Industry."

Hayter, R., and **Meyer, G.** (KS Ind Ext Serv), Univ of Kansas, \$100,036, Proposed Activities for the Small Business Stationary Source Technical and Environmental Compliance Assistance Program."

Hayter, R., KS Dept of Health & Environment, \$73,464, "Pollution Prevention Project."

Hayter, R., US Dept of Energy \$75,000, "Kansas Energy Extension Service."

Matteson, D., NASA, \$17,000, "Mid Continent Technology Transfer Center."

Matteson, D. (see **Feenstra, M.**, Ext Engg).

Matteson, D., KS Electric Utilities Research Program, \$79,490, "Electrotechnology for Database Phase II."

Nelson, R., US Dept of Energy, \$24,085, "Bioenergy Feasibility Analysis."

Nelson, R., **Dillman, N.** (Elect & Comp Engg), and **Simons, G.** (Engg Exp Sta), Kansas Electric Utilities Research Program, \$11,050, "Off-Grid Photovoltaics Applications for Utilities Workshop."

Nelson, R., KSU Found, \$19,100, "Bioenergy Feasibility Analysis."

Walter, D., KS Dept of Commerce & Housing, \$98,280, "Technical Assistance and Training for the Kansas Weatherization Assistance Programs."

FOUR-H AND OTHER EXTENSION YOUTH PROGRAMS

Apel, J., and **Clark, J.**, Corp for Natl Service, \$71,880, "After School in Rural Kansas."

Clark, J. (see **Apel, J.**, Four-H & Other Exten Youth Prgs).

HOME ECONOMICS

Bode, M., USDA, \$5,858, "Situational and Personal Factors in Household Waste Management: Impacts of Regulations, Markets, Resources and Attitudes."

PRODUCTION MANAGEMENT AND NATURAL RESOURCE DEVELOPMENT

Erickson, D., USDA, \$19,500, "Economic Analysis and Education for Small Agribusiness Firm Managers."

Erickson, D. (see **Barton, D.**, Ag Econ).

Fausett, M. (see **Kilgore, G.**, SE Area Office).

Fjell, D. (see **Shroyer, J.**, Prod Mgmt & Nat Resource Dev).

Fjell, D. (see **Devlin, D.**, Agronomy).

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

Peterson, D., and **Stahlman, P.** (Ag Res Ctr—Hays), USDA, \$6,000, “Survey of Winter Annual Grass Distribution and Severity in Kansas.”

Peterson, D., **Janssen, K.** (Agronomy), and **Regehr, D.** (Agronomy), Multisponsor, \$101,835, “Field Herbicidal Evaluations.”

Peterson, D., DowElanco, \$0, “DE-498 Agricultural Chemical Testing.”

Shroyer, J. (see **Bockus, W.**, Plant Path).

Shroyer, J., and **Fjell, D.**, KS Wheat Comm, \$20,725, “On-Farm Wheat Action Research—An Educational Program.”

Shroyer, J., and **Fjell, D.**, Finnup Found, \$16,000, “On-Farm Wheat Action Research—An Educational Program.”

Shroyer, J. (see **Devlin, D.**, Agronomy).

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

Williams, C. (see **Barton, D.**, Ag Econ).

OFFICE OF THE PRESIDENT

AUDITORIUM PERFORMANCES

Martin, R., KS Arts Comm, \$13,921, “McCain Performance Series (1994-95).”

HUCK BOYD INSTITUTE

Wilson, R., KS Agric & Rural Leadership, \$13,766, “Secretarial Support—Huck Boyd National Institute for Rural Development.”

OFFICE OF THE PROVOST

INTERNATIONAL PROGRAMS

Richter, W., US Dept of Educ, \$5,250, “ABEU Network-Utrecht Network Consortium.”

KANSAS CENTER FOR RURAL INITIATIVES

Peak, C., Kellogg Found, \$176,779, “Collaboration for Community Change.”

Peak, C., Univ of Kansas, \$61,013, “University Center Program—Kansas Center for Community Economic Development.”

Peak, C., KS Rural Center, \$21,100, “Evaluation Plan for the Heartland Sustainable Agriculture Network.”

Peak, C., USDA, \$10,187, “Microenterprise Development Training Program for Rural Women.”

LIBRARY

Hobrock, B., USDA, \$25,000, “Preservation of Agricultural Materials.”

Hobrock, B. (see **Scott, V.**, Library).

Scott, V. and **Hobrock, B.** (Library), Kansas Library Network, \$2,000, “Kansas Library ILDP Landscape/Gardening.”

Scott, V., and **Hobrock, B.** (Library), KS Library Network, \$3,000, “Kansas Library ILDP Landscape/Gardening.”

OFFICE OF THE PROVOST

Coffman, J., Sloan Found, \$172,500, “Faculty Mentoring Proposal.”

ADMINISTRATION AND FINANCE

FACILITY PLANNING

Carter, G., US Dept of Transportation, \$211,200, “Pedestrian/Bicycle Trail Path: Transportation Enhancement Project.”

INSTITUTIONAL ADVANCEMENT

DEAN OF STUDENT LIFE

Franklin, E., Kauffman Found, \$60,410, “Summer Enrichment (Project Choice).”

EDUCATIONAL AND PERSONAL DEVELOPMENT

Arck, W., City of Manhattan, KS, \$20,000, “Youth Oriented Alcohol Abuse Prevention Program.”

Greene, K., US Dept of Educ, \$349,797, “Educational Supportive Services.”

McGowan, R., KS State Board of Educ, \$22,037, “Kansas State University Upward Bound Program Summer Food Service Program.”

MULTICULTURAL AFFAIRS

Taylor-Archer, M., US Dept of Educ, \$6,300, “Health Careers Pathways Program—Satellite Center.”

STUDENT FINANCIAL ASSISTANCE

Dahm, L., State of New Jersey, \$0, “Veterans Tuition Credit Program (VTCP) and Vietnam Veterans Tuition Aid Program (VVTAP).”

Moeder, L., US Dept of Educ, \$19,278, “National Science Scholars Program.”

Moeder, L., US Navy, \$8,000, “Scholarship Grant for Molly E. McCue.”

OFFICE OF THE VICE PROVOST FOR RESEARCH

Donoghue, T., US Dept of Health & Human Serv, \$29,266, “Small Instrumentation Grant.”

Tomich, J., Multisponsor, \$78,138, “Biotechnology Laboratory Support.”

GRADUATE SCHOOL

Donoghue, T., KS Board of Regents, \$24,000, “Kansas Minority Graduate Fellowship Awards.”

Donoghue, T., Natl Sci Found, \$14,583, “NSF Graduate Research Fellowship Program.”

U.S.A. PATENTS

Issued in Fiscal Year 1995

Biles, B., “Data Storage and Retrieval System with Improved Data Base” (#5,369,763).

Brethour, J., “System for Measurement of Intramuscular Fat in Cattle” (#5,398,290).

Fricke, O., “Monolithic Cast Picnic Table” (#5,330,247).

Fricke, O., “Method and Apparatus for Concrete Casting of a Unitary Structure” (#5,376,315).

Fung, D., and **Yu, L.**, “Assay for Motile Facultative Anaerobic Pathogens” (#5,405,773).

Hanson, J., **Nelssen, J.**, **Blum, S.**, **Tokach, M.**, and **Goodband, B.**, “Supplementation of Protein Diets with Di- and TriPeptides” (#5,374,428).

Harris, P., and **Stahlman, P.**, “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).

Hu, K., **Kirmser, P.**, and **Swartz, S.**, “Stiffness Decoupler for Base Isolation of Structures” (#5,386,671).

Hu, K., **Kirmser, P.**, **Swartz, S.**, and **Hossain, M.**, “Expansion Joint Assembly Having Load Transfer Capacity” (#5,366,319).

Koelliker, J., and **Hossain, M.**, “Method and Apparatus for the Rapid Determination of Water Cement Ratios” (#5,396,790).

Maatta, E., “Homogeneous, Low-Temperature Transition Metal-Mediated Synthesis of Nitriles” (#5,359,119).

Marchin, G., and **Lambert, J.**, “Method of Treating Water with Resin Bound Ionic Silver” (#5,366,636).

Marchin, G., and **Lambert, J.**, “Oxidizing Resin for Iodide Conversion and Retention” (#5,367,031).

Oberst, R., **Gwaltney, S.**, and **Hays, M.**, “Specific DNA Primers and Method to Use Same to Detect Eperythrozoon Suis” (#5,350,672).

Oberst, R., and **Hays, M.**, “Bovine Respiratory Syncytial Virus Detection and Primers” (#5,424,189).

Ovadia, D., “Heat Processing of a Product” (#5,334,402).

Ovadia, D., “Microwave Baking Pan” (#5,331,135).

Senock, R., and **Ham, J.**, “Sap Flow Gauge” (#5,367,905; #5,423,211).



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