Research Awards

Research, scholarly, and creative activity and discovery at Kansas State University

July 1, 2017–June 30, 2018
September 4, 2018

Dear Colleague:

The Office of the Vice President for Research is pleased to provide the attached proposal/award activity report for the period July 1, 2017–June 30, 2018. These reports document faculty efforts to obtain extramural support, along with a summary of their respective successes to date. A monthly listing of awards is available at https://www.k-state.edu/research/our-research/reports/

**Total extramural funding at Kansas State University has increased 25 percent in the past three fiscal years.** In fiscal year (FY) 2018, K-State faculty members obtained 1,567 awards — a record number and a five percent increase over the previous year — for a total of $161,576,562. In the past three fiscal years, the number of extramural awards has increased 17.29 percent.

**Our portfolio of awards has also grown more diverse.** From FY 2017 to FY 2018, awards from the National Science Foundation increased by $6.8 million, or nearly 59 percent. Awards from the Department of Health and Human Services, which includes the National Institutes of Health, increased by $5.2 million, or 34 percent, during the same period.

**K-State continues to attract industry-funded projects.** Our institution’s reputation as an excellent partner has been demonstrated by continued growth in the number of master research agreements. Examples from this year include General Mills, Deere and Company, Compass Minerals, Topcon Agriculture, Indigo Ag, Purina Animal Nutrition, Seaboard Foods, Sensient Technologies, and Schlumberger. These agreements indicate strategic, enduring alliances that have helped us build a nimble approach to project engagement. K-State added 291 new industry-funded projects this fiscal year.

If you have any questions regarding the contents of the attached report, please contact Paul Lowe at plowe@ksu.edu or 2-6804 or Cecelia Scaler at cscaler@k-state.edu or 2-6804.

Thank you for your continued support and hard work.

Sincerely,

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

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Sponsored</td>
<td>$161,576,562</td>
</tr>
<tr>
<td>II. Appropriated</td>
<td></td>
</tr>
<tr>
<td>Main Campus State Appropriation</td>
<td>$33,864,191</td>
</tr>
<tr>
<td>Experiment Station Programs and Extension Services</td>
<td></td>
</tr>
<tr>
<td>Federal Appropriation*</td>
<td>$10,356,339</td>
</tr>
<tr>
<td>State Appropriation</td>
<td>$46,093,050</td>
</tr>
<tr>
<td>Veterinary Medical Center State Appropriation</td>
<td>$0</td>
</tr>
<tr>
<td>College of Technology and Aviation</td>
<td>$606,783</td>
</tr>
<tr>
<td>State Appropriation</td>
<td></td>
</tr>
<tr>
<td>SUBTOTAL</td>
<td>$90,920,363</td>
</tr>
<tr>
<td>III. Donated**</td>
<td>$64,070,569</td>
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</tbody>
</table>

RESEARCH/SCHOLARLY ACTIVITY BASE GRAND TOTAL $316,567,494

*As of 8/2/18
**KSU Foundation funds transferred to KSU in support of research/scholarly activity (excludes transfers to Athletics).
Kansas State University
Total Dollars of Extramural Awards Received

Millions of Dollars

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Dollars (in Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>$133,650,574</td>
</tr>
<tr>
<td>2010</td>
<td>$147,695,867</td>
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<tr>
<td>2011</td>
<td>$124,626,067</td>
</tr>
<tr>
<td>2012</td>
<td>$137,445,396</td>
</tr>
<tr>
<td>2013</td>
<td>$151,343,529</td>
</tr>
<tr>
<td>2014</td>
<td>$140,523,033</td>
</tr>
<tr>
<td>2015</td>
<td>$137,589,870</td>
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<tr>
<td>2016</td>
<td>$129,234,132</td>
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<tr>
<td>2017</td>
<td>$139,316,722</td>
</tr>
<tr>
<td>2018</td>
<td>$161,576,562</td>
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</table>
Kansas State University
Total Number of Extramural Awards Received

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Number of Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>884</td>
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<tr>
<td>2010</td>
<td>953</td>
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<td>2011</td>
<td>957</td>
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<td>2012</td>
<td>910</td>
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<td>2013</td>
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<tr>
<td>2014</td>
<td>954</td>
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<tr>
<td>2015</td>
<td>962</td>
</tr>
<tr>
<td>2016</td>
<td>1336</td>
</tr>
<tr>
<td>2017</td>
<td>1486</td>
</tr>
<tr>
<td>2018</td>
<td>1567</td>
</tr>
</tbody>
</table>
Kansas State University Expenditures

Fiscal Year

2011: $169,167,000
2012: $176,141,000
2013: $183,096,000
2014: $184,945,000
2015: $188,721,000
2016: $193,254,000
2017: $196,478,000
Kansas State University  
Sources of Awards  
Fiscal Year 2018

<table>
<thead>
<tr>
<th>Source</th>
<th>Number of Awards</th>
<th>Dollar Value</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td><strong>Government:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area/Local Governments</td>
<td>10</td>
<td>745,986</td>
<td>0.46%</td>
</tr>
<tr>
<td>State Governments</td>
<td>66</td>
<td>12,723,568</td>
<td>7.87%</td>
</tr>
<tr>
<td><strong>Federal:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department of Agriculture</td>
<td>240</td>
<td>28,785,895</td>
<td>17.82%</td>
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<tr>
<td>Department of Defense</td>
<td>25</td>
<td>4,007,192</td>
<td>2.48%</td>
</tr>
<tr>
<td>Department of Education</td>
<td>33</td>
<td>3,104,921</td>
<td>1.92%</td>
</tr>
<tr>
<td>Department of Energy</td>
<td>47</td>
<td>8,225,735</td>
<td>5.09%</td>
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<tr>
<td>Department of Health and Human Services</td>
<td>121</td>
<td>20,555,690</td>
<td>12.72%</td>
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<td>Department of Homeland Security</td>
<td>8</td>
<td>920,979</td>
<td>0.57%</td>
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<tr>
<td>Department of the Interior</td>
<td>23</td>
<td>3,633,683</td>
<td>2.25%</td>
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<tr>
<td>Department of Transportation</td>
<td>8</td>
<td>940,491</td>
<td>0.58%</td>
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<tr>
<td>Environmental Protection Agency</td>
<td>18</td>
<td>2,239,294</td>
<td>1.39%</td>
</tr>
<tr>
<td>National Aeronautics and Space Administration</td>
<td>11</td>
<td>1,015,291</td>
<td>0.63%</td>
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<tr>
<td>National Science Foundation</td>
<td>133</td>
<td>18,560,273</td>
<td>11.49%</td>
</tr>
<tr>
<td>US Agency for International Development</td>
<td>31</td>
<td>12,852,287</td>
<td>7.95%</td>
</tr>
<tr>
<td>Other Federal</td>
<td>36</td>
<td>1,991,091</td>
<td>1.23%</td>
</tr>
<tr>
<td><strong>Private:</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Foundations</td>
<td>466</td>
<td>13,448,914</td>
<td>8.32%</td>
</tr>
<tr>
<td>Industry (Including Foreign)</td>
<td>291</td>
<td>27,825,270</td>
<td>17.22%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>1567</td>
<td>161,576,562</td>
<td>100.00%</td>
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</tbody>
</table>
FY2018 Percentage of Total Dollar Amount of Extramural Awards by Source

- Federal: 66.12%
- Industry (Including Foreign): 17.22%
- Foundations: 8.32%
- State Governments: 7.87%
- Area/Local Governments: 0.46%
FY2018 Percentage of Total Number of Extramural Awards by Source

- Federal: 47%
- Industry (Including Foreign): 18%
- Foundations: 30%
- State Governments: 4%
- Area/Local Governments: 1%
FY2018 Extramural Award Sources by Dollar Amount

Federal, $106,832,823

Industry (Including Foreign), $27,825,270

Foundations, $13,448,914

State Governments, $12,723,568

Area/Local Governments, $745,986
FY2018 Extramural Award
Federal Sources by Dollar Amount

- Department of Agriculture, $28,785,895
- Department of Defense, $4,007,192
- Department of Education, $3,104,921
- Department of Energy, $8,225,735
- Department of Health and Human Services, $20,555,690
- Department of Homeland Security, $920,979
- Department of the Interior, $3,633,683
- Environmental Protection Agency, $2,239,294
- National Aeronautics and Space Administration, $1,015,291
- National Science Foundation, $18,560,273
- US Agency for International Development, $12,852,287
- Other Federal, $1,991,091

FY2018 Extramural Award
Federal Sources by Dollar Amount
Distribution of New Awards Among Colleges and Offices of the University Fiscal Year 2018

<table>
<thead>
<tr>
<th>College/Office</th>
<th>Number of Awards</th>
<th>Dollar Value</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Agriculture</td>
<td>714</td>
<td>$43,316,802 *</td>
<td>26.81%</td>
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<tr>
<td>College of Architecture, Planning and Design</td>
<td>6</td>
<td>$35,995</td>
<td>0.02%</td>
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<tr>
<td>College of Arts and Sciences</td>
<td>212</td>
<td>$51,278,665</td>
<td>31.74%</td>
</tr>
<tr>
<td>College of Business Administration</td>
<td>0</td>
<td>$0</td>
<td>0.00%</td>
</tr>
<tr>
<td>College of Education</td>
<td>41</td>
<td>$2,500,752</td>
<td>1.55%</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>232</td>
<td>$22,696,108</td>
<td>14.05%</td>
</tr>
<tr>
<td>College of Human Ecology</td>
<td>69</td>
<td>$12,683,488 **</td>
<td>7.85%</td>
</tr>
<tr>
<td>K-State Olathe</td>
<td>0</td>
<td>$0</td>
<td>0.00%</td>
</tr>
<tr>
<td>K-State Polytechnic Campus</td>
<td>9</td>
<td>$650,511</td>
<td>0.40%</td>
</tr>
<tr>
<td>College of Veterinary Medicine</td>
<td>223</td>
<td>$16,101,490</td>
<td>9.97%</td>
</tr>
<tr>
<td>Facilities Management</td>
<td>1</td>
<td>$3,750</td>
<td>0.00%</td>
</tr>
<tr>
<td>Office of the President</td>
<td>3</td>
<td>$5,026,300</td>
<td>3.11%</td>
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<tr>
<td>Office of the Provost</td>
<td>16</td>
<td>$2,153,791</td>
<td>1.33%</td>
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<tr>
<td>Vice President for Administration and Finance</td>
<td>1</td>
<td>$2,000</td>
<td>0.00%</td>
</tr>
<tr>
<td>Vice President for Research</td>
<td>11</td>
<td>$1,839,342</td>
<td>1.14%</td>
</tr>
<tr>
<td>Vice President for Student Life and Dean of Students</td>
<td>29</td>
<td>$3,287,568</td>
<td>2.03%</td>
</tr>
</tbody>
</table>

**UNIVERSITY TOTAL**                                **1567**   **$161,576,562**   **100.00%**

*Includes Cooperative Extension Projects in College of Agriculture
**Includes Cooperative Extension Projects in College of Human Ecology

NOTE: See 5 Year Summary of Extramural Support for Individual College Unit Details
FY2018 Extramural Award Dollars By College / Office

College of Agriculture, $43,316,802
College of Arts and Sciences, $51,278,665
College of Architecture, Planning and Design, $35,995
College of Business Administration, $0
College of Education, $2,500,752
College of Engineering, $22,696,108
College of Human Ecology, $12,683,488
College of Veterinary Medicine, $16,101,490
Office of the President, $5,026,300
Facilities Management, $3,750
K-State Polytechnic Campus, $650,511
K-State Olathe, $0
Office of the Provost, $2,153,791
Vice President for Administration and Finance, $2,000
Vice President for Research, $1,839,342
Vice President for Student Life and Dean of Students, $3,287,568
Vice President for Administration and Finance, $2,000
## FY2018 Cumulative Proposal/Award Summary
### 07/01/17 - 06/30/18

<table>
<thead>
<tr>
<th>Department/College</th>
<th>Proposals Submitted</th>
<th>Period Total</th>
<th>Awards Received</th>
<th>Total Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COLLEGE OF AGRICULTURE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural Economics</td>
<td>63</td>
<td>$4,440,046</td>
<td>$20,406,362</td>
<td>36</td>
</tr>
<tr>
<td>Agricultural Experiment Station</td>
<td>3</td>
<td>$105,500</td>
<td>$105,500</td>
<td>3</td>
</tr>
<tr>
<td>Agricultural Research Center-Hays</td>
<td>40</td>
<td>$963,435</td>
<td>$2,658,101</td>
<td>30</td>
</tr>
<tr>
<td>Agriculture and Natural Resources</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
<td>0</td>
</tr>
<tr>
<td>Agronomy</td>
<td>217</td>
<td>$9,010,024</td>
<td>$28,439,845</td>
<td>161</td>
</tr>
<tr>
<td>Animal Sciences and Industry</td>
<td>217</td>
<td>$4,632,166</td>
<td>$10,809,561</td>
<td>150</td>
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<tr>
<td>Communication and Ag Education</td>
<td>3</td>
<td>$242,182</td>
<td>$804,902</td>
<td>2</td>
</tr>
<tr>
<td>Dean of Agriculture and Director of AES</td>
<td>27</td>
<td>$2,008,258</td>
<td>$5,248,092</td>
<td>21</td>
</tr>
<tr>
<td>Entomology</td>
<td>44</td>
<td>$2,229,152</td>
<td>$5,155,169</td>
<td>36</td>
</tr>
<tr>
<td>Food Science Institute</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
<td>0</td>
</tr>
<tr>
<td>Grain Science and Industry</td>
<td>103</td>
<td>$2,922,535</td>
<td>$6,971,115</td>
<td>68</td>
</tr>
<tr>
<td>Horticulture and Natural Resources</td>
<td>64</td>
<td>$2,863,943</td>
<td>$8,302,956</td>
<td>47</td>
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<tr>
<td>International Agricultural Programs</td>
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<td>$0</td>
<td>$0</td>
<td>0</td>
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<tr>
<td>Kansas Industrial Extension Services</td>
<td>0</td>
<td>$0</td>
<td>$0</td>
<td>0</td>
</tr>
<tr>
<td>KS Ctr for Agri &amp; the Env./KS Water Resource Res. Inst.</td>
<td>3</td>
<td>$41,850</td>
<td>$114,368</td>
<td>6</td>
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<tr>
<td>Northwest Research Extension Center</td>
<td>7</td>
<td>$84,165</td>
<td>$152,410</td>
<td>9</td>
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<tr>
<td>Office of Academic Programs</td>
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<td>$15,000</td>
<td>$15,000</td>
<td>2</td>
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<tr>
<td>Plant Biotechnology Center</td>
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<td>$15,393</td>
<td>$15,393</td>
<td>2</td>
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<tr>
<td>Plant Pathology</td>
<td>83</td>
<td>$4,099,121</td>
<td>$12,072,614</td>
<td>64</td>
</tr>
<tr>
<td>Southeast Agricultural Research Center</td>
<td>7</td>
<td>$52,919</td>
<td>$115,427</td>
<td>7</td>
</tr>
<tr>
<td>Southwest Research Extension Center</td>
<td>15</td>
<td>$410,652</td>
<td>$907,241</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total Agriculture</strong></td>
<td>898</td>
<td>$34,136,341</td>
<td>$102,294,056</td>
<td>655</td>
</tr>
</tbody>
</table>

| **COLLEGE OF ARCHITECTURE, PLANNING & DESIGN** | | | | |
| Architecture | 0 | $0 | $0 | 0 | $0 |
| Dean of Architecture, Planning and Design | 0 | $0 | $0 | 0 | $0 |
| Interior Architecture and Product Design | 0 | $0 | $0 | 0 | $0 |
| Landscape Architecture/Regional & Community Planning | 14 | $564,730 | $1,651,471 | 6 | $35,995 |
| **Total Architecture, Planning and Design** | 14 | $564,730 | $1,651,471 | 6 | $35,995 |

<p>| <strong>COLLEGE OF ARTS AND SCIENCES</strong> | | | | |
| American Ethnic Studies | 0 | $0 | $0 | 0 | $0 |
| Art | 1 | $30,000 | $30,000 | 0 | $0 |
| Biochemistry | 44 | $7,382,624 | $23,794,591 | 22 | $1,986,050 |
| Biology | 108 | $12,986,330 | $42,179,663 | 55 | $8,949,158 |
| Chemistry | 65 | $6,905,571 | $24,739,946 | 40 | $5,444,338 |
| Communication Studies | 2 | $376,061 | $1,141,159 | 1 | $25,740 |
| Dean of Arts and Sciences | 2 | $170,000 | $530,000 | 1 | $80,000 |
| Economics | 2 | $3,771 | $3,771 | 0 | $0 |
| English | 11 | $420,274 | $712,588 | 0 | $0 |
| Geography | 13 | $1,211,292 | $2,945,223 | 6 | $425,977 |
| Geology | 11 | $18,758,823 | $19,827,313 | 4 | $18,366,918 |
| History | 3 | $16,575 | $45,201 | 5 | $164,540 |
| Mathematics | 41 | $2,346,684 | $8,470,189 | 19 | $691,763 |
| Modern Languages | 0 | $0 | $0 | 0 | $0 |
| Philosophy | 5 | $225,772 | $503,123 | 1 | $37,694 |
| Physics | 50 | $5,477,465 | $20,036,053 | 34 | $10,083,461 |
| Political Science | 3 | $173,144 | $403,972 | 2 | $120,644 |</p>
<table>
<thead>
<tr>
<th>Department/College</th>
<th>Proposals</th>
<th><strong>Period</strong></th>
<th><strong>Total</strong></th>
<th>Awards</th>
<th><strong>Total</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Sciences</td>
<td>12</td>
<td>$134,357</td>
<td>$2,490,881</td>
<td>11</td>
<td>$4,564,928</td>
</tr>
<tr>
<td>School of Journalism and Mass Communications</td>
<td>4</td>
<td>$675,307</td>
<td>$1,978,570</td>
<td>2</td>
<td>$67,963</td>
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<tr>
<td>School of Music, Theatre, and Dance</td>
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<td>$15,000</td>
<td>$15,000</td>
<td>2</td>
<td>$34,171</td>
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<tr>
<td>Sociology, Anthropology and Social Work</td>
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<td>$1,044,620</td>
<td>$4,154,831</td>
<td>4</td>
<td>$201,772</td>
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<td>Statistics</td>
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<td>$532,037</td>
<td>$1,594,159</td>
<td>3</td>
<td>$33,548</td>
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<tr>
<td>Gender, Women, and Sexuality Studies</td>
<td>1</td>
<td>$26,092</td>
<td>$59,663</td>
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<td>$0</td>
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<tr>
<td><strong>Total Arts and Sciences</strong></td>
<td>404</td>
<td>$58,911,799</td>
<td>$155,655,896</td>
<td>212</td>
<td>$51,278,665</td>
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<tr>
<td><strong>COLLEGE OF BUSINESS ADMINISTRATION</strong></td>
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<td>Finance</td>
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<td>$0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
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<td>Accounting</td>
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<td>$15,225</td>
<td>0</td>
<td>$0</td>
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<tr>
<td>Dean of Business Administration</td>
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<td>$0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>Management</td>
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<td>$5,056</td>
<td>0</td>
<td>$0</td>
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<tr>
<td>Marketing</td>
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<td>$0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
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## FY2018 Cumulative Proposal/Award Summary
07/01/17 - 06/30/18

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## FY2018 Cumulative Proposal/Award Summary
### 07/01/17 - 06/30/18

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**PROPOSALS**
*Period = Initial budget period amount requested

**Awards**
**Total = Total funds requested for entire project period

**NOTE:** Previous year awards received (i.e. in the case of incrementally funded awards) are not included if received in a previous award/reporting period. Only those award amounts received through specific award transactions processed during the specified reporting period are included.

(All totals are cumulative throughout the fiscal year.)

**These numbers include the collaborative count for proposals and awards and reflect the contributions of and credit granted to all project personnel based on the E% indicated on the Sponsored Programs Transmittal Sheet. During FY 2015 a new credit/reporting allocation capture strategy, referred to as "E%" on the Transmittal Sheet, was developed. The deployment of this more uniform credit allocation method streamlines and makes it easier for campus units to consistently report collaborative activities, that may not be reflected in previous year's totals.)
## AGRICULTURE

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## ARCHITECTURE, PLANNING AND DESIGN

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## ARTS AND SCIENCES

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## BUSINESS ADMINISTRATION

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## ENGINEERING

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### V.P. FOR STUDENT LIFE AND DEAN OF STUDENTS

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**UNIVERSITY TOTALS**

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*Kinesiology moved to Human Ecology in 2013. Only previously awarded grants continue to be listed in Arts and Sciences.

**Music is now Included with School of Music, Theatre, and Dance.

During FY 2015 a new credit/reporting allocation capture strategy, referred to as "E%" on the Sponsored Project Transmittal Sheet, was developed. The deployment of this more uniform allocation method streamlines and makes it easier for campus units to consistently report collaborative activities, that may not be necessarily reflected in previous year's totals.
EXTRAMURAL AWARDS
Fiscal Year 2018 Cumulative (July 1, 2017 – June 30, 2018)

COLLEGE OF AGRICULTURE

AGRICULTURAL ECONOMICS
Amanor-Boadu, Vincent R., Barkley, Andrew P., Featherstone, Allen M., Lilja, Nina K. (Dean of Agriculture and Director of AES), and Schwab, Benjamin B., US Agency for International Development, $48,977, "BHEARD Program: Ghana."


Coffey, Brian, Nwadike, Londa S. (Director of Cooperative Extension), Pliakoni, Eleni (Horticulture and Natural Resources), Trinetta, Valentina (Animal Sciences and Industry), and Yucel, Umut (Animal Sciences and Industry), US Department of Agriculture, $7,009, "Effective Packing Practices to Control Postharvest Disease in Small Fruit Crops."

Featherstone, Allen M., and Tsoodle, Leah J., Kansas Department of Agriculture, "Memorandum of Agreement."
Featherstone, Allen M., Amanor-Boadu, Vincent R., Barkley, Andrew P., Lilja, Nina K. (Dean of Agriculture and Director of AES), and Schwab, Benjamin B., US Agency for International Development, $48,977, "BHEARD Program: Ghana."


Golden, Bill B., and Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Kansas Water Office, "Monitoring the Impacts of Sheridan County 6 Local Enhanced Management Area."

Golden, Bill B., Rice, Charles W. (Agronomy), Rogers, Danny H. (Biological and Agricultural Engineering), and Sanderson, Matthew R. (Sociology, Anthropology, and Social Work), US Department of Agriculture, $131,913, "Sustaining Agriculture through Adaptive Management to Preserve the Ogallala Aquifer under a Changing Climate."

Golden, Bill B., Aguilar, Jonathan P. (Southwest Area Office), Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Foster, Anserd J. (Southwest Area Office), Kisekka, Isaya (Southwest Research Extension Center), Lamm, Freddie R. (Northwest Research Extension Center), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $104,697 (includes $3,750 from KDA Match), "Using Farmer-Based Water Technology Farms to Implement New Irrigation Technologies to Sustain the Rural Economy."

Golden, Bill B., Aguilar, Jonathan P. (Southwest Area Office), Aiken, Robert M. (Northwest Research Extension Center), Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Holman, Johnathon D. (Southwest Research Extension Center), Jaeger, John R. (Agricultural Research Center-Hays), Johnson, Sandra K. (Northwest Area Office), Kulesza, Stacey E. (Civil Engineering), Lamm, Freddie R. (Northwest Research Extension Center), Lin, Xiaomao (Agronomy), Obour, Augustine K. (Agricultural Research Center-Hays), O'Brien, Daniel M. (Northwest Area Office), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), Steward, David R. (Civil Engineering), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $40,104, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."

Griffin, Terry W., and Ibendahl, Gregory, Cotton, Inc., $15,000, "Economics of Whole-Farm Swarm-Bots for Cotton Production in the US."
Griffin, Terry W., Adee, Eric A. (Agronomy), Ciampitti, Ignacio (Agronomy), Duncan, Stewart R. (Northeast Area Office), Lin, Xiaomao (Agronomy), and Shoup, Douglas E. (Southeast Area Office), Kansas Soybean Commission, $1,496, "The Quest of 100-Bushel Soybean: On-Farm Approach."

Griffin, Terry W., Ciampitti, Ignacio (Agronomy), and Sharda, Ajay (Biological and Agricultural Engineering), United Soybean Board, $24,939, "On-farm Digital Technologies."

Griffin, Terry W., US Department of Agriculture, $18,036, "Managing Farm Risk Using Big Data."

Hendricks, Nathan P., US Department of Agriculture, $30,000, "Marginal Cost of Carbon Abatement through Forest Restoration of Agricultural Land in the Mississippi Delta."

Ibendahl, Gregory, and Griffin, Terry W., Cotton, Inc., $15,000, "Economics of Whole-Farm Swarm-Bots for Cotton Production in the US."


Reid, Roberta M., Barnaby Jr, Glenn A., Llewelyn, Richard V., and Taylor, Mykel R., US Department of Agriculture, $12,495, "Farm Bill Risk Management Education and Decision Tool."


Ross, Kara, Amanor-Boadu, Vincent R., Shanoyan, Aleksan, and Zereyesus, Yacob, US Department of Agriculture, "METSS Ghana Implementation (Sustaining Growth Through Effective Management and Collaboration)."

Sampson, Gabriel S., DeRouchey, Joel M. (Animal Sciences and Industry), Rivard, Cary L. (Horticulture and Natural Resources), Stewart, Zachary P. (Dean of Agriculture and Director of AES), and Vipham, Jessie (Dean of Agriculture and Director of AES), US Agency for International Development, $27,561, "Multidimensional Trade-off Analysis of Integrated Animal-Horticulture Farming Systems for Improved Smallholder Farmer Adoption Recommendations."


Shanoyan, Aleksan, Amanor-Boadu, Vincent R., Ross, Kara, and Zereyesus, Yacob, US Department of Agriculture, "METSS Ghana Implementation (Sustaining Growth Through Effective Management and Collaboration)."

Taylor, Mykel R., Barnaby Jr, Glenn A., Llewelyn, Richard V., and Reid, Roberta M., US Department of Agriculture, $12,495, "Farm Bill Risk Management Education and Decision Tool."


Tsoodle, Leah J., and Featherstone, Allen M., Kansas Department of Agriculture, $97,420, "Memorandum of Agreement."


Yu, Jisang, World Bank, $10,000, "Drivers of Agricultural Productivity in Bhuan."

Zereyesus, Yacob, and Van Der Merwe, Deon (Diagnostic Medicine/Pathobiology), US Agency for International Development, $16,120, "Mycotoxin Prevalence and Mitigation Measures in Ethiopia."


AGRICULTURAL EXPERIMENT STATION
Minton, J. Ernest, Archer Daniels Midland Company, $50,000, "Center for Sorghum Improvement Program Agreement -Match Funding."

Minton, J. Ernest, US Department of Agriculture, $55,000, "Acquisition of Goods and Services 58-3020-7-033."

Minton, J. Ernest, Bascom, Nathanael D. (Dean of Agriculture and Director of AES), and Sexton-Bowser, Sarah A. (Dean of Agriculture and Director of AES), US Department of Agriculture, $500, "Enhancement of Professional Development in Plant Breeding through "The Sorghum in the 21st Century" Conference."

AGRICULTURAL RESEARCH CENTER-HAYS
Gillen, Robert L., Support Funds, $8,000, "AHY Support Funds Research 37."

Gillen, Robert L., US Department of Agriculture, $28,000, "Acquisition of Goods and Services."
Jaeger, John R., Tarpoff, Anthony J. (Animal Sciences and Industry), and Waggoner, Justin (Southwest Area Office), Alliance Liquid Feeds, $4,500, "Effects of Cellarat-Ore C.P.R. Fed during the Receiving Period on Cattle Performance, Morbidity, IBR Vaccine Response and Carcass Characteristics."

Jaeger, John R., Aguilar, Jonathan P. (Southwest Area Office), Aiken, Robert M. (Northwest Research Extension Center), Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Golden, Bill B. (Agricultural Economics), Holman, Johnathon D. (Southwest Research Extension Center), Johnson, Sandra K. (Northwest Area Office), Kulesza, Stacey E. (Civil Engineering), Lamm, Freddie R. (Northwest Research Extension Center), Lin, Xiaomao (Agronomy), Obour, Augustine K., O'Brien, Daniel M. (Northwest Area Office), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), Steward, David R. (Civil Engineering), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $3,342, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."

Kumar, Vipan, Jugulam, Mithila (Agronomy), Peterson, Dallas E. (Agronomy), Shoup, Douglas E. (Southeast Area Office), and Stahlman, Phillip W., Kansas Soybean Commission, $13,000, "Investigation of Herbicide Resistance in Waterhemp and Palmer amaranth in Kansas: Survey, Mechanism, and Management."

Kumar, Vipan, and Peterson, Dallas E. (Agronomy), Kansas Soybean Commission, $16,447, "Non-Xtend Soybean Response to Simulate Dicamba Drift."

Kumar, Vipan, and Falk Jones, Jeanne S. (Northwest Area Office), Kansas Sunflower Commission, $4,000, "Influence of Rainfall on the Timing and Efficacy of PRE/POST Soil Residual Herbicides for Control of Herbicide-resistant Kochia and Palmer Amaranth."

Kumar, Vipan, Monsanto Company, $7,560, "Service Order No. 54."

Kumar, Vipan, Monsanto Company, $6,615, "Service Order No. 55."

Kumar, Vipan, Monsanto Company, $10,500, "Service Order No. 60."

Kumar, Vipan, Falk Jones, Jeanne S. (Northwest Area Office), O'Brien, Daniel M. (Northwest Area Office), and Stahlman, Phillip W., National Sunflower Association, $9,100, "Influence of Rainfall on the Timing and Efficacy of PRE/POST Soil Residual Herbicides for Control of Herbicide-resistant Kochia and Palmer Amaranth."

Kumar, Vipan, Support Funds, $50,000, "AHY Support Funds Research 36."

Obour, Augustine K., and Holman, Johnathon D. (Southwest Research Extension Center), US Department of Agriculture, $37,450, "Cover Crops to Increase Water Infiltration in Dryland and Irrigated Systems in Western Kansas."

Obour, Augustine K., Aguilar, Jonathan P. (Southwest Area Office), Aiken, Robert M. (Northwest Research Extension Center), Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Golden, Bill B. (Agricultural Economics), Holman, Johnathon D. (Southwest Research Extension Center), Jaeger, John R., Johnson, Sandra K. (Northwest Area
Office), Kulesza, Stacey E. (Civil Engineering), Lamm, Freddie R. (Northwest Research Extension Center), Lin, Xiaomao (Agronomy), O’Brien, Daniel M. (Northwest Area Office), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), Steward, David R. (Civil Engineering), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $26,736, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."

Perumal, Ramasamy, Morris, Geoffrey (Agronomy), and Sexton-Bowser, Sarah A. (Dean of Agriculture and Director of AES), Kansas Grain Sorghum Commission, $1,875, "Center for Sorghum Improvement Seminar Series."

Perumal, Ramasamy, Aiken, Robert M. (Northwest Research Extension Center), Little, Christopher R. (Plant Pathology), Morris, Geoffrey (Agronomy), SV, Krishna Jagadish (Agronomy), and Tesso, Tesfaye (Agronomy), Kansas Grain Sorghum Commission, $69,300, "Development of Sorghum Parental Lines with Enhanced Drought and Cold Tolerance."

Perumal, Ramasamy, Little, Christopher R. (Plant Pathology), and Tesso, Tesfaye (Agronomy), Kansas Grain Sorghum Commission, $4,510, "Germplasm Screening, host interactions, and lodging resilience for stalk rot diseases in Kansas."

Perumal, Ramasamy, and Morris, Geoffrey (Agronomy), Kansas Grain Sorghum Commission, $8,230, "Improving Early-season Cold and Drought Tolerance in Grain Sorghum with Genomics and Phenomics."

Perumal, Ramasamy, Morris, Geoffrey (Agronomy), Pagadala, Venkata (Dean of Agriculture and Director of AES), SV, Krishna Jagadish (Agronomy), and Tesso, Tesfaye (Agronomy), Kansas Grain Sorghum Commission, $5,500, "Physiological and Genetic Characterization of Grain Sorghum for Enhancing Terminal Heat and Drought Stress Resilience."

Perumal, Ramasamy, US Department of Agriculture, $30,000, "Development and Characterization of Sorghum with Improved End-Use Quality."

Stahlman, Phillip W., Jugulam, Mithila (Agronomy), Kumar, Vipan, Peterson, Dallas E. (Agronomy), and Shoup, Douglas E. (Southeast Area Office), Kansas Soybean Commission, $13,000, "Investigation of Herbicide Resistance in Waterhemp and Palmer amaranth in Kansas: Survey, Mechanism, and Management."


Zhang, Guorong, Brewers Association, $5,000, "Building a Winter Malting Barley Market for the Great Plains."

Zhang, Guorong, Kansas Wheat Alliance, Inc., $50,000, "Breeding Wheat Varieties with Virus and Herbicide Resistance."
Zhang, Guorong, Fritz, Allan K. (Agronomy), and Lollato, Romulo P. (Agronomy), Kansas Wheat Alliance, Inc., $1,993, "Digging through Existing Databases to Improve Variety-Specific Management Recommendations for Wheat in Kansas."


Zhang, Guorong, Li, Yonghui (Grain Science and Industry), and Smith, Gordon L. (Grain Science and Industry), Kansas Wheat Commission, $3,088, "Determining Phytochemical Profiles of Kansas Wheat Varieties to Facilitate Breeding and Marketing of Health-Beneficial Wheats."

Zhang, Guorong, Kansas Wheat Commission, $138,000, "Development of New Hard Red and Hard White Winter Wheat Varieties with Improved Levels of Diseases Resistance for Western Kansas."

Zhang, Guorong, DeWolf, Erick D. (Plant Pathology), Friebe, Bernd (Plant Pathology), Fritz, Allan K. (Agronomy), and Gill, Bikram S. (Plant Pathology), Kansas Wheat Commission, $3,200, "Disease Phenotyping: Determining the Reaction of Wheat Lines to Important Diseases."

Zhang, Guorong, US Department of Agriculture, $65,528, "Validation, Characterization and Deployment of QTL for Grain Yield Components in Wheat -AG Research Center -Hays."

AGRONOMY
Adee, Eric A., and Little, Christopher R. (Plant Pathology), Kansas Soybean Commission, $5,820, "SDS: Resistance Screening, ILeVO Treatment, Survival on Corn Residue, and Pathogen Variability."


Adee, Eric A., Monsanto Company, $2,520, "Service Order No. 61."

Adee, Eric A., Support Funds, $163,040, "AGR Support Funds Experiment Field 26."

Alvarez Santos, Eduardo, Peterson, Dallas E., Redmond, Christopher A., and Thompson, Curtis R., Kansas Soybean Commission, $10,635, "Improving Meteorological Measurements at Kansas Mesonet Weather Stations to Assist with Herbicide Drift Monitoring."

Alvarez Santos, Eduardo, Corwin, Kristan L. (Physics), Washburn, Brian R. (Physics), and Welch, Stephen M., National Science Foundation, $169,243, "MRI: Agro-Combs: Development of A Mid-Infrared Dual-Comb Spectrometer."

Assefa Mulisa, Yared, Ciampitti, Ignacio, Johnson, Wendy A., and McCornack, Brian P. (Entomology), Kansas Corn Commission, $2,495, "Corn Management Decision Guiding Website and Mobile App."
Bheemanahallirangappa, Raju, Schapaugh Jr, William T., and SV, Krishna Jagadish, Kansas Soybean Commission, $14,000, "High-throughput Platform to Enhance Quality of Beans and Add Value to Kansas Soybean Breeding Program."


Ciampitti, Ignacio, and McCormack, Brian P. (Entomology), Kansas Corn Commission, $26,913, "Beyond the Summer Science Institute -Using Corn in the Curriculum to Advance Inquiry-based Learning."


Ciampitti, Ignacio, Kansas Corn Commission, $89,989, "Extension and Applied Research Programs for Kansas Corn Production."

Ciampitti, Ignacio, Aguilar, Jonathan P. (Southwest Area Office), Haag, Lucas A. (Northwest Area Office), and Patrignani, Andres, Kansas Corn Commission, $3,939, "Improving the Assessment of Soil Moisture Conditions in Irrigated Corn Using COSMOS."


Ciampitti, Ignacio, Ruiz Diaz Suarez, Dorivar A., and Thompson, Curtis R., Kansas Grain Sorghum Commission, $10,091, "Sorghum Production Schools for Kansas."

Ciampitti, Ignacio, and Duncan, Stewart R. (Northeast Area Office), Kansas Soybean Commission, $8,963, "2019 K-State Soybean Production Schools for Kansas."

Ciampitti, Ignacio, and Sassenrath, Gretchen F. (Southeast Agricultural Research Center), Kansas Soybean Commission, $23,935, "Improving Soybean Yield in the Double Crop Soybean System."


Ciampitti, Ignacio, North Central Soybean Research Program, $31,767, "Benchmarking Soybean Production Systems in the North Central USA."

Ciampitti, Ignacio, United Soybean Board, $399,785, "Effect of Cultural Practices on Soybean Seed Quality: A Review and Research Studies."

Ciampitti, Ignacio, Griffin, Terry W. (Agricultural Economics), and Sharda, Ajay (Biological and Agricultural Engineering), United Soybean Board, $25,695, "On-farm Digital Technologies."


Dille, Johanna A., Xarvio Digital Farming Solutions, $15,000, "2018 Weed Image Collection via iCatcher App."

Fritz, Allan K., Lollato, Romulo P., and Zhang, Guorong (Agricultural Research Center-Hays), Kansas Wheat Alliance, Inc., $1,993, "Digging through Existing Databases to Improve Variety-Specific Management Recommendations for Wheat in Kansas."

Fritz, Allan K., Kansas Wheat Alliance, Inc., $150,000, "Implementation of Advanced Breeding Technologies."

Fritz, Allan K., Kansas Wheat Alliance, Inc., $174,000, "Implementation of Advanced Breeding Technologies."


Fritz, Allan K., Fellers, John P. (Plant Pathology), and Trick, Harold N. (Plant Pathology), Kansas Wheat Commission, $10,000, "Biotech Approaches for Trait Enhancement in Wheat."

Fritz, Allan K., DeWolf, Erick D. (Plant Pathology), Friebe, Bernd (Plant Pathology), Gill, Bikram S. (Plant Pathology), and Zhang, Guorong (Agricultural Research Center-Hays), Kansas Wheat Commission, $3,200, "Disease Phenotyping: Determining the Reaction of Wheat Lines to Important Diseases."

Fritz, Allan K., Kansas Wheat Commission, $50,000, "Implementation of Advanced Breeding Technologies."


Fritz, Allan K., Pioneer Hi-Bred International, Inc., $31,050, "Hybrid Wheat Seed Production Agreement."

Fritz, Allan K., Pagadala, Venkata (Dean of Agriculture and Director of AES), and SV, Krishna Jagadish, US Agency for International Development, $7,829, "Development of Heat Tolerant, High Yielding and Climate Resilient Wheat Cultivars Utilizing Genomics, Molecular and Physiological Information."

Hettiarachchi, Ganga M., Bio Huma Netics, Inc., $15,750, "Altering Phosphorus Fertilizer Reaction Pathways in P-Fixing Soils."

Hettiarachchi, Ganga M., Davis, Lawrence C. (Biochemistry), Erickson, Larry E. (Center for Hazardous Substance Research), and Roozeboom, Kraig L., North Atlantic Treaty Organization (NATO), $7,684 (includes $2,099 from In-Kind Contribution Erickson support, and $2,133 from In-Kind Contribution -Erickson's Effort), "New Phytotechnology for Cleaning Contaminated Military Sites."

Hettiarachchi, Ganga M., Hutchinson, Stacy L. (Biological and Agricultural Engineering), and Parameswaran, Prathap (Civil Engineering), US Department of Agriculture, $25,000, "Novel Platform for Channelized Nutrient Product Sequestration from Agricultural Wastewaters through Optimized Anaerobic Bioprocesses."


Johnson, Wendy A., Assefa Mulisa, Yared, Ciampitti, Ignacio, and McCornack, Brian P. (Entomology), Kansas Corn Commission, $998, "Corn Management Decision Guiding Website and Mobile App."

Jugulam, Mithila, and Thompson, Curtis R., Kansas Grain Sorghum Commission, $20,000, "Mechanism of Mesotrione Tolerance in Sorghum and Screening Sorghum Germplasm for Tolerance to Synthetic Auxins."

Jugulam, Mithila, Kumar, Vipan (Agricultural Research Center-Hays), Peterson, Dallas E., Shoup, Douglas E. (Southeast Area Office), and Stahlman, Phillip W. (Agricultural Research Center-Hays), Kansas Soybean Commission, $13,000, "Investigation of Herbicide Resistance in Waterhemp and Palmer amaranth in Kansas: Survey, Mechanism, and Management."


Lin, Xiaomao, Indigo Ag, Inc., $7,000, "Memorandum of Agreement: Kansas Wheat Data Analysis for 2017 Experiments."

Lin, Xiaomao, DeWolf, Erick D. (Plant Pathology), Lollato, Romulo P., Sassenrath, Gretchen F. (Southeast Agricultural Research Center), and Shoup, Douglas E. (Southeast Area Office), Kansas Crop Improvement Association, "Reducing the Impact of Fusarium Head Blight."

Lin, Xiaomao, Adee, Eric A., Ciampitti, Ignacio, Duncan, Stewart R. (Northeast Area Office), Griffin, Terry W. (Agricultural Economics), and Shoup, Douglas E. (Southeast Area Office), Kansas Soybean Commission, $1,496, "The Quest of 100-Bushel Soybean: On-Farm Approach."

Lin, Xiaomao, National Oceanic and Atmosphere Administration, $70,000, "Weather Data Library Data Sets."

Lin, Xiaomao, US Department of Agriculture, $50,000, "Evaluation of Frost and Drought Events in the US Southern Great Plains from 1981 to 2040."

Lin, Xiaomao, Aguilar, Jonathan P. (Southwest Area Office), Aiken, Robert M. (Northwest Research Extension Center), Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Golden, Bill B. (Agricultural Economics), Holman, Johnathon D. (Southwest Research Extension Center), Jaeger, John R. (Agricultural Research Center-Hays), Johnson, Sandra K. (Northwest Area Office), Kulesza, Stacey E. (Civil Engineering), Lamm, Freddie R. (Northwest Research Extension Center), Obour, Augustine K. (Agricultural Research Center-Hays), O'Brien, Daniel M. (Northwest Area Office), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), Steward, David R. (Civil Engineering), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $20,052, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."


Lollato, Romulo P., and Haag, Lucas A. (Northwest Area Office), Kansas Crop Improvement Association, $12,000, "Probability of Wheat Grain Yield Response and Breaking Even to Multiple Seed Cleaning by Seed treatment Combinations at Different Seeding Rates in Kansas."

Lollato, Romulo P., DeWolf, Erick D. (Plant Pathology), Lin, Xiaomao, Sassenrath, Gretchen F. (Southeast Agricultural Research Center), and Shoup, Douglas E. (Southeast Area Office), Kansas Crop Improvement Association, "Reducing the Impact of Fusarium Head Blight."

Lollato, Romulo P., Fritz, Allan K., and Zhang, Guorong (Agricultural Research Center-Hays), Kansas Wheat Alliance, Inc., $15,944, "Digging through Existing Databases to Improve Variety-Specific Management Recommendations for Wheat in Kansas."

Lollato, Romulo P., Kansas Wheat Alliance, Inc., $7,500, "Extension Resources for Kansas Wheat Producers."


Lollato, Romulo P., Monsanto Company, $19,350, "Service Order No. 53."

Lollato, Romulo P., National Crop Insurance Services, $10,000, "NCIS Gift."


Min, Doohong, Forage Genetics International, $5,700, "Alfalfa Research Study."

Min, Doohong, National Alfalfa and Forage Alliance, $1,200, "Identifying-Optimal Alfalfa Germplasm for Intercropping with Perennial Grasses in Dual-Purposed Cropping Systems."

Moorberg, Colby, Monsanto Company, $15,200, "Service Order No. 51."

Moorberg, Colby, National Science Foundation, $141,885, "Quantifying the Impact of Weather Whiplash on Roots and Hyphae with an Automated Minirhizotron Camera System."

Moorberg, Colby, Biles, Larry E. (Kansas Forest Service), Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrch Inst), Keane, Timothy D. (Landscape Architecture/Regional and Community Planning), Moore, Trisha L. (Biological and Agricultural Engineering), and Sheshukov, Aleksey Y. (Biological and Agricultural Engineering), US Department of the Interior, $18,654 (includes $5,074 from In-Kind), "Kansas Water Resources Research Institute 2016."

Morris, Geoffrey, Kansas Department of Agriculture, $150,000, "Collaborative Sorghum Investment Program Water Optimized Sorghum for Kansas."

Morris, Geoffrey, Perumal, Ramasamy (Agricultural Research Center-Hays), and Sexton-Bowser, Sarah A. (Dean of Agriculture and Director of AES), Kansas Grain Sorghum Commission, $1,875, "Center for Sorghum Improvement Seminar Series."

Morris, Geoffrey, Aiken, Robert M. (Northwest Research Extension Center), Little, Christopher R. (Plant Pathology), Perumal, Ramasamy (Agricultural Research Center-Hays), SV, Krishna Jagadish, and Tesso, Tesfaye, Kansas Grain Sorghum Commission, $4,950, "Development of Sorghum Parental Lines with Enhanced Drought and Cold Tolerance."

Morris, Geoffrey, and Perumal, Ramasamy (Agricultural Research Center-Hays), Kansas Grain Sorghum Commission, $74,070, "Improving Early-season Cold and Drought Tolerance in Grain Sorghum with Genomics and Phenomics."

Morris, Geoffrey, Pagadala, Venkata (Dean of Agriculture and Director of AES), Perumal, Ramasamy (Agricultural Research Center-Hays), SV, Krishna Jagadish, and Tesso, Tesfaye, Kansas Grain Sorghum Commission, $13,750, "Physiological and Genetic Characterization of Grain Sorghum for Enhancing Terminal Heat and Drought Stress Resilience."

Morris, Geoffrey, Durrett, Timothy P. (Biochemistry), Schrick, Kathrin (Biology), SV, Krishna Jagadish, and Welti, Ruth (Biology), National Science Foundation, $49,682, "MRI: Acquisition of an Electrospray Ionization Triple Quadrupole Mass Spectrometer with Ion Mobility Spectrometry for Improved Plant Lipidomics."

Morris, Geoffrey, US Department of Agriculture, $30,000, "Genotyping of Sorghum for Grain Quality Traits."

Morris, Geoffrey, US Department of Agriculture, $2,128, "Improving Cold Tolerance in Sorghum: A Promising Feedstock for Biofuels and Biobased Products in the Northern Great Plains."


Patrignani, Andres, Aguilar, Jonathan P. (Southwest Area Office), Ciampitti, Ignacio, and Haag, Lucas A. (Northwest Area Office), Kansas Corn Commission, $27,574, "Improving the Assessment of Soil Moisture Conditions in Irrigated Corn Using COSMOS."

Patrignani, Andres, Bremer, Dale J. (Horticulture and Natural Resources), and Fry, Jack D. (Horticulture and Natural Resources), US Golf Association, Inc., $38,920, "Development of Irrigation Scheduling Techniques that Conserve Water Using Soil Moisture Sensors, Reference Evapotranspiration, and Turfgrass Quality Data."


Peterson, Dallas E., Jugulam, Mithila, Kumar, Vipan (Agricultural Research Center-Hays), Shoup, Douglas E. (Southeast Area Office), and Stahlman, Phillip W. (Agricultural Research Center-Hays), Kansas Soybean Commission, $13,000, "Investigation of Herbicide Resistance in Waterhemp and Palmer amaranth in Kansas: Survey, Mechanism, and Management."

Peterson, Dallas E., and Kumar, Vipan (Agricultural Research Center-Hays), Kansas Soybean Commission, $16,447, "Non-Xtend Soybean Response to Simulate Dicamba Drift."

Peterson, Dallas E., Monsanto Company, $16,650, "Service Order No. 52."

Peterson, Dallas E., Monsanto Company, $7,560, "Service Order No. 56."

Peterson, Dallas E., Monsanto Company, $8,190, "Service Order No. 57."

Peterson, Dallas E., Monsanto Company, $8,400, "Service Order No. 58."

Peterson, Dallas E., Monsanto Company, $10,500, "Service Order No. 59."

Peterson, Dallas E., Syngenta Seeds, Inc., $12,000, "Seventh Amendment to the University Research Services Agreement."
Peterson, Dallas E., United Soybean Board, $28,000, "Glyphosate Resistant Weed Project in Kansas."

Peterson, Dallas E., Boyer, Cheryl R. (Horticulture and Natural Resources), Cloyd, Raymond A. (Entomology), DeWolf, Erick D. (Plant Pathology), Duncan, Stewart R. (Northeast Area Office), Hoyle, Jared (Horticulture and Natural Resources), Johnson, Wendy A. (Entomology), Kennelly, Megan (Plant Pathology), McCormack, Brian P. (Entomology), Miller, Frannie L. (Entomology), Rivard, Cary L. (Horticulture and Natural Resources), Stiffler, Brooke (Entomology), Upham, Ward S. (Horticulture and Natural Resources), and Zukoff, Sarah N. (Southwest Area Office), US Department of Agriculture, $19,692, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."

Pierzynski, Gary M., Support Funds, $8,500, "AGR Support Funds Research 52."

Pierzynski, Gary M., Lilja, Nina K. (International Agricultural Programs), and Pagadala, Venkata (Dean of Agriculture and Director of AES), US Agency for International Development, "Innovation Lab on Sustainable Intensification."

Pierzynski, Gary M., US Department of Agriculture, $100,000, "Development of DNA Markers for Resistance to Wheat Diseases."

Presley, DeAnn R., Kansas Department of Health and Environment, $13,794, "KSU Agronomy Compost Site Development and Operation and Compost Operator Educational and Technical Assistance."


Ransom, Michel D., Fluid Fertilizer Foundation, $14,000, "Fluid Fertilizer Foundation."

Ransom, Michel D., US Department of Agriculture, $8,921, "Completion of the Isee Soils Database for the North Central Region."


Redmond, Christopher A., Alvarez Santos, Eduardo, Peterson, Dallas E., and Thompson, Curtis R., Kansas Soybean Commission, $10,635, "Improving Meteorological Measurements at Kansas Mesonet Weather Stations to Assist with Herbicide Drift Monitoring."

Rice, Charles W., Dodds, Walter K. (Biology), and Zeiglin, Lydia H. (Biology), Kansas Board of Regents, $48,044, "RII Track-1: Microbiomes of Aquatic, Plant and Soil Systems Across Kansas."


Rice, Charles W., Ciampitti, Ignacio, and Ruiz Diaz Suarez, Dorivar A., Kansas Corn Commission, $27,278, "Soil Health Partnership: Kansas."

Rice, Charles W., Ruiz Diaz Suarez, Dorivar A., Sassenrath, Gretchen F. (Southeast Agricultural Research Center), and Shoup, Douglas E. (Southeast Area Office), Kansas Soybean Commission, $7,386, "Evaluation of Soil Health Test to Determine Fertilizer Needs for Soybean in Kansas."

Rice, Charles W., Kansas State University Foundation, $40,000, "Mary L. Vanier Endowed Professorship."

Rice, Charles W., Dodds, Walter K. (Biology), and Zeiglin, Lydia H. (Biology), National Science Foundation, $72,056, "RII Track-1: Microbiomes of Aquatic, Plant and Soil Systems (MAPS) Mediating Sustainability: An Observational and Experimental Network Across Kansas."


Rice, Charles W., Golden, Bill B. (Agricultural Economics), Rogers, Danny H. (Biological and Agricultural Engineering), and Sanderson, Matthew R. (Sociology, Anthropology, and Social Work), US Department of Agriculture, $420,866, "Sustaining Agriculture through Adaptive Management to Preserve the Ogallala Aquifer under a Changing Climate."


Roozeboom, Kraig L., Little, Christopher R. (Plant Pathology), Sassenrath, Gretchen F. (Southeast Agricultural Research Center), and Shoup, Douglas E. (Southeast Area Office), Kansas Soybean Commission, $5,768, "Soybean Production Systems to Control Charcoal Rot and Other Soil-borne Diseases."

Roozeboom, Kraig L., National Crop Insurance Services, $30,000, "Unrestricted Gift."

Roozeboom, Kraig L., Davis, Lawrence C. (Biochemistry), Erickson, Larry E. (Center for Hazardous Substance Research), and Hettiarachchi, Ganga M., North Atlantic Treaty Organization (NATO), $7,684 (includes $2,099 from In-Kind Contribution Erickson support, and $2,133 from In-Kind Contribution -Erickson's Effort), "New Phytotechnology for Cleaning Contaminated Military Sites."

Ruiz Diaz Suarez, Dorivar A., Haag, Lucas A. (Northwest Area Office), Rice, Charles W., and Sassenrath, Gretchen F. (Southeast Agricultural Research Center), Kansas Corn Commission, $17,150, "Evaluation of Soil Health Test to Determine Fertilizer Needs for Corn in Kansas."

Ruiz Diaz Suarez, Dorivar A., Ciampitti, Ignacio, and Rice, Charles W., Kansas Corn Commission, $6,820, "Soil Health Partnership: Kansas."

Ruiz Diaz Suarez, Dorivar A., Ciampitti, Ignacio, and Thompson, Curtis R., Kansas Grain Sorghum Commission, "Sorghum Production Schools for Kansas."

Ruiz Diaz Suarez, Dorivar A., Rice, Charles W., Sassenrath, Gretchen F. (Southeast Agricultural Research Center), and Shoup, Douglas E. (Southeast Area Office), Kansas Soybean Commission, $14,773, "Evaluation of Soil Health Test to Determine Fertilizer Needs for Soybean in Kansas."


Ruiz Diaz Suarez, Dorivar A., Koch Agronomic Services, LLC, $8,443, "Evaluation of Experimental Urease Inhibitors in Corn."


Schapaugh Jr, William T., McCormack, Brian P. (Entomology), Smith, C. Michael (Entomology), and Whitworth, Robert "Jeff" J. (Entomology), Kansas Soybean Commission, $17,587, "Development of Genetic, Chemical and Population-Based Tactics to Manage Key Kansas Soybean Insect Pests."

Schapaugh Jr, William T., Todd, Timothy C. (Plant Pathology), and Trick, Harold N. (Plant Pathology), Kansas Soybean Commission, $3,788, "Enhancement of Soybean through Genetic Engineering."

Schapaugh Jr, William T., Bheemanahallirangappa, Raju, and SV, Krishna Jagadish, Kansas Soybean Commission, $3,500, "High-throughput Platform to Enhance Quality of Beans and Add Value to Kansas Soybean Breeding Program."

Schapaugh Jr, William T., Todd, Timothy C. (Plant Pathology), and Trick, Harold N. (Plant Pathology), Kansas Soybean Commission, $180,852, "Integrating Germplasm Evaluation, Genetic Engineering, Breeding and High-Throughput Phenotyping to Improve Sustainability of Soybean Production."

Schapaugh Jr, William T., Flippo, Daniel (Biological and Agricultural Engineering), Sharda, Ajay (Biological and Agricultural Engineering), and Van Der Merwe, Deon (Diagnostic Medicine/Pathobiology), Kansas Soybean Commission, $2,287, "Small Unmanned Aircraft Thermal Infrared Imaging System to Identify Soybean Drought Tolerant Varieties."

Schapaugh Jr, William T., North Central Soybean Research Program, $28,779, "Increasing the Rate of Genetic Gain for Yield in Soybean Breeding Programs."

Schapaugh Jr, William T., United Soybean Board, $53,035, "Utilizing Unique Genetic Diversity to Combine Elevated Protein Concentration with High Yield in New Varieties and Experimental Lines."

Schapaugh Jr, William T., United Soybean Board, $60,000, "Yield Potential of Commercial Varieties under Drought-identifying and Overcoming Weaknesses through Public Breeding Advances."

Stamm, Michael J., Great Plains Canola Association, Inc., $5,000, "Promoting Canola Production in the Southern Great Plains through Innovative Extension Education."

Stamm, Michael J., Kansas Crop Improvement Association, $5,000, "Enhancing Winter Survival of Canola."

Stamm, Michael J., US Department of Agriculture, $325,500, "Development and Management of Canola in the Great Plains Region."

SV, Krishna Jagadish, Flippo, Daniel (Biological and Agricultural Engineering), Sharda, Ajay (Biological and Agricultural Engineering), and Van Der Merwe, Deon (Diagnostic Medicine/Pathobiology), CNH Industrial America LLC, $1,475, "Testing and Evaluation Services Agreement."


SV, Krishna Jagadish, Aiken, Robert M. (Northwest Research Extension Center), Little, Christopher R. (Plant Pathology), Morris, Geoffrey, Perumal, Ramasamy (Agricultural Research Center-Hays), and Tesso, Tesfaye, Kansas Grain Sorghum Commission, $9,900, "Development of Sorghum Parental Lines with Enhanced Drought and Cold Tolerance."

SV, Krishna Jagadish, Morris, Geoffrey, Pagadala, Venkata (Dean of Agriculture and Director of AES), Perumal, Ramasamy (Agricultural Research Center-Hays), and Tesso, Tesfaye, Kansas Grain Sorghum Commission, $22,000, "Physiological and Genetic Characterization of Grain Sorghum for Enhancing Terminal Heat and Drought Stress Resilience."

SV, Krishna Jagadish, Bheemanahallirangappa, Raju, and Schapaugh Jr, William T., Kansas Soybean Commission, $17,500, "High-throughput Platform to Enhance Quality of Beans and Add Value to Kansas Soybean Breeding Program."

SV, Krishna Jagadish, Durrett, Timothy P. (Biochemistry), Morris, Geoffrey, Schrick, Kathrin (Biology), and Welti, Ruth (Biology), National Science Foundation, $49,682, "MRI: Acquisition of an Electrospray Ionization Triple Quadrupole Mass Spectrometer with Ion Mobility Spectrometry for Improved Plant Lipidomics."


SV, Krishna Jagadish, US Department of Agriculture, $160,000, "Impact of Heat and Drought Stress on Sorghum and Wheat Grain Composition and Chemistry."
SV, Krishna Jagadish, US Department of Agriculture, $100,000, "Tolerance to Environmental Stress in Wheat."


Tesso, Tesfaye, Aiken, Robert M. (Northwest Research Extension Center), Little, Christopher R. (Plant Pathology), Morris, Geoffrey, Perumal, Ramasamy (Agricultural Research Center-Hays), and SV, Krishna Jagadish, Kansas Grain Sorghum Commission, $4,950, "Development of Sorghum Parental Lines with Enhanced Drought and Cold Tolerance."

Tesso, Tesfaye, Little, Christopher R. (Plant Pathology), and Perumal, Ramasamy (Agricultural Research Center-Hays), Kansas Grain Sorghum Commission, $4,510, "Germplasm Screening, host interactions, and lodging resilience for stalk rot diseases in Kansas."

Tesso, Tesfaye, Morris, Geoffrey, Pagadala, Venkata (Dean of Agriculture and Director of AES), Perumal, Ramasamy (Agricultural Research Center-Hays), and SV, Krishna Jagadish, Kansas Grain Sorghum Commission, $13,750, "Physiological and Genetic Characterization of Grain Sorghum for Enhancing Terminal Heat and Drought Stress Resilience."

Thompson, Curtis R., and Jugulam, Mithila, Kansas Grain Sorghum Commission, $5,000, "Mechanism of Mesotrione Tolerance in Sorghum and Screening Sorghum Germplasm for Tolerance to Synthetic Auxins."

Thompson, Curtis R., Ciampitti, Ignacio, and Ruiz Diaz Suarez, Dorivar A., Kansas Grain Sorghum Commission, "Sorghum Production Schools for Kansas."

Thompson, Curtis R., Alvarez Santos, Eduardo, Peterson, Dallas E., and Redmond, Christopher A., Kansas Soybean Commission, $2,659, "Improving Meteorological Measurements at Kansas Mesonet Weather Stations to Assist with Herbicide Drift Monitoring."

Thompson, Curtis R., Support Funds, $240,750, "AGR Support Funds Public Service 35."


Tomlinson, Peter J., Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Middendorf, Gerard D. (Sociology, Anthropology, and Social Work), Presley, DeAnn R., Rice, Charles W., Ruiz Diaz Suarez, Dorivar A., Shoup, Douglas E. (Southeast Area Office),
and Waggoner, Justin (Southwest Area Office), US Department of Agriculture, "Resilience and Vulnerability of Beef Cattle Production in the Southern Great Plains under Changing Climate, Land Use, and Markets."


Welch, Stephen M., Alvarez Santos, Eduardo, Corwin, Kristan L. (Physics), and Washburn, Brian R. (Physics), National Science Foundation, $169,243, "MRI: Agro-Combs: Development of A Mid-Infrared Dual-Comb Spectrometer."

Welch, Stephen M., Das, Sanjoy (Electrical and Computer Engineering), Flippo, Daniel (Biological and Agricultural Engineering), Sharda, Ajay (Biological and Agricultural Engineering), and Temme, Arnaud (Geography), US Department of Agriculture, $188,511, "NRI: INT: Multi-Robot Farming on Marginal, Highly Sloped Lands."

ANIMAL SCIENCES AND INDUSTRY


Aramouni, Fadi M., Bates, Marlin A. (County Agents - Metropolitan Sector), Gragg, Sara E., Nwadike, Londa S. (Director of Cooperative Extension), Phebus, Randall K., Pliakoni, Eleni (Horticulture and Natural Resources), and Rivard, Cary L. (Horticulture and Natural Resources), US Food and Drug Administration, $400, "Strategy for Successful Implementation of FSMA in the North Central Region through Adoption of a Systems Approach and Stakeholder Engagement Framework."

Beyer, R. Scott, CEVA Sante Animale, $15,590, "Evaluating Pre-hatch Egg Treatment on the Performance of Broiler Chicks."

Beyer, R. Scott, Paulk, Chad B. (Grain Science and Industry), and Stark, Charles (Grain Science and Industry), Jefo Nutrition, Inc., $13,160, "Effects of Jefo Protease and Dietary Lysine on Turkey Performance."

Beyer, R. Scott, NB03 Technologies, LLC, $12,310, "Effects of Feeding Laying Hens Diets Containing High Oil Ingredients on Fatty Acid Composition of Egg Yolks."


Bradford, Barry J., and McGill, Jodi L. (Diagnostic Medicine/Pathobiology), Cargill Animal Nutrition, $57,000, "In vitro Screening System for Immune-Modulating Feed Components."

Bradford, Barry J., Kansas Department of Agriculture, $15,000, "Supporting Efforts to Grow the Kansas Dairy Sector."


Crane, Alison R., and Jones, Cassandra K., Kansas Corn Commission, $12,696, "Utilizing Undergraduate Research to Evaluate DDGS as a Replacement for SBM in Boer Grower Rations."

Delamanha Mendonca, Luis G., Feed One Co., Ltd., $30,000, "Feed One Co. Ltd. Dairy Cattle Physiology Fellowship."


DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., Ajinomoto Co., Inc, $4,000, "Histidine: Lysine Requirement for 15 to 25 lb Pigs."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., Ajinomoto Co., Inc, $4,000, "Influence of Fermentation Byproduct on Urine pH."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., Biomune Company, $26,230, "Effect of GleptoForte Fe Injection Dosage in Newborn Piglets."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., Biomune Company, $21,193, "Effect of GleptoForte Fe Injection Dosage in Newborn Piglets."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., DSM Nutritional Products AG, $17,800, "Studies to Evaluate the Effects of Phytase in Swine Diets or Premixes."
DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., JBS USA, $12,000, "JBS Live Park Applied Swine Nutrition Fellowship."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., Kemin Industries, $5,000, "Evaluation of a Medium Chain Fatty Acid (MCFA) Based Ingredient in Nursey Pig Diets."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., Lincolnway Energy, LLC, $8,000, "Effects of High Protein DDGS on Growth Performance of Nursery Pigs."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., Micronutrients, $13,800, "Effects of Feeding Increasing Levels of Iron from Either Iron Sulfate or a New Source of Dietary Iron on Growth Performance and Iron Status of Nursery Pigs."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., Micronutrients, $5,000, "Effects of Increasing Levels of Zn from Zinc Sulfate or Intellibond Z on Finishing Pig Growth Performance, Carcass Characteristics and Economic Return."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., Minnesota Pork Board, $20,731 (includes $7,000 from Third Party Match), "Supplying Increased SID Lys and Energy During Transition to Improve Piglet Survivability, Sow Productivity, and Litter Performance."

DeRouchey, Joel M., National Pork Board, $5,000, "Effect of Oat Products on Nursery Pig Growth Performance."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., O'Quinn, Travis G., Tokach, Michael D., and Woodworth, Jason C., National Pork Board, $10,419, "Projecting Changes in Pork Quality, Eating Experience, and Muscle Physiology due to Increasing Carcass Weights."

DeRouchey, Joel M., Amachawadi, Raghavendra G. (Clinical Sciences), Bai, Jianfa (Veterinary Diagnostic Laboratory), Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Nagaraja, Tiruvor G. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., National Pork Board, $4,695, "Shiga Toxin-producing Escherichia Coli in Swine Feces in Commercial Production Systems and Assessment of Public Health Implications."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Niederwerder, Megan (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., Ocean Harvest Technology Limited, $15,720, "Evaluation of Oceanfeed Swine: Effects on Sow and Offspring Performance, Carcass Characteristics and Meat Quality."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., PIC North America (PIC USA, Inc.), $5,600,
"Determining the Effects of Different Ca:P Ratios on Growth Performance, Carcass Characteristics, Bone Mineralization, and Economics of Growing-Finishing Pigs."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., Purco, $10,800, "PURCO Project."

DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., Quality Technology International, Inc., $10,000, "Effect of CALSPORIN on Sow Fecal Microflora and Piglet Growth Performance, Fecal Consistency, and Fecal Microflora until the Nursery Phase."

DeRouchey, Joel M., Rivard, Cary L. (Horticulture and Natural Resources), Sampson, Gabriel S. (Agricultural Economics), Stewart, Zachary P. (Dean of Agriculture and Director of AES), and Vipham, Jessie (Dean of Agriculture and Director of AES), US Agency for International Development, $13,780, "Multidimensional Trade-off Analysis of Integrated Animal-Horticulture Farming Systems for Improved Smallholder Farmer Adoption Recommendations."

Drouillard, James S., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Lattimer, James M., Tokach, Michael D., and Woodworth, Jason C., Kansas Corn Commission, $8,400, "Synthesis of High-value Feed Additives through Fermentation of Biofuels Co-products."

Drouillard, James S., and Gragg, Sara E., MS Biotec, $57,760, "Impact of the Probiotic Organism, Megasphaera Elsdonii on Prevalence of Escherichia coli 0157:H7 in Finishing Cattle."

Drouillard, James S., and Stark, Charles (Grain Science and Industry), Syngenta Crop Protection, LLC, $173,278, "Steam Flaking."

Gonzalez, John M., Paulk, Chad B. (Grain Science and Industry), and Stark, Charles (Grain Science and Industry), AB Vista, $921, "Using NIR to Evaluate Soybean Meal Quality."

Gonzalez, John M., Barstow, Thomas J. (Kinesiology), Flippo, Daniel (Biological and Agricultural Engineering), Rozell, Timothy G., and Woodworth, Jason C., US Department of Agriculture, $87,500, "Effect of Transport Trailer Vibration on Muscle Fatigue and the Non-ambulatory Condition."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., Ajinomoto Co., Inc, $4,000, "Histidine: Lysine Requirement for 15 to 25 lb Pigs."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., Ajinomoto Co., Inc, $4,000, "Influence of Fermentation Byproduct on Urine pH."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., Biomune Company, $26,230, "Effect of GleptoForte Fe Injection Dosage in Newborn Piglets."
Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., Biomune Company, $21,193, "Effect of GleptoForte Fe Injection Dosage in Newborn Piglets."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., DSM Nutritional Products AG, $17,800, "Studies to Evaluate the Effects of Phytase in Swine Diets or Premixes."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., JBS USA, $12,000, "JBS Live Park Applied Swine Nutrition Fellowship."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., Kemin Industries, $5,000, "Evaluation of a Medium Chain Fatty Acid (MCFA) Based Ingredient in Nursey Pig Diets."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., Lincolnway Energy, LLC, $8,000, "Effects of High Protein DDGS on Growth Performance of Nursery Pigs."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., Micronutrients, $13,800, "Effects of Feeding Increasing Levels of Iron from Either Iron Sulfate or a New Source of Dietary Iron on Growth Performance and Iron Status of Nursery Pigs."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., Micronutrients, $5,000, "Effects of Increasing Levels of Zn from Zinc Sulfate or Intellibond Z on Finishing Pig Growth Performance, Carcass Characteristics and Economic Return."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., Minnesota Pork Board, $20,731 (includes $7,000 from Third Party Match), "Supplying Increased SID Lys and Energy During Transition to Improve Piglet Survivability, Sow Productivity, and Litter Performance."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), O'Quinn, Travis G., Tokach, Michael D., and Woodworth, Jason C., National Pork Board, $10,419, "Projecting Changes in Pork Quality, Eating Experience, and Muscle Physiology due to Increasing Carcass Weights."

Goodband, Robert D., Amachawadi, Raghavendra G. (Clinical Sciences), Bai, Jianfa (Veterinary Diagnostic Laboratory), DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Nagaraja, Tiruvoor G. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., National Pork Board, $4,695, "Shiga Toxin-producing Escherichia Coli in Swine Feces in Commercial Production Systems and Assessment of Public Health Implications."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Niederwerder, Megan (Diagnostic Medicine/Pathobiology), Tokach,

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., PIC North America (PIC USA, Inc.), $5,600, "Determining the Effects of Different Ca:P Ratios on Growth Performance, Carcass Characteristics, Bone Mineralization, and Economics of Growing-Finishing Pigs."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., Purco, $10,800, "PURCO Project."

Goodband, Robert D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., Quality Technology International, Inc., $10,000, "Effect of CALSPORIN on Sow Fecal Microflora and Piglet Growth Performance, Fecal Consistency, and Fecal Microflora until the Nursery Phase."

Gragg, Sara E., O'Quinn, Travis G., Phebus, Randall K., Trinetta, Valentina, and Vipham, Jessie (Dean of Agriculture and Director of AES), Foundation for Meat and Poultry Research and Education, $23,025, "Validation of Post-harvest Antimicrobial Interventions to Control Salmonella and Shiga Toxin-producing Escherichia coli (STEC) on Market Hog Carcass Surfaces and Pork Products."

Gragg, Sara E., and Pliakoni, Eleni (Horticulture and Natural Resources), Jones-Hamilton Company, $9,923, "Efficacy of Sodium Bisulfate as a Postharvest Wash Water Sanitizer."

Gragg, Sara E., and Drouillard, James S., MS Biotec, $14,440, "Impact of the Probiotic Organism, Megasphaera Elsdonii on Prevalence of Escherichia coli 0157:H7 in Finishing Cattle."

Gragg, Sara E., Aramouni, Fadi M., Bates, Marlin A. (County Agents Metropolitan Sector), Nwadike, Londa S. (Director of Cooperative Extension), Phebus, Randall K., Pliakoni, Eleni (Horticulture and Natural Resources), and Rivard, Cary L. (Horticulture and Natural Resources), US Food and Drug Administration, $800, "Strategy for Successful Implementation of FSMA in the North Central Region through Adoption of a Systems Approach and Stakeholder Engagement Framework."


Hulbert, Lindsey E., US Navy, $12,999, "BLAST Phase II Data Collection Use Case Support: Motion Sensor Suite Validation Study."

Jones, Cassandra K., Aldrich, Greg (Grain Science and Industry), and Li, Yonghui (Grain Science and Industry), Kansas Corn Commission, $1,952, "Converting Distiller's Grains to High-Value Healthy Natural Antioxidants."

Jones, Cassandra K., and Crane, Alison R., Kansas Corn Commission, $12,696, "Utilizing Undergraduate Research to Evaluate DDGS as a Replacement for SBM in Boer Grower Rations."

Jones, Cassandra K., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Hefley, Trevor (Statistics), Niederwerder, Megan (Diagnostic Medicine/Pathobiology), Rowland, Raymond R. R. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., National Pork Board, $4,364, "Assessing the Risk of African Swine Fever Virus (ASFV) Transmission in Feed."

Jones, Cassandra K., National Pork Board, $5,000, "Effect of Conditioning Temperature and Pellet Diameter on Nursery Pig Growth Performance."


Jones, Cassandra K., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), and Woodworth, Jason C., Purina Animal Nutrition, LLC, $3,564, "PMI Nutritional Additives: Assessing the Effects of MCFA on PEDV Quantity and Infectivity."

Jones, Cassandra K., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Niederwerder, Megan (Diagnostic Medicine/Pathobiology), Rowland, Raymond R. R. (Diagnostic Medicine/Pathobiology), Tokach, Michael D., and Woodworth, Jason C., Swine Health Information Center, $26,607, "Assessing Tools for the Mitigation of Foreign Animal Disease Introduction and Transmission in Feed."

Jones, Cassandra K., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Niederwerder, Megan (Veterinary Diagnostic Laboratory), Paulk, Chad B. (Grain Science and Industry), Rowland, Raymond R. R. (Diagnostic Medicine/Pathobiology), Trinetta, Valentina, and Woodworth, Jason C., Swine Health Information Center, $10,750, "Validation of a Low-cost Tool for Senecavirus A Detection, and Surveillance of Viral Prevalence in United States Feed Mills."

Lattimer, James M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Drouillard, James S., Tokach, Michael D., and Woodworth, Jason C., Kansas Corn Commission, $8,400, "Synthesis of High-value Feed Additives through Fermentation of Biofuels Co-products."

Lee, Charles D., Kansas Department of Wildlife and Parks, $4,719, "Extension Education Position Support."


Nelssen, Jim L., DSM Nutritional Products AG, $50,000, "DSM Nutritional Products Fellowship."
Nelssen, Jim L., DSM Nutritional Products AG, $25,000, "Evaluating the Effects of Replacing Feed Grade Antimicrobials with Essential Oil or Zinc Oxide and Copper Sulfate on Nursery Pig Performance."

Nelssen, Jim L., DSM Nutritional Products AG, $25,000, "The Effects of Feeding VevoSow on Sow and Litter Performance Experiment #695."

Nelssen, Jim L., DSM Nutritional Products AG, $45,000, "The Effects of Material Dietary Supplementation of Cholecalciferol (Vitamin D3) in Conjunction with its Metabolite (250HD3) on Gestating Sow Pig Performance."

Nelssen, Jim L., DSM Nutritional Products AG, $45,000, "The Effects of Material Dietary Supplementation of Cholecalciferol (Vitamin D3) in Conjunction with its Metabolite (250HD3) on Lactating Sow Pig Performance."

Nelssen, Jim L., DSM Nutritional Products AG, $45,000, "The Effects of Maternal Dietary Supplementation of Cholecalciferol (Vitamin D3) in Conjunction with its Metabolite (250HD3) on Pig Performance."

Nelssen, Jim L., DSM Nutritional Products AG, $27,350, "The Effects of Vevovitall and CRINA Piglets AF (VevoWin) on Piglets Performance and Survivability."

Odde, Kenneth G., Merck Animal Health, $200,000, "Capturing Value from Superior Livestock Data."

Olson, K C, Amachawadi, Raghavendra G. (Clinical Sciences), Coetzee, Johann F. (Anatomy and Physiology), Hanzlicek, Gregg A. (Veterinary Diagnostic Laboratory), Reif, Kathryn E. (Diagnostic Medicine/Pathobiology), Reppert, Emily (Clinical Sciences), Shuman, Cindy (Dean of Education), and White, Bradley J. (Dean of Veterinary Medical Center), US Department of Agriculture, $23,999, "Mitigation of Antimicrobial Resistance through Alternative Treatment Regimens to Control Bovine Anaplasmosis."

O'Quinn, Travis G., Gragg, Sara E., Phebus, Randall K., Trinetta, Valentina, and Vipham, Jessie (Dean of Agriculture and Director of AES), Foundation for Meat and Poultry Research and Education, $11,513, "Validation of Post-harvest Antimicrobial Interventions to Control Salmonella and Shiga Toxin-producing Escherichia coli (STEC) on Market Hog Carcass Surfaces and Pork Products."

O'Quinn, Travis G., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Tokach, Michael D., and Woodworth, Jason C., National Pork Board, $20,839, "Projecting Changes in Pork Quality, Eating Experience, and Muscle Physiology due to Increasing Carcass Weights."


Phebus, Randall K., Gragg, Sara E., O'Quinn, Travis G., Trinetta, Valentina, and Vipham, Jessie (Dean of Agriculture and Director of AES), Foundation for Meat and Poultry Research and Education, $23,999, "Mitigation of Antimicrobial Resistance through Alternative Treatment Regimens to Control Bovine Anaplasmosis."

Phebus, Randall K., Aramouni, Fadi M., Bates, Marlin A. (County Agents Metropolitan Sector), Gagg, Sara E., Nwadike, Londa S. (Director of Cooperative Extension), Pliakoni, Eleni (Horticulture and Natural Resources), and Rivard, Cary L. (Horticulture and Natural Resources), US Food and Drug Administration, $400, "Strategy for Successful Implementation of FSMA in the North Central Region through Adoption of a Systems Approach and Stakeholder Engagement Framework."

Rolf, Megan, US Department of Agriculture, $263,143, "Beef Cattle Selection and Management for Adaptation to Drought."

Rolf, Megan, US Department of Agriculture, $39,342, "Norman E. Borlaug International Agricultural Science and Technology Fellowship Program -2017 -Asia and Latin America: Biotechnology."

Rozell, Timothy G., Barstow, Thomas J. (Kinesiology), Flippo, Daniel (Biological and Agricultural Engineering), Gonzalez, John M., and Woodworth, Jason C., US Department of Agriculture, $2,500, "Effect of Transport Trailer Vibration on Muscle Fatigue and the Non-ambulatory Condition."


Tarpoff, Anthony J., Jaeger, John R. (Agricultural Research Center-Hays), and Waggoner, Justin (Southwest Area Office), Alliance Liquid Feeds, "Effects of Cellarat-Ore C.P.R. Fed during the Receiving Period on Cattle Performance, Morbidity, IBR Vaccine Response and Carcass Characteristics."

Tarpoff, Anthony J., Coetzee, Johann F. (Anatomy and Physiology), and Lin, Zhoumeng (Anatomy and Physiology), US Department of Agriculture, $123,431, "Mitigation of Fluoroquinolone-resistant Campylobacter in Cattle."

Titgemeyer, Evan C., Evonik Nutrition & Care GmbH, $10,000, "Evaluating the Ruminal Degradation of a Nutrient."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., Ajinomoto Co., Inc, $4,000, "Histidine: Lysine Requirement for 15 to 25 lb Pigs."
Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., Ajinomoto Co., Inc, $4,000, "Influence of Fermentation Byproduct on Urine pH."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., Biomune Company, $26,230, "Effect of GleptoForte Fe Injection Dosage in Newborn Piglets."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., Biomune Company, $21,193, "Effect of GleptoForte Fe Injection Dosage in Newborn Piglets."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., DSM Nutritional Products AG, $17,800, "Studies to Evaluate the Effects of Phytase in Swine Diets or Premixes."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., JBS USA, $12,000, "JBS Live Park Applied Swine Nutrition Fellowship."

Tokach, Michael D., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Drouillard, James S., Lattimer, James M., and Woodworth, Jason C., Kansas Corn Commission, $8,400, "Synthesis of High-value Feed Additives through Fermentation of Biofuels Co-products."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., Kemin Industries, $5,000, "Evaluation of a Medium Chain Fatty Acid (MCFA) Based Ingredient in Nursey Pig Diets."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., Lincolnway Energy, LLC, $8,000, "Effects of High Protein DDGS on Growth Performance of Nursery Pigs."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., Micronutrients, $13,800, "Effects of Feeding Increasing Levels of Iron from Either Iron Sulfate or a New Source of Dietary Iron on Growth Performance and Iron Status of Nursery Pigs."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., Micronutrients, $5,000, "Effects of Increasing Levels of Zn from Zinc Sulfate or Intellibond Z on Finishing Pig Growth Performance, Carcass Characteristics and Economic Return."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., Minnesota Pork Board, $20,731 (includes $7,000 from Third Party Match), "Supplying Increased SID Lys and Energy During Transition to Improve Piglet Survivability, Sow Productivity, and Litter Performance."
Tokach, Michael D., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Hefley, Trevor (Statistics), Jones, Cassandra K., Niederwerder, Megan (Diagnostic Medicine/Pathobiology), Rowland, Raymond R. R. (Diagnostic Medicine/Pathobiology), and Woodworth, Jason C., National Pork Board, $2,910, "Assessing the Risk of African Swine Fever Virus (ASFV) Transmission in Feed."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., O'Quinn, Travis G., and Woodworth, Jason C., National Pork Board, $20,839, "Projecting Changes in Pork Quality, Eating Experience, and Muscle Physiology due to Increasing Carcass Weights."

Tokach, Michael D., Amachawadi, Raghavendra G. (Clinical Sciences), Bai, Jianfa (Veterinary Diagnostic Laboratory), DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Nagaraja, Tiruvoor G.(Diagnostic Medicine/Pathobiology), and Woodworth, Jason C., National Pork Board, $9,389, "Shiga Toxin-producing Escherichia Coli in Swine Feces in Commercial Production Systems and Assessment of Public Health Implications."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Niederwerder, Megan (Diagnostic Medicine/Pathobiology), and Woodworth, Jason C., Ocean Harvest Technology Limited, $19,650, "Evaluation of Oceanfeed Swine: Effects on Sow and Offspring Performance, Carcass Characteristics and Meat Quality."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., PIC North America (PIC USA, Inc.), $5,600, "Determining the Effects of Different Ca:P Ratios on Growth Performance, Carcass Characteristics, Bone Mineralization, and Economics of Growing-Finishing Pigs."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., Purco, $10,800, "PURCO Project."

Tokach, Michael D., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Woodworth, Jason C., Quality Technology International, Inc., $10,000, "Effect of CALSPORIN on Sow Fecal Microflora and Piglet Growth Performance, Fecal Consistency, and Fecal Microflora until the Nursery Phase."

Tokach, Michael D., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Jones, Cassandra K., Niederwerder, Megan (Diagnostic Medicine/Pathobiology), Rowland, Raymond R. R. (Diagnostic Medicine/Pathobiology), and Woodworth, Jason C., Swine Health Information Center, "Assessing Tools for the Mitigation of Foreign Animal Disease Introduction and Transmission in Feed."

Tokach, Michael D., Tokach, Lisa M. (Diagnostic Medicine/Pathobiology), and Vipham, Jessie (Dean of Agriculture and Director of AES), US Agency for International Development, $90,000, "Improved Pig Health and Nutrition: The Major Drivers of Profitability and Sustainability for Smallholder Farmers in Cambodia."
Trinetta, Valentina, Gragg, Sara E., O'Quinn, Travis G., Phebus, Randall K., and Vipham, Jessie (Dean of Agriculture and Director of AES), Foundation for Meat and Poultry Research and Education, $17,269, "Validation of Post-harvest Antimicrobial Interventions to Control Salmonella and Shiga Toxin-producing Escherichia coli (STEC) on Market Hog Carcass Surfaces and Pork Products."


Trinetta, Valentina, Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Jones, Cassandra K., Niederwerder, Megan (Veterinary Diagnostic Laboratory), Paulk, Chad B. (Grain Science and Industry), Rowland, Raymond R. R. (Diagnostic Medicine/Pathobiology), and Woodworth, Jason C., Swine Health Information Center, $3,225, "Validation of a Low-cost Tool for Senecavirus A Detection, and Surveillance of Viral Prevalence in United States Feed Mills."

Trinetta, Valentina, Coffey, Brian (Agricultural Economics), Nwadike, Londa S. (Director of Cooperative Extension), Pliakoni, Eleni (Horticulture and Natural Resources), and Yucel, Umut, US Department of Agriculture, $24,530, "Effective Packing Practices to Control Postharvest Disease in Small Fruit Crops."


Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., Ajinomoto Co., Inc, $4,000, "Histidine: Lysine Requirement for 15 to 25 lb Pigs."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., Ajinomoto Co., Inc, $4,000, "Influence of Fermentation Byproduct on Urine pH."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., Biomune Company, $26,230, "Effect of GleptoForte Fe Injection Dosage in Newborn Piglets."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., Biomune Company, $21,193, "Effect of GleptoForte Fe Injection Dosage in Newborn Piglets."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., DSM Nutritional Products AG, $17,800, "Studies to Evaluate the Effects of Phytase in Swine Diets or Premixes."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., JBS USA, $12,000, "JBS Live Park Applied Swine Nutrition Fellowship."
Woodworth, Jason C., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Drouillard, James S., Lattimer, James M., and Tokach, Michael D., Kansas Corn Commission, $8,400, "Synthesis of High-value Feed Additives through Fermentation of Biofuels Co-products."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., Kemin Industries, $5,000, "Evaluation of a Medium Chain Fatty Acid (MCFA) Based Ingredient in Nursey Pig Diets."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., Lincolnway Energy, LLC, $8,000, "Effects of High Protein DDGS on Growth Performance of Nursery Pigs."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., Micronutrients, $13,800, "Effects of Feeding Increasing Levels of Iron from Either Iron Sulfate or a New Source of Dietary Iron on Growth Performance and Iron Status of Nursery Pigs."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., Micronutrients, $5,000, "Effects of Increasing Levels of Zn from Zinc Sulfate or Intellibond Z on Finishing Pig Growth Performance, Carcass Characteristics and Economic Return."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., Minnesota Pork Board, $20,731 (includes $7,000 from Third Party Match), "Supplying Increased SID Lys and Energy During Transition to Improve Piglet Survivability, Sow Productivity, and Litter Performance."

Woodworth, Jason C., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Hefley, Trevor (Statistics), Jones, Cassandra K., Niederwerder, Megan (Diagnostic Medicine/Pathobiology), Rowland, Raymond R. R. (Diagnostic Medicine/Pathobiology), and Tokach, Michael D., National Pork Board, $4,364, "Assessing the Risk of African Swine Fever Virus (ASFV) Transmission in Feed."


Woodworth, Jason C., Amachawadi, Raghavendra G. (Clinical Sciences), Bai, Jianfa (Veterinary Diagnostic Laboratory), DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Nagaraja, Tiruvoor G. (Diagnostic Medicine/Pathobiology), and Tokach, Michael D., National Pork Board, $14,084, "Shiga Toxin-producing Escherichia Coli in Swine Feces in Commercial Production Systems and Assessment of Public Health Implications."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., Niederwerder, Megan (Diagnostic Medicine/Pathobiology), and Tokach, Michael D., Ocean Harvest Technology Limited, $15,720, "Evaluation of Oceanfeed Swine: Effects on Sow and Offspring Performance, Carcass Characteristics and Meat Quality."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., PIC North America (PIC USA, Inc.), $5,600, "Determining the Effects of Different Ca:P Ratios on Growth Performance, Carcass Characteristics, Bone Mineralization, and Economics of Growing-Finishing Pigs."

Woodworth, Jason C., PIC North America (PIC USA, Inc.), $30,000, "KSU Applied Swine Nutrition Fellowship."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., Purco, $10,800, "PURCO Project."

Woodworth, Jason C., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Jones, Cassandra K., Purina Animal Nutrition, LLC, $3,672, "PMI Nutritional Additives: Assessing the Effects of MCFA on PEDV Quantity and Infectivity."

Woodworth, Jason C., DeRouchey, Joel M., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D., and Tokach, Michael D., Quality Technology International, Inc., $10,000, "Effect of CALSPORIN on Sow Fecal Microflora and Piglet Growth Performance, Fecal Consistency, and Fecal Microflora until the Nursery Phase."

Woodworth, Jason C., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Jones, Cassandra K., Niederwerder, Megan (Diagnostic Medicine/Pathobiology), Rowland, Raymond R. R. (Diagnostic Medicine/Pathobiology), and Tokach, Michael D., Swine Health Information Center, $3,548, "Assessing Tools for the Mitigation of Foreign Animal Disease Introduction and Transmission in Feed."

Woodworth, Jason C., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Jones, Cassandra K., Niederwerder, Megan (Veterinary Diagnostic Laboratory), Paulk, Chad B. (Grain Science and Industry), Rowland, Raymond R. R. (Diagnostic Medicine/Pathobiology), and Trinetta, Valentina, Swine Health Information Center, $1,075, "Validation of a Low-cost Tool for Senecavirus A Detection, and Surveillance of Viral Prevalence in United States Feed Mills."


Yucel, Umut, Chen, Gengjun (Grain Science and Industry), and Li, Yonghui (Grain Science and Industry), Kansas Soybean Commission, $1,977, "Soy Flour as a Primary and Vital Ingredient in Gluten-free Bakery Products."
Yucel, Umut, Coffey, Brian (Agricultural Economics), Nwadike, Londa S. (Director of Cooperative Extension), Pliakoni, Eleni (Horticulture and Natural Resources), and Trinetta, Valentina, US Department of Agriculture, $21,026, "Effective Packing Practices to Control Postharvest Disease in Small Fruit Crops."


COMMUNICATIONS AND AGRICULTURAL EDUCATION
Hock, Gaea, US Department of Agriculture, $109,591, "Connecting Research Centers to Secondary Agricultural Education Students in Idaho, Kansas, and Oklahoma."

Hock, Gaea, Miller, Chad T. (Horticulture and Natural Resources), and Williams, Kimberly A. (Horticulture and Natural Resources), US Department of Agriculture, $10,000, "Online Modules for High School Teachers that Hybridize Horticulture and Science Curricula While Promoting Horticulture as a Career."

Ulmer, Jonathan, Bhadriraju, Subramanyam (Grain Science and Industry), Campabadal Teran, Carlos (Grain Science and Industry), Harvey, Jagger J. (Dean of Agriculture and Director of AES), Leslie, John F. (Plant Pathology), Lilja, Nina K. (International Agricultural Programs), and Lindshield, Brian L. (Food, Nutrition, Dietetics and Health), US Agency for International Development, "Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss."

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Bascom, Nathanael D., Minton, J. Ernest (Agricultural Experiment Station), and Sexton-Bowser, Sarah A., US Department of Agriculture, $12,250, "Enhancement of Professional Development in Plant Breeding through "The Sorghum in the 21st Century" Conference."


Harvey, Jagger J., Bhadriraju, Subramanyam (Grain Science and Industry), Campabadal Teran, Carlos (Grain Science and Industry), Leslie, John F. (Plant Pathology), Lilja, Nina K. (International Agricultural Programs), Lindshield, Brian L. (Food, Nutrition, Dietetics and Health), and Ulmer, Jonathan (Communications and Agricultural Education), US Agency for International Development, $1,002,193, "Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss."


Minton, J. Ernest, and Peters, Paula (Director of Cooperative Extension), University of Missouri, "Memorandum of Agreement."

Pagadala, Venkata, Morris, Geoffrey (Agronomy), Perumal, Ramasamy (Agricultural Research Center-Hays), SV, Krishna Jagadish (Agronomy), and Tesso, Tesfaye (Agronomy), Kansas Grain Sorghum Commission, "Physiological and Genetic Characterization of Grain Sorghum for Enhancing Terminal Heat and Drought Stress Resilience."


Pagadala, Venkata, Lilja, Nina K. (International Agricultural Programs), and Pierzynski, Gary M. (Agronomy), US Agency for International Development, $5,780,461, "Innovation Lab on Sustainable Intensification."


Reyes, Manuel R., United Services Foundation, $10,000, "Center of Excellence on Sustainable Agricultural Intensification and Nutrition Reasmey Sophornna High School Undergraduate Scholarships."

Sexton-Bowser, Sarah A., Morris, Geoffrey (Agronomy), and Perumal, Ramasamy (Agricultural Research Center-Hays), Kansas Grain Sorghum Commission, $3,750, "Center for Sorghum Improvement Seminar Series."


Sexton-Bowser, Sarah A., Aldrich, Greg (Grain Science and Industry), Koppel, Kadri (Food, Nutrition, Dietetics and Health), and Miller, Brandi M. (Grain Science and Industry), US Department of Agriculture, $12,309 (includes $3,450 from Third-Party Match), "Reintroducing Kansas Grain to Midwest Pet Food Manufacturing and Processing Markets."


Vipham, Jessie, Tokach, Lisa M. (Diagnostic Medicine/Pathobiology), and Tokach, Michael D. (Animal Sciences and Industry), US Agency for International Development, $30,000, "Improved Pig Health and Nutrition: The Major Drivers of Profitability and Sustainability for Smallholder Farmers in Cambodia."


ENTOMOLOGY

Cloyd, Raymond A., Gloeckner Foundation, Inc. (Fred C.), $10,000, "Impact of Application Frequency and Spray Volume on the Efficacy of Insecticides Against Western Flower Thrips (Frankliniella occidentalis) and Citrus Mealybug (Planococcus citri) Under Greenhouse Conditions."

Cloyd, Raymond A., Boyer, Cheryl R. (Horticulture and Natural Resources), DeWolf, Erick D. (Plant Pathology), Duncan, Stewart R. (Northeast Area Office), Hoyle, Jared (Horticulture and Natural Resources), Johnson, Wendy A., Kennelly, Megan (Plant Pathology), McCormack, Brian P., Miller, Frannie L., Peterson, Dallas E. (Agronomy), Rivard, Cary L. (Horticulture and Natural Resources), Stiffler, Brooke, Upham, Ward S. (Horticulture and Natural Resources), and Zukoff, Sarah N.(Southwest Research Extension Center), US Department of Agriculture, $19,692, "Merging
Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption.

Johnson, Wendy, McCornack, Brian P., Nouri, Shahideh (Plant Pathology), Poland, Jesse A. (Plant Pathology), and Smith, C. Michael, Kansas Wheat Commission, "Integrative and Innovative Approaches to Diminish Barley Yellow Dwarf Epidemics in Kansas Wheat."

Johnson, Wendy A., Boyer, Cheryl R. (Horticulture and Natural Resources), Cloyd, Raymond A., DeWolf, Erick D. (Plant Pathology), Duncan, Stewart R. (Northeast Area Office), Hoyle, Jared (Horticulture and Natural Resources), Kennelly, Megan (Plant Pathology), McCornack, Brian P., Miller, Frannie L., Peterson, Dallas E. (Agronomy), Rivard, Cary L. (Horticulture and Natural Resources), Stiffler, Brooke, Upham, Ward S. (Horticulture and Natural Resources), and Zukoff, Sarah N. (Southwest Research Extension Center), US Department of Agriculture, $17,230, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."

Londono, Berlin L., Uniformed Services University of Health Sciences, $25,226, "Mosquito Vector Exposure in DoD Beneficiaries Going to High Risk Regions for Malaria or Arboviral Infections."


Londono, Berlin L., US Department of Health and Human Services, $50,000, "Vector-Human Contact for Biomarkers for Anopheline Exposure in the Americas."

McCornack, Brian P., and Ciampitti, Ignacio (Agronomy), Kansas Corn Commission, $80,739, "Beyond the Summer Science Institute -Using Corn in the Curriculum to Advance Inquiry-based Learning."

McCornack, Brian P., Assefa Mulisa, Yared (Agronomy), Ciampitti, Ignacio (Agronomy), and Johnson, Wendy A. (Agronomy), Kansas Corn Commission, $16,467, "Corn Management Decision Guiding Website and Mobile App."

McCornack, Brian P., and Alberto, Jamie (Curriculum and Instruction), Kansas Corn Commission, $11,698, "Special Topics Course for Elementary Education Majors at Kansas State University."

McCornack, Brian P., Kansas Soybean Commission, $50,750, "Agricultural Research Experiences for Teachers (RET)-Using Soybean as a Model System."

McCornack, Brian P., Johnson, Wendy, Nouri, Shahideh (Plant Pathology), Poland, Jesse A. (Plant Pathology), and Smith, C. Michael, Kansas Wheat Commission, $4,700, "Integrative and Innovative Approaches to Diminish Barley Yellow Dwarf Epidemics in Kansas Wheat."

McCornack, Brian P., North Central Soybean Research Program, $30,000, "Soybean Entomology in the North Central Region: Management and Outreach for New and Existing Pests."


McCornack, Brian P., Boyer, Cheryl R. (Horticulture and Natural Resources), Cloyd, Raymond A., DeWolf, Erick D. (Plant Pathology), Duncan, Stewart R. (Northeast Area Office), Hoyle, Jared (Horticulture and Natural Resources), Johnson, Wendy A., Kennelly, Megan (Plant Pathology), Miller, Frannie L., Peterson, Dallas E. (Agronomy), Rivard, Cary L. (Horticulture and Natural Resources), Stiffler, Brooke, Upham, Ward S. (Horticulture and Natural Resources), and Zukoff, Sarah N. (Southwest Area Office), US Department of Agriculture, $19,692, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."


Miller, Frannie L., and Zukoff, Sarah N. (Southwest Area Office), US Department of Agriculture, $10,000, "Kansas Agricultural Production Pollinator Habitat Utilization Survey."

Miller, Frannie L., Boyer, Cheryl R. (Horticulture and Natural Resources), Cloyd, Raymond A., DeWolf, Erick D. (Plant Pathology), Duncan, Stewart R. (Northeast Area Office), Hoyle, Jared (Horticulture and Natural Resources), Johnson, Wendy A., Kennelly, Megan (Plant Pathology), McCornack, Brian P., Peterson, Dallas E. (Agronomy), Rivard, Cary L. (Horticulture and Natural Resources), Stiffler, Brooke, Upham, Ward S. (Horticulture and Natural Resources), and Zukoff, Sarah N. (Southwest Research Extension Center), US Department of Agriculture, $31,999, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."

Miller, Frannie L., US Environmental Protection Agency, $24,050, "Educating Kansas Pesticide Applicators."

Park, Yoonseong, Monsanto Company, $300,000, "Characterization of the Insecticidal Activity of Insecticidal Proteins on Western Corn Rootworm Larvae and its Alimentary Canal."

Park, Yoonseong, Ng, Ho Leung (Biochemistry), and Prakash, Om (Biochemistry), US Department of Health and Human Services, $168,403, "Discovery of GPCR-Targeted Insecticides for Malaria Mosquito Control."

Phillips, Thomas W., US Department of Agriculture, $80,740, "Improved Trapping and Control Tools for Khapra Beetle."

Phillips, Thomas W., US Department of Agriculture, $122,074, "Integration of Food Grade Coatings into Ham Nets as a Means to Control Ham Mite Infestation."

Phillips, Thomas W., US Department of Agriculture, $499,713, "IPM for the Ham Mite Using Alternatives to Methyl Bromide."

Ruberson, John R., Support Funds, $40,300, "AEN Support Funds Off-Campus 26."

Ruberson, John R., Support Funds, $23,000, "AEN Support Funds Research 50."

Smith, C. Michael, McCornack, Brian P., Schapaugh Jr, William T. (Agronomy), and Whitworth, Robert "Jeff" J., Kansas Soybean Commission, $17,587, "Development of Genetic, Chemical and Population-Based Tactics to Manage Key Kansas Soybean Insect Pests."

Smith, C. Michael, Johnson, Wendy, McCornack, Brian P., Nouri, Shahideh (Plant Pathology), and Poland, Jesse A. (Plant Pathology), Kansas Wheat Commission, $18,800, "Integrative and Innovative Approaches to Diminish Barley Yellow Dwarf Epidemics in Kansas Wheat."

Smith, C. Michael, US Department of Agriculture, $109,117, "Principles Underlying the Spread of Sorghum Halepense, Toward its Containment and Mitigation."

Stiffler, Brooke, Boyer, Cheryl R. (Horticulture and Natural Resources), Cloyd, Raymond A., DeWolf, Erick D. (Plant Pathology), Duncan, Stewart R. (Northeast Area Office), Hoyle, Jared (Horticulture and Natural Resources), Johnson, Wendy A., Kennelly, Megan (Plant Pathology), McCornack, Brian P., Miller, Frannie L., Peterson, Dallas E. (Agronomy), Rivard, Cary L. (Horticulture and Natural Resources), Upham, Ward S. (Horticulture and Natural Resources), and Zukoff, Sarah N. (Southwest Research Extension Center), US Department of Agriculture, $12,307, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."

Whitworth, Robert "Jeff" J., McCornack, Brian P., Schapaugh Jr, William T. (Agronomy), and Smith, C. Michael, Kansas Soybean Commission, $17,587, "Development of Genetic, Chemical and Population-Based Tactics to Manage Key Kansas Soybean Insect Pests."

Whitworth, Robert "Jeff" J., US Department of Agriculture, $65,000, "Functions of Hessian Fly Effector Proteins in Wheat."


Zurek, Ludek, US Department of Agriculture, $180,000, "Fly-microbe Interactions Across Life History."

Aldrich, Greg, Jones-Hamilton Company, $31,130, "Assessing the Efficacy of Chemical Treatment to Control Salmonella in Rendered Chicken Fat."

Aldrich, Greg, Jones, Cassandra K. (Animal Sciences and Industry), and Li, Yonghui, Kansas Corn Commission, $1,952, "Converting Distiller's Grains to High-Value Healthy Natural Antioxidants."

Aldrich, Greg, Kansas State University Foundation, $45,000, "Bill Barr and Kim Rock Professorship in Pet Food and Nutrition."

Aldrich, Greg, Purina Animal Nutrition, LLC, $58,289, "Assessing the Efficacy of Medium Chain Fatty Acids (NCFA) to Control Salmonella Typhimurium on Pet Food Kibbles."

Aldrich, Greg, South Dakota Innovation Partners, $2,360, "Consulting Agreement."

Aldrich, Greg, Koppel, Kadri (Food, Nutrition, Dietetics and Health), Miller, Brandi M., and Sexton-Bowser, Sarah A. (Dean of Agriculture and Director of AES), US Department of Agriculture, $160,013 (includes $44,850 from Third-Party Match), "Reintroducing Kansas Grain to Midwest Pet Food Manufacturing and Processing Markets."

Bhadriraju, Subramanyam, Kansas State University Foundation, $25,000, "Professor Donald A. Wibur Endowed Professorship in Stored-Product Protection."

Bhadriraju, Subramanyam, Campabadal Teran, Carlos, Harvey, Jagger J. (Dean of Agriculture and Director of AES), Leslie, John F. (Plant Pathology), Lilja, Nina K. (International Agricultural Programs), Lindshield, Brian L. (Food, Nutrition, Dietetics and Health), and Ulmer, Jonathan (Communications and Agricultural Education), US Agency for International Development, "Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss."


Campabadal Teran, Carlos, Bhadriraju, Subramanyam, Harvey, Jagger J. (Dean of Agriculture and Director of AES), Leslie, John F. (Plant Pathology), Lilja, Nina K. (International Agricultural Programs), Lindshield, Brian L. (Food, Nutrition, Dietetics and Health), and Ulmer, Jonathan (Communications and Agricultural Education), US Agency for International Development, "Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss."


Campabadal Teran, Carlos, and Thiele, Shawn M., US Soybean Export Council, Inc., $27,000, "Addendum to Independent Contractor Master Agreement: 18KA02M54A."


Chen, Gengjun, Li, Yonghui, and Yucel, Umut (Animal Sciences and Industry), Kansas Soybean Commission, $3,953, "Soy Flour as a Primary and Vital Ingredient in Gluten-free Bakery Products."

Li, Yonghui, Aldrich, Greg, and Jones, Cassandra K. (Animal Sciences and Industry), Kansas Corn Commission, $35,136, "Converting Distiller's Grains to High-Value Healthy Natural Antioxidants."

Li, Yonghui, Chen, Gengjun, and Yucel, Umut (Animal Sciences and Industry), Kansas Soybean Commission, $33,601, "Soy Flour as a Primary and Vital Ingredient in Gluten-free Bakery Products."

Li, Yonghui, Smith, Gordon L., and Zhang, Guorong (Agricultural Research Center-Hays), Kansas Wheat Commission, $32,420, "Determining Phytochemical Profiles of Kansas Wheat Varieties to Facilitate Breeding and Marketing of Health-Beneficial Wheats."

Li, Yonghui, Kansas Wheat Commission, $92,044, "Kansas Wheat Quality Lab 2018."


Miller, Brandi M., Aldrich, Greg, Koppel, Kadri (Food, Nutrition, Dietetics and Health), and Sexton-Bowser, Sarah A. (Dean of Agriculture and Director of AES), US Department of Agriculture, $36,926 (includes $10,350 from Third-Party Match), "Reintroducing Kansas Grain to Midwest Pet Food Manufacturing and Processing Markets."


Paulk, Chad B., Gonzalez, John M. (Animal Sciences and Industry), and Stark, Charles, AB Vista, $7,830, "Using NIR to Evaluate Soybean Meal Quality."

Paulk, Chad B., and Stark, Charles, DSM Nutritional Products AG, $10,800, "Stability of Four Commercial Phytase Sources Under Increasing Conditioning Temperatures and Conditioner Retention Time during Pelleting."

Paulk, Chad B., Intrexon Corporation, $9,000, "Stability of Actives in a Spray Dried Powder Under Increasing Conditioning temperatures."

Paulk, Chad B., Beyer, R. Scott (Animal Sciences and Industry), and Stark, Charles, Jefo Nutrition, Inc., $13,160, "Effects of Jefo Protease and Dietary Lysine on Turkey Performance."

Paulk, Chad B., Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Jones, Cassandra K. (Animal Sciences and Industry), Niederwerder, Megan (Veterinary Diagnostic Laboratory), Rowland, Raymond R. R. (Diagnostic Medicine/Pathobiology), Trinetta, Valentina (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), Swine Health Information Center, $1,075, "Validation of a Low-cost Tool for Senecavirus A Detection, and Surveillance of Viral Prevalence in United States Feed Mills."


Shi, Yong Cheng, Tate & Lyle Ingredients Americas LLC, $131,705, "Developing Clean-label Starches with Improved Cold-storage Stability."

Shi, Yong Cheng, Haub, Mark D. (Food, Nutrition, Dietetics and Health), and Rosenkranz, Sara (Food, Nutrition, Dietetics and Health), US Department of Agriculture, $360,389, "Developing Novel Starch-based Ingredients and Understanding Relationship between Structure and Digestibility of Starch."

Smith, Gordon L., and Blodgett, Paul E., General Mills, Inc., $190,477, "Project Charge -Service Task Order #1."


Smith, Gordon L., Li, Yonghui, and Zhang, Guorong (Agricultural Research Center-Hays), Kansas Wheat Commission, $3,088, "Determining Phytochemical Profiles of Kansas Wheat Varieties to Facilitate Breeding and Marketing of Health-Beneficial Wheats."

Stark, Charles, Gonzalez, John M. (Animal Sciences and Industry), and Paulk, Chad B., AB Vista, $461, "Using NIR to Evaluate Soybean Meal Quality."


Stark, Charles, Beyer, R. Scott (Animal Sciences and Industry), and Paulk, Chad B., Jefo Nutrition, Inc., $1,680, "Effects of Jefo Protease and Dietary Lysine on Turkey Performance."

Stark, Charles, Kansas State University Foundation, $30,000, "Jim and Carol Brown Endowed Professorship in Grain Science."

Stark, Charles, and Drouillard, James S. (Animal Sciences and Industry), Syngenta Crop Protection, LLC, $173,278, "Steam Flaking."


Sun, X. Susan, Henan Yizhou Investment Co. Ltd, $34,715, "High Performance Biobased Adhesives for Carbonized Plywood."

Sun, X. Susan, and Wang, Donghai (Biological and Agricultural Engineering), US Department of Agriculture, $9,000, "Acquisition of Goods and Services."

Sun, X. Susan, and Wang, Donghai (Biological and Agricultural Engineering), US Environmental Protection Agency, $7,482, "Fully Utilizing Biomass for Biofuels and Chemicals."


Thiele, Shawn M., Campabadal Teran, Carlos, O'Neil III, Howard J., and Smith, Gordon L., Kansas Wheat Commission, $60,000, "Market Development Grant - IGP Institute."


Thiele, Shawn M., Campabadal Teran, Carlos, O'Neil III, Howard J., Paulk, Chad B., and Stark, Charles, US Soybean Export Council, Inc., $2,000, "Addendum to Independent Contractor Master Agreement: 18KA02U64B."


HORTICULTURE AND NATURAL RESOURCES

Baldwin (Blocksome), Carolyn E., US Environmental Protection Agency, $15,000, "Kansas Flint Hills Smoke Management Plan."

Barden, Charles J., US Department of Agriculture, $115,000, "Great Plains Windbreak Crop Yield Study."

Boyer, Cheryl R., Cloyd, Raymond A. (Entomology), DeWolf, Erick D. (Plant Pathology), Duncan, Stewart R. (Northeast Area Office), Hoyle, Jared, Johnson, Wendy A. (Entomology), Kennelly, Megan (Plant Pathology), McCormack, Brian P.(Entomology), Miller, Frannie L. (Entomology), Peterson, Dallas E. (Agronomy). Rivard, Cary L., Stiffler, Brooke (Entomology), Upham, Ward S., and Zukoff, Sarah N. (Southwest Research Extension Center), US Department of Agriculture, $19,692, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."


Fry, Jack D., Hoyle, Jared, and Kennelly, Megan (Plant Pathology), Heart of America GCSA, $2,641, "Turf Research."

Fry, Jack D., and Kennelly, Megan (Plant Pathology), National Turfgrass Evaluation Program, Inc., $250, "2012 National Tall Fescue Test Ancillary Trial-Brown Patch Tolerance (TF-12-16)."

Fry, Jack D., National Turfgrass Evaluation Program, Inc., $1,000, "2014 National Bentgrass (Fairway/Tee) Test; BTF-14-01."

Fry, Jack D., National Turfgrass Evaluation Program, Inc., $1,500, "2014 National Bentgrass (Putting Green) Test; BTG-14-10."

Fry, Jack D., National Turfgrass Evaluation Program, Inc., $1,500, "Research Support Agreement (Grant-in-Aid) for the 2013 National Bermudagrass Test BG-13-04."

Fry, Jack D., National Turfgrass Evaluation Program, Inc., $2,000, "Research Support Agreement (Grant-in-Aid) for the 2013 National Zoysiagrass Test ZG-13-04."


Griffin, Jason, Schmidt, J. Frank, Family Charitable Foundation, $4,000, "Evaluation of Ornamental Species for the Great Plains."

Hoyle, Jared, Fry, Jack D., and Kennelly, Megan (Plant Pathology), Heart of America GCSA, $2,563, "Turf Research."

Hoyle, Jared, Support Funds, $47,546, "AHF Support Funds Research 26."

Hoyle, Jared, Boyer, Cheryl R., Cloyd, Raymond A. (Entomology), DeWolf, Erick D. (Plant Pathology), Duncan, Stewart R. (Northeast Area Office), Johnson, Wendy A. (Entomology), Kennelly, Megan (Plant Pathology), McCormack, Brian P. (Entomology), Miller, Frannie L. (Entomology), Peterson, Dallas E. (Agronomy), Rivard, Cary L., Stiffler, Brooke (Entomology), Upham, Ward S., and Zukoff, Sarah N. (Southwest Research Extension Center), US Department of Agriculture, $19,692, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."


Miller, Chad T., Gloeckner Foundation, Inc. (Fred C.), $10,000, "Understanding the Effects of Root Zone Temperature in Potted Dahlia Production."
Miller, Chad T., Gloeckner Foundation, Inc. (Fred C.), $10,000, "Understanding the Effects of Root Zone Temperature in Potted Dahlia Production."

Miller, Chad T., Hock, Gaea (Communications and Agricultural Education), and Williams, Kimberly A., US Department of Agriculture, $20,000, "Online Modules for High School Teachers that Hybridize Horticulture and Science Curricula While Promoting Horticulture as a Career."

Park, Sunghun, Kansas Corn Commission, $29,012, "Field Performance to Develop Genetically Engineered Heat and Drought Tolerant Kansas Corn."


Pliakoni, Eleni, and Rivard, Cary L., US Agency for International Development, $312,372 (includes $22,553 from Third Party Match (Sub)), "Capacity Building on Produce Postharvest Management in Tanzania."

Pliakoni, Eleni, Coffey, Brian (Agricultural Economics), Nwadike, Londa S. (Director of Cooperative Extension), Trinetta, Valentina (Animal Sciences and Industry), and Yucel, Umut (Animal Sciences and Industry), US Department of Agriculture, $10,513, "Effective Packing Practices to Control Postharvest Disease in Small Fruit Crops."


Rivard, Cary L., DeRouchey, Joel M. (Animal Sciences and Industry), Sampson, Gabriel S. (Agricultural Economics), Stewart, Zachary P. (Dean of Agriculture and Director of AES), and Vipham, Jessie (Dean of Agriculture and Director of AES), US Agency for International Development, $27,561, "Multidimensional Trade-off Analysis of Integrated Animal-Horticulture Farming Systems for Improved Smallholder Farmer Adoption Recommendations."
Rivard, Cary L., Boyer, Cheryl R., Cloyd, Raymond A. (Entomology), DeWolf, Erick D. (Plant Pathology), Duncan, Stewart R. (Northeast Area Office), Hoyle, Jared, Johnson, Wendy A. (Entomology), Kennelly, Megan (Plant Pathology), McCornack, Brian P. (Entomology), Miller, Frannie L. (Entomology), Peterson, Dallas E. (Agronomy), Stiffler, Brooke (Entomology), Upham, Ward S., and Zukoff, Sarah N. (Southwest Area Office), US Department of Agriculture, $12,307, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."


Sharp, Ryan L., and Skibins, Jeffrey, US Department of the Interior, $63,000, "Quantifying the Relationship between Visitor Use, and Resource and Social Conditions at Katmai National Park & Preserve and Lake Clark National Park & Preserve."

Sharp, Ryan L., US Department of the Interior, $94,031, "Visitor Use Study -Extended Day Use on Corridor Trails, Grand Canyon National Park."

Sharp, Ryan L., US Department of the Interior, $74,998, "Visitor Use Study to Determine Relationship between Current Conditions, Travel Patterns, Visitor Thresholds, and Ferry Services at Cumberland Island National Seashore."


Shoemaker, Candice A., Support Funds, $1,000, "AHF Multi Sponsor Extension 0."

Shoemaker, Candice A., Support Funds, $67,500, "AHF Support Funds Research 0."

Shoemaker, Candice A., Pliakoni, Eleni, and Rivard, Cary L., US Department of Agriculture, $20,000, "Urban Food Systems: Linking Inter-disciplinary Students to a Complex Food System."

Skibins, Jeffrey, and Sharp, Ryan L., US Department of the Interior, $63,000, "Quantifying the Relationship between Visitor Use, and Resource and Social Conditions at Katmai National Park & Preserve and Lake Clark National Park & Preserve."

Upham, Ward S., Boyer, Cheryl R., Cloyd, Raymond A. (Entomology), DeWolf, Erick D. (Plant Pathology), Duncan, Stewart R. (Northeast Area Office), Hoyle, Jared, Johnson, Wendy A. (Entomology), Kennelly, Megan (Plant Pathology), McCormack, Brian P. (Entomology), Miller, Frannie L. (Entomology), Peterson, Dallas E. (Agronomy), Rivard, Cary L., Stiffler, Brooke (Entomology), and Zukoff, Sarah N. (Southwest Area Office), US Department of Agriculture, $19,692, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."

Williams, Kimberly A., Gloeckner Foundation, Inc. (Fred C.), $10,000, "Updates to Graphical Tracking Guidelines for New Poinsettia Cultivars."

Williams, Kimberly A., Gloeckner Foundation, Inc. (Fred C.), $8,000, "Updates to Graphical Tracking Guidelines for New Poinsettia Cultivars."

Williams, Kimberly A., Hock, Gaea (Communications and Agricultural Education), and Miller, Chad T., US Department of Agriculture, $20,000, "Online Modules for High School Teachers that Hybridize Horticulture and Science Curricula While Promoting Horticulture as a Career."

INTERNATIONAL AGRICULTURAL PROGRAMS


Lilja, Nina K., Bhadriraju, Subramanyam (Grain Science and Industry), Campabadal Teran, Carlos (Grain Science and Industry), Harvey, Jagger J. (Dean of Agriculture and Director of AES), Leslie, John F. (Plant Pathology), Lindshield, Brian L. (Food, Nutrition, Dietetics and Health), and Ulmer, Jonathan (Communications and Agricultural Education), US Agency for International Development, "Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss."

Lilja, Nina K., Pagadala, Venkata (Dean of Agriculture and Director of AES), and Pierzynski, Gary M. (Agronomy), US Agency for International Development, "Innovation Lab on Sustainable Intensification."

Lilja, Nina K., Amanor-Boadu, Vincent R. (Agricultural Economics), and Featherstone, Allen M. (Agricultural Economics), US Agency for International Development, "Strengthening the Capacity of the Department of Agribusiness and Natural Resource Economics (DANRE) in the College of Agricultural and Environmental Sciences (CAES), Makerere University."

KS CTR FOR AG RSRCES & THE ENV / KS WATER RSRCES RSRCH INST

Devlin, Daniel L., City of Hays, KS, $9,000, "Storm Water Educational Outreach Efforts."

Devlin, Daniel L., and Golden, Bill B. (Agricultural Economics), Kansas Water Office, $6,250, "Monitoring the Impacts of Sheridan County 6 Local Enhanced Management Area."

Devlin, Daniel L., Aguilar, Jonathan P. (Southwest Area Office), Foster, Anserd J. (Southwest Area Office), Golden, Bill B. (Agricultural Economics), Kisekka, Isaya (Southwest Research Extension Center), Lamm, Freddie R. (Northwest Research Extension Center), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $55,839 (includes $2,000 from KDA Match), "Using Farmer-Based Water Technology Farms to Implement New Irrigation Technologies to Sustain the Rural Economy."

Devlin, Daniel L., Aguilar, Jonathan P. (Southwest Area Office), Aiken, Robert M. (Northwest Research Extension Center), Golden, Bill B. (Agricultural Economics), Holman, Johnathon D. (Southwest Research Extension Center), Jaeger, John R. (Agricultural Research Center-Hays), Johnson, Sandra K. (Northwest Area Office), Kulesza, Stacey E. (Civil Engineering), Lin, Xiaomao (Agronomy), Obour, Augustine K. (Agricultural Research Center-Hays), O'Brien, Daniel M. (Northwest Area Office), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), Steward, David R. (Civil Engineering), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $43,466, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."

Devlin, Daniel L., Biles, Larry E. (Kansas Forest Service), Keane, Timothy D. (Landscape Architecture/Regional and Community Planning), Moorberg, Colby (Agronomy), Moore, Trisha L. (Biological and Agricultural Engineering), and Sheshukov, Aleksey Y. (Biological and Agricultural Engineering), US Department of the Interior, $151,561 (includes $41,224 from In-Kind), "Kansas Water Resources Research Institute 2016."

NORTHWEST RESEARCH EXTENSION CENTER
Aiken, Robert M., Little, Christopher R. (Plant Pathology), Morris, Geoffrey (Agronomy), Perumal, Ramasamy (Agricultural Research Center-Hays), SV, Krishna Jagadish (Agronomy), and Tesso, Tesfaye (Agronomy), Kansas Grain Sorghum Commission, $4,950, "Development of Sorghum Parental Lines with Enhanced Drought and Cold Tolerance."

Aiken, Robert M., The Land Institute, $1,000, "Water Productivity and Genetic Variation of Silghium Integrifollum."


Aiken, Robert M., Aguilar, Jonathan P. (Southwest Area Office), Devlin, Daniel L. (Ks Ctr for Ag Rsrsce & the Env / Ks Water Rsrsce Rsrch Inst), Golden, Bill B. (Agricultural Economics), Holman, Johnathon D. (Southwest Research Extension Center), Jaeger, John R. (Agricultural Research Center-Hays), Johnson, Sandra K. (Northwest Area Office), Kulesza,
Stacey E. (Civil Engineering), Lamm, Freddie R., Lin, Xiaomao (Agronomy), Obour, Augustine K. (Agricultural Research Center-Hays), O'Brien, Daniel M. (Northwest Area Office), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), Steward, David R. (Civil Engineering), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $20,052, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."


Lamm, Freddie R., O'Brien, Daniel M. (Northwest Area Office), and Schlegel, Alan J. (Southwest Research Extension Center), Kansas Corn Commission, $13,000, "Working with Less Water for Corn Production."

Lamm, Freddie R., Netafim LtD, $25,000, "Maize Crop Model Validation on NetBeat Work Plan for KSU-NWREC, Colby, Kansas."

Lamm, Freddie R., Aguilar, Jonathan P. (Southwest Area Office), Devlin, Daniel L. (Ks Ctr for Ag Rsrcs & the Env / Ks Water Rsrc Rsrch Inst), Foster, Anserd J. (Southwest Area Office), Golden, Bill B. (Agricultural Economics), Kisekka, Isaya (Southwest Research Extension Center), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $20,939 (includes $750 from KDA Match), "Using Farmer-Based Water Technology Farms to Implement New Irrigation Technologies to Sustain the Rural Economy."

OFFICE OF ACADEMIC PROGRAMS
Boggs, Donald L., Kansas Department of Agriculture, $15,000, "Development of an Agricultural Education Certification System and Promotion and General Agriculture."

Kane, Mary R., US Department of Education, $301,708, "FFA-YF/YFW Organization."

PLANT BIOTECHNOLOGY CENTER
Akhunova, Alina, Akhunov, Eduard D. (Plant Pathology), and Trick, Harold N. (Plant Pathology), Kansas Wheat Commission, $15,393, "Wheat Gene Editing Platform (WGEP) for Improving Kansas Wheat."
Akhunova, Alina, and Akhunov, Eduard D. (Plant Pathology), US Department of Agriculture, $58,000, "Validation, Characterization, and Deployment of QTL for Grain Yield Components in Wheat."

PLANT PATHOLOGY
Akhunov, Eduard D., Akhunova, Alina (Plant Biotechnology Center), and Trick, Harold N., Kansas Wheat Commission, $61,572, "Wheat Gene Editing Platform (WGEP) for Improving Kansas Wheat."

Akhunov, Eduard D., and Trick, Harold N., US Department of Agriculture, $254,600, "Genome Editing for Improving Wheat Yield and Yield-Related Traits."

Akhunov, Eduard D., and Akhunova, Alina (Plant Biotechnology Center), US Department of Agriculture, $142,000, "Validation, Characterization, and Deployment of QTL for Grain Yield Components in Wheat."


DeWolf, Erick D., Knapp, Mary C. (Agronomy), Lollato, Romulo P. (Agronomy), and Redmond, Christopher A. (Agronomy), Kansas Crop Improvement Association, $7,600, "Kansas Wheat Dashboard: Information about Emerging Stripe Rust Epidemics and Other Threats to Wheat Production."

DeWolf, Erick D., Knapp, Mary C. (Agronomy), Lollato, Romulo P. (Agronomy), and Redmond, Christopher A. (Agronomy), Kansas Crop Improvement Association, $7,600, "Kansas Wheat Dashboard: Information about Emerging Stripe Rust Epidemics and Other Threats to Wheat Production."

DeWolf, Erick D., Lin, Xiaomao (Agronomy), Lollato, Romulo P. (Agronomy), Sassenrath, Gretchen F. (Southeast Agricultural Research Center), and Shoup, Douglas E. (Southeast Area Office), Kansas Crop Improvement Association, "Reducing the Impact of Fusarium Head Blight."

DeWolf, Erick D., Friebe, Bernd, Fritz, Allan K. (Agronomy), Gill, Bikram S., and Zhang, Guorong (Agricultural Research Center-Hays), Kansas Wheat Commission, $25,600, "Disease Phenotyping: Determining the Reaction of Wheat Lines to Important Diseases."

DeWolf, Erick D., Boyer, Cheryl R. (Horticulture and Natural Resources), Cloyd, Raymond A. (Entomology), Duncan, Stewart R. (Northeast Area Office), Hoyle, Jared (Horticulture and Natural Resources), Johnson, Wendy A. (Entomology), Kennelly, Megan, McCormack, Brian P. (Entomology), Miller, Frannie L. (Entomology), Peterson, Dallas E. (Agronomy), Rivard, Cary L. (Horticulture and Natural Resources), Stiffler, Brooke (Entomology), Upham, Ward S. (Horticulture and Natural Resources), and Zukoff, Sarah N. (Southwest Research Extension Center), US Department of Agriculture, $12,307, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."

Draper, Martin A., Kennelly, Megan, and Todd, Timothy C., Support Funds, $22,500, "APP Support Funds Research 52."

Draper, Martin A., US Department of Agriculture, $50,000, "Wheat Rust Resistance Research."


Friebe, Bernd, and Koo, Dalhoe, Kansas Wheat Commission, $20,600, "Chromosome Engineering and Development of Wheat Germplasm Resistant to Barley Yellow Dwarf Virus."


Friebe, Bernd, and Gill, Bikram S., US Department of Agriculture, $9,735, "New Sources of Resistance to FHB and DON in Wheat."

Gill, Bikram S., Bayer CropScience, LP, $50,000, "Partner Agreement for I/UCRC."

Gill, Bikram S., Heartland Plant Innovations, Inc., $50,000, "Partner Agreement for I/UCR."

Gill, Bikram S., Kansas Department of Agriculture, $160,000, "Partner Agreement for I/UCRC."

Gill, Bikram S., Kansas State University Foundation, $100,000, "Bikram Gill Endowed Chair in Wheat Genetics."

Gill, Bikram S., Kansas Wheat Alliance, Inc., $50,000, "Partner Agreement for I/UCRC."

Gill, Bikram S., DeWolf, Erick D., Friebe, Bernd, Fritz, Allan K. (Agronomy), and Zhang, Guorong (Agricultural Research Center-Hays), Kansas Wheat Commission, "Disease Phenotyping: Determining the Reaction of Wheat Lines to Important Diseases."


Gill, Bikram S., Kansas Wheat Commission, $50,000, "Partner Agreement for I/UCRC."


Gill, Bikram S., Pioneer Hi-Bred International, Inc., $50,000, "Partner Agreement for I/UCRC."

Gill, Bikram S., Syngenta Seeds, Inc., $50,000, "Partner Agreement for I/UCRC."

Gill, Bikram S., and Friebe, Bernd, US Department of Agriculture, $9,735, "New Sources of Resistance to FHB and DON in Wheat."
Kennelly, Megan, Fry, Jack D. (Horticulture and Natural Resources), and Hoyle, Jared (Horticulture and Natural Resources), Heart of America GCSA, $2,563, "Turf Research."

Kennelly, Megan, and Fry, Jack D. (Horticulture and Natural Resources), National Turfgrass Evaluation Program, Inc., $250, "2012 National Tall Fescue Test Ancillary Trial-Brown Patch Tolerance (TF-12-16)."

Kennelly, Megan, US Department of Agriculture, $2,700, "Diversify with Lavender: Resources, Training, Networks for Commercial Lavender Producers."

Kennelly, Megan, Boyer, Cheryl R. (Horticulture and Natural Resources), Cloyd, Raymond A. (Entomology), DeWolf, Erick D., Duncan, Stewart R. (Northeast Area Office), Hoyle, Jared (Horticulture and Natural Resources), Johnson, Wendy A. (Entomology), McCornack, Brian P. (Entomology), Miller, Frannie L. (Entomology), Peterson, Dallas E. (Agronomy), Rivard, Cary L. (Horticulture and Natural Resources), Stiffler, Brooke (Entomology), Upham, Ward S. (Horticulture and Natural Resources), and Zukoff, Sarah N. (Southwest Research Extension Center), US Department of Agriculture, $19,692, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."

Kennelly, Megan, and Fry, Jack D. (Horticulture and Natural Resources), US Golf Association, Inc., $8,872, "Development of Cold Hardy Zoysiagrass Cultivars for Golf Courses in the Transition Zone."

Koo, Dalhoe, and Friebe, Bernd, Kansas Wheat Commission, $20,600, "Chromosome Engineering and Development of Wheat Germplasm Resistant to Barley Yellow Dwarf Virus."

Leslie, John F., International Institute for Tropical Agriculture, $125,367, "Collaboration Agreement."

Leslie, John F., Bhadriraju, Subramanyam (Grain Science and Industry), Campabadal Teran, Carlos (Grain Science and Industry), Harvey, Jagger J. (Dean of Agriculture and Director of AES), Lilja, Nina K. (International Agricultural Programs), Lindshield, Brian L. (Food, Nutrition, Dietetics and Health), and Ulmer, Jonathan (Communications and Agricultural Education), US Agency for International Development, "Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss."

Leslie, John F., and Toomajian, Christopher, US Department of Agriculture, $4,725, "Population Genomics to Identify Fusarium graminearum Genes to Target."


Little, Christopher R., Roozeboom, Kraig L. (Agronomy), SV, Krishna Jagadish (Agronomy), and Tesso, Tesfaye (Agronomy), Kansas Grain Sorghum Commission, $9,770, "Breeding Sorghum for Improved Dryland Productivity and Utilization."

Little, Christopher R., Aiken, Robert M. (Northwest Research Extension Center), Morris, Geoffrey (Agronomy), Perumal, Ramasamy (Agricultural Research Center-Hays), SV, Krishna
Jagadish (Agronomy), and Tesso, Tesfaye (Agronomy), Kansas Grain Sorghum Commission, $4,950, "Development of Sorghum Parental Lines with Enhanced Drought and Cold Tolerance."

Little, Christopher R., Perumal, Ramasamy (Agricultural Research Center-Hays), and Tesso, Tesfaye (Agronomy), Kansas Grain Sorghum Commission, $36,080, "Germplasm Screening, host interactions, and lodging resilience for stalk rot diseases in Kansas."

Little, Christopher R., and Kim, Sungo (Electrical and Computer Engineering), Kansas Soybean Commission, $10,000, "Plasma-activated Irrigation for Improving Soybean Development and Disease Tolerance."

Little, Christopher R., and Adee, Eric A. (Agronomy), Kansas Soybean Commission, $32,980, "SDS: Resistance Screening, ILeVO Treatment, Survival on Corn Residue, and Pathogen Variability."

Little, Christopher R., Roozeboom, Kraig L. (Agronomy), Sassenrath, Gretchen F. (Southeast Agricultural Research Center), and Shoup, Douglas E. (Southeast Area Office), Kansas Soybean Commission, $8,651, "Soybean Production Systems to Control Charcoal Rot and Other Soil-borne Diseases."

Little, Christopher R., North Central Soybean Research Program, $32,350, "Seedling Diseases: Biology, Management and Education."

Little, Christopher R., United Soybean Board, $35,286, "Diseases of Soybean: Characterization and Education."

Liu, Sanzhen, and Todd, Richard B., Kansas City Area Life Sciences Institute, "Linking Regulation of Primary and Secondary Metabolism in Fungi for Improved Animal and Human Health."


Liu, Sanzhen, US Department of Agriculture, $75,000, "Improvement of Hard Winter Wheat for FHB Resistance."

Nouri, Shahideh, Johnson, Wendy (Entomology), McCormack, Brian P. (Entomology), Poland, Jesse A., and Smith, C. Michael (Entomology), Kansas Wheat Commission, $23,500, "Integrative and Innovative Approaches to Diminish Barley Yellow Dwarf Epidemics in Kansas Wheat."

Poland, Jesse A., Bill and Melinda Gates Foundation, $275,122, "Delivering Genetic Gain in Wheat."

Poland, Jesse A., Johnson, Wendy (Entomology), McCormack, Brian P. (Entomology), Nouri, Shahideh, and Smith, C. Michael (Entomology), Kansas Wheat Commission, $47,000, "Integrative and Innovative Approaches to Diminish Barley Yellow Dwarf Epidemics in Kansas Wheat."
Poland, Jesse A., Monsanto Company, $52,308, "Monsanto Beachell-Borlaug International Scholars Program (Ms. Emily Delorean's PhD Study)."

Poland, Jesse A., and Neilsen, Mitchell L. (Computer Science), National Science Foundation, $42,500, "BREAD PHENO: High-Throughput Phenotyping with Smart Phones. #phenoApp."


Poland, Jesse A., US Department of Agriculture, $335,000, "Wheat Yield Prediction and Advanced Selection Methodologies through Field-Based High-throughput Phenotyping with UAVs."


Stack, James P., US Department of Agriculture, $539,983, "Great Plains Diagnostic Network."

Stack, James P., US Department of Agriculture, $44,000, "Regional Center Plant Diagnostics Facility."

Todd, Richard B., and Liu, Sanzhen, Kansas City Area Life Sciences Institute, $50,000, "Linking Regulation of Primary and Secondary Metabolism in Fungi for Improved Animal and Human Health."


Todd, Timothy C., Schapaugh Jr, William T. (Agronomy), and Trick, Harold N., Kansas Soybean Commission, $15,152, "Enhancement of Soybean through Genetic Engineering."

Todd, Timothy C., Schapaugh Jr, William T. (Agronomy), and Trick, Harold N., Kansas Soybean Commission, $58,511, "Integrating Germplasm Evaluation, Genetic Engineering, Breeding and High-Throughput Phenotyping to Improve Sustainability of Soybean Production."

Todd, Timothy C., Nebraska Corn Board, $8,000, "Linking Lesion Nematode Reproduction to Rotation and Cover Crops by DNA Barcoding."

Toomajian, Christopher, and Leslie, John F., US Department of Agriculture, $42,522, "Population Genomics to Identify Fusarium graminearum Genes to Target."

Trick, Harold N., Schapaugh Jr, William T. (Agronomy), and Todd, Timothy C., Kansas Soybean Commission, $56,822, "Enhancement of Soybean through Genetic Engineering."

Trick, Harold N., Schapaugh Jr, William T. (Agronomy), and Todd, Timothy C., Kansas Soybean Commission, $26,596, "Integrating Germplasm Evaluation, Genetic Engineering, Breeding and High-Throughput Phenotyping to Improve Sustainability of Soybean Production."

Trick, Harold N., Akhunov, Eduard D., and Akhunova, Alina (Plant Biotechnology Center), Kansas Wheat Commission, $25,655, "Wheat Gene Editing Platform (WGEP) for Improving Kansas Wheat."


Trick, Harold N., and Akhunov, Eduard D., US Department of Agriculture, $80,400, "Genome Editing for Improving Wheat Yield and Yield-Related Traits."


SOUTHEAST AGRICULTURAL RESEARCH CENTER
Sassenrath, Gretchen F., Cytozyme Laboratories, Inc., $7,000, "Testing Additives for Yield Improvement in Row Crops."


Sassenrath, Gretchen F., DeWolf, Erick D. (Plant Pathology), Lin, Xiaomao (Agronomy), Lollato, Romulo P. (Agronomy), and Shoup, Douglas E. (Southeast Area Office), Kansas Crop Improvement Association, $20,890, "Reducing the Impact of Fusarium Head Blight."

Sassenrath, Gretchen F., Rice, Charles W. (Agronomy), Ruiz Diaz Suarez, Dorivar A. (Agronomy), and Shoup, Douglas E. (Southeast Area Office), Kansas Soybean Commission, $7,386, "Evaluation of Soil Health Test to Determine Fertilizer Needs for Soybean in Kansas."

Sassenrath, Gretchen F., and Ciampitti, Ignacio (Agronomy), Kansas Soybean Commission, $5,984, "Improving Soybean Yield in the Double Crop Soybean System."

Sassenrath, Gretchen F., Little, Christopher R. (Plant Pathology), Roozeboom, Kraig L. (Agronomy), and Shoup, Douglas E. (Southeast Area Office), Kansas Soybean Commission, $12,977, "Soybean Production Systems to Control Charcoal Rot and Other Soil-borne Diseases."

Sassenrath, Gretchen F., Farney, Jaymelynn K. (Southeast Area Office), and Kulesza, Stacey E. (Civil Engineering), US Department of Agriculture, $39,992, "Improving Soil Health and Profitability with Cover Crops and Precision Conservation."

SOUTHWEST RESEARCH EXTENSION CENTER
Gillen, Robert L., Support Funds, $73,476, "ASW Support Funds Research 37."

Holman, Johnathon D., Indigo Ag, Inc., $113,250, "Work Order No. 17-01."

Holman, Johnathon D., Support Funds, $51,680, "ASW Testing of Forage Cultivars."

Holman, Johnathon D., and Obour, Augustine K. (Agricultural Research Center-Hays), US Department of Agriculture, $12,483, "Cover Crops to Increase Water Infiltration in Dryland and Irrigated Systems in Western Kansas."

Holman, Johnathon D., Aguilar, Jonathan P. (Southwest Area Office), Aiken, Robert M. (Northwest Research Extension Center), Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Golden, Bill B. (Agricultural Economics), Jaeger, John R. (Agricultural Research Center-Hays), Johnson, Sandra K. (Northwest Area Office), Kulesza, Stacey E. (Civil Engineering), Lamm, Freddie R. (Northwest Research Extension Center), Lin, Xiaomao (Agronomy), Obour, Augustine K. (Agricultural Research Center-Hays), O’Brien, Daniel M. (Northwest Area Office), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J., Steward, David R. (Civil Engineering), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $16,710, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."

Kisekka, Isaya, Aguilar, Jonathan P. (Southwest Area Office), Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Foster, Anserd J. (Southwest Area Office), Golden, Bill B. (Agricultural Economics), Lamm, Freddie R. (Northwest Research Extension Center), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J., and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $76,778 (includes $2,750 from KDA Match), "Using Farmer-Based Water Technology Farms to Implement New Irrigation Technologies to Sustain the Rural Economy."

Schlegel, Alan J., Lamm, Freddie R. (Northwest Research Extension Center), and O’Brien, Daniel M. (Northwest Area Office), Kansas Corn Commission, $19,500, "Working with Less Water for Corn Production."

Schlegel, Alan J., Aguilar, Jonathan P. (Southwest Area Office), Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Foster, Anserd J. (Southwest Area Office), Golden, Bill B. (Agricultural Economics), Kisekka, Isaya, Lamm, Freddie R. (Northwest Research Extension Center), Rogers, Danny H. (Biological and Agricultural Engineering), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $20,939 (includes $750 from KDA Match), "Using Farmer-Based Water Technology Farms to Implement New Irrigation Technologies to Sustain the Rural Economy."

Schlegel, Alan J., Aguilar, Jonathan P. (Southwest Area Office), Aiken, Robert M. (Northwest Research Extension Center), Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Golden, Bill B. (Agricultural Economics), Holman, Johnathon D., Jaeger, John R. (Agricultural Research Center-Hays), Johnson, Sandra K. (Northwest Area Office), Kulesza, Stacey E. (Civil Engineering), Lamm, Freddie R. (Northwest Research Extension Center), Lin, Xiaomao (Agronomy), Obour, Augustine K. (Agricultural Research Center-Hays), O’Brien, Daniel M. (Northwest Area Office), Rogers, Danny H. (Biological and Agricultural Engineering), Steward, David R. (Civil Engineering), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $13,368, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."
Zukoff, Sarah N., Boyer, Cheryl R. (Horticulture and Natural Resources), Cloyd, Raymond A. (Entomology), DeWolf, Erick D. (Plant Pathology), Duncan, Stewart R. (Northeast Area Office), Hoyle, Jared (Horticulture and Natural Resources), Johnson, Wendy A. (Entomology), Kennelly, Megan (Plant Pathology), McCormack, Brian P. (Entomology), Miller, Frannie L. (Entomology), Peterson, Dallas E. (Agronomy), Rivard, Cary L. (Horticulture and Natural Resources), Stiffler, Brooke (Entomology), and Upham, Ward S. (Horticulture and Natural Resources), US Department of Agriculture, $4,923, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."

COLLEGE OF ARCHITECTURE, PLANNING AND DESIGN

LANDSCAPE ARCHITECTURE/REGIONAL AND COMMUNITY PLANNING

Beamish, Anne E., and Canfield, Jessica, City of Manhattan, KS, $1,250, "Warner Park Master Plan."

Canfield, Jessica, and Beamish, Anne E., City of Manhattan, KS, $1,250, "Warner Park Master Plan."

Carver, Rial T., and Kim, Hyung Jin, Cornell University, "Neighborhood Differences in Access to School, Food, and Healthcare Along an Urban to Rural Gradient. (Rial Carver, Student)."

Keane, Timothy D., Biles, Larry E. (Kansas Forest Service), Devlin, Daniel L. (Ks Ctr for Ag Rsrses & the Env / Ks Water Rsrsce Rsrch Inst), Moorberg, Colby (Agronomy), Moore, Trisha L. (Biological and Agricultural Engineering), and Sheshukov, Aleksey Y. (Biological and Agricultural Engineering), US Department of the Interior, $6,995 (includes $1,903 from In-Kind), "Kansas Water Resources Research Institute 2016."

Kim, Hyung Jin, and Carver, Rial T., Cornell University, $10,000, "Neighborhood Differences in Access to School, Food, and Healthcare Along an Urban to Rural Gradient. (Rial Carver, Student)."

Newmark, Gregory, US Department of Transportation, $11,500, "Dwight David Eisenhower Transportation Fellowship Program Graduate Fellowship (DDETFP) Student: Rachel Foss."

Newmark, Gregory, US Department of Transportation, $5,000, "Dwight David Eisenhower Transportation Fellowship Program Graduate Fellowship (DDETFP) Student: Andrew Young."

COLLEGE OF ARTS AND SCIENCES

BIOCHEMISTRY

Davis, Lawrence C., Erickson, Larry E. (Center for Hazardous Substance Research), Hettiarachchi, Ganga M. (Agronomy), and Roozeboom, Kraig L. (Agronomy), North Atlantic Treaty Organization (NATO), $20,309 (includes $5,549 from In-Kind Contribution - Erickson support, and $5,636 from In-Kind Contribution -Erickson's Effort), "New Phytotechnology for Cleaning Contaminated Military Sites."

Durrett, Timothy P., Morris, Geoffrey (Agronomy), Schrick, Kathrin (Biology), SV, Krishna Jagadish (Agronomy), and Welti, Ruth (Biology), National Science Foundation, $49,682, "MRI:
Acquisition of an Electrospray Ionization Triple Quadrupole Mass Spectrometer with Ion Mobility Spectrometry for Improved Plant Lipidomics.

**Durrett, Timothy P.,** United Soybean Board, $75,250, "Blocking Production of Nonmetabolizable Carbohydrates by Enhancing Stable Oil Levels in Developing Soybean Seeds."


**Garcia, Brandon L.,** US Department of Health and Human Services, $225,000, "Development of Small Molecule Inhibitors of the Classical Complement Pathway."

**Geisbrecht, Brian V.,** and **Li, Ping** (Chemistry), US Department of Health and Human Services, $56,588, "Molecular Study of PHA Biosynthesis: Production of Biodegradable Polymers for Medical Applications."

**Geisbrecht, Brian V., Prakash, Om,** and **Tomich, John M.,** US Department of Health and Human Services, $231,000, "Novel Staphylococcus Inhibitors of Neutrophil Granule Enzymes."

**Geisbrecht, Brian V.,** US Department of Health and Human Services, $150,000, "The Role of gC1qR in Vascular Permeability and Angioedema."

**Geisbrecht, Erika R.,** Kansas Board of Regents, $25,000, "Toll Signaling in Drosophila Muscle Damage."

**Gorman, Maureen J.,** National Science Foundation, $11,920, "Collaborative Research: Mechanisms of Iron Transport in Insects."

**Kanost, Michael R.,** US Department of Health and Human Services, $39,497, "Proteinase Systems in Insect Hemolymph."

**Klebba, Phillip E.,** Kansas State University Foundation, $76,366, "Cancer Center Research Core."

**Ng, Ho Leung,** Eureka Therapeutics, $121,428, "Eureka Therapeutics."

**Ng, Ho Leung,** National Science Foundation, $216,159, "CAREER: Seeing the Invisible: Locating Hydrogen Atoms in Protein Crystal Structures."

**Ng, Ho Leung, Park, Yoonseong** (Entomology), and **Prakash, Om,** US Department of Health and Human Services, $24,058, "Discovery of GPCR-Targeted Insecticides for Malaria Mosquito Control."

**Ng, Ho Leung,** US Department of Health and Human Services, $70,678, "STAT3, G6PD and TrxR as Underlying Mechanisms for Antitumor Responses to Hirsutinolides."

**Prakash, Om, Ng, Ho Leung,** and **Park, Yoonseong** (Entomology), US Department of Health and Human Services, $48,115, "Discovery of GPCR-Targeted Insecticides for Malaria Mosquito Control."
Prakash, Om, and Zolkiewski, Michal, US Department of Health and Human Services, $76,400, "Multiscale Enhanced Sampling of Disordered Proteins."

Prakash, Om, Geisbrecht, Brian V., and Tomich, John M., US Department of Health and Human Services, $28,875, "Novel Staphylococcus Inhibitors of Neutrophil Granule Enzymes."

Tomich, John M., Kansas State University Foundation, $96,000, "IR Detection."

Tomich, John M., Geisbrecht, Brian V., and Prakash, Om, US Department of Health and Human Services, $28,875, "Novel Staphylococcus Inhibitors of Neutrophil Granule Enzymes."

Zolkiewski, Michal, and Prakash, Om, US Department of Health and Human Services, $76,400, "Multiscale Enhanced Sampling of Disordered Proteins."

BIOLOGY
Blair, John M., Dodds, Walter K., and Nippert, Jesse B., National Science Foundation, $281,750, "LTER: Long-Term Research on Grassland Dynamics -Assessing Sensitivity and Resilience to Global Change."

Briggs, John M., and Horne, Eva A., National Science Foundation, $112,468, "Infrastructure Improvements in Support of Grassland and Native Grazer Research at Konza Prairie Biological Station."

Chapes, Stephen K., National Aeronautics and Space Administration, $97,189, "Impact of Spaceflight on Primary and Secondary Antibody Responses."

Chapes, Stephen K., and Fleming, Sherry D., US Department of Health and Human Services, $2,147, "Undergraduate Coordinator Office -KINBRE."

Clem, Rollie J., Kansas State University Foundation, $21,370, "Mary L. Vanier Endowed Professorship."

Dodds, Walter K., Rice, Charles W. (Agronomy), and Zeglin, Lydia H., Kansas Board of Regents, $96,088, "RII Track-1: Microbiomes of Aquatic, Plant and Soil Systems Across Kansas."

Dodds, Walter K., and Gido, Keith B., National Science Foundation, $46,884, "Collaborative Research: Stream Consumers and Lotic Ecosystem Rates (SCALER): Scaling from Centimeters to Continents."

Dodds, Walter K., Blair, John M., and Nippert, Jesse B., National Science Foundation, $169,050, "LTER: Long-Term Research on Grassland Dynamics -Assessing Sensitivity and Resilience to Global Change."


Fleming, Sherry D., American Heart Association, Inc., $14,200, "Complement Activation in Pregnancy and Hypertension."
Fleming, Sherry D., Kansas Board of Regents, $24,992, "Sex Difference in Intestinal Ischemia/Reperfusion."


Gido, Keith B., and Dodds, Walter K., National Science Foundation, $20,093, "Collaborative Research: Stream Consumers and Lotic Ecosystem Rates (SCALER): Scaling from Centimeters to Continents."


Gido, Keith B., US Department of the Interior, $454,420, "Population Dynamics, Mobility and Trophic Dynamics of Endangered Fishes in the San Juan River and Adjoining Lake Powell Complex."

Govind, Revathi, US Department of Health and Human Services, $70,087, "Curtailing Virulence of Clostridium Difficile."

Govind, Revathi, US Department of Health and Human Services, $76,000, "Regulatory Mechanisms Controlling TcdE Production in Clostridium Difficile."

Haukos, David A., Kansas Department of Wildlife and Parks, $40,000, "Establishment and Operation of the Kansas Cooperative Fish and Wildlife Research Unit."

Haukos, David A., US Department of Agriculture, $244,244, "Lesser Prairie-Chicken and Grassland Response to Intensive Wildfire in the Mixed-Grass Prairie."


Haukos, David A., and Hope, Andrew, US Department of the Interior, "Climate Change Science in the Arctic: Temporal and Spatial Diversification among Arctic Shrews and their Parasites across the Northern Continents."


Hope, Andrew, and Haukos, David A., US Department of the Interior, $9,357, "Climate Change Science in the Arctic: Temporal and Spatial Diversification among Arctic Shrews and their Parasites across the Northern Continents."

Horne, Eva A., and Briggs, John M., National Science Foundation, $112,468, "Infrastructure Improvements in Support of Grassland and Native Grazer Research at Konza Prairie Biological Station."


Jumpponen, Ari M., US Department of Agriculture, $64,293, "Microbiomes and Their Metaproteome-Inferred Functions in Four Switchgrass Varieties Cultivated Under Two Densities For Soil Conservation."


McDonald, Jocelyn A., National Science Foundation, $105,000, "Phosphatase Control of Collective Cell Migration during Development."

McDonald, Jocelyn A., National Science Foundation, $176,539, "RII Track-4: Dynamic Live Imaging and Manipulation of Migrating Collectives Inside Tissues."

Nippert, Jesse B., Blair, John M., and Dodds, Walter K., National Science Foundation, $676,200, "LTER: Long-Term Research on Grassland Dynamics -Assessing Sensitivity and Resilience to Global Change."

Nippert, Jesse B., National Science Foundation, $49,000, "MEETING: Phys-Fest 2, Holden Arboretum, July 15-19, 2018."

Olson, Bradley J., National Science Foundation, $900,000, "Co-option of Cell Cycle Regulation for Multicellular Evolution."

Platt, Thomas G., and Hansen, Ryan R. (Chemical Engineering), National Science Foundation, $2,400, "PAPM EAGER: Microwell Array Platform for High-Throughput Screening and Discovery of Microbial Interactions."

Roelofs, Jeroen, US Department of Health and Human Services, $330,000, "Mechanism of Degradation of the Proteasome through Autophagy."

Schrick, Kathrin, Durrett, Timothy P. (Biochemistry), Morris, Geoffrey (Agronomy), SV, Krishna Jagadish (Agronomy), and Welti, Ruth, National Science Foundation, $49,682, "MRI: Acquisition of an Electrospray Ionization Triple Quadrupole Mass Spectrometer with Ion Mobility Spectrometry for Improved Plant Lipidomics."

Spooner, Brian S., Kansas State University Foundation, $142,299, "Biology Research Career Development Core."

Spooner, Brian S., Kansas State University Foundation, $60,450, "Cancer Center Research Awards."

Spooner, Brian S., Support Funds, $18,630, "Biology Vanier Endowed Chair."

Spooner, Brian S., Support Funds, $12,035, "OBO Biology Student Research Awards."


Veeman, Michael, US Department of Health and Human Services, $311,250, "Morphogenetic Effector Networks in Ciona Notochord."


Welti, Ruth, Durrett, Timothy P. (Biochemistry), Morris, Geoffrey (Agronomy), Schrick, Kathrin, and SV, Krishna Jagadish (Agronomy), National Science Foundation, $298,094, "MRI: Acquisition of an Electrospray Ionization Triple Quadrupole Mass Spectrometer with Ion Mobility Spectrometry for Improved Plant Lipidomics."

Welti, Ruth, US Department of Agriculture, $32,000, "Polar Lipid Profile Analysis."

Yang, Zhilong, Comer, Jeffrey R. (Anatomy and Physiology), McGill, Jodi L. (Diagnostic Medicine/Pathobiology), and Tamura, Masaaki (Anatomy and Physiology), Kansas State University Foundation, $5,250, "2017 Innovation Research Award."

Yang, Zhilong, US Department of Health and Human Services, $183,000, "Genomic and Chemical Approaches for Developing Novel Anti-poxvirus Strategies."

Yang, Zhilong, US Department of Health and Human Services, $225,000, "Selective Translation Conferred by the Poly(A) Leader of Vaccinia Virus mRNAs."


Zeglin, Lydia H., National Science Foundation, $200,000, "RAPID: Are Biogeochemical Responses Linked to the Microbial Composition of a Defined Nutrient and Microbial Input to a Large River?"


CHEMISTRY
Aakeroy, Christer B., Boehringer Ingelheim Vetmedica, Inc., $15,000, "Development of Structural Informatics Tools for Solid Form Risk Assessment and Co-crystal Design."

Aakeroy, Christer B., Bossmann, Stefan, Gadzikwa, Tendai, Hansen, Ryan R. (Chemical Engineering), Higgins, Daniel A., Hohn, Keith L. (Chemical Engineering), Hua, Duy H., Li, Jun, Li, Ping, McLaurin, Emily, and Sues, Peter, National Science Foundation, $41,621, "MRI: Acquisition of a 400 MHz NMR Spectrometer to Support Research Projects from C-H Bond Oxidation to Engineering Molecular Materials."


Aikens, Christine M., Andresen, Daniel A. (Computer Science), Comer, Jeffrey R. (Anatomy and Physiology), Liu, Bin (Chemical Engineering), Schmit, Jeremy D. (Physics), and Smith, Paul E., National Science Foundation, $59,500, "MRI: Acquisition of a GPU-Enabled Compute Cluster for Molecular Modeling Applications."


Bossmann, Stefan, and Sorensen, Christopher M. (Physics), Hubert Barry Hemsworth, $158,187, "Detonation Graphene Project."

Bossmann, Stefan, Kansas Department of Transportation, $49,750, "Do Polyepoxy/Polyisocyanate Composite Resins for Concrete Protection Perform Better than Either of Their Components?"

Bossmann, Stefan, and Culbertson, Christopher T., National Science Foundation, $162,500, "A Point-of-Care Device for Diagnosis and Management of Pulmonary Disease."

Bossmann, Stefan, and Culbertson, Christopher T., National Science Foundation, $17,230, "Integrating Optical Fiber Bridges in Microfluidic Devices for Ultrasensitive Analyses of Biomarkers in Single Cells."

Bossmann, Stefan, Aakeroy, Christer B., Gadzikwa, Tendai, Hansen, Ryan R. (Chemical Engineering), Higgins, Daniel A., Hohn, Keith L. (Chemical Engineering), Hua, Duy H., Li, Jun, Li, Ping, McLaurin, Emily, and Sues, Peter, National Science Foundation, $41,621, "MRI: Acquisition of a 400 MHz NMR Spectrometer to Support Research Projects from C-H Bond Oxidation to Engineering Molecular Materials."

Bossmann, Stefan, Andresen, Daniel A. (Computer Science), Bailey, Heather R. (Psychological Sciences), Cain, Mary E. (Psychological Sciences), Kirkpatrick, Kimberly (Psychological Sciences), Loschky, Lester C. (Psychological Sciences), and Pickens II, Charles (Psychological Sciences), US Department of Health and Human Services, $86,914, "Cognitive and Neurobiological Approaches to Plasticity (C-NAP)."
**Bossmann, Stefan**, US Department of Health and Human Services, $150,000, "HTS for Copper-Activated Inhibitors Against MRSA."

**Culbertson, Christopher T.,** and **Bossmann, Stefan**, National Science Foundation, $162,500, "A Point-of-Care Device for Diagnosis and Management of Pulmonary Disease."

**Culbertson, Christopher T.,** and **Bossmann, Stefan**, National Science Foundation, $17,230, "Integrating Optical Fiber Bridges in Microfluidic Devices for Ultrasensitive Analyses of Biomarkers in Single Cells."

**Gadzikwa, Tendai, Aakeroy, Christer B., Bossmann, Stefan, Hansen, Ryan R.** (Chemical Engineering), **Higgins, Daniel A., Hohn, Keith L.** (Chemical Engineering), **Hua, Duy H., Li, Jun, Li, Ping, McLaurin, Emily,** and **Sues, Peter**, National Science Foundation, $41,621, "MRI: Acquisition of a 400 MHz NMR Spectrometer to Support Research Projects from C-H Bond Oxidation to Engineering Molecular Materials."

**Higgins, Daniel A.,** and **Brokesh, Edwin L.** (Biological and Agricultural Engineering), Kansas Soybean Commission, $4,161, "K-State Biodiesel Initiative Workshop Planning and Fuel and WVO Handling, Storage, and Quality Monitoring Project."

**Higgins, Daniel A.,** Kansas State University Foundation, $83,180, "Center for Basic Cancer Research: Fraternal Order of Eagles Fund."


**Hua, Duy H.,** National Science Foundation, $401,450, "Catalytic Asymmetric Oxidation Reactions by Chiral-supported Bimetallic Nanoclusters."

**Hua, Duy H., Aakeroy, Christer B., Bossmann, Stefan, Gadzikwa, Tendai, Hansen, Ryan R.** (Chemical Engineering), **Higgins, Daniel A., Hohn, Keith L.** (Chemical Engineering), **Li, Jun, Li, Ping, McLaurin, Emily,** and **Sues, Peter**, National Science Foundation, $41,621, "MRI: Acquisition of a 400 MHz NMR Spectrometer to Support Research Projects from C-H Bond Oxidation to Engineering Molecular Materials."

**Hua, Duy H.,** US Department of Health and Human Services, $173,192, "Development of Patented Tricyclic Pyrone Molecules for the Treatment of Alzheimer's Disease."

Ito, Takashi, National Science Foundation, $255,645, "Collaborative Research: Understanding of the Design Principles of Modular Nanopores for Highly Efficient Chemical Sensing."


Li, Jun, and Liu, Bin (Chemical Engineering), National Science Foundation, $249,602, "A Novel Fuel Cell Catalyst and Support Architecture Based on Edge-site Pyridinic Nitrogen-doping on Vertically Aligned Conical Carbon Nanofibers."

Li, Jun, National Science Foundation, $298,367, "Exploring Specific Heating in Microwave-assisted Synthesis of Hierarchical Hybrid Nanomaterials for Future Sustainable Batteries."

Li, Jun, Aakeroy, Christer B., Bossmann, Stefan, Gadzikwa, Tendai, Hansen, Ryan R. (Chemical Engineering), Higgins, Daniel A., Hohn, Keith L. (Chemical Engineering), Hua, Duy H., Li, Ping, McLaurin, Emily, and Sues, Peter, National Science Foundation, $41,621, "MRI: Acquisition of a 400 MHz NMR Spectrometer to Support Research Projects from C-H Bond Oxidation to Engineering Molecular Materials."


Li, Ping, Aakeroy, Christer B., Bossmann, Stefan, Gadzikwa, Tendai, Hansen, Ryan R. (Chemical Engineering), Higgins, Daniel A., Hohn, Keith L. (Chemical Engineering), Hua, Duy H., Li, Jun, McLaurin, Emily, and Sues, Peter, National Science Foundation, $41,621, "MRI: Acquisition of a 400 MHz NMR Spectrometer to Support Research Projects from C-H Bond Oxidation to Engineering Molecular Materials."

Li, Ping, and Geisbrecht, Brian V. (Biochemistry), US Department of Health and Human Services, $276,283, "Molecular Study of PHA Biosynthesis: Production of Biodegradable Polymers for Medical Applications."

Li, Ping, US Department of Health and Human Services, $10,536, "Protein Structure and Function - COBRE Pilot Project Mentor."

McLaurin, Emily, National Science Foundation, $428,420, "CAREER: Microwave-Assisted Ionic Liquid Etching of Colloidal III-V Semiconductor Nanocrystals."

McLaurin, Emily, Aakeroy, Christer B., Bossmann, Stefan, Gadzikwa, Tendai, Hansen, Ryan R. (Chemical Engineering), Higgins, Daniel A., Hohn, Keith L. (Chemical Engineering), Hua, Duy H., Li, Jun, Li, Ping, and Sues, Peter, National Science Foundation, $41,621, "MRI: Acquisition of a 400 MHz NMR Spectrometer to Support Research Projects from C-H Bond Oxidation to Engineering Molecular Materials."
Smith, Paul E., Aikens, Christine M., Andresen, Daniel A. (Computer Science), Comer, Jeffrey R. (Anatomy and Physiology), Liu, Bin (Chemical Engineering), and Schmit, Jeremy D. (Physics), National Science Foundation, $59,500, "MRI: Acquisition of a GPU-Enabled Compute Cluster for Molecular Modeling Applications."

Smith, Paul E., US Department of Health and Human Services, $573,422, "Residue Based Contributions to Protein Stability and Association."


Smith, Paul E., W. M. Keck Foundation, $14,250, "Defining the Rules for Rheostatic Modulation of Protein Function."

Sues, Peter, Aakeroy, Christer B., Bossmann, Stefan, Gadzikwa, Tendai, Hansen, Ryan R. (Chemical Engineering), Higgins, Daniel A., Hohn, Keith L. (Chemical Engineering), Hua, Duy H., Li, Jun, Li, Ping, and McLauren, Emily, National Science Foundation, $41,621, "MRI: Acquisition of a 400 MHz NMR Spectrometer to Support Research Projects from C-H Bond Oxidation to Engineering Molecular Materials."

COMMUNICATION STUDIES
Shaffer, Timothy J., Kettering Foundation, $25,740, "Deliberative Pedagogy, Phase 2."

DEAN OF ARTS AND SCIENCES
Chakrabarti, Amitabha, Kansas State University Foundation, $80,000, "Michelle Munson-Serban Simu Faculty Stars Recognition Program."

GEOGRAPHY
Goodin, Douglas G., National Science Foundation, $137,541, "Collaborative Research: Causes and Consequences of Fire-Regime Variability in Rocky Mountain Forests."


Paul, Bimal K., National Science Foundation, $78,767, "Coastal Erosion Vulnerability, Monsoon Dynamics, and Human Adaptive Response."

Temme, Arnaud, Das, Sanjoy (Electrical and Computer Engineering), Flippo, Daniel (Biological and Agricultural Engineering), Sharda, Ajay (Biological and Agricultural Engineering), and Welch, Stephen M. (Agronomy), US Department of Agriculture, $94,255, "NRI: INT: Multi-Robot Farming on Marginal, Highly Sloped Lands."
GEOLOGY
Datta, Saugata, National Aeronautics and Space Administration, $92,944, "Biologic and Resource Analog Investigations in Low Light Environments (BRAILLE)."

Farough, Aida, National Science Foundation, $30,686, "Participation of Aida Farough on Expedition 376."

Raef, Abdelmoneam, and Totten, Matthew W., Schlumberger Technology Corporation, $9,121,644, "Contract for PETREL, TECHLOG, PETROMOD, GEOX Software."

Totten, Matthew W., and Raef, Abdelmoneam, Schlumberger Technology Corporation, $9,121,644, "Contract for PETREL, TECHLOG, PETROMOD, GEOX Software."

HISTORY
Graff, David A., and Mason, April (Office of the Provost), Kansas State University Foundation, $28,626, "Pickett Chair."

Krysko, Michael, Kansas State University Foundation, $16,644, "Kenneth Davis Professorship."

Krysko, Michael, Kansas State University Foundation, $21,634, "NEH Faculty Enhancement Award in Military History."

Lynn-Sherow, Bonnie, Kansas State University Foundation, $90,135, "Chapman Center for Personnel."

Mrozek, Donald J., and Tietzen, Katelyn, Smith Richardson Foundation, $7,500, "Iraq in the Cold War and Beyond the Fall of the Soviet Union 1968 -2003."

Tietzen, Katelyn, and Mrozek, Donald J., Smith Richardson Foundation, "Iraq in the Cold War and Beyond the Fall of the Soviet Union 1968 -2003."

MATHEMATICS
Auckly, David R., and Blank, Ivan, National Science Foundation, $9,992, "Midwest Geometry Conference 2017."

Auckly, David R., National Science Foundation, $299,761, "NSF INCLUDES DDLP: Indigenous Math Circles Community."

Auckly, David R., Simons Foundation, $42,000, "Stability Related to Four-manifolds."

Bennett, Andrew G., Allen, David B. (Curriculum and Instruction), Jaber-Douraki, Majid, Martinie, Sherri L. (Curriculum and Instruction), and Spencer, Craig, US Department of Education, $6,929, "Achieving the Vision of Excellent Mathematics Teaching and Learning (ACHIEVE)."

Bennett, Andrew G., Allen, David B. (Curriculum and Instruction), Martinie, Sherri L. (Curriculum and Instruction), Spencer, Craig, and Thiele, Julie M. (Curriculum and Instruction), US Department of Education, $11,810, "Kansas Can Excel in Math and Science Project."
Bennett, Andrew G., Allen, David B. (Curriculum and Instruction), Martinie, Sherri L. (Curriculum and Instruction), Spencer, Craig, and Thiele, Julie M. (Curriculum and Instruction), US Department of Education, $21,751, "Kansas Can Excel in Math and Science Project."

Blank, Ivan, and Auckly, David R., National Science Foundation, $9,992, "Midwest Geometry Conference 2017."

Jaberi-Douraki, Majid, Kansas City Area Life Sciences Institute, $49,964, "1Data: Creating a Simulation Environment for Human and Animal Health Data."

Jaberi-Douraki, Majid, Kansas State University Foundation, $68,951, "1Data: Creating a Simulation Environment for Human and Animal Health Data."

Jaberi-Douraki, Majid, Allen, David B. (Curriculum and Instruction), Bennett, Andrew G., Martinie, Sherri L. (Curriculum and Instruction), and Spencer, Craig, US Department of Education, $6,929, "Achieving the Vision of Excellent Mathematics Teaching and Learning (ACHIEVE)."

Korten, Marianne, Reznikoff, Sarah, and Yetter, David, National Science Foundation, $6,744, "Collaborative Proposal: Central States Mathematics Undergraduate Research Conferences."

Korten, Marianne, and Yetter, David, National Science Foundation, $49,853, "REU Site: Topology, Partial Differential Equations, and Applications to Network Security and Biology."

Mazin, Mikhail, National Science Foundation, $10,000, "Great Plains Combinatorics Conference 2018."

Reznikoff, Sarah, Korten, Marianne, and Yetter, David, National Science Foundation, $3,372, "Collaborative Proposal: Central States Mathematics Undergraduate Research Conferences."

Spencer, Craig, Allen, David B. (Curriculum and Instruction), Bennett, Andrew G., Jaberi-Douraki, Majid, and Martinie, Sherri L. (Curriculum and Instruction), US Department of Education, $6,929, "Achieving the Vision of Excellent Mathematics Teaching and Learning (ACHIEVE)."

Spencer, Craig, Allen, David B. (Curriculum and Instruction), Bennett, Andrew G., Martinie, Sherri L. (Curriculum and Instruction), and Thiele, Julie M. (Curriculum and Instruction), US Department of Education, $11,810, "Kansas Can Excel in Math and Science Project."

Spencer, Craig, Allen, David B. (Curriculum and Instruction), Bennett, Andrew G., Martinie, Sherri L. (Curriculum and Instruction), and Thiele, Julie M. (Curriculum and Instruction), US Department of Education, $21,751, "Kansas Can Excel in Math and Science Project."

Yetter, David, Korten, Marianne, and Reznikoff, Sarah, National Science Foundation, $3,372, "Collaborative Proposal: Central States Mathematics Undergraduate Research Conferences."

PHILOSOPHY
Terlazzo, Rosa, University of Illinois, $37,694, "Transformative Experiences in Public Education."

PHYSICS

Berg, Matthew J., National Science Foundation, $181,817, "CAREER: In Situ Study of Aerosol in the Coarse Mode with Digital Holography."


Chakrabarti, Amitabha, and Sorensen, Christopher M., National Science Foundation, $1,440, "Studies of Light Scattering by Particles of Arbitrary Shape."


Corwin, Kristan L., and Flanders, Bret N., National Science Foundation, $56,948, "REU Site: Physics at Kansas State University -Interactions of Matter, Light and Learning."

Flanders, Bret N., and Corwin, Kristan L., National Science Foundation, $85,423, "REU Site: Physics at Kansas State University -Interactions of Matter, Light and Learning."


Ivanov, Andrew G., National Science Foundation, $107,943, "U.S. CMS Operations at the Large Hadron Collider."


Kaadze, Ketino, US Department of Energy, $80,000, "LHC CMS Detector Upgrade HCAL Subsystem."

Laverty, James, National Science Foundation, $287,681, "Collaborative Research: Extending A Coherent Gateway to STEM Teaching and Learning."

Law, Bruce M., American Chemical Society, $110,000, "Coupled Brownian Motion at Liquid-Air Surfaces."


Ratra, Bharat, National Science Foundation, $7,500, "Quarknet."


Samushia, Lado, National Aeronautics and Space Administration, $24,766, "Constraining Dark Energy and Modified Gravity with Euclid."

Samushia, Lado, National Aeronautics and Space Administration, $75,394, "Cosmology with the WFIRST High Latitude Survey -2018."


Sayre, Eleanor C., National Science Foundation, $1,517,083, "Collaborative Research: PhysPort's Usability and Impact on Faculty Teaching Practice."

Schmit, Jeremy D., Aikens, Christine M. (Chemistry), Andresen, Daniel A. (Computer Science), Comer, Jeffrey R. (Anatomy and Physiology), Liu, Bin (Chemical Engineering), and Smith, Paul E. (Chemistry), National Science Foundation, $52,500, "MRI: Acquisition of a GPU-Enabled Compute Cluster for Molecular Modeling Applications."

Schmit, Jeremy D., US Department of Health and Human Services, $279,899, "Theoretical and Computational Modeling of Amyloid Aggregation."

Sorensen, Christopher M., and Bossmann, Stefan (Chemistry), Hubert Barry Hemsworth, $321,167, "Detonation Graphene Project."

Sorensen, Christopher M., and Chakrabarti, Amitabha, National Science Foundation, $3,360, "Studies of Light Scattering by Particles of Arbitrary Shape."

Thumm, Uwe, National Science Foundation, $90,000, "Attosecond Time-resolved Quantum Dynamics: From Atoms Towards Nanostructures."


POLITICAL SCIENCE


PSYCHOLOGICAL SCIENCES
Bailey, Heather R., Andresen, Daniel A. (Computer Science), Bossmann, Stefan (Chemistry), Cain, Mary E., Kirkpatrick, Kimberly, Loschky, Lester C., and Pickens II, Charles, US Department of Health and Human Services, $912,600, "Cognitive and Neurobiological Approaches to Plasticity (C-NAP)."

Brase, Gary, DeLoach, Scott A. (Computer Science), Gruenbacher, Don M. (Electrical and Computer Engineering), Heier Stamm, Jessica L. (Industrial and Manufacturing Systems Engineering), and Scoglio, Caterina M. (Electrical and Computer Engineering), National Science Foundation, $20,894, "SSDIM: EAGER: Data Generation for the Coupled System Composed of the Beef Cattle Production Infrastructure and the Transportation Services Infrastructure in Southwestern Kansas."

Cain, Mary E., Andresen, Daniel A. (Computer Science), Bailey, Heather R., Bossmann, Stefan (Chemistry), Kirkpatrick, Kimberly, Loschky, Lester C., and Pickens II, Charles, US Department of Health and Human Services, $912,600, "Cognitive and Neurobiological Approaches to Plasticity (C-NAP)."

Kirkpatrick, Kimberly, Andresen, Daniel A. (Computer Science), Bailey, Heather R., Bossmann, Stefan (Chemistry), Cain, Mary E., Loschky, Lester C., and Pickens II, Charles, US Department of Health and Human Services, $1,042,972, "Cognitive and Neurobiological Approaches to Plasticity (C-NAP)."


Loschky, Lester C., Andresen, Daniel A. (Computer Science), Bailey, Heather R., Bossmann, Stefan (Chemistry), Cain, Mary E., Kirkpatrick, Kimberly, and Pickens II, Charles, US Department of Health and Human Services, $304,200, "Cognitive and Neurobiological Approaches to Plasticity (C-NAP)."

Monaco, Gregory E., National Science Foundation, $44,726, "BD SPOKES: SPOKE: MIDWEST: Digital Agriculture -Unmanned Aircraft Systems, Plant Science, and Education."

Monaco, Gregory E., and Young, Michael, University of Missouri, $37,473, "Funding for Executive Director -Great Plains Network."

Pickens II, Charles, Andresen, Daniel A. (Computer Science), Bailey, Heather R., Bossmann, Stefan (Chemistry), Cain, Mary E., Kirkpatrick, Kimberly, and Loschky, Lester C., US Department of Health and Human Services, $912,600, "Cognitive and Neurobiological Approaches to Plasticity (C-NAP)."

Young, Michael, and Monaco, Gregory E., University of Missouri, "Funding for Executive Director -Great Plains Network."

SCHOOL OF JOURNALISM AND MASS COMMUNICATIONS
Smethers, Steven J., Kerr, Jessica P. (Educational and Personal Development), and Schenck-Hamlin, Donna C. (Center for Engagement and Community Development), Kansas Health Foundation, $8,234, "The Healthy Communities Lab: Building Organizational Capacity to Create a Culture of Health in Manhattan, KS through Digital Media Storytelling and Public Dialogue."

Wolgast, Stephen L., Collegian Media Group, $59,729, "Student Publications Positions."

SCHOOL OF MUSIC, THEATRE, AND DANCE
Digby, Katherine, National Endowment for the Arts, $18,221 (includes $3,221 from Third Party Match), "Simurgh."


SOCIOLOGY, ANTHROPOLOGY, AND SOCIAL WORK
Kurtz, Don L., Nebraska Department of Correctional Services, $21,381, "Evaluation of the Nebraska Department of Correctional Services' Vocational and Life Skills Program."

Middendorf, Gerard D., Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Presley, DeAnn R. (Agronomy), Rice, Charles W. (Agronomy), Ruiz Diaz Suarez, Dorivar A. (Agronomy), Shoup, Douglas E. (Southeast Area Office), Tomlinson, Peter J. (Agronomy), and Waggoner, Justin (Southwest Area Office), US Department of Agriculture, $93,178, "Resilience and Vulnerability of Beef Cattle Production in the Southern Great Plains under Changing Climate, Land Use, and Markets."

Ritterbush, Lauren W., National Park Service, $18,115, "Kanza NRHP Multiple Properties Nomination."
Sanderson, Matthew R., Golden, Bill B. (Agricultural Economics), Rice, Charles W. (Agronomy), and Rogers, Danny H. (Biological and Agricultural Engineering), US Department of Agriculture, $69,097, "Sustaining Agriculture through Adaptive Management to Preserve the Ogallala Aquifer under a Changing Climate."

STATISTICS
Hefley, Trevor, Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Jones, Cassandra K. (Animal Sciences and Industry), Niederwerder, Megan (Diagnostic Medicine/Pathobiology), Rowland, Raymond R. R. (Diagnostic Medicine/Pathobiology), Tokach, Michael D. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), National Pork Board, $14,548, "Assessing the Risk of African Swine Fever Virus (ASFV) Transmission in Feed."

Hefley, Trevor, US Department of the Interior, $14,000, "Development of Multi-species Distribution Models for the Upper Mississippi River Restoration Program."


COLLEGE OF EDUCATION
CURRICULUM AND INSTRUCTION
Alberto, Jamie, and McCormack, Brian P. (Entomology), Kansas Corn Commission, $2,925, "Special Topics Course for Elementary Education Majors at Kansas State University."

Allen, David B., Bennett, Andrew G. (Mathematics), Jaberi-Douraki, Majid (Mathematics), Martinie, Sherri L., and Spencer, Craig (Mathematics), US Department of Education, $6,929, "Achieving the Vision of Excellent Mathematics Teaching and Learning (ACHIEVE)."

Allen, David B., Bennett, Andrew G. (Mathematics), Martinie, Sherri L., Spencer, Craig (Mathematics), and Thiele, Julie M., US Department of Education, $11,810, "Kansas Can Excel in Math and Science Project."

Allen, David B., Bennett, Andrew G. (Mathematics), Martinie, Sherri L., Spencer, Craig (Mathematics), and Thiele, Julie M., US Department of Education, $21,751, "Kansas Can Excel in Math and Science Project."

Burenheide, Brad J., and Vontz, Thomas, US Department of Education, $58,500, "James Madison Legacy Project (JMLP of the We Are the People Programs (WTP))."

Burenheide, Bradley, and Vontz, Thomas, US Department of Education, $7,690, "James Madison Legacy Project (JMLP) of the We the People Program (WTP)."

Goodson, F. Todd, and Vontz, Thomas, Kansas Board of Regents, $95,000, "Transitions to Teaching."
Martinie, Sherri L., Allen, David B., Bennett, Andrew G. (Mathematics), Jaberi-Douraki, Majid (Mathematics), and Spencer, Craig (Mathematics), US Department of Education, $71,274, "Achieving the Vision of Excellent Mathematics Teaching and Learning (ACHIEVE)."

Martinie, Sherri L., Allen, David B., Bennett, Andrew G. (Mathematics), Spencer, Craig (Mathematics), and Thiele, Julie M., US Department of Education, $11,810, "Kansas Can Excel in Math and Science Project."

Martinie, Sherri L., Allen, David B., Bennett, Andrew G. (Mathematics), Spencer, Craig (Mathematics), and Thiele, Julie M., US Department of Education, $21,751, "Kansas Can Excel in Math and Science Project."


Vontz, Thomas, and Goodson, F. Todd, Kansas Board of Regents, $95,000, "Transitions to Teaching."

Vontz, Thomas, and Burenheide, Brad J., US Department of Education, $58,500, "James Madison Legacy Project (JMLP of the We Are the People Programs (WTP))."

Vontz, Thomas, and Burenheide, Bradley, US Department of Education, $7,690, "James Madison Legacy Project (JMLP) of the We the People Program (WTP)."

DEAN OF EDUCATION

Havlicek, Barbara J., Kansas Foundation for Agriculture in the Classroom, $140,926, "Kansas Foundation for Ag in the Classroom."

Havlicek, Barbara J., Schools for Quality Education, Inc., $7,000, "Schools for Quality Education (SQE)."

Herrera, Socorro G., US Department of Education, $454,243, "INSIGHT."

Herrera, Socorro G., US Department of Education, $80,498, "USD National Professional Development."

Herrera, Socorro G., USD 259, Wichita, $18,000, "Wichita Schools ESL Professional Development -Beech Elementary."

Herrera, Socorro G., USD 259, Wichita, $18,000, "Wichita Schools ESL Professional Development -Spaght Elementary."
Herrera, Socorro G., USD 512, Shawnee Mission, $32,000, "Shawnee Mission Multi-Campus Professional Development for Teachers of CLD Students -Year 3."

Shuman, Cindy, National Science Foundation, $90,000, "Center for Next Generation Composites - Phase II - Evaluation."

Shuman, Cindy, National Science Foundation, $16,000, "Enhancing the Recruitment, Retention, Training, and Development of Predominantly Hispanic STEM Majors in the Physical Sciences (Chemistry and Physics) - Evaluation."

Shuman, Cindy, National Science Foundation, $15,000, "NSF INCLUDES: Mississippi Alliance for Women in Computing (MAWC) - Evaluation."

Shuman, Cindy, National Science Foundation, $6,080, "NSF IUSE: Fostering a Community of Scholarship Among Community College STEM Faculty through Support for Discipline Based Education Research - Evaluation."

Shuman, Cindy, National Science Foundation, $104,000, "RII Track-1: Louisiana Consortium for Innovation in Manufacturing and Materials."

Shuman, Cindy, US Department of Agriculture, $85,714, "Diversifying the Water Portfolio for Agriculture in the Rio Grande Basin - Evaluation."

Shuman, Cindy, US Department of Agriculture, $149,575, "Farmers Market and Local Food Promotion Program Grant Program Evaluation."

Shuman, Cindy, Amachawadi, Raghavendra G. (Clinical Sciences), Coetzee, Johann F. (Anatomy and Physiology), Hanzlicek, Gregg A. (Veterinary Diagnostic Laboratory), Olson, KC (Animal Sciences and Industry), Reif, Kathryn E. (Diagnostic Medicine/Pathobiology), Reppert, Emily (Clinical Sciences), and White, Bradley J. (Dean of Veterinary Medical Center), US Department of Agriculture, $23,999, "Mitigation of Antimicrobial Resistance through Alternative Treatment Regimens to Control Bovine Anaplasmosis."

Shuman, Cindy, US Department of Agriculture, $6,000, "SAVE: A Pathway to Farming for Transitioning Service Members and Veterans - Evaluation."

Shuman, Cindy, US Department of Agriculture, $72,250, "USDA Team Nutrition Training Grant Leading School Wellness into Action - Evaluation."


Shuman, Cindy, US Department of Health and Human Services, $30,400, "Kansas IDeA Network of Biomedical Research Excellence (K-INBE) External Evaluation."

EDUCATIONAL LEADERSHIP
Liang, Jia, Fitzsimmons, Eric J. (Civil Engineering), Kulesza, Stacey E. (Civil Engineering), and Zacharakis, Jeffrey T., National Science Foundation, $39,981, "Research Initiation: Investigating the Role of Social Responsibility on Veteran Student Retention."

Yelich Biniecki, Susan M., University of Opole, $322, "Annex to Inter-institutional Agreement 2016-2021."

Zacharakis, Jeffrey T., American Association for Adult & Continuing Education, $31,500, "Adult Education Quarterly Editorship."

Zacharakis, Jeffrey T., Fitzsimmons, Eric J. (Civil Engineering), Kulesza, Stacey E. (Civil Engineering), and Liang, Jia, National Science Foundation, $19,991, "Research Initiation: Investigating the Role of Social Responsibility on Veteran Student Retention."

SPECIAL EDUCATION, COUNSELING, AND STUDENT AFFAIRS
Rubin, Lisa, Dunn, Erin C. (Intercollegiate Athletics Local), and Lutter, Sonya L. (School of Family Studies and Human Services), National Collegiate Athletic Association, $3,400, "NCAA Athletes and Cost of Attendance Money: Spending and Financial Literacy."

COLLEGE OF ENGINEERING
ADVANCED MANUFACTURING INSTITUTE
Kramer, Bradley A., and Tucker, Jeffrey W., US Department of Commerce, $38,500 (includes $10,000 from In Kind Contribution KSU IC, and $3,500 from In Kind Contribution KSU Olathe), "Kansas State University Olathe Innovation Accelerator University Center Program Grant."

Lanz, Bret E., and Tucker, Jeffrey W., Support Funds, "Match Funds Agreement for KS0973."


Morgan, Heather M., and Tucker, Jeffrey W., US Department of Agriculture, $120,000, "Technical Assistance to Rural Kansas Communities to Include Regional Thinking, Community Engagement, and Economic Efficiency in Community Facilities Projects."

Tucker, Jeffrey W., Huck Boyd Foundation, $76,500, "Huck Boyd USDA RD Funding."

Tucker, Jeffrey W., North Central Regional Planning Commission, $30,000, "Off Campus Service Agreement."

Tucker, Jeffrey W., and Lanz, Bret E., Support Funds, $140,038, "Match Funds Agreement for KS0973."

Tucker, Jeffrey W., and Morgan, Heather M., US Department of Agriculture, $8,600, "Rural Small Business Marketing and E-commerce Technical Assistance."

Tucker, Jeffrey W., and Morgan, Heather M., US Department of Agriculture, $30,000, "Technical Assistance to Rural Kansas Communities to Include Regional Thinking, Community Engagement, and Economic Efficiency in Community Facilities Projects."
Tucker, Jeffrey W., and Kramer, Bradley A., US Department of Commerce, $346,500 (includes $90,000 from In Kind Contribution KSU IC, and $31,500 from In Kind Contribution KSU Olathe), "Kansas State University Olathe Innovation Accelerator University Center Program Grant."

ARCHITECTURAL ENGINEERING AND CONSTRUCTION SCIENCE
Buyle, Raymond J., Clark, Gary A. (Dean of Engineering), Dawson, Darren M. (Dean of Engineering), DeLoach, Scott A. (Computer Science), Dunn, William L. (Mechanical and Nuclear Engineering), Edgar, James H. (Chemical Engineering), Gruenbacher, Don M. (Electrical and Computer Engineering), Harner III, Joseph P. (Biological and Agricultural Engineering), Kramer, Bradley A. (Industrial and Manufacturing Systems Engineering), Maghirang, Ronaldo G. (Engineering Experiment Station), and Stokes, Robert W. (Civil Engineering), Kansas Department of Commerce, $315,000, "University Engineering Initiative Act (UEIA)."

BIOLOGICAL AND AGRICULTURAL ENGINEERING
Bigham, Kari A., and Moore, Trisha L., Kansas Department of Agriculture, $1,900, "Tuttle Creek Watershed Streambank Site Assessment."


Flippo, Daniel, Sharda, Ajay, SV, Krishna Jagadish (Agronomy), and Van Der Merwe, Deon (Diagnostic Medicine/Pathobiology), CNH Industrial America LLC, $1,475, "Testing and Evaluation Services Agreement."

Flippo, Daniel, Schapaugh Jr, William T. (Agronomy), Sharda, Ajay, and Van Der Merwe, Deon (Diagnostic Medicine/Pathobiology), Kansas Soybean Commission, $915, "Small Unmanned Aircraft Thermal Infrared Imaging System to Identify Soybean Drought Tolerant Varieties."

Flippo, Daniel, Sharda, Ajay, and Wang, Donghai, Topcon Agriculture Americas, LLC, $5,874, "Protein Sensor Integration for Real-time Sensing on Grain Combines."


Flippo, Daniel, Das, Sanjoy (Electrical and Computer Engineering), Sharda, Ajay, Temme, Arnaud (Geography), and Welch, Stephen M. (Agronomy), US Department of Agriculture, $506,622, "NRI: INT: Multi-Robot Farming on Marginal, Highly Sloped Lands."

Harter III, Joseph P., Buyle, Raymond J. (Architectural Engineering and Construction Science), Clark, Gary A. (Dean of Engineering), Dawson, Darren M. (Dean of Engineering), DeLoach, Scott A. (Computer Science), Dunn, William L. (Mechanical and Nuclear Engineering), Edgar, James H. (Chemical Engineering), Gruenbacher, Don M. (Electrical and Computer Engineering), Kramer, Bradley A. (Industrial and Manufacturing Systems Engineering), Maghirang, Ronaldo G. (Engineering Experiment Station), and Stokes, Robert W. (Civil Engineering), Kansas Department of Commerce, $315,000, "University Engineering Initiative Act (UEIA)."
He, Mei, US Department of Health and Human Services, $57,503, "Microfluidic Engineering of Immunogenic Exosomes for Personalized Cancer Vaccine."

Hutchinson, Stacy L., Hettiarachchi, Ganga M. (Agronomy), and Parameswaran, Prathap (Civil Engineering), US Department of Agriculture, $15,000, "Novel Platform for Channelized Nutrient Product Sequestration from Agricultural Wastewaters through Optimized Anaerobic Bioprocesses."

Hutchinson, Stacy L., and Parameswaran, Prathap (Civil Engineering), US Department of Defense, $10,000, "Anaerobic Membrane Bioreactor (AnMBR) for Sustainable Wastewater Treatment."


Maghirang, Ronaldo G., and Liu, Zifei, National Pork Board, $6,624, "A Meta-analysis of Life Cycle Assessments on Environmental Footprints of Five Finishing Swine Diets."

Maghirang, Ronaldo G., US Department of Agriculture, $182,000, "Mechanisms and Mitigation of Dust Generation during Grain Handling and Processing."


Moore, Trisha L., and Bigham, Kari A., Kansas Department of Agriculture, $100, "Tuttle Creek Watershed Streambank Site Assessment."

Moore, Trisha L., US Department of Agriculture, $73,548 (includes $24,267 from The Nature Conservancy), "Restoring Grazing Land Hydrologic Services through Eastern Redcedar Management."

Moore, Trisha L., Biles, Larry E. (Kansas Forest Service), Devlin, Daniel L. (Ks Ctr for Ag Rsrcs & the Env / Ks Water Rsrc Rsch Inst), Keane, Timothy D. (Landscape Architecture/Regional and Community Planning), Moorberg, Colby (Agronomy), and Sheshukov, Aleksey Y., US Department of the Interior, $23,317 (includes $6,342 from In-Kind), "Kansas Water Resources Research Institute 2016."

Rahmani, Vahid, Kansas Water Office, $20,432, "ADCP Velocity Measurements in Tuttle Creek Lake."

Rogers, Danny H., Golden, Bill B. (Agricultural Economics), Rice, Charles W. (Agronomy), and Sanderson, Matthew R. (Sociology, Anthropology, and Social Work), US Department of Agriculture, $6,282, "Sustaining Agriculture through Adaptive Management to Preserve the Ogallala Aquifer under a Changing Climate."

Rogers, Danny H., Aguilar, Jonathan P. (Southwest Area Office), Devlin, Daniel L. (Ks Ctr for Ag Rsrcs & the Env / Ks Water Rsrc Rsch Inst), Foster, Anserd J. (Southwest Area Office), Golden, Bill B. (Agricultural Economics), Kisekka, Isaya (Southwest Research Extension Center), Lamm, Freddie R. (Northwest Research Extension Center), Schlegel, Alan J. (Southwest Research Extension Center), and Vandeveer, Monte L. (Southwest Area Office), US Department of
Agriculture, $104,697 (includes $3,750 from KDA Match), "Using Farmer-Based Water Technology Farms to Implement New Irrigation Technologies to Sustain the Rural Economy."

**Rogers, Danny H., Aguilar, Jonathan P.** (Southwest Area Office), **Aiken, Robert M.** (Northwest Research Extension Center), **Devlin, Daniel L.** (Ks Ctr for Ag Rsrsces & the Env / Ks Water Rsrce Rsrch Inst), **Golden, Bill B.** (Agricultural Economics), **Holman, Johnathon D.** (Southwest Research Extension Center), **Jaeger, John R.** (Agricultural Research Center-Hays), **Johnson, Sandra K.** (Northwest Area Office), **Kulesza, Stacey E.** (Civil Engineering), **Lamm, Freddie R.** (Northwest Research Extension Center), **Lin, Xiaomao** (Agronomy), **Obour, Augustine K.** (Agricultural Research Center-Hays), **O'Brien, Daniel M.** (Northwest Area Office), **Schlegel, Alan J.** (Southwest Research Extension Center), **Steward, David R.** (Civil Engineering), and **Vandeveer, Monte L.** (Southwest Area Office), US Department of Agriculture, $6,684, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."

**Sharda, Ajay, Flippo, Daniel, SV, Krishna Jagadish** (Agronomy), and **Van Der Merwe, Deon** (Diagnostic Medicine/Pathobiology), CNH Industrial America LLC, $25,075, "Testing and Evaluation Services Agreement."

**Sharda, Ajay,** Deere & Company, $11,250, "Quantifying PWM Nozzle Body Flow and Pressure."

**Sharda, Ajay, Flippo, Daniel, Schapaugh Jr, William T.** (Agronomy), and **Van Der Merwe, Deon** (Diagnostic Medicine/Pathobiology), Kansas Soybean Commission, $40,251, "Small Unmanned Aircraft Thermal Infrared Imaging System to Identify Soybean Drought Tolerant Varieties."

**Sharda, Ajay, Flippo, Daniel,** and **Wang, Donghai,** Topcon Agriculture Americas, LLC, $93,977, "Protein Sensor Integration for Real-time Sensing on Grain Combines."

**Sharda, Ajay, Ciampitti, Ignacio** (Agronomy), and **Griffin, Terry W.** (Agricultural Economics), United Soybean Board, $24,939, "On-farm Digital Technologies."

**Sharda, Ajay, Das, Sanjoy** (Electrical and Computer Engineering), **Flippo, Daniel, Temme, Arnaud** (Geography), and **Welch, Stephen M.** (Agronomy), US Department of Agriculture, $200,292, "NRI: INT: Multi-Robot Farming on Marginal, Highly Sloped Lands."

**Sheshukov, Aleksey Y.,** National Science Foundation, $105,886, "Collaborative Research: Hydrologic and Permafrost Changes Due to Tree Expansion into Tundra."

**Sheshukov, Aleksey Y., Biles, Larry E.** (Kansas Forest Service), **Devlin, Daniel L.** (Ks Ctr for Ag Rsrsces & the Env / Ks Water Rsrce Rsrch Inst), **Keane, Timothy D.** (Landscape Architecture/Regional and Community Planning), **Moorberg, Colby** (Agronomy), and **Moore, Trisha L.,** US Department of the Interior, $23,317 (includes $6,342 from In-Kind), "Kansas Water Resources Research Institute 2016."

**Slocombe, John W.,** US Department of Agriculture, $180,000, "Kansas AgrAbility Project."

**Wang, Donghai, Flippo, Daniel,** and **Sharda, Ajay,** Topcon Agriculture Americas, LLC, $17,621, "Protein Sensor Integration for Real-time Sensing on Grain Combines."
Wang, Donghai, and Sun, X. Susan (Grain Science and Industry), US Department of Agriculture, $9,000, "Acquisition of Goods and Services."


Wang, Donghai, and Sun, X. Susan (Grain Science and Industry), US Environmental Protection Agency, $7,482, "Fully Utilizing Biomass for Biofuels and Chemicals."

Zhang, Naiqian, Kingdom of Saudi Arabia, $31,000, "Automatic Assessment of Biological Control Effectiveness of Trichogramma Bourarachae Against Ephestia Cautella Using Machine Vision."

CENTER FOR HAZARDOUS SUBSTANCE RESEARCH
Erickson, Larry E., Davis, Lawrence C. (Biochemistry), Hettiarachchi, Ganga M. (Agronomy), and Roozeboom, Kraig L. (Agronomy), North Atlantic Treaty Organization (NATO), $19,211 (includes $5,249 from In-Kind Contribution -Erickson support, and $5,331 from In-Kind Contribution -Erickson's Effort), "New Phytotechnology for Cleaning Contaminated Military Sites."

Leven, Blase A., Saulters, Oral S., Walker, Mark, and Weiser, Margaret, US Environmental Protection Agency, $725,001, "Technical Assistance to Brownfields Communities -US EPA Regions 5, 6, 7, 8 & National."

Leven, Blase A., and Saulters, Oral S., US Environmental Protection Agency, $60,000, "Technical Assistance to Tribal Communities Addressing Brownfields."

Saulters, Oral S., Leven, Blase A., Walker, Mark, and Weiser, Margaret, US Environmental Protection Agency, $131,818, "Technical Assistance to Brownfields Communities -US EPA Regions 5, 6, 7, 8 & National."

Saulters, Oral S., and Leven, Blase A., US Environmental Protection Agency, $240,000, "Technical Assistance to Tribal Communities Addressing Brownfields."

Walker, Mark, Leven, Blase A., Saulters, Oral S., and Weiser, Margaret, US Environmental Protection Agency, $131,818, "Technical Assistance to Brownfields Communities -US EPA Regions 5, 6, 7, 8 & National."


CHEMICAL ENGINEERING

Amama, Placidus B., National Science Foundation, $305,566, "Nanomanufacturing of Vertically Aligned Carbon Nanotube Arrays from Industrial Waste Gas Mixture."

Amama, Placidus B., US Department of Defense, $10,000, "Effect of Ion Beam Bombardment of Different Metal Oxide Catalyst Supports on Carbon Nanotube Growth."
Edgar, James H., Buyle, Raymond J. (Architectural Engineering and Construction Science), Clark, Gary A. (Dean of Engineering), Dawson, Darren M. (Dean of Engineering), DeLoach, Scott A. (Computer Science), Dunn, William L. (Mechanical and Nuclear Engineering), Gruenbacher, Don M. (Electrical and Computer Engineering), Harner III, Joseph P. (Biological and Agricultural Engineering), Kramer, Bradley A. (Industrial and Manufacturing Systems Engineering), Maghirang, Ronaldo G. (Engineering Experiment Station), and Stokes, Robert W. (Civil Engineering), Kansas Department of Commerce, $315,000, "University Engineering Initiative Act (UEIA)."

Edgar, James H., National Science Foundation, $5,880, "Hexagonal Boron Nitride Crystal Growth from Solution: A Study of Fundamentals."

Edgar, James H., and Janzen, Eli M., US Department of Commerce, $9,219, "Undergraduate Research Through the NIST SURF Program (Eli Janzen)."

Hansen, Ryan R., Aakeroy, Christer B. (Chemistry), Bossmann, Stefan (Chemistry), Gadzikwa, Tendai (Chemistry), Higgins, Daniel A. (Chemistry), Hohn, Keith L., Hua, Duy H. (Chemistry), Li, Jun (Chemistry), Li, Ping (Chemistry), McLaurin, Emily (Chemistry), and Sues, Peter (Chemistry), National Science Foundation, $20,811, "MRI: Acquisition of a 400 MHz NMR Spectrometer to Support Research Projects from C-H Bond Oxidation to Engineering Molecular Materials."

Hansen, Ryan R., and Platt, Thomas G. (Biology), National Science Foundation, $3,600, "PAPM EAGER: Microwell Array Platform for High-Throughput Screening and Discovery of Microbial Interactions."

Hansen, Ryan R., US Department of Energy, $125,000, "An Analytical Technology Platform to Identify Symbiotic Interactions between PGPR and Root Microbiome Members from Biofuel Feedstocks."

Hohn, Keith L., Aakeroy, Christer B. (Chemistry), Bossmann, Stefan (Chemistry), Gadzikwa, Tendai (Chemistry), Hansen, Ryan R., Higgins, Daniel A. (Chemistry), Hua, Duy H. (Chemistry), Li, Jun (Chemistry), Li, Ping (Chemistry), McLaurin, Emily (Chemistry), and Sues, Peter (Chemistry), National Science Foundation, $20,811, "MRI: Acquisition of a 400 MHz NMR Spectrometer to Support Research Projects from C-H Bond Oxidation to Engineering Molecular Materials."

Janzen, Eli M., and Edgar, James H., US Department of Commerce, "Undergraduate Research Through the NIST SURF Program (Eli Janzen)."

Liu, Bin, and Li, Jun (Chemistry), National Science Foundation, $180,747, "A Novel Fuel Cell Catalyst and Support Architecture Based on Edge-site Pyridinic Nitrogen-doping on Vertically Aligned Conical Carbon Nanofibers."

Liu, Bin, Aikens, Christine M. (Chemistry), Andresen, Daniel A. (Computer Science), Comer, Jeffrey R. (Anatomy and Physiology), Schmit, Jeremy D. (Physics), and Smith, Paul E. (Chemistry), National Science Foundation, $59,500, "MRI: Acquisition of a GPU-Enabled Compute Cluster for Molecular Modeling Applications."
CIVIL ENGINEERING

Dissanayake, Sunanda, and Fitzsimmons, Eric J., Kansas Department of Transportation, $28,769, "Understanding Overweight/Oversize Freight Flow and Safety in Kansas Using KTRIPS."

Fitzsimmons, Eric J., Kansas Department of Transportation, $68,484, "Developing Vehicle Speed Profiles for Typical Kansas Work Zones with Unseen Hazards of Sudden Changes in Horizontal Alignment after Advance Warning."

Fitzsimmons, Eric J., and Dissanayake, Sunanda, Kansas Department of Transportation, $35,163, "Understanding Overweight/Oversize Freight Flow and Safety in Kansas Using KTRIPS."

Fitzsimmons, Eric J., Kulesza, Stacey E., Liang, Jia (Educational Leadership), and Zacharakis, Jeffrey T. (Educational Leadership), National Science Foundation, $69,967, "Research Initiation: Investigating the Role of Social Responsibility on Veteran Student Retention."

Fitzsimmons, Eric J., US Department of Transportation, $31,900, "FHWA Dwight D. Eisenhower Transportation Fellowship Program (DDETFP)."

Fitzsimmons, Eric J., US Department of Transportation, $100,000, "Traffic Assistance for Kansas (TASK) Program (FY 2018 -2020)."

Hossain, Mustaque A., Kansas Department of Transportation, $20,000, "Administration of KDOT/KTRAN Program."

Hossain, Mustaque A., and Jones, Christopher A., Kansas Department of Transportation, $5,988, "Exploring a Rapid Test for Aggregate Qualification for 40-year Pavement Life."

Hossain, Mustaque A., and Kulesza, Stacey E., Kansas Department of Transportation, $62,669, "Implementation AASHTOWare Pavement ME Design Software for KDOT."

Hossain, Mustaque A., Kansas Department of Transportation, $7,775, "Review of QC/QA Data to Improve Current Specifications for PCC Pavements in Kansas."

Hossain, Mustaque A., US Department of Transportation, $249,832, "Optimum AC Overlay Thickness over FDR of Existing AC Pavements."

Im, Jeongdae, American Chemistry Council, $160,414, "Biologically Mediated Abiotic Degradation (BMAD) of Bisphenol A."

Jones, Christopher A., and Hossain, Mustaque A., Kansas Department of Transportation, $23,951, "Exploring a Rapid Test for Aggregate Qualification for 40-year Pavement Life."

Kulesza, Stacey E., Kansas Department of Transportation, $20,052, "Galvanized and Aluminized Pipe Durability Field Review and Evaluation."

Kulesza, Stacey E., and Hossain, Mustaque A., Kansas Department of Transportation, $41,779, "Implementation AASHTOWare Pavement ME Design Software for KDOT."
Kulesza, Stacey E., Fitzsimmons, Eric J., Liang, Jia (Educational Leadership), and Zacharakis, Jeffrey T. (Educational Leadership), National Science Foundation, $69,967, "Research Initiation: Investigating the Role of Social Responsibility on Veteran Student Retention."

Kulesza, Stacey E., Farney, Jaymelynn K. (Southeast Area Office), and Sassenrath, Gretchen F. (Southeast Agricultural Research Center), US Department of Agriculture, $4,999, "Improving Soil Health and Profitability with Cover Crops and Precision Conservation."

Kulesza, Stacey E., Aguilar, Jonathan P. (Southwest Area Office), Aiken, Robert M. (Northwest Research Extension Center), Devlin, Daniel L. (Ks Ctr for Ag Rsrs & the Env / Ks Water Rsrch Rsrch Inst), Golden, Bill B. (Agricultural Economics), Holman, Johnathon D. (Southwest Research Extension Center), Jaeger, John R. (Agricultural Research Center-Hays), Johnson, Sandra K. (Northwest Area Office), Lamm, Freddie R. (Northwest Research Extension Center), Lin, Xiaomao(Agronomy), Obour, Augustine K. (Agricultural Research Center-Hays), O'Brien, Daniel M. (Northwest Area Office), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), Steward, David R., and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $13,368, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."

Kulesza, Stacey E., US Department of Transportation, $110,742, "Predicting Critical Shear Stress of Fine-grained Soils in Kansas."

Mathews, Alexander P., National Science Foundation, $6,000, "Eager: A Novel Bioprocess for the Valorization of Waste and Biomass."


Parameswaran, Prathap, Black & Veatch Corporation, $5,000, "Characterization and Evaluation of Biodegradability of a Complex Industrial Waste."

Parameswaran, Prathap, National Science Foundation, $136,908, "Smart Adaptation of Enriched Microbiomes in Recovered Nutrient Products (bio-fertilizers) from Anaerobic Wastewater Treatment to the Native Soil."

Parameswaran, Prathap, Hettiarachchi, Ganga M. (Agronomy), and Hutchinson, Stacy L. (Biological and Agricultural Engineering), US Department of Agriculture, $60,000, "Novel Platform for Channelized Nutrient Product Sequestration from Agricultural Wastewaters through Optimized Anaerobic Bioprocesses."

Parameswaran, Prathap, and Hutchinson, Stacy L. (Biological and Agricultural Engineering), US Department of Defense, $10,000, "Anaerobic Membrane Bioreactor (AnMBR) for Sustainable Wastewater Treatment."

Peric, Dunja, Kansas Department of Transportation, $67,236, "Determining an Acceptable California Bearing Ratio (CBR) Value for Kansas Subgrades Based on Pavement Distress Data."
Peterman, Robert J., Caterpillar, Inc., $1,213, "Establishing Pre-Stressing Frames for Engineering Hall."

Peterman, Robert J., and Beck, B. Terry (Mechanical and Nuclear Engineering), US Department of Transportation, $215,759 (includes $2,500 from NUCOR), "Developing Qualification Tests to Ensure Proper Selection and Interaction of Pretensioned Concrete Railroad Tie Materials."

Steward, David R., Aguilar, Jonathan P. (Southwest Area Office), Aiken, Robert M. (Northwest Research Extension Center), Devlin, Daniel L. (Ks Ctr for Ag Rsces & the Env / Ks Water Rsce Rsrch Inst), Golden, Bill B. (Agricultural Economics), Holman, Johnathon D. (Southwest Research Extension Center), Jaeger, John R. (Agricultural Research Center-Hays), Johnson, Sandra K. (Northwest Area Office), Kulesza, Stacey E., Lamm, Freddie R. (Northwest Research Extension Center), Lin, Xiaomao (Agronomy), Obour, Augustine K. (Agricultural Research Center-Hays), O'Brien, Daniel M. (Northwest Area Office), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $13,368, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."

Stokes, Robert W., Buyle, Raymond J. (Architectural Engineering and Construction Science), Clark, Gary A. (Dean of Engineering), Dawson, Darren M. (Dean of Engineering), DeLoach, Scott A. (Computer Science), Dunn, William L. (Mechanical and Nuclear Engineering), Edgar, James H. (Chemical Engineering), Gruenbacher, Don M. (Electrical and Computer Engineering), Harner III, Joseph P. (Biological and Agricultural Engineering), Kramer, Bradley A. (Industrial and Manufacturing Systems Engineering), and Maghirang, Ronaldo G. (Engineering Experiment Station), Kansas Department of Commerce, $315,000, "University Engineering Initiative Act (UEIA)."

COMPUTER SCIENCE
Amariucai, George, National Science Foundation, $10,541, "SBE: Small: Continuous Human-User Authentication by Induced Procedural Visual-Motor Biometrics."


Andresen, Daniel A., and Caragea, Doina, National Science Foundation, $50,000, "BIGDATA: IA: Collaborative Research: Domain Adaption Approaches for Classifying Crisis Related Data on Social Media."

Andresen, Daniel A., Aikens, Christine M. (Chemistry), Comer, Jeffrey R. (Anatomy and Physiology), Liu, Bin (Chemical Engineering), Schmit, Jeremy D. (Physics), and Smith, Paul E. (Chemistry), National Science Foundation, $59,500, "MRI: Acquisition of a GPU-Enabled Compute Cluster for Molecular Modeling Applications."

Andresen, Daniel A., Bailey, Heather R. (Psychological Sciences), Bossmann, Stefan (Chemistry), Cain, Mary E. (Psychological Sciences), Kirkpatrick, Kimberly (Psychological Sciences), Loschky, Lester C. (Psychological Sciences), and Pickens II, Charles (Psychological Sciences), US Department of Health and Human Services, $173,829, "Cognitive and Neurobiological Approaches to Plasticity (C-NAP)."
Caragea, Cornelia A., Institute of Museum and Library Services, $148,394, "Programmatic Extraction of 'Documents' from Web Archives."

Caragea, Cornelia A., National Science Foundation, $400,000, "BIGDATA: IA: Collaborative Research: Domain Adaptation Approaches for Classifying Crisis Related Data on Social Media."

Caragea, Cornelia A., National Science Foundation, $193,323, "CAREER: From Data to Knowledge: Extracting and Utilizing Concept Graphs in Online Environments."


Caragea, Cornelia A., National Science Foundation, $181,010, "CRISP Type 2: Collaborative Research: Resilience Analytics: A Data-driven Approach for Enhanced Interdependent Network Resilience."

Caragea, Cornelia A., National Science Foundation, $64,960, "III: Small: Collaborative Research: Keyphrase Extraction in Document Networks."


Caragea, Doina, and Andresen, Daniel A., National Science Foundation, $450,000, "BIGDATA: IA: Collaborative Research: Domain Adaption Approaches for Classifying Crisis Related Data on Social Media."

Caragea, Doina, National Science Foundation, $200,000, "SaTC: Core: Small: Collaborative: Data-Driven Approaches for Large-Scale Security Analysis of Mobile Applications."

DeLoach, Scott A., Buyle, Raymond J. (Architectural Engineering and Construction Science), Clark, Gary A. (Dean of Engineering), Dawson, Darren M. (Dean of Engineering), Dunn, William L. (Mechanical and Nuclear Engineering), Edgar, James H. (Chemical Engineering), Gruenbacher, Don M. (Electrical and Computer Engineering), Harner III, Joseph P. (Biological and Agricultural Engineering), Kramer, Bradley A. (Industrial and Manufacturing Systems Engineering), Maghirang, Ronaldo G. (Engineering Experiment Station), and Stokes, Robert W. (Civil Engineering), Kansas Department of Commerce, $315,000, "University Engineering Initiative Act (UEIA)."

DeLoach, Scott A., Brase, Gary (Psychological Sciences), Gruenbacher, Don M. (Electrical and Computer Engineering), Heier Stamm, Jessica L. (Industrial and Manufacturing Systems Engineering), and Scoglio, Caterina M. (Electrical and Computer Engineering), National Science Foundation, $22,636, "SSDIM: EAGER: Data Generation for the Coupled System Composed of the Beef Cattle Production Infrastructure and the Transportation Services Infrastructure in Southwestern Kansas."

Hatcliff, John M., Ranganath, Venkatesh, and Robby, -., National Science Foundation, $56,000, "FDA SIR: Architecturally-Integrated Hazard Analyses for Medical Application Platforms."


Hsu, William H., and Carraway, Kurt J. (Salina Research and Engagement), Black & Veatch Corporation, $40,150, "Image Analysis and Data Science: Aerial Survey of Street Insulators."


Neilsen, Mitchell L., and Poland, Jesse A. (Plant Pathology), National Science Foundation, $7,500, "BREAD PHENO: High-Throughput Phenotyping with Smart Phones. #phenoApp."


Prabhakar, Pavithra, National Science Foundation, $82,493, "CAREER: Robust Verification of Cyber-Physical Systems."

Ranganath, Venkatesh, Hatcliff, John M., and Robby, -, National Science Foundation, $12,000, "FDA SIR: Architecturally-Integrated Hazard Analyses for Medical Application Platforms."

Robby, -, Hatcliff, John M., and Ranganath, Venkatesh, National Science Foundation, $12,000, "FDA SIR: Architecturally-Integrated Hazard Analyses for Medical Application Platforms."


DEAN OF ENGINEERING


Clark, Gary A., Buyle, Raymond J. (Architectural Engineering and Construction Science), Dawson, Darren M., DeLoach, Scott A. (Computer Science), Dunn, William L. (Mechanical and Nuclear Engineering), Edgar, James H. (Chemical Engineering), Gruenbacher, Don M. (Electrical and Computer Engineering), Harner III, Joseph P. (Biological and Agricultural Engineering), Kramer, Bradley A. (Industrial and Manufacturing Systems Engineering), Maghirang, Ronaldo G. (Engineering Experiment Station), and Stokes, Robert W. (Civil Engineering), Kansas Department of Commerce, $315,000, "University Engineering Initiative Act (UEIA)."


Dawson, Darren M., Buyle, Raymond J. (Architectural Engineering and Construction Science), Clark, Gary A., DeLoach, Scott A. (Computer Science), Dunn, William L. (Mechanical and Nuclear Engineering), Edgar, James H. (Chemical Engineering), Gruenbacher, Don M. (Electrical and Computer Engineering), Harner III, Joseph P. (Biological and Agricultural Engineering), Kramer, Bradley A. (Industrial and Manufacturing Systems Engineering), Maghirang, Ronaldo G. (Engineering Experiment Station), and Stokes, Robert W. (Civil Engineering), Kansas Department of Commerce, $350,000, "University Engineering Initiative Act (UEIA)."

ELECTRICAL AND COMPUTER ENGINEERING

Das, Sanjoy, Flippo, Daniel (Biological and Agricultural Engineering), Sharda, Ajay (Biological and Agricultural Engineering), Temme, Arnaud (Geography), and Welch, Stephen M. (Agronomy), US Department of Agriculture, $188,511, "NRI: INT: Multi-Robot Farming on Marginal, Highly Sloped Lands."

Gruenbacher, Don M., Buyle, Raymond J. (Architectural Engineering and Construction Science), Clark, Gary A. (Dean of Engineering), Dawson, Darren M. (Dean of Engineering), DeLoach, Scott A. (Computer Science), Dunn, William L. (Mechanical and Nuclear Engineering), Edgar, James H. (Chemical Engineering), Harner III, Joseph P. (Biological and Agricultural Engineering), Kramer, Bradley A. (Industrial and Manufacturing Systems Engineering), Maghirang, Ronaldo G. (Engineering Experiment Station), and Stokes, Robert W. (Civil Engineering), Kansas Department of Commerce, $315,000, "University Engineering Initiative Act (UEIA)."

Gruenbacher, Don M., Brase, Gary (Psychological Sciences), DeLoach, Scott A. (Computer Science), Heier Stamm, Jessica L. (Industrial and Manufacturing Systems Engineering), and Scoglio, Caterina M., National Science Foundation, $22,636, "SSDIM: EAGER: Data Generation for the Coupled System Composed of the Beef Cattle Production Infrastructure and the Transportation Services Infrastructure in Southwestern Kansas."

Kim, Jungkwun, Leejo Co. Ltd., $7,000, "Planning International Joint R & D Tasks and Finding Overseas Partners for Developing Fine Precision Metal 3D Printer and Its Applications."

Kim, Sungo, and Little, Christopher R. (Plant Pathology), Kansas Soybean Commission, $40,000, "Plasma-activated Irrigation for Improving Soybean Development and Disease Tolerance."


Miller, Ruth D., and White, Warren N. (Mechanical and Nuclear Engineering), US Department of Energy, $5,000, "Kansas State University Wind Turbine Design Team 2018."


Natarajan, Balasubramaniam, National Science Foundation, $15,000, "NSF Student Travel Grant for 2018 IEEE International Conference on Sensing, Communication and Networking (IEEE SeCON)."

Pahwa, Anil, National Science Foundation, $246,174, "National Science Foundation - Intergovernmental Personnel Act."

Pahwa, Anil, Sunflower Electric Power Corp. & Electric Power Research Ins, $61,789, "Thermal Loading to Prevent Ice on Transmission Lines."


Prakash, Punit, Hologic, Inc., $89,895, "Investigation of Microwave Endometrial Ablation (MEA): Phase III."

Prakash, Punit, Hologic, Inc., $58,410, "Investigation of Microwaves for Thermally Mediated Tissue Remodeling with Application to Treatment of Stress Urinary Incontinence."

Prakash, Punit, Beard, Warren L. (Clinical Sciences), Biller, David S. (Clinical Sciences), and Ganta, Chanran K. (Veterinary Diagnostic Laboratory), US Department of Health and Human Services, $321,353, "Bronchoscope-guided Microwave Ablation of Early-Stage Lung Tumors."

Scoglio, Caterina M., Brase, Gary (Psychological Sciences), DeLoach, Scott A. (Computer Science), Gruenbacher, Don M., and Heier Stamm, Jessica L. (Industrial and Manufacturing Systems Engineering), National Science Foundation, $87,060, "SSDIM: EAGER: Data Generation for the Coupled System Composed of the Beef Cattle Production Infrastructure and the Transportation Services Infrastructure in Southwestern Kansas."

Scoglio, Caterina M., Burton, Kenneth R. (National Agricultural Biosecurity Center), Lockhart, Caryl Y. (Diagnostic Medicine/Pathobiology), Richt, Juergen (Diagnostic Medicine/Pathobiology), and Sebhatu, Tesfaalem T. (Dean of Veterinary Medical Center), US Department of Agriculture, $7,377, "In-depth Investigation of the Epidemiology of Rift Valley Fever Outbreak in Kabale District, Uganda."

Shadmand, Mohammad B., Qatar Foundation, $63,610, "1-MW PV Power RD&D Using SiC-based qZS Cascade Multilevel Inverter and Battery Energy Storage."


ENGINEERING EXPERIMENT STATION
Maghirang, Ronaldo G., Buyle, Raymond J. (Architectural Engineering and Construction Science), Clark, Gary A. (Dean of Engineering), Dawson, Darren M. (Dean of Engineering), DeLoach, Scott A. (Computer Science), Dunn, William L. (Mechanical and Nuclear Engineering), Edgar, James H. (Chemical Engineering), Gruenbacher, Don M. (Electrical and Computer Engineering), Harner III, Joseph P. (Biological and Agricultural Engineering), Kramer, Bradley A. (Industrial and Manufacturing Systems Engineering), and Stokes, Robert W. (Civil Engineering), Kansas Department of Commerce, $315,000, "University Engineering Initiative Act (UEIA)."

INDUSTRIAL AND MANUFACTURING SYSTEMS ENGINEERING
Easton, Todd W., US Department of Defense, $26,779, "Implementing Polyhedral Clustering in a Machine Learning Environment for Cybersecurity."

Heier Stamm, Jessica L., Brase, Gary (Psychological Sciences), DeLoach, Scott A. (Computer Science), Gruenbacher, Don M. (Electrical and Computer Engineering), and Scoglio, Caterina M. (Electrical and Computer Engineering), National Science Foundation, $20,894, "SSDIM: EAGER: Data Generation for the Coupled System Composed of the Beef Cattle Production Infrastructure and the Transportation Services Infrastructure in Southwestern Kansas."

Kramer, Bradley A., Buyle, Raymond J. (Architectural Engineering and Construction Science), Clark, Gary A. (Dean of Engineering), Dawson, Darren M. (Dean of Engineering), DeLoach, Scott A. (Computer Science), Dunn, William L. (Mechanical and Nuclear Engineering), Edgar, James H. (Chemical Engineering), Gruenbacher, Don M. (Electrical and Computer Engineering), Harner III, Joseph P. (Biological and Agricultural Engineering), Maghirang, Ronaldo G. (Engineering Experiment Station), and Stokes, Robert W. (Civil Engineering), Kansas Department of Commerce, $315,000, "University Engineering Initiative Act (UEIA)."

Kramer, Bradley A., National Science Foundation, $49,540, "2018 NSF CAREER Proposal Writing Workshop."

Lin, Dong, Johnson Center for Basic Cancer Research, $24,000, "3D Printing Biomimetic Bone Structure with Hierarchical and Interconnected Porosity for Breast Cancer Metastasis."
Lin, Dong, National Science Foundation, $137,630, "3D Printing Biomimetic and Hierarchical Wood Structure for Endosphere Microbiome Study."

Sinha, Ashesh K., Schneider Enterprise Resources, LLC, $158,525, "Dispatch Strategies in Intermodal Transportation: A Feasibility and Validation Study."

Zhang, Meng (Peter), National Science Foundation, $82,689, "Collaborative Research: Creating An Upper Division Additive Manufacturing Course and Laboratory for Enhancing Undergraduate Research and Innovation."

INSTITUTE FOR ENVIRONMENTAL RESEARCH
Eckels, Steven J., Support Funds, $19,425, "Thermal Properties of Textile Products."


KANSAS INDUSTRIAL EXTENSION SERVICES
Carter, David A., Cook, Yvonne C., and Hamel, Ryan J., Blue Cross and Blue Shield of Kansas, $41,580, "Small Business Energy Assessments for Blue Cross/Blue Shield."

Carter, David A., Cook, Yvonne C., and Hamel, Ryan J., Kansas Corporation Commission, $22,500, "KCC and Kansas State University Energy Education Services."

Carter, David A., National Renewable Energy Laboratory, $10,000, "Wind for Schools."


Goode, Barbara L., Prairie Band Potawatomi Nation, $7,100, "Environmental Compliance and Pollution Prevention Assessment, Road and Bridge Property."


Hanson, Brian R., Snead, Bruce C., and Snyder, Kristina E., US Environmental Protection Agency, $70,000, "National Radon Program Services (NRPS)."

Hanson, Brian R., and Snead, Bruce C., US Environmental Protection Agency, $116,114 (includes $45,000 from In-Kind Support), "Radon Projects for Kansas."

Larson, Nancy J., Centers for Disease Control and Prevention, $27,500, "Kansas Food Recovery Technical Assistance Partnership."

Larson, Nancy J., Centers for Disease Control and Prevention, $15,000, "Kansas Food Recovery Technical Assistance Partnership."


Larson, Nancy J., US Environmental Protection Agency, $49,870, "Kansas Partners Identify and Implement P2 Strategies that Address National Emphasis Areas."

Snead, Bruce C., Hanson, Brian R., and Snyder, Kristina E., US Environmental Protection Agency, $80,000, "National Radon Program Services (NRPS)."

Snead, Bruce C., and Hanson, Brian R., US Environmental Protection Agency, $116,114 (includes $45,000 from In-Kind Support), "Radon Projects for Kansas."

Snyder, Kristina E., Hanson, Brian R., and Snead, Bruce C., US Environmental Protection Agency, $50,000, "National Radon Program Services (NRPS)."

MECHANICAL AND NUCLEAR ENGINEERING
Babin, Bruce R., Honeywell Federal Manufacturing & Technologies, LLC, $10,000, "GD&T Training Course."


Bahadori, Amir, and McNeil, Walter J., Honeywell Federal Manufacturing & Technologies, LLC, $45,310, "Neutron Interrogation Imaging."

Bahadori, Amir, and Leseman, Zayd C., Kansas State University Foundation, $10,000, "Miniaturized Neutron Spectrometer for Characterizing Cancer Risk."

Bahadori, Amir, KBRwyle, $100,000, "Radiation Transport Simulations in Support of Active Shielding Measurement Campaign."


Beck, B. Terry, and Peterman, Robert J. (Civil Engineering), US Department of Transportation, $215,759 (includes $2,500 from NUCOR), "Developing Qualification Tests to Ensure Proper Selection and Interaction of Pretensioned Concrete Railroad Tie Materials."


Betz, Amy R., National Science Foundation, $9,500, "Collaborative Research: Understanding, Mitigating, and Controlling Frost Formation Through the Use of Biphilic and Hybrid Surfaces Under Static and Dynamic Conditions."

Betz, Amy R., National Science Foundation, $230,617, "Research Initiation: The Formation of Engineering Students' Beliefs About Intelligence."

Bindra, Hitesh, US Department of Energy, $49,238, "Experimental Investigation of Forced Convection and Natural Circulation Cooling of a VHTR Core under Normal Operation and Accident Scenario."


Dunn, William L., Buyle, Raymond J. (Architectural Engineering and Construction Science), Clark, Gary A. (Dean of Engineering), Dawson, Darren M. (Dean of Engineering), DeLoach, Scott A. (Computer Science), Edgar, James H. (Chemical Engineering), Gruenbacher, Don M. (Electrical and Computer Engineering), Harner III, Joseph
P. (Biological and Agricultural Engineering), Kramer, Bradley A. (Industrial and Manufacturing Systems Engineering), Maghirang, Ronaldo G. (Engineering Experiment Station), and Stokes, Robert W. (Civil Engineering), Kansas Department of Commerce, $315,000, "University Engineering Initiative Act (UEIA)."

Hosni, Mohammad H., US Department of Energy, $177,500, "Nuclear Energy University Programs Fellowship and Scholarship Support."

Leseman, Zayd C., and Bahadori, Amir, Kansas State University Foundation, $10,000, "Miniaturized Neutron Spectrometer for Characterizing Cancer Risk."

McGregor, Douglas S., US Department of Defense, $208,087, "Portable System with Li-Foil NWPC Neutron Detectors."


McNeil, Walter J., and Bahadori, Amir, Honeywell Federal Manufacturing & Technologies, LLC, $45,310, "Neutron Interrogation Imaging."


Pacey, David A., FCA US LLC, $15,000, "SRT Phase 2 -Senior Design I & II."


Singh, Gurpreet, National Science Foundation, $913,751, "PIRE: High Temperature Ceramic Fibers: Polymer-based Manufacturing, Nanostructure, and Performance."

Wang, Youqi, US Department of Defense, $100,000, "Real Scale Numerical Simulation of Ballistic Tests for Multi-layer Fabric Body Armor."

Wei, Mingjun, US Army, $40,000, "Comprehensive Reduced Order Modeling and Validations for Loads and Flight Stability of a Flapping Wing."

Wei, Mingjun, US Department of Defense, $120,000, "(YIP) A Multiscale Morphing Continuum Analysis on Energy Cascade of Compressible Turbulence."


NATIONAL GAS MACHINERY LABORATORY
Figge, Eric R., and Jones, Byron W., Pipeline Research Council International, Inc., $25,000, "CEPM for Turbochargers."

Jones, Byron W., and Figge, Eric R., Pipeline Research Council International, Inc., $25,000, "CEPM for Turbochargers."

COLLEGE OF HUMAN ECOLOGY

APPAREL, TEXTILES, AND INTERIOR DESIGN
Kaup, Migette L., Cornelison, Laci J. (Dean of Human Ecology), Doll, Gayle (Dean of Human Ecology), Gfeller, Stephanie (Dean of Human Ecology), and Syme, Maggie L. (Dean of Human Ecology), US Department of Health and Human Services, $44,071, "PEAK 2.0 Evaluation."


Wu, Yingying, Gneiss Concepts, LLC, $3,870, "Gneiss Concepts MOA."


DEAN OF HUMAN ECOLOGY
Buckwalter, John, Cortez, Anita R. (Vice Provost for Undergraduate Studies), and Olsen,
Charlotte S. (School of Family Studies and Human Services), US Department of Health and Human Services, $26,668, "Kansas Bridges to the Future."

Cornelison, Laci J., Doll, Gayle, Gfeller, Stephanie, Kaup, Migette L. (Apparel, Textiles, and Interior Design), and Syme, Maggie L., US Department of Health and Human Services, $146,902, "PEAK 2.0 Evaluation."

Doll, Gayle, Cornelison, Laci J., Gfeller, Stephanie, Kaup, Migette L. (Apparel, Textiles, and Interior Design), and Syme, Maggie L., US Department of Health and Human Services, $44,071, "PEAK 2.0 Evaluation."

Fees, Bronwyn S., Kansas Child Care Training Opportunities, Inc, $474,393, "Early Childhood Workforce Development Grant."

Fees, Bronwyn S., Kansas Child Care Training Opportunities, Inc, $90,705, "Kansas Child Care Training Opportunities."

Fees, Bronwyn S., Kansas Department for Children and Families, $223,851, "KCCTO Statewide Infant -Toddler Specialist Network."

Gfeller, Stephanie, Cornelison, Laci J., Doll, Gayle, Kaup, Migette L. (Apparel, Textiles, and Interior Design), and Syme, Maggie L., US Department of Health and Human Services, $29,380, "PEAK 2.0 Evaluation."


Toews, Michelle L., Johannes, Elaine M. (School of Family Studies and Human Services), and Vennum, Amber V. (School of Family Studies and Human Services), US Department of Health and Human Services, $207,914, "Healthy REWARDS (Relationships, Expectations, Willpower, Aspirations, Reactions, Decisions, Self-esteem): An Evidence-Based Approach to Sexual Risk Avoidance."


FOOD, NUTRITION, DIETETICS AND HEALTH
Hanson, Jennifer, United States Tennis Association, $750, "Tennis as a Platform for a Family-Based Multicomponent Program for Pediatric Weight Management."

Hanson, Jennifer, and Butler, Meredith A. (School of Family Studies and Human Services), US Department of Agriculture, $417,150, "4-H Military Partnership and Outreach Support Program."

Hanson, Jennifer, US Department of Defense, $26,450, "Memorandum of Agreement for Training and Education Services: AFPC/SVPY."

Haub, Mark D., Rosenkranz, Sara, and Shi, Yong Cheng (Grain Science and Industry), US Department of Agriculture, $22,524, "Developing Novel Starch-based Ingredients and Understanding Relationship between Structure and Digestibility of Starch."

Koppel, Kadri, Shimadzu Scientific Instruments, $62,000, "Shimadzu Equipment Proposal."

Koppel, Kadri, Aldrich, Greg (Grain Science and Industry), Miller, Brandi M. (Grain Science and Industry), and Sexton-Bowser, Sarah A. (Dean of Agriculture and Director of AES), US Department of Agriculture, $36,926 (includes $10,350 from Third-Party Match), "Reintroducing Kansas Grain to Midwest Pet Food Manufacturing and Processing Markets."

Lindshield, Brian L., Bhadriraju, Subramanyam (Grain Science and Industry), Campabadal Teran, Carlos (Grain Science and Industry), Harvey, Jager J. (Dean of Agriculture and Director of AES), Leslie, John F. (Plant Pathology), Lilja, Nina K. (International Agricultural Programs), and Ulmer, Jonathan (Communications and Agricultural Education), US Agency for International Development, "Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss."

Rosenkranz, Richard R., and Rosenkranz, Sara, Kansas State University Foundation, $9,955, "Enhanced Health Promo in Girl Scouts thru Video-based Leader Wellness Training."


Rosenkranz, Sara, and Haub, Mark D., Isagenix International, LLC, $2,668, "Determining the Impact of Meal Replacement Products on Human Blood Glucose Levels."

Rosenkranz, Sara, and Rosenkranz, Richard R., Kansas State University Foundation, $9,955, "Enhanced Health Promo in Girl Scouts thru Video-based Leader Wellness Training."

Rosenkranz, Sara, University of Kansas Medical Center Research Institute, Inc., $6,840, "Effects of Dietary Modification on Exercise Induced Bronchoconstriction."

Rosenkranz, Sara, Haub, Mark D., and Shi, Yong Cheng (Grain Science and Industry), US Department of Agriculture, $67,573, "Developing Novel Starch-based Ingredients and Understanding Relationship between Structure and Digestibility of Starch."

Sauer, Kevin L., Roberts, Kevin R. (Hospitality Management), and Shanklin, Carol W. (Dean of Graduate School), US Department of Agriculture, $270,000, "Center for Food Safety in Child Nutrition Programs."

Vardiman, John P., US Department of Defense, $15,000, "Establishing Optimal Training Intervals for the Marine Corps Martial Arts Program (MCMAP) for Improvement in Physical Performance and Warrior Mindset."

Wang, Weiquin, US Department of Agriculture, $20,000, "Determining the Bioavailability of Sorghum Phenolic Compounds."
HOSPITALITY MANAGEMENT

Jang, Jichul, and Kwon, Junehee, Kansas State University Foundation, $2,185, "Improving Dining Satisfaction of Residents in Long-term Care Institution through Co-Creation of Menus (Juhyun Kang)."

Kwon, Junehee, Kansas State University Foundation, $4,998, "Exploring Factors Leading to Customer Delight in Food and Beverage Services."

Kwon, Junehee, and Jang, Jichul, Kansas State University Foundation, $2,185, "Improving Dining Satisfaction of Residents in Long-term Care Institution through Co-Creation of Menus (Juhyun Kang)."

Paez, Paola, Foodservice Systems Management Education Council, $2,000, "Barriers of Effective Food Safety Performance: An Explanatory-Sequential Approach."


Roberts, Kevin R., Sauer, Kevin L. (Food, Nutrition, Dietetics and Health), and Shanklin, Carol W. (Dean of Graduate School), US Department of Agriculture, $270,000, "Center for Food Safety in Child Nutrition Programs."

KINESIOLOGY

Ade, Carl, and Barstow, Thomas J., National Aeronautics and Space Administration, $130,799, "Identification of Aerobic Fitness Standards for Exploration Mission Tasks."

Ade, Carl, National Aeronautics and Space Administration, $131,000, "Oomics and Biochemical Markers of Cardiovascular and Bone Health: Relationship with Bedrest and Standard Physiological Measures."

Barstow, Thomas J., and Ade, Carl, National Aeronautics and Space Administration, $130,799, "Identification of Aerobic Fitness Standards for Exploration Mission Tasks."


Behnke, Brad J., and Poole, David C., US Department of Health and Human Services, $364,010, "Novel Strategies to Prevent Respiratory Muscle Vascular Dysfunction with Mechanical Ventilation."

Harms, Craig A., and Heinrich, Katie M., US Department of Health and Human Services, $49,725, "HIFT for Obesity Prevention, Fitness and Health Promotion in Military Personnel."

Heinrich, Katie M., The Mindlin Foundation, $5,000, "Undergraduate Mentored Research Brady Kurtz."
Heinrich, Katie M., and Harms, Craig A., US Department of Health and Human Services, $447,529, "HIFT for Obesity Prevention, Fitness and Health Promotion in Military Personnel."

Poole, David C., and Behnke, Brad J., US Department of Health and Human Services, $50,051, "Novel Strategies to Prevent Respiratory Muscle Vascular Dysfunction with Mechanical Ventilation."

SCHOOL OF FAMILY STUDIES AND HUMAN SERVICES

Butler, Meredith A., and Hanson, Jennifer (Food, Nutrition, Dietetics and Health), US Department of Agriculture, $2,363,850, "4-H Military Partnership and Outreach Support Program."

Butler, Meredith A., US Department of Agriculture, $450,000, "CYFAR 4-H Military Partnership Professional Development and Technical Assistance Program."

Durtschi, Jared A., US Department of Health and Human Services, $1,500, "Determining Functional Components of an Evidence-Based Parenting Intervention."

Garcia, Jane M., Kansas State University Foundation, $4,000, "Improving the Quality and Consistency of Nutrition Care for 5,000,000 Americans with Swallowing Disorders: Impact on Speech-Language Pathologists (Anna Boyer)."


Johannes, Elaine M., and Yelland, Erin L., Centers for Disease Control and Prevention, $12,486, "Kansas Health Extension Project."


Johannes, Elaine M., Bolton, Debra (Southwest Area Office), Kiss, D. Elizabeth, and Wiles, Bradford B., US Department of Health and Human Services, $97,886, "Connecting Kids to Coverage: Outreach and Enrollment Cooperative Agreement."


Lutter, Sonya L., Dunn, Erin C. (Intercollegiate Athletics Local), and Rubin, Lisa (Special Education, Counseling, and Student Affairs), National Collegiate Athletic Association, $3,300, "NCAA Athletes and Cost of Attendance Money: Spending and Financial Literacy."

Lutter, Sonya L., Thrivent Financial for Lutherans (brightpeak), $10,000, "Love and Money Curriculum."

Olsen, Charlotte S., Buckwalter, John (Dean of Human Ecology), and Cortez, Anita R. (Vice Provost for Undergraduate Studies), US Department of Health and Human Services, $213,346, "Kansas Bridges to the Future."


Wiles, Bradford B., and Tynon, Erin K. (County Agents-Northeast Sector), US Department of Agriculture, $18,750, "Quality, Affordable Child Care as Economic Development in Rural Communities."


Yelland, Erin L., and Johannes, Elaine M., Centers for Disease Control and Prevention, $12,486, "Kansas Health Extension Project."

Yelland, Erin L., and Johannes, Elaine M., US Department of Agriculture, $190,430, "Kansas Masters Health Volunteers."

Yelland, Erin L., US Department of Agriculture, $24,655, "North Central Region Aging Network Toolkit Development."

**COLLEGE OF VETERINARY MEDICINE**

**ANATOMY AND PHYSIOLOGY**

Choi, Seongo, Korean Institute for the Advancement of Technology, $11,000, "A Feasibility Study for the Development of Dissolving Microneedles Containing Biopharmaceuticals with Improved Stability and Bioavailability."

Choi, Seongo, QuadMedicine, $99,999, "Development of Flexible Microneedle Patches for Drug Delivery Through Contoured Skin Surfaces."
Choi, Seongo, US Department of Agriculture, $65,000, "Spray-formed Dissolving Microneedle Patches for Enhanced Stability and Needle-free Delivery of Vaccines."

Coetzee, Johann F., and Reif, Kathryn E. (Diagnostic Medicine/Pathobiology), Kansas City Area Life Sciences Institute, $5,000, "Assay Development and Validation for Intraerythrocytic Pathogen Drug Screening."


Coetzee, Johann F., Amachawadi, Raghavendra G. (Clinical Sciences), Hanzlicek, Gregg A. (Veterinary Diagnostic Laboratory), Olson, K C (Animal Sciences and Industry), Reif, Kathryn E. (Diagnostic Medicine/Pathobiology), Reppert, Emily (Clinical Sciences), Shuman, Cindy (Dean of Education), and White, Bradley J. (Dean of Veterinary Medical Center), US Department of Agriculture, $119,995, "Mitigation of Antimicrobial Resistance through Alternative Treatment Regimens to Control Bovine Anaplasmosis."

Coetzee, Johann F., Lin, Zhoumeng, and Tarpoff, Anthony J. (Animal Sciences and Industry), US Department of Agriculture, $28,744, "Mitigation of Fluoroquinolone-resistant Campylobacter in Cattle."

Coetzee, Johann F., US Department of Agriculture, $500,000, "Optimizing an Immunocastration Vaccine Ear Implant to Prevent Pain Associated with Bovine Castration."

Comer, Jeffrey R., and Tamura, Masaaki, euglena Co., Ltd, $6,140, "The Study of the T Cell Activation Potential of the Paramylon from Euglena Gracilis."

Comer, Jeffrey R., McGill, Jodi L. (Diagnostic Medicine/Pathobiology), Tamura, Masaaki, and Yang, Zhilong (Biology), Kansas State University Foundation, $5,250, "2017 Innovation Research Award."

Comer, Jeffrey R., Aikens, Christine M. (Chemistry), Andresen, Daniel A. (Computer Science), Liu, Bin (Chemical Engineering), Schmit, Jeremy D. (Physics), and Smith, Paul E. (Chemistry), National Science Foundation, $59,500, "MRI: Acquisition of a GPU-Enabled Compute Cluster for Molecular Modeling Applications."

Comer, Jeffrey R., McGill, Jodi L. (Diagnostic Medicine/Pathobiology), and Tamura, Masaaki, US Department of Health and Human Services, $140,600, "Cancer-targeted Local Pulmonary Immunotherapy with PD-L1 Inhibitory Peptide Secretory Genes for the Treatment of Lung Cancer."

DeLong, Robert K., Kansas State University Foundation, $11,000, "2017 Innovation Research Award."


Fong, Peying, Kansas State University Foundation, $11,000, "2017 Innovative Research Award."

Gehring, Ronette, and Volkova, Victoriya (Diagnostic Medicine/Pathobiology), US Department of Health and Human Services, $7,434, "Investigating Pharmacodynamics of Antimicrobials against Bacteria Accumulating Resistance."

Kukanich, Stanley P., Kukanich, Katherine (Clinical Sciences), and Rankin, David (Clinical Sciences), American Veterinary Medical Association Foundation, $17,330, "Development of an Abuse Resistant Analgesic for Dogs with Moderate to Severe Pain."

Lillich, James D., Fang, Ying (Diagnostic Medicine/Pathobiology), Henningson, Jamie N. (Veterinary Diagnostic Laboratory), and Rowland, Raymond R. R. (Diagnostic Medicine/Pathobiology), US Department of Health and Human Services, $45,600, "Establish a Pregnant Sow Model for Assessment of Influenza Vaccine Safety and Efficacy During Pregnancy."

Lin, Zhoumeng, US Department of Agriculture, $100,000, "Food Animal Residue Avoidance Databank (FARAD)."

Lin, Zhoumeng, Coetzee, Johann F., and Tarpoff, Anthony J. (Animal Sciences and Industry), US Department of Agriculture, $16,908, "Mitigation of Fluoroquinolone-resistant Campylobacter in Cattle."

Lin, Zhoumeng, and DeLong, Robert K., US Department of Health and Human Services, $72,200, "Physiologically Based Pharmacokinetic Modeling and Analysis of Nanoparticle Delivery to Tumors."


Poole, David C., and Behnke, Brad J. (Kinesiology), US Department of Health and Human Services, $40,951, "Novel Strategies to Prevent Respiratory Muscle Vascular Dysfunction with Mechanical Ventilation."

Schultz, Bruce D., and Wangemann, A. Philine, US Department of Health and Human Services, $16,377, "BRITE Veterinary Student Program."

Schultz, Bruce D., Davis, Elizabeth G. (Clinical Sciences), and Nguyen, Thu A. (Diagnostic Medicine/Pathobiology), US Department of Health and Human Services, $301, "Short Term Training in Health Professional Schools."

Shi, Jishu N., Blecha, Frank (Dean of Veterinary Medical Center), and Wang, Lei (Dean of Veterinary Medical Center), Zoetis LLC, $90,000, "International Veterinary Collaboration for China DVM Program."


Tamura, Masaaki, and Comer, Jeffrey R., euglena Co., Ltd, $14,328, "The Study of the T Cell Activation Potential of the Paramylon from Euglena Gracilis."

Tamura, Masaaki, Comer, Jeffrey R., McGill, Jodi L. (Diagnostic Medicine/Pathobiology), and Yang, Zhilong (Biology), Kansas State University Foundation, $5,250, "2017 Innovation Research Award."


Wang, Lihua, and Shi, Jishu N., National Pork Board, $9,250, "Development and Validation of Two Anti-CSFV-specific Antibody Competitive ELISAs with an Emphasis on the Differentiation of Infected from Vaccinated Animals."

Wangemann, A. Philine, and Schultz, Bruce D., US Department of Health and Human Services, $16,377, "BRITE Veterinary Student Program."

Weiss, Mark L., Cellphire, Inc., $56,000, "Evaluate Human Freeze Dried Human Platelet Product, Thrombosomes® for use in Expansion of Human Mesenchymal Stromal Cells (MSCs) and Isolation of MSCs."

Weiss, Mark L., MediVet Biologics, $5,100, "Evaluation of 3 Naïve Canine UC-MSC Lines for TLR3 and TLR4 Expression."

Xiong, Yulan, American Parkinson Disease Association Inc., $50,000, "Functional Analysis of LRRK2 Enzymatic Activities with Aging."

Xiong, Yulan, William N. and Bernice E. Bumpus Foundation, $50,000, "Identification and Characterization of the LRRK2 Guanine Nucleotide-Exchange Factor (GEF)."

CLINICAL SCIENCES


Amachawadi, Raghavendra G., Bai, Jianfa (Veterinary Diagnostic Laboratory), DeRouchey, Joel M. (Animal Sciences and Industry), Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D. (Animal Sciences and Industry), Nagaraja, Tiruvoor G. (Diagnostic Medicine/Pathobiology), Tokach, Michael D. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), National Pork Board,
$18,779, "Shiga Toxin-producing Escherichia Coli in Swine Feces in Commercial Production Systems and Assessment of Public Health Implications."

Amachawadi, Raghavendra G., Apley, Michael D., Lubbers, Brian (Veterinary Diagnostic Laboratory), and Nagaraja, Tiruvoor G. (Diagnostic Medicine/Pathobiology), Sensient Technologies Corporation, $8,645, "Antibacterial Effects of Sensient Yeast Product on Foodborne Pathogenic Bacteria."

Amachawadi, Raghavendra G., Coetzee, Johann F. (Anatomy and Physiology), Hanzlicek, Gregg A. (Veterinary Diagnostic Laboratory), Olson, K C (Animal Sciences and Industry), Reif, Kathryn E. (Diagnostic Medicine/Pathobiology), Reppert, Emily, Shuman, Cindy (Dean of Education), and White, Bradley J. (Dean of Veterinary Medical Center), US Department of Agriculture, $59,997, "Mitigation of Antimicrobial Resistance through Alternative Treatment Regimens to Control Bovine Anaplasmosis."

Apley, Michael D., Amachawadi, Raghavendra G., Lubbers, Brian (Veterinary Diagnostic Laboratory), and Nagaraja, Tiruvoor G. (Diagnostic Medicine/Pathobiology), Sensient Technologies Corporation, $1,235, "Antibacterial Effects of Sensient Yeast Product on Foodborne Pathogenic Bacteria."

Apley, Michael D., and Lubbers, Brian (Veterinary Diagnostic Laboratory), US Department of Health and Human Services, $201,000, "Characterization of Antimicrobial Use in Beef Feedlots and Dairies."

Beard, Warren L., Biller, David S., Ganta, Chanran K. (Veterinary Diagnostic Laboratory), and Prakash, Punit (Electrical and Computer Engineering), US Department of Health and Human Services, "Bronchoscope-guided Microwave Ablation of Early-Stage Lung Tumors."

Biller, David S., Beard, Warren L., Ganta, Chanran K. (Veterinary Diagnostic Laboratory), and Prakash, Punit (Electrical and Computer Engineering), US Department of Health and Human Services, "Bronchoscope-guided Microwave Ablation of Early-Stage Lung Tumors."

Davis, Elizabeth G., and Rush, Bonnie R. (Dean of Veterinary Medical Center), PetSmart Charities, $118,254, "Shelter Medicine Program at Kansas State University."

Davis, Elizabeth G., Nguyen, Thu A. (Diagnostic Medicine/Pathobiology), and Schultz, Bruce D. (Anatomy and Physiology), US Department of Health and Human Services, $292, "Short Term Training in Health Professional Schools."

Eshar, David, Meekins, Jessica, and Thomason, Justin D., Association of Exotic Mammal Veterinarians, $2,760, "Comparison of Dexmedetomidine-Ketamine with Isoflurane for Anesthesia of Black-tailed Prairie Dogs (Cynomys ludovicianus)."

Higginbotham, Mary Lynn, and Wouda, Raelene, Johnson Center for Basic Cancer Research, $2,400, "Center of Excellence Planning Grant on Veterinary Oncology."

Higginbotham, Mary Lynn, and Wouda, Raelene, Morris Animal Foundation, $2,466, "D16CA-518: A Contemporaneous Controlled Study of the Standard of Care (SOC) in Dogs with Appendicular Osteosarcoma."
Higginbotham, Mary Lynn, Coffee, Calli (Veterinary Health Center), Sheppard, Sabina P. (Veterinary Health Center), and Wouda, Raelene, Morris Animal Foundation, $8,359, "The Use of a Recombinant, Attenuated Listeria Monocytogenes Expressing a Chimeric Human HER2/neu Protein to Prevent Metastatic Osteosarcoma."

KuKanich, Katherine, Kukanich, Stanley P. (Anatomy and Physiology), and Rankin, David, American Veterinary Medical Association Foundation, $4,951, "Development of an Abuse Resistant Analgesic for Dogs with Moderate to Severe Pain."

Larson, Robert L., Amrine, David E. (Dean of Veterinary Medical Center), and White, Bradley J. (Dean of Veterinary Medical Center), Academy of Veterinary Consultants, $9,899, "Online Continuing Education for Academy of Veterinary Consultants."

Meekins, Jessica, Eshar, David, and Thomason, Justin D., Association of Exotic Mammal Veterinarians, $920, "Comparison of Dexmedetomidine-Ketamine with Isoflurane for Anesthesia of Black-tailed Prairie Dogs (Cynomys ludvicianus)."

Rankin, David, KuKanich, Katherine, and Kukanich, Stanley P. (Anatomy and Physiology), American Veterinary Medical Association Foundation, $2,476, "Development of an Abuse Resistant Analgesic for Dogs with Moderate to Severe Pain."

Reppert, Emily, Amachawadi, Raghavendra G., Coetzee, Johann F. (Anatomy and Physiology), Hanzlicek, Gregg A. (Veterinary Diagnostic Laboratory), Olson, K C (Animal Sciences and Industry), Reif, Kathryn E. (Diagnostic Medicine/Pathobiology), Shuman, Cindy (Dean of Education), and White, Bradley J. (Dean of Veterinary Medical Center), US Department of Agriculture, $59,997, "Mitigation of Antimicrobial Resistance through Alternative Treatment Regimens to Control Bovine Anaplasmosis."

Schermerhorn, Thomas, Baycom Diagnostic LLC, $15,000, "Investigation of Blood HbA1c as a Marker for Glucose Control in Diabetic Dogs."

Thomason, Justin D., Eshar, David, and Meekins, Jessica, Association of Exotic Mammal Veterinarians, $920, "Comparison of Dexmedetomidine-Ketamine with Isoflurane for Anesthesia of Black-tailed Prairie Dogs (Cynomys ludvicianus)."

White, Bradley J., Nagaraja, Tiruvoor G. (Diagnostic Medicine/Pathobiology), Renter, David G. (Diagnostic Medicine/Pathobiology), and Sanderson, Michael W. (Diagnostic Medicine/Pathobiology), US Department of Health and Human Services, $108,878, "Exposure Heterogeneity and Environmental Transmission Dynamics of Escherichia coli: Linking Mechanisms and Patterns."

Wouda, Raelene, and Higginbotham, Mary Lynn, Johnson Center for Basic Cancer Research, $3,600, "Center of Excellence Planning Grant on Veterinary Oncology."

Wouda, Raelene, and Higginbotham, Mary Lynn, Morris Animal Foundation, $2,466, "D16CA-518: A Contemporaneous Controlled Study of the Standard of Care (SOC) in Dogs with Appendicular Osteosarcoma."
Wouda, Raelene, Coffee, Calli (Veterinary Health Center), Higinbotham, Mary Lynn, and Sheppard, Sabina P. (Veterinary Health Center), Morris Animal Foundation, $8,359, "The Use of a Recombinant, Attenuated Listeria Monocytogenes Expressing a Chimeric Human HER2/neu Protein to Prevent Metastatic Osteosarcoma."

**DEAN OF VETERINARY MEDICAL CENTER**

Amrine, David E., Larson, Robert L. (Clinical Sciences), and White, Bradley J., Academy of Veterinary Consultants, $9,899, "Online Continuing Education for Academy of Veterinary Consultants."

Beckham, Tammy R., US Department of Defense, $495,569, "Intergovernmental Personnel Act Agreement with DTRA."

Blecha, Frank, Shi, Jishu N. (Anatomy and Physiology), and Wang, Lei, Zoetis LLC, $20,000, "International Veterinary Collaboration for China DVM Program."

Rush, Bonnie R., and Davis, Elizabeth G. (Clinical Sciences), PetSmart Charities, $118,254, "Shelter Medicine Program at Kansas State University."

Sebhatu, Tesfaalem T., Burton, Kenneth R. (National Agricultural Biosecurity Center), Lockhart, Caryl Y. (Diagnostic Medicine/Pathobiology), Richt, Juergen (Diagnostic Medicine/Pathobiology), and Scoglio, Caterina M. (Electrical and Computer Engineering), US Department of Agriculture, $15,530, "In-depth Investigation of the Epidemiology of Rift Valley Fever Outbreak in Kabale District, Uganda."

Wang, Lei, Blecha, Frank, and Shi, Jishu N. (Anatomy and Physiology), Zoetis LLC, $90,000, "International Veterinary Collaboration for China DVM Program."

White, Bradley J., Amrine, David E., and Larson, Robert L. (Clinical Sciences), Academy of Veterinary Consultants, $10,199, "Online Continuing Education for Academy of Veterinary Consultants."

White, Bradley J., American Association of Small Ruminant Practitioners, $9,600, "Creation of Online Education modules for the American Association of Small Ruminant Practitioners."

White, Bradley J., Boehringer Ingelheim, $95,000, "Development of Web-based risk Analysis Calculator for trichomoniasis in Cattle."

White, Bradley J., Kansas Department of Agriculture, $85,800, "Kansas Cattle Traceability Pilot Project."

White, Bradley J., Amachawadi, Raghavendra G. (Clinical Sciences), Coetzee, Johann F. (Anatomy and Physiology), Hanzlicek, Gregg A. (Veterinary Diagnostic Laboratory), Olson, K C (Animal Sciences and Industry), Reif, Kathryn E. (Diagnostic Medicine/Pathobiology), Reppert, Emily (Clinical Sciences), and Shuman, Cindy (Dean of Education), US Department of Agriculture, $59,997, "Mitigation of Antimicrobial Resistance through Alternative Treatment Regimens to Control Bovine Anaplasmosis."
White, Bradley J., US Department of Agriculture, $50,000, "Validation of Within-farm Disease-spread Model in InterSpread Plus with Data Collected from US Feedlots."

DIAGNOSTIC MEDICINE/PATHOBIOLOGY
Cernicchiaro, Natalia, Nagaraja, Tiruvoor G., and Renter, David G., Legacy Animal Nutrition, $58,061, "Randomized Complete Block Design to Evaluate the Efficacy of BactaShield at Reducing Shedding of Escherichia coli O157:H7 in Feces of Commercial Finishing Cattle."

Cernicchiaro, Natalia, and Renter, David G., Zoetis LLC, $81,097, "Various Zoetis Projects for 2017-2018."

Chang, Kyeong-Ok, and Kim, Yunjeong, Median Diagnostics, Inc., $10,500, "Protease-Activated Receptor-2 Inhibitors for Treating Dermatitis in Dogs."

Chang, Kyeong-Ok, US Department of Health and Human Services, $734,295, "Norovirus 3CL Protease-Based Anti-Norovirus Therapeutics."

Chang, Kyeong-Ok, and Kim, Yunjeong, US Department of Health and Human Services, $387,958, "Small Molecule Protease Inhibitors against MERS-CoV."

Cino Ozuna, Ada G., US Department of Health and Human Services, $50,533, "Expanding the Utility of Severe Combined Immuno-deficient (SCID) Pig Models."


Dritz, Steven S., DeRouche, Joel M. (Animal Sciences and Industry), Goodband, Robert D. (Animal Sciences and Industry), Tokach, Michael D. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), Ajinomoto Co., Inc, $4,000, "Influence of Fermentation Byproduct on Urine pH."


Dritz, Steven S., DeRouche, Joel M. (Animal Sciences and Industry), Goodband, Robert D. (Animal Sciences and Industry), Tokach, Michael D. (Animal Sciences and Industry),
and Woodworth, Jason C. (Animal Sciences and Industry), DSM Nutritional Products AG, $17,800, "Studies to Evaluate the Effects of Phytase in Swine Diets or Premixes."

Dritz, Steven S., DeRouchey, Joel M. (Animal Sciences and Industry), Goodband, Robert D. (Animal Sciences and Industry), Tokach, Michael D. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), JBS USA, $12,000, "JBS Live Park Applied Swine Nutrition Fellowship."

Dritz, Steven S., Drouillard, James S. (Animal Sciences and Industry), Lattimer, James M. (Animal Sciences and Industry), Tokach, Michael D. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), Kansas Corn Commission, $8,400, "Synthesis of High-value Feed Additives through Fermentation of Biofuels Co-products."

Dritz, Steven S., DeRouchey, Joel M. (Animal Sciences and Industry), Goodband, Robert D. (Animal Sciences and Industry), Tokach, Michael D. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), Kemin Industries, $5,000, "Evaluation of a Medium Chain Fatty Acid (MCFA) Based Ingredient in Nursery Pig Diets."

Dritz, Steven S., DeRouchey, Joel M. (Animal Sciences and Industry), Goodband, Robert D. (Animal Sciences and Industry), Tokach, Michael D. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), Lincolnway Energy, LLC, $8,000, "Effects of High Protein DDGS on Growth Performance of Nursery Pigs."


Dritz, Steven S., DeRouchey, Joel M. (Animal Sciences and Industry), Goodband, Robert D. (Animal Sciences and Industry), Tokach, Michael D. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), Micronutrients, $5,000, "Effects of Increasing Levels of Zn from Zinc Sulfate or Intellibond Z on Finishing Pig Growth Performance, Carcass Characteristics and Economic Return."

Dritz, Steven S., DeRouchey, Joel M. (Animal Sciences and Industry), Goodband, Robert D. (Animal Sciences and Industry), Tokach, Michael D. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), Minnesota Pork Board, $20,731 (includes $7,000 from Third Party Match), "Supplying Increased SID Lys and Energy During Transition to Improve PigletSurvivability, Sow Productivity, and Litter Performance."


Dritz, Steven S., Amachawadi, Raghavendra G. (Clinical Sciences), Bai, Jianfa (Veterinary Diagnostic Laboratory), DeRouchey, Joel M. (Animal Sciences and Industry), Goodband, Robert D. (Animal Sciences and Industry), Nagaraja, Tiruvoir G., Tokach, Michael D. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), National Pork Board, $4,695, "Shiga Toxin-producing Escherichia Coli in Swine Feces in Commercial Production Systems and Assessment of Public Health Implications."


Dritz, Steven S., DeRouchey, Joel M. (Animal Sciences and Industry), Goodband, Robert D. (Animal Sciences and Industry), Tokach, Michael D. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), PIC North America (PIC USA, Inc.), $5,600, "Determining the Effects of Different Ca:P Ratios on Growth Performance, Carcass Characteristics, Bone Mineralization, and Economics of Growing-Finishing Pigs."


Dritz, Steven S., Jones, Cassandra K. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), Purina Animal Nutrition, LLC, $3,564, "PMI Nutritional Additives: Assessing the Effects of MCFA on PEDV Quantity and Infectivity."


Dritz, Steven S., Jones, Cassandra K. (Animal Sciences and Industry), Niederwerder, Megan, Rowland, Raymond R. R., Tokach, Michael D. (Animal Sciences and Industry), Rowland, Raymond R. R., Trinetta, Valentina (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), Swine Health Information Center, $1,075, "Validation of a Low-cost Tool for Senecavirus A Detection, and Surveillance of Viral Prevalence in United States Feed Mills."
Dryden, Michael W., and Herrin, Brian, Elanco Animal Health, $63,249, "Lotilaner and Spinosad to Control Flea Populations on Naturally Infested Dogs in Private Residences in West Central FL USA."

Dryden, Michael W., Merck Animal Health, $180,500, "Support Funds: Evidence Based Small Animal Clinical Parasitology Training Course."

Fang, Ying, CPG Overseas Company Limited, $22,680, "PRRSV IFA and qTR-PCR Test."

Fang, Ying, Hesse, Richard, and Marthaler, Douglas (Veterinary Diagnostic Laboratory), National Pork Board, $30,720, "The Effect of Natural Planned Exposure on Sow Immunity and Passive Immunity in their Piglets via Genotype Specific Rotavirus A and C ELISA."

Fang, Ying, Anderson, Gary A. (Veterinary Diagnostic Laboratory), Bai, Jianfa (Veterinary Diagnostic Laboratory), Li, Yanhua, Liu, Xuming (Veterinary Diagnostic Laboratory), and Peddireddi, Lalitha (Veterinary Diagnostic Laboratory), Swine Health Information Center, $10,080, "Development and Evaluation of Antibody Detection Assay for PCV3 Virus."

Fang, Ying, and Marthaler, Douglas (Veterinary Diagnostic Laboratory), Swine Health Information Center, $21,025, "Development and validation of a rapid ELISA to detect IgA, IgM and IgG in serum and oral fluids to porcine teschovirus."

Fang, Ying, and Marthaler, Douglas (Veterinary Diagnostic Laboratory), Swine Health Information Center, $33,017, "Development and validation of ELISA IgA, IgM and IgG in serum and oral fluids to porcine Sapelovirus."

Fang, Ying, Anderson, Gary A. (Veterinary Diagnostic Laboratory), Bai, Jianfa (Veterinary Diagnostic Laboratory), Li, Yanhua, Liu, Xuming (Veterinary Diagnostic Laboratory), Ma, Wenjun, and Peddireddi, Lalitha (Veterinary Diagnostic Laboratory), Swine Health Information Center, $21,220, "Development of Antibody Detection Assay for Swine Influenza B, C, and D Viruses."

Fang, Ying, Henningson, Jamie N. (Veterinary Diagnostic Laboratory), Lillich, James D. (Anatomy and Physiology), and Rowland, Raymond R. R., US Department of Health and Human Services, $319,200, "Establish a Pregnant Sow Model for Assessment of Influenza Vaccine Safety and Efficacy During Pregnancy."

Ganta, Roman Reddy R., ABAXIS, Inc., $375,572, "Indirect Fluorescent Antibody Test Assessment of Ehrlichia, Anaplasma and Borreliz Species Infections in Dogs."

Ganta, Roman Reddy R., Merial Limited, $66,386, "Evaluation of Clinical Protection Afforded by Prototypes Vaccines in Ehrlichia Canis Laboratory Model in Dogs."

Ganta, Roman Reddy R., Saint George's University, $60,000, "Postdoctoral Scholars Program (PSP) Training Grant."

Ganta, Roman Reddy R., US Department of Health and Human Services, $441,044, "Vector and Host Contributions to the Regulation of E. chaffeensis Gene Expression."

Hardwidge, Philip R., US Department of Health and Human Services, $225,000, "Functions of Translocated Bacterial Glycosyltransferases."

Herrin, Brian, and Dryden, Michael W., Elanco Animal Health, $63,249, "Lotilaner and Spinosad to Control Flea Populations on Naturally Infested Dogs in Private Residences in West Central FL USA."

Hesse, Richard, Fang, Ying, and Marthaler, Douglas (Veterinary Diagnostic Laboratory), National Pork Board, $7,680, "The Effect of Natural Planned Exposure on Sow Immunity and Passive Immunity in their Piglets via Genotype Specific Rotavirus A and C ELISA."

Huang, Yan-Jang S., and Vanlandingham, Dana L., Regents of the University of Minnesota, $1,520, "The Antigenicity of Recombinant West Nile Virus Antigens in Rabbits."

Kim, Yunjeong, and Chang, Kyeong-Ok, Median Diagnostics, Inc., $10,500, "Protease-Activated Receptor-2 Inhibitors for Treating Dermatitis in Dogs."

Kim, Yunjeong, and Chang, Kyeong-Ok, US Department of Health and Human Services, $387,958, "Small Molecule Protease Inhibitors against MERS-CoV."

Li, Yanhua, Anderson, Gary A. (Veterinary Diagnostic Laboratory), Bai, Jianfa (Veterinary Diagnostic Laboratory), Fang, Ying, Liu, Xuming (Veterinary Diagnostic Laboratory), and Peddireddi, Lalitha (Veterinary Diagnostic Laboratory), Swine Health Information Center, $3,360, "Development and Evaluation of Antibody Detection Assay for PCV3 Virus."

Li, Yanhua, Anderson, Gary A. (Veterinary Diagnostic Laboratory), Bai, Jianfa (Veterinary Diagnostic Laboratory), Fang, Ying, Liu, Xuming (Veterinary Diagnostic Laboratory), Ma, Wenjun, and Peddireddi, Lalitha (Veterinary Diagnostic Laboratory), Swine Health Information Center, $5,305, "Development of Antibody Detection Assay for Swine Influenza B, C, and D Viruses."


Lockhart, Caryl Y., Burton, Kenneth R. (National Agricultural Biosecurity Center), Richt, Juergen, Scoglio, Caterina M. (Electrical and Computer Engineering), and Sebhatu, Tesfaalem T. (Dean of Veterinary Medical Center), US Department of Agriculture, $4,271, "In-depth Investigation of the Epidemiology of Rift Valley Fever Outbreak in Kabale District, Uganda."

Ma, Wenjun, Anderson, Gary A. (Veterinary Diagnostic Laboratory), Bai, Jianfa (Veterinary Diagnostic Laboratory), Fang, Ying, Li, Yanhua, Liu, Xuming (Veterinary Diagnostic Laboratory), and Peddireddi, Lalitha (Veterinary Diagnostic Laboratory), Swine Health Information Center, $10,610, "Development of Antibody Detection Assay for Swine Influenza B, C, and D Viruses."

Ma, Wenjun, US Department of Health and Human Services, $423,172, "Biology and Infection of Bats with Novel Bat Influenza Viruses."
Ma, Wenjun, US Department of Health and Human Services, $180,759, "Evolution and Biology of Influenza B Viruses in Pigs."

Ma, Wenjun, and Richt, Juergen, US Department of Health and Human Services, $40,134, "Host Dependence of Influenza A Virus Reassortment."


McGill, Jodi L., and Bradford, Barry J. (Animal Sciences and Industry), Cargill Animal Nutrition, $57,000, "In vitro Screening System for Immune-Modulating Feed Components."

McGill, Jodi L., Kansas Board of Regents, $25,000, "A Novel In Vivo Assay for Predicting Correlates of Protection From Tuberculosis."

McGill, Jodi L., Comer, Jeffrey R. (Anatomy and Physiology), Tamura, Masaaki (Anatomy and Physiology), and Yang, Zhilong (Biology), Kansas State University Foundation, $5,250, "2017 Innovation Research Award."


McGill, Jodi L., Comer, Jeffrey R. (Anatomy and Physiology), and Tamura, Masaaki (Anatomy and Physiology), US Department of Health and Human Services, "Cancer-targeted Local Pulmonary Immunotherapy with PD-L1 Inhibitory Peptide Secretory Genes for the Treatment of Lung Cancer."

McGill, Jodi L., US Department of Health and Human Services, $228,000, "Determining the Role of Interleukin-17 in the Immune Response to Respiratory Syncytial Virus Infection."


Mwangi, Waithaka, US Department of Agriculture, $495,000, "Improved Vaccine Platforms for Safe and Effective Control of Bovine Niral Diarrhea Virus."

Mwangi, Waithaka, US Department of Health and Human Services, $59,413, "Defining clinically relevant viral epitopes with cow antibodies."

Nagaraja, Tiruvoor G., Cernicchiaro, Natalia, and Renter, David G., Legacy Animal Nutrition, $8,294, "Randomized Complete Block Design to Evaluate the Efficacy of BactaShield at Reducing Shedding of Escherichia coli O157:H7 in Feces of Commercial Finishing Cattle."


Nagaraja, Tiruvoor G., Amachawadi, Raghavendra G. (Clinical Sciences), Apley, Michael D. (Clinical Sciences), and Lubbers, Brian (Veterinary Diagnostic Laboratory), Sensient Technologies Corporation, $1,235, "Antibacterial Effects of Sensient Yeast Product on Foodborne Pathogenic Bacteria."

Nagaraja, Tiruvoor G., Renter, David G., Sanderson, Michael W., and White, Bradley J. (Clinical Sciences), US Department of Health and Human Services, $27,220, "Exposure Heterogeneity and Environmental Transmission Dynamics of Escherichia coli: Linking Mechanisms and Patterns."

Nguyen, Thu A., Boehringer Ingelheim, $15,000, "2018 Boehringer Ingelheim Veterinary Scholars Program."

Nguyen, Thu A., Johnson Center for Basic Cancer Research, $109,247, "Development of 3D Heterogeneous Tumor Spheroids."

Nguyen, Thu A., Davis, Elizabeth G. (Clinical Sciences), and Schultz, Bruce D. (Anatomy and Physiology), US Department of Health and Human Services, $292, "Short Term Training in Health Professional Schools."


Reif, Kathryn E., and Coetzee, Johann F. (Anatomy and Physiology), Kansas City Area Life Sciences Institute, $45,000, "Assay Development and Validation for Intraerythrocytic Pathogen Drug Screening."

Reif, Kathryn E., Amachawadi, Raghavendra G. (Clinical Sciences), Coetzee, Johann F. (Anatomy and Physiology), Hanzlicek, Gregg A. (Veterinary Diagnostic Laboratory), Olson, KC (Animal Sciences and Industry), Reppert, Emily (Clinical Sciences), Shuman, Cindy (Dean of Education), and White, Bradley J. (Dean of Veterinary Medical Center), US Department of Agriculture, $827,964, "Mitigation of Antimicrobial Resistance through Alternative Treatment Regimens to Control Bovine Anaplasmosis."


Renter, David G., Nagaraja, Tiruvoor G., Sanderson, Michael W., and White, Bradley J. (Clinical Sciences), US Department of Health and Human Services, $13,610, "Exposure Heterogeneity and Environmental Transmission Dynamics of Escherichia coli: Linking Mechanisms and Patterns."


Richt, Juergen, Innovate UK, $110,887, "Multivalent Attenuated Vaccine Against Viral and Bacterial Zoonoses in Ruminants."

Richt, Juergen, Burton, Kenneth R. (National Agricultural Biosecurity Center), Lockhart, Caryl Y., Scoglio, Caterina M. (Electrical and Computer Engineering), and Sebhatu, Tesfaalem T. (Dean of Veterinary Medical Center), US Department of Agriculture, $9,706, "In-depth Investigation of the Epidemiology of Rift Valley Fever Outbreak in Kabale District, Uganda."

Richt, Juergen, US Department of Agriculture, $52,492, "Molecular Analytical Methods Development to Support Arbovirus Research."

Richt, Juergen, US Department of Agriculture, $198,720, "Understanding Pathogenesis and Epidemiology for Controlling Foreign Animal Diseases."

Richt, Juergen, US Department of Defense, $1,058,164, "Determining the Ability of rVSV-ZEBOV to Infect Domestic Livestock."

Richt, Juergen, US Department of Health and Human Services, $157,263, "Harnessing Natural Killer T Cells to Counteract Swine Influenza."
Richt, Juergen, and Ma, Wenjun, US Department of Health and Human Services, $60,201, "Host Dependence of Influenza A Virus Reassortment."

Richt, Juergen, US Department of Health and Human Services, $25,500, "Interaction between Rift Valley Fever Virus Glycoprotein and Heparan Sulfate."


Rowland, Raymond R. R., Ansera Analytics, $5,000, "ANSERA ANALYTICS -Stability of virus over time in Hydrogel matrices."


Rowland, Raymond R. R., PIC North America (PIC USA, Inc.), $9,000, "Use of Genetically Modified Pigs to Evaluate PRRS Virus Susceptibility."

Rowland, Raymond R. R., Dritz, Steven S., Jones, Cassandra K. (Animal Sciences and Industry), Niederwerder, Megan, Tokach, Michael D. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), Swine Health Information Center, $17,738, "Assessing Tools for the Mitigation of Foreign Animal Disease Introduction and Transmission in Feed."

Rowland, Raymond R. R., Dritz, Steven S., Jones, Cassandra K. (Animal Sciences and Industry), Niederwerder, Megan (Veterinary Diagnostic Laboratory), Paulk, Chad B. (Grain Science and Industry), Trinetta, Valentina (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), Swine Health Information Center, $1,075, "Validation of a Low-cost Tool for Senecavirus A Detection, and Surveillance of Viral Prevalence in United States Feed Mills."


Rowland, Raymond R. R., US Department of Agriculture, $62,496, "Genetically Improving Resistance of Pigs to PRRS Virus Infection."

Rowland, Raymond R. R., US Department of Agriculture, $10,000, "Workshop on Global Challenges in Swine Infectious Diseases."

Rowland, Raymond R. R., Fang, Ying, Henningson, Jamie N. (Veterinary Diagnostic Laboratory), and Lillich, James D. (Anatomy and Physiology), US Department of Health and Human Services, $45,600, "Establish a Pregnant Sow Model for Assessment of Influenza Vaccine Safety and Efficacy During Pregnancy."

Sanderson, Michael W., US Department of Agriculture, $44,700, "A Secure Beef Supply (SBS) Plan for Business Continuity in a Foot and Mouth Disease Outbreak."

Sanderson, Michael W., US Department of Agriculture, $21,846, "Ensemble Prediction for Foot-and-Mouth Disease."

Sanderson, Michael W., Nagaraja, Tiruvoor G., Renter, David G., and White, Bradley J. (Clinical Sciences), US Department of Health and Human Services, $122,488, "Exposure Heterogeneity and Environmental Transmission Dynamics of Escherichia coli: Linking Mechanisms and Patterns."

Tokach, Lisa M., Tokach, Michael D. (Animal Sciences and Industry), and Vipham, Jessie (Dean of Agriculture and Director of AES), US Agency for International Development, "Improved Pig Health and Nutrition: The Major Drivers of Profitability and Sustainability for Smallholder Farmers in Cambodia."


Van Der Merwe, Deon, Flippo, Daniel (Biological and Agricultural Engineering), Sharda, Ajay (Biological and Agricultural Engineering), and SV, Krishna Jagadish (Agronomy), CNH Industrial America LLC, $1,475, "Testing and Evaluation Services Agreement."

Van Der Merwe, Deon, Flippo, Daniel (Biological and Agricultural Engineering), Schapaugh Jr, William T. (Agronomy), and Sharda, Ajay (Biological and Agricultural Engineering), Kansas Soybean Commission, $2,287, "Small Unmanned Aircraft Thermal Infrared Imaging System to Identify Soybean Drought Tolerant Varieties."

Van Der Merwe, Deon, and Zereyesus, Yacob (Agricultural Economics), US Agency for International Development, $1,791, "Mycotoxin Prevalence and Mitigation Measures in Ethiopia."

Vanlandingham, Dana L., and Huang, Yan-Jang S., Regents of the University of Minnesota, $1,520, "The Antigenicity of Recombinant West Nile Virus Antigens in Rabbits."

Volkova, Victoriya, and Gehring, Ronette (Anatomy and Physiology), US Department of Health and Human Services, $364,265, "Investigating Pharmacodynamics of Antimicrobials against Bacteria Accumulating Resistance."
Volkova, Victoriya, and Lubbers, Brian (Veterinary Diagnostic Laboratory), US Department of Health and Human Services, $125,000, "Retail Meat Surveillance in the State of Kansas as a Part of the National Antimicrobial Resistance Monitoring System."

Zhang, Weiping, Bill and Melinda Gates Foundation, $126,341, "STa Toxoid Vaccines Development (Phase III)."

Zhang, Weiping, Kansas City Area Life Sciences Institute, $25,000, "A Subunit Vaccine Against Shigella, Salmonella and Enterotoxigenic Escherichia Coli."

Zhang, Weiping, PATH Vaccine Solutions, $591, "A Broadly Protective Subunit Vaccine Against Enterotoxigenic Escherichia Coli Diarrhea."


VETERINARY DIAGNOSTIC LABORATORY
Anderson, Gary A., Bai, Jianfa, Fang, Ying (Diagnostic Medicine/Pathobiology), Li, Yanhua (Diagnostic Medicine/Pathobiology), Liu, Xuming, and Peddireddi, Lalitha, Swine Health Information Center, $3,360, "Development and Evaluation of Antibody Detection Assay for PCV3 Virus."

Anderson, Gary A., Bai, Jianfa, Fang, Ying (Diagnostic Medicine/Pathobiology), Li, Yanhua (Diagnostic Medicine/Pathobiology), Liu, Xuming, Ma, Wenjun (Diagnostic Medicine/Pathobiology), and Peddireddi, Lalitha, Swine Health Information Center, $5,305, "Development of Antibody Detection Assay for Swine Influenza B, C, and D Viruses."


Bai, Jianfa, Amachawadi, Raghavendra G. (Clinical Sciences), DeRouchey, Joel M. (Animal Sciences and Industry), Dritz, Steven S. (Diagnostic Medicine/Pathobiology), Goodband, Robert D. (Animal Sciences and Industry), Nagaraja, Tiruvvoor G.(Diagnostic Medicine/Pathobiology), Tokach, Michael D. (Animal Sciences and Industry), and Woodworth, Jason C. (Animal Sciences and Industry), National Pork Board, $14,084, "Shiga Toxin-producing Escherichia Coli in Swine Feces in Commercial Production Systems and Assessment of Public Health Implications."

Bai, Jianfa, Anderson, Gary A., Fang, Ying (Diagnostic Medicine/Pathobiology), Li, Yanhua (Diagnostic Medicine/Pathobiology), Liu, Xuming, and Peddireddi, Lalitha, Swine Health Information Center, $33,600, "Development and Evaluation of Antibody Detection Assay for PCV3 Virus."

Bai, Jianfa, Anderson, Gary A., Fang, Ying (Diagnostic Medicine/Pathobiology), Li, Yanhua (Diagnostic Medicine/Pathobiology), Liu, Xuming, Ma, Wenjun (Diagnostic Medicine/Pathobiology), and Peddireddi, Lalitha, Swine Health Information Center, $26,525, "Development of Antibody Detection Assay for Swine Influenza B, C, and D Viruses."
Ganta, Chanran K., Beard, Warren L. (Clinical Sciences), Biller, David S. (Clinical Sciences), and Prakash, Punit (Electrical and Computer Engineering), US Department of Health and Human Services, "Bronchoscope-guided Microwave Ablation of Early-Stage Lung Tumors."

Hanzlicek, Gregg A., Amachawadi, Raghavendra G. (Clinical Sciences), Coetzee, Johann F. (Anatomy and Physiology), Olson, K C (Animal Sciences and Industry), Reif, Kathryn E. (Diagnostic Medicine/Pathobiology), Reppert, Emily (Clinical Sciences), Shuman, Cindy (Dean of Education), and White, Bradley J. (Dean of Veterinary Medical Center), US Department of Agriculture, $23,999, "Mitigation of Antimicrobial Resistance through Alternative Treatment Regimens to Control Bovine Anaplasmosis."

Hanzlicek, Gregg A., and Henningson, Jamie N., US Department of Agriculture, $68,500, "NAHLN Support."


Henningson, Jamie N., Nebraska Department of Health, $9,500, "Rabies Lab Testing Contract."


Henningson, Jamie N., and Hanzlicek, Gregg A., US Department of Agriculture, $68,500, "NAHLN Support."

Henningson, Jamie N., Fang, Ying (Diagnostic Medicine/Pathobiology), Li, Yanhua (Diagnostic Medicine/Pathobiology), Lalitha, Swine Health Information Center, $13,440, "Establish a Pregnant Sow Model for Assessment of Influenza Vaccine Safety and Efficacy During Pregnancy."


Lubbers, Brian, Amachawadi, Raghavendra G. (Clinical Sciences), Apley, Michael D. (Clinical Sciences), and Nagaraja, Tiruvoor G. (Diagnostic Medicine/Pathobiology), Sensient Technologies Corporation, $1,235, "Antibacterial Effects of Sensient Yeast Product on Foodborne Pathogenic Bacteria."

Lubbers, Brian, and Apley, Michael D. (Clinical Sciences), US Department of Health and Human Services, $99,000, "Characterization of Antimicrobial Use in Beef Feedlots and Dairies."
**Lubbers, Brian**, US Department of Health and Human Services, $26,499, "KSVDL Vet-LRN Veterinary Diagnostic Laboratory Program."

**Lubbers, Brian**, and **Volkova, Victoriya** (Diagnostic Medicine/Pathobiology), US Department of Health and Human Services, "Retail Meat Surveillance in the State of Kansas as a Part of the National Antimicrobial Resistance Monitoring System."

**Marthaler, Douglas, Fang, Ying** (Diagnostic Medicine/Pathobiology), and **Hesse, Richard** (Diagnostic Medicine/Pathobiology), National Pork Board, $38,400, "The Effect of Natural Planned Exposure on Sow Immunity and Passive Immunity in their Piglets via Genotype Specific Rotavirus A and C ELISA."

**Marthaler, Douglas**, and **Fang, Ying** (Diagnostic Medicine/Pathobiology), Swine Health Information Center, $21,025, "Development and validation of a rapid ELISA to detect IgA, IgM and IgG in serum and oral fluids to porcine teschovirus."

**Marthaler, Douglas**, and **Fang, Ying** (Diagnostic Medicine/Pathobiology), Swine Health Information Center, $33,017, "Development and validation of ELISA IgA, IgM and IgG in serum and oral fluids to porcine Sapelovirus."

**Moore, Susan M.**, Corixa Corporation (d/b/a GSK Vaccines), $108,000, "In vivo Testing of In-house Reference Standard and Toxicity Lots of SAM-rabies CNE (Study No. 1 -010418)."

**Moore, Susan M.**, Corixa Corporation (d/b/a GSK Vaccines), $13,581, "Serology on Serum Samples Collected on a Repeated Dose Toxicity Study in Rats (CRO Study Number 1017-4901)."

**Moore, Susan M.**, Corixa Corporation (d/b/a GSK Vaccines), $7,648, "Serology on Serum Samples Collected on an Exploratory Toxicity Study in Rats -Alny Lipid Comparison (CRO Study Number 2327-14315)."


**Niederwerder, Megan, Dritz, Steven S.** (Diagnostic Medicine/Pathobiology), **Jones, Cassandra K.** (Animal Sciences and Industry), **Paulk, Chad B.** (Grain Science and Industry), **Rowland, Raymond R. R.** (Diagnostic Medicine/Pathobiology), **Trinetta, Valentina** (Animal Sciences and Industry), and **Woodworth, Jason C.** (Animal Sciences and Industry), Swine Health Information Center, $3,225, "Validation of a Low-cost Tool for Senecavirus A Detection, and Surveillance of Viral Prevalence in United States Feed Mills."

**Peddireddi, Lalitha, Anderson, Gary A., Bai, Jianfa, Fang, Ying** (Diagnostic Medicine/Pathobiology), **Li, Yanhua** (Diagnostic Medicine/Pathobiology), and **Liu, Xuming**, Swine Health Information Center, $3,360, "Development and Evaluation of Antibody Detection Assay for PCV3 Virus."

**Peddireddi, Lalitha, Anderson, Gary A., Bai, Jianfa, Fang, Ying** (Diagnostic Medicine/Pathobiology), **Li, Yanhua** (Diagnostic Medicine/Pathobiology), **Liu, Xuming**, and **Ma, Wenjun** (Diagnostic Medicine/Pathobiology), Swine Health Information Center, $5,305, "Development of Antibody Detection Assay for Swine Influenza B, C, and D Viruses."
Coffee, Calli, Higginbotham, Mary Lynn (Clinical Sciences), Sheppard, Sabina P., and Wouda, Raelene (Clinical Sciences), Morris Animal Foundation, $5,573, "The Use of a Recombinant, Attenuated Listeria Monocytogenes Expressing a Chimeric Human HER2/neu Protein to Prevent Metastatic Osteosarcoma."

Sheppard, Sabina P., Coffee, Calli, Higginbotham, Mary Lynn (Clinical Sciences), and Wouda, Raelene (Clinical Sciences), Morris Animal Foundation, $5,573, "The Use of a Recombinant, Attenuated Listeria Monocytogenes Expressing a Chimeric Human HER2/neu Protein to Prevent Metastatic Osteosarcoma."

FACILITIES MANAGEMENT

FACILITIES REFUSE AND RECYCLING
Spiegel, William D., Kansas Department of Health and Environment, $3,750, "Kansas State University Solid Waste Program."

KANSAS COOPERATIVE EXTENSION SERVICE

AGRICULTURE AND NATURAL RESOURCES
Hadley, Gregg L., US Department of Agriculture, $351,133, "Kansas Agricultural Mediation Service."

Sigle, Nadine J., and Hadley, Gregg L. (Director of Cooperative Extension), Hansen Foundation, Dane G, $24,640, "2018 Community Intern Initiative."

COUNTY AGENTS-METROPOLITAN SECTOR
Bates, Marlin A., Aramouni, Fadi M. (Animal Sciences and Industry), Gragg, Sara E. (Animal Sciences and Industry), Nwadike, Londa S. (Director of Cooperative Extension), Phebus, Randall K. (Animal Sciences and Industry), Pliakoni, Eleni (Horticulture and Natural Resources), and Rivard, Cary L. (Horticulture and Natural Resources), US Food and Drug Administration, $1,600, "Strategy for Successful Implementation of FSMA in the North Central Region through Adoption of a Systems Approach and Stakeholder Engagement Framework."

COUNTY AGENTS-NORTHEAST SECTOR
Tynon, Erin K., and Wiles, Bradford B. (School of Family Studies and Human Services), US Department of Agriculture, $6,250, "Quality, Affordable Child Care as Economic Development in Rural Communities."

DIRECTOR OF COOPERATIVE EXTENSION
Hadley, Gregg L., and Sigle, Nadine J. (Agriculture and Natural Resources), Hansen Foundation, Dane G, $24,640, "2018 Community Intern Initiative."

Hadley, Gregg L., Mack, Diane D. (Four-H Youth Development), and Weber, Wade (Four-H Youth Development), Monsanto Company, "2018 Agriculture Innovators Experience Implementation States Application."

Hadley, Gregg L., and Mack, Diane D. (Four-H Youth Development), US Department of Justice, "4-H National Mentoring Program (4-H NMP 8) Youth Futures Pilot."
Nwadike, Londa S., Coffey, Brian (Agricultural Economics), Pliakoni, Eleni (Horticulture and Natural Resources), Trinetta, Valentina (Animal Sciences and Industry), and Yucel, Umut (Animal Sciences and Industry), US Department of Agriculture, $7,009, "Effective Packing Practices to Control Postharvest Disease in Small Fruit Crops."


Peters, Paula, and Minton, J. Ernest (Dean of Agriculture and Director of AES), University of Missouri, $68,374, "Memorandum of Agreement."


Zimmerman, Jill A., Kansas Agriculture and Rural Leadership, Inc., $260,238, "Kansas Agriculture and Rural Leadership, Inc."

EXTENSION FAMILY AND CONSUMER SCIENCES
Procter, Sandra B., and Peters, Paula (Director of Cooperative Extension), US Department of Agriculture, $1,998,130, "Kansas Food Assistance Nutrition Education Plan."

FOUR-H YOUTH DEVELOPMENT
Mack, Diane D., Hadley, Gregg L. (Director of Cooperative Extension), and Weber, Wade, Monsanto Company, "2018 Agriculture Innovators Experience Implementation States Application."

Mack, Diane D., and Hadley, Gregg L. (Director of Cooperative Extension), US Department of Justice, $56,465, "4-H National Mentoring Program (4-H NMP 8) Youth Futures Pilot."

Potter, Shane A., US Department of Agriculture, $28,480, "Children, Youth and Families At-Risk: Professional Development and Technical Assistance (CYFAR PDTA)."

Weber, Wade, Hadley, Gregg L. (Director of Cooperative Extension), and Mack, Diane D., Monsanto Company, $20,000, "2018 Agriculture Innovators Experience Implementation States Application."

KANSAS FOREST SERVICE
Atchison, Robert L., US Department of Agriculture, $15,000, "High Resolution Land Cover and Wind Break Assessment Products of Kansas."

Biles, Larry E., City of Wichita, KS, $35,000, "Urban Tree Canopy Study."

Biles, Larry E., National Wild Turkey Federation, $23,790, "Agreement between Kansas State University/Kansas Forest Service and National Wild Turkey Federation."

Biles, Larry E., US Department of Agriculture, $11,368, "Conservation Research Program 2018."
Biles, Larry E., US Department of Agriculture, $1,137,644 (includes $500,779 from Third Party Match), "Consolidated Payment Grant 2017."

Biles, Larry E., US Department of Agriculture, $218,000 (includes $18,000 from In-Kind Match), "NRCS Technical Service Provider."

Biles, Larry E., Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Keane, Timothy D. (Landscape Architecture/Regional and Community Planning), Moorberg, Colby (Agronomy), Moore, Trisha L. (Biological and Agricultural Engineering), and Sheshukov, Aleksey Y. (Biological and Agricultural Engineering), US Department of the Interior, $9,327 (includes $2,537 from In-Kind), "Kansas Water Resources Research Institute 2016."

NORTHEAST AREA OFFICE

Duncan, Stewart R., Adee, Eric A. (Agronomy), Ciampitti, Ignacio (Agronomy), Griffin, Terry W. (Agricultural Economics), Lin, Xiaomao (Agronomy), and Shoup, Douglas E. (Southeast Area Office), Kansas Soybean Commission, $1,496, "The Quest of 100-Bushel Soybean: On-Farm Approach."


Duncan, Stewart R., Boyer, Cheryl R. (Horticulture and Natural Resources), Cloyd, Raymond A. (Entomology), Dewolf, Erick D. (Plant Pathology), Hoyle, Jared (Horticulture and Natural Resources), Johnson, Wendy A. (Entomology), Kennelly, Megan (Plant Pathology), McCormack, Brian P. (Entomology), Miller, Frannie L. (Entomology), Peterson, Dallas E. (Agronomy), Rivard, Cary L. (Horticulture and Natural Resources), Stiffler, Brooke (Entomology), Upham, Ward S. (Horticulture and Natural Resources), and Zukoff, Sarah N. (Southwest Research Extension Center), US Department of Agriculture, $12,307, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."

NORTHWEST AREA OFFICE
Falk Jones, Jeanne S., and Kumar, Vipan (Agricultural Research Center-Hays), Kansas Sunflower Commission, $1,000, "Influence of Rainfall on the Timing and Efficacy of PRE/POST Soil Residual Herbicides for Control of Herbicide-resistant Kochia and Palmer Amaranth."


Haag, Lucas A., Rice, Charles W. (Agronomy), Ruiz Diaz Suarez, Dorivar A. (Agronomy), and Sassenrath, Gretchen F. (Southeast Agricultural Research Center), Kansas Corn Commission, $2,450, "Evaluation of Soil Health Test to Determine Fertilizer Needs for Corn in Kansas."
Haag, Lucas A., Aguilar, Jonathan P. (Southwest Area Office), Ciampitti, Ignacio (Agronomy), and Patrignani, Andres (Agronomy), Kansas Corn Commission, $3,939, "Improving the Assessment of Soil Moisture Conditions in Irrigated Corn Using COSMOS."


Haag, Lucas A., Support Funds, $11,220, "XNW Support Funds Public Service Off Campus 26."


Johnson, Sandra K., Aguilar, Jonathan P. (Southwest Area Office), Aiken, Robert M. (Northwest Research Extension Center), Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Golden, Bill B. (Agricultural Economics), Holman, Johnathon D. (Southwest Research Extension Center), Jaeger, John R. (Agricultural Research Center-Hays), Kulesza, Stacey E. (Civil Engineering), Lamm, Freddie R. (Northwest Research Extension Center), Lin, Xiaomao (Agronomy), Obour, Augustine K. (Agricultural Research Center-Hays), O'Brien, Daniel M., Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), Steward, David R. (Civil Engineering), and Vandeveer, Monte L. (Southwest Area Office), US Department of Agriculture, $6,684, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."


O'Brien, Daniel M., Lamm, Freddie R. (Northwest Research Extension Center), and Schlegel, Alan J. (Southwest Research Extension Center), Kansas Corn Commission, "Working with Less Water for Corn Production."

O'Brien, Daniel M., Falk Jones, Jeanne S., Kumar, Vipan (Agricultural Research Center-Hays), and Stahlman, Phillip W. (Agricultural Research Center-Hays), National Sunflower Association, $1,300, "Influence of Rainfall on the Timing and Efficacy of PRE/POST Soil Residual Herbicides for Control of Herbicide-resistant Kochia and Palmer Amaranth."

O'Brien, Daniel M., Aguilar, Jonathan P. (Southwest Area Office), Aiken, Robert M. (Northwest Research Extension Center), Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Golden, Bill B. (Agricultural Economics), Holman, Johnathon D. (Southwest Research Extension Center), Jaeger, John R. (Agricultural Research Center-Hays), Johnson, Sandra K., Kulesza, Stacey E. (Civil Engineering), Lamm, Freddie R. (Northwest Research Extension Center), Lin, Xiaomao (Agronomy), Obour, Augustine K. (Agricultural Research Center-Hays), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), Steward, David R. (Civil Engineering), and Vandeveer, Monte
L. (Southwest Area Office), US Department of Agriculture, $3,342, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."

**SOUTHEAST AREA OFFICE**

Farney, Jaymelynn K., Merck Animal Health, $8,001, "Comparison of Revalor-G and Synovex One Grass on Double Stocked Native Flint Hills Pasture."

Farney, Jaymelynn K., NuTech Biosciences, Inc., $4,450, "Determine How Chelated Copper May Impact Endophyte In Fescue."

Farney, Jaymelynn K., Kulesza, Stacey E. (Civil Engineering), and Sassenrath, Gretchen F. (Southeast Agricultural Research Center), US Department of Agriculture, $4,999, "Improving Soil Health and Profitability with Cover Crops and Precision Conservation."

Shoup, Douglas E., DeWolf, Erick D. (Plant Pathology), Lin, Xiaomao (Agronomy), Lollato, Romulo P. (Agronomy), and Sassenrath, Gretchen F. (Southeast Agricultural Research Center), Kansas Crop Improvement Association, "Reducing the Impact of Fusarium Head Blight."


Shoup, Douglas E., Rice, Charles W. (Agronomy), Ruiz Diaz Suarez, Dorivar A. (Agronomy), and Sassenrath, Gretchen F. (Southeast Agricultural Research Center), Kansas Soybean Commission, $7,386, "Evaluation of Soil Health Test to Determine Fertilizer Needs for Soybean in Kansas."

Shoup, Douglas E., Jugulam, Mithila (Agronomy), Kumar, Vipan (Agricultural Research Center-Hays), Peterson, Dallas E. (Agronomy), and Stahlan, Phillip W. (Agricultural Research Center-Hays), Kansas Soybean Commission, $13,000, "Investigation of Herbicide Resistance in Waterhemp and Palmer amaranth in Kansas: Survey, Mechanism, and Management."

Shoup, Douglas E., Little, Christopher R. (Plant Pathology), Roozeboom, Kraig L. (Agronomy), and Sassenrath, Gretchen F. (Southeast Agricultural Research Center), Kansas Soybean Commission, $1,442, "Soybean Production Systems to Control Charcoal Rot and Other Soil-borne Diseases."

Shoup, Douglas E., Adee, Eric A. (Agronomy), Ciampitti, Ignacio (Agronomy), Duncan, Stewart R. (Northeast Area Office), Griffin, Terry W. (Agricultural Economics), and Lin, Xiaomao (Agronomy), Kansas Soybean Commission, $1,496, "The Quest of 100-Bushel Soybean: On-Farm Approach."

Aguilar, Jonathan P., Ciampitti, Ignacio (Agronomy), Haag, Lucas A. (Northwest Area Office), and Patrignani, Andres (Agronomy), Kansas Corn Commission, $3,939, "Improving the Assessment of Soil Moisture Conditions in Irrigated Corn Using COSMOS."

Aguilar, Jonathan P., Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Foster, Anserd J., Golden, Bill B. (Agricultural Economics), Kisekka, Isaya (Southwest Research Extension Center), Lamm, Freddie R. (Northwest Research Extension Center), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), and Vandeveer, Monte L., US Department of Agriculture, $104,697 (includes $3,750 from KDA Match), "Using Farmer-Based Water Technology Farms to Implement New Irrigation Technologies to Sustain the Rural Economy."

Aguilar, Jonathan P., Aiken, Robert M. (Northwest Research Extension Center), Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Golden, Bill B. (Agricultural Economics), Holman, Johnathon D. (Southwest Research Extension Center), Jaeger, John R. (Agricultural Research Center-Hays), Johnson, Sandra K. (Northwest Area Office), Kulesza, Stacey E. (Civil Engineering), Lamm, Freddie R. (Northwest Research Extension Center), Lin, Xiaomao (Agronomy), Obour, Augustine K. (Agricultural Research Center-Hays), O'Brien, Daniel M. (Northwest Area Office), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), Steward, David R. (Civil Engineering), and Vandeveer, Monte L., US Department of Agriculture, $66,841, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."

Bolton, Debra, Johannes, Elaine M. (School of Family Studies and Human Services), Kiss, D. Elizabeth (School of Family Studies and Human Services), and Wiles, Bradford B. (School of Family Studies and Human Services), US Department of Health and Human Services, $97,886, "Connecting Kids to Coverage: Outreach and Enrollment Cooperative Agreement."

Foster, Anserd J., Aguilar, Jonathan P., Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Golden, Bill B. (Agricultural Economics), Kisekka, Isaya (Southwest Research Extension Center), Lamm, Freddie R. (Northwest Research Extension Center), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), and Vandeveer, Monte L., US Department of Agriculture, $104,697 (includes $3,750 from KDA Match), "Using Farmer-Based Water Technology Farms to Implement New Irrigation Technologies to Sustain the Rural Economy."

Onstad, Christen P., Support Funds, $25,500, "XSW Support Funds Public Service 35."

Vandeveer, Monte L., US Department of Agriculture, $9,088, "Risk Management Education for Livestock and Forage Producers, Women in Agriculture and New and Beginning Producers in the Topeka Region."

Vandeveer, Monte L., Aguilar, Jonathan P., Devlin, Daniel L. (Ks Ctr for Ag Rsrces & the Env / Ks Water Rsrce Rsrch Inst), Foster, Anserd J., Golden, Bill B. (Agricultural Economics), Kisekka, Isaya (Southwest Research Extension Center), Lamm, Freddie R. (Northwest Research Extension Center), Rogers, Danny H. (Biological and Agricultural Engineering), and Schlegel, Alan J. (Southwest Research Extension Center), US Department of Agriculture, $104,697 (includes
$3,750 from KDA Match), "Using Farmer-Based Water Technology Farms to Implement New Irrigation Technologies to Sustain the Rural Economy."

Vandeveer, Monte L., Aguilar, Jonathan P., Aiken, Robert M. (Northwest Research Extension Center), Devlin, Daniel L. (Ks Ctr for Ag Rsресes & the Env / Ks Water Rsрсe Rsrch Inst), Golden, Bill B. (Agricultural Economics), Holman, Johnathon D. (Southwest Research Extension Center), Jaeger, John R. (Agricultural Research Center-Hays), Johnson, Sandra K. (Northwest Area Office), Kulesza, Stacey E. (Civil Engineering), Lamm, Freddie R. (Northwest Research Extension Center), Lin, Xiaomao (Agronomy), Obour, Augustine K. (Agricultural Research Center-Hays), O'Brien, Daniel M. (Northwest Area Office), Rogers, Danny H. (Biological and Agricultural Engineering), Schlegel, Alan J. (Southwest Research Extension Center), and Steward, David R. (Civil Engineering), US Department of Agriculture, $3,342, "Water Management to Sustain the Economic Activity from the Ogallala Aquifer on the Southern High Plains -KSU."

Waggoner, Justin, Jaeger, John R. (Agricultural Research Center-Hays), and Tarpoff, Anthony J. (Animal Sciences and Industry), Alliance Liquid Feeds, $13,500, "Effects of Cellarat-Ore C.P.R. Fed during the Receiving Period on Cattle Performance, Morbidity, IBR Vaccine Response and Carcass Characteristics."


Zukoff, Sarah N., Dow AgroSciences, LLC, $3,000, "DAS TEA #2017-0152."

Zukoff, Sarah N., and Miller, Frannie L. (Entomology), US Department of Agriculture, $10,000, "Kansas Agricultural Production Pollinator Habitat Utilization Survey."

Zukoff, Sarah N., Boyer, Cheryl R. (Horticulture and Natural Resources), Cloyd, Raymond A. (Entomology), DeWolf, Erick D. (Plant Pathology), Duncan, Stewart R. (Northeast Area Office), Hoyle, Jared (Horticulture and Natural Resources), Johnson, Wendy A. (Entomology), Kennelly, Megan (Plant Pathology), McCormack, Brian P. (Entomology), Miller, Frannie L. (Entomology), Peterson, Dallas E. (Agronomy), Rivard, Cary L. (Horticulture and Natural Resources), Stiffler, Brooke (Entomology), and Upham, Ward S. (Horticulture and Natural Resources), US Department of Agriculture, $4,923, "Merging Traditional Methods with Transformative Approaches to Enhance Stakeholder Engagement and IPM Adoption."

K-STATE POLYTECHNIC CAMPUS

K-STATE POLYTECHNIC CAMPUS
Barnhart, Richard K., Jaffee, Benjamin A. (Salina Flight Operations), and Zoller, Kirsten (Salina Professional Education and Outreach), American Airlines, $1,250, "Hands-on Aviation Pilot Experience for Students."
Fitzsimmons, Verna M., Kansas Department of Transportation, $338,990, "Airport Design and Planning Agreement."

Fitzsimmons, Verna M., Kansas Department of Transportation, $90,000, "Airport Preservation Agreement."

SALINA FLIGHT OPERATIONS
Jaffee, Benjamin A., Barnhart, Richard K. (K-State Polytechnic Campus), and Zoller, Kirsten (Salina Professional Education and Outreach), American Airlines, $12,500, "Hands-on Aviation Pilot Experience for Students."

SALINA INFORMATION SYSTEMS
Gaeddert, Terri J., US Department of Education, $166,468, "Enriching and Integrating 21st Century Science and Technology Knowledge and Skills into Today's Classroom Through Effective Partnerships."

SALINA PROFESSIONAL EDUCATION AND OUTREACH
Zoller, Kirsten, Barnhart, Richard K. (K-State Polytechnic Campus), and Jaffee, Benjamin A. (Salina Flight Operations), American Airlines, $11,250, "Hands-on Aviation Pilot Experience for Students."

SALINA RESEARCH AND ENGAGEMENT
Carraway, Kurt J., and Hsu, William H. (Computer Science), Black & Veatch Corporation, $14,850, "Image Analysis and Data Science: Aerial Survey of Street Insulators."

Carraway, Kurt J., and Meyer, Andrea C., PrecisionHawk USA, Inc., $7,602, "Task Order 3."

Meyer, Andrea C., and Carraway, Kurt J., PrecisionHawk USA, Inc., $7,602, "Task Order 3."

OFFICE OF THE PRESIDENT

INTERCOLLEGIATE ATHLETICS LOCAL
Dunn, Erin C., Lutter, Sonya L. (School of Family Studies and Human Services), and Rubin, Lisa (Special Education, Counseling, and Student Affairs), National Collegiate Athletic Association, $3,300, "NCAA Athletes and Cost of Attendance Money: Spending and Financial Literacy."

OFFICE OF THE PRESIDENT
Myers, Richard B., State of Kansas, $5,000,000, "National Bio and Agro-Defense Facility."

VICE PRESIDENT FOR COMMUNICATIONS AND MARKETING
Nelson, Robert F., Country Stampede LLC, $23,000, "Video Production Services."

OFFICE OF THE PROVOST

CENTER FOR ENGAGEMENT AND COMMUNITY DEVELOPMENT
Procter, David E., Kansas Health Foundation, $886,600, "Healthy Food First Collaborative: A Technical Assistance Center and Learning Laboratory."
Schenck-Hamlin, Donna C., Kansas Health Foundation, $24,961, "Community Solutions to Affordable Housing: Civic Engagement on a Fundamental Public Health Issue."

Schenck-Hamlin, Donna C., Kerr, Jessica P. (Educational and Personal Development), and Smethers, Steven J. (School of Journalism and Mass Communications), Kansas Health Foundation, $8,483, "The Healthy Communities Lab: Building Organizational Capacity to Create a Culture of Health in Manhattan, KS through Digital Media Storytelling and Public Dialogue."

DEAN OF GRADUATE SCHOOL


Shanklin, Carol W., National Science Foundation, $368,000, "NSF Graduate Research Fellowship Program (GRFP) -2017-2022."

Shanklin, Carol W., Roberts, Kevin R. (Hospitality Management), and Sauer, Kevin L. (Food, Nutrition, Dietetics and Health), US Department of Agriculture, $60,000, "Center for Food Safety in Child Nutrition Programs."

INTERNATIONAL PROGRAMS

Wood, Mary, Institute of International Education, $131,250, "Foreign Fulbright English for Graduate Studies Programs."

OFFICE OF THE PROVOST
King, Brenée, and Montelone, Beth A. (Office of Research Development), National Science Foundation, $2,059, "Recruitment of Underrepresented Minorities into STEM with a Summer Research Immersion Experience."

Mason, April, and Graff, David A. (History), Kansas State University Foundation, "Pickett Chair."

Niehoff, Ruth A., Kansas State University Foundation, $29,000, "Spainhour Faculty Chair for KAWSE."

SCHOOL OF LEADERSHIP STUDIES
Gott, Trisha C., and Kliewer, Brandon W., US Department of State, $90,000, "Mandela Washington Fellowship for Young African Leaders -2018."

Kliewer, Brandon W., and Gott, Trisha C., US Department of State, $60,000, "Mandela Washington Fellowship for Young African Leaders -2018."

Steffensmeier, Timothy R., and Tolar, Mary H., Kansas Leadership Center, $132,090, "Kansas Leadership Center Research Initiative."

Tolar, Mary H., and Steffensmeier, Timothy R., Kansas Leadership Center, $14,677, "Kansas Leadership Center Research Initiative."
VICE PROVOST FOR UNDERGRADUATE STUDIES
Cortez, Anita R., Buckwalter, John (Dean of Human Ecology), and Olsen, Charlotte S. (School of Family Studies and Human Services), US Department of Health and Human Services, $26,668, "Kansas Bridges to the Future."

VICE PRESIDENT FOR ADMINISTRATION AND FINANCE

KSU POLICE DEPARTMENT
Millington, Bradli E., Kansas Department of Transportation, $2,000, "Special Traffic Enforcement Program (STEP)."

VICE PRESIDENT FOR RESEARCH

NATIONAL AGRICULTURAL BIOSECURITY CENTER
Burton, Kenneth R., US Department of Agriculture, $70,000, "FY17 Decontamination of Field Equipment."

Burton, Kenneth R., Lockhart, Caryl Y. (Diagnostic Medicine/Pathobiology), Richt, Juergen (Diagnostic Medicine/Pathobiology), Scoglio, Caterina M. (Electrical and Computer Engineering), and Sebhatu, Tesfaalem T. (Dean of Veterinary Medical Center), US Department of Agriculture, $1,941, "In-depth Investigation of the Epidemiology of Rift Valley Fever Outbreak in Kabale District, Uganda."


RESEARCH AND SPONSORED PROGRAMS
Marino, Mary Lou, and Montelone, Beth A., National Aeronautics and Space Administration, $21,421, "National Space Grant College and Fellowship Program (SPACE Grant) Training Grant 2015-2018."

Montelone, Beth A., and Marino, Mary Lou, National Aeronautics and Space Administration, $21,421, "National Space Grant College and Fellowship Program (SPACE Grant) Training Grant 2015-2018."

Montelone, Beth A., and King, Brenée (Office of the Provost), National Science Foundation, $2,059, "Recruitment of Underrepresented Minorities into STEM with a Summer Research Immersion Experience."

RESEARCH VICE PRESIDENT
Dorhout, Peter K., State of Kansas, $960,000, "Global Foods System."

VICE PRESIDENT BIOTECH LABORATORY
Marlow, Denver D., US Department of Agriculture, $17,661, "Acquisition of Goods and Services."
VICE PRESIDENT FOR STUDENT LIFE AND DEAN OF STUDENTS

DIVERSITY & MULTICULTURAL


EDUCATIONAL AND PERSONAL DEVELOPMENT
Booker, Monshonda, National Science Foundation, $3,500, "Teaching Through Technology (T3) Alliance."

Booker, Monshonda, US Department of Education, $6,438, "Kansas State University Salina Upward Bound."


Kerr, Jessica P., Schenck-Hamlin, Donna C. (Center for Engagement and Community Development), and Smethers, Steven J. (School of Journalism and Mass Communications), Kansas Health Foundation, $8,234, "The Healthy Communities Lab: Building Organizational Capacity to Create a Culture of Health in Manhattan, KS through Digital Media Storytelling and Public Dialogue."

KSU CHILD DEVELOPMENT CENTER, INC.
Mitchell, Rose M., City of Manhattan, KS, $43,432, "Social Services Advisory Board 2018."

Mitchell, Rose M., US Department of Agriculture, $250, "Family Fun, Food & Fitness Event."

Mitchell, Rose M., US Department of Agriculture, $300, "Spring 2017 Kansas Local Food & Gardening Sub-Grant."

Mitchell, Rose M., US Department of Agriculture, $300, "Team Up for CACFP Success Workshop Stipend."


NEW STUDENT SERVICES
Lehning, Emily M., Kansas State University Foundation, $20,525, "Phillips 66 Shield Scholars Fund."
OFFICE OF STUDENT LIFE

Kientz, Clara H., US Department of Health and Human Services, $7,000, "Heartland Sexual Assault Policies & Prevention on Campuses Project."

Kientz, Clara H., US Department of Justice, $253,225, "FY18 VOCA Applications for Kansas State University."

STUDENT FINANCIAL ASSISTANCE

Moeder, Lawrence E., Give Something Back Foundation, $969,534 (includes $469,120 from Scholarships), "Give Something Back Foundation Scholarship Program."

STUDENT HEALTH

DeDonder, Jean M., and Parker, James S., City of Manhattan, KS, $20,000, "Special Alcohol Funding 2018."

Parker, James S., and DeDonder, Jean M., City of Manhattan, KS, $5,000, "Special Alcohol Funding 2018."

VICE PRESIDENT FOR STUDENT LIFE AND DEAN OF STUDENTS

Bosco, Pat J., and Franklin, E. Bernard, Greater Kansas City Community Foundation, $45,000, "KSCAC -Greater Kansas City Community Foundation."

Bosco, Pat J., and Franklin, E. Bernard, Kauffman Foundation, $15,000, "KSCAC Kauffman Foundation Funds."

Bosco, Pat J., Kauffman Scholars, Inc., $9,890, "IEP Kauffman Scholars Program ISP."

Bosco, Pat J., and Franklin, E. Bernard, National College Advising Corps, $14,134, "KSU College Advising Corps in Kansas City -2016 -2017."

DeGroat, Arthur S., Kansas State University Foundation, $34,761, "David Woods Kemper Veterans Foundation."

DeGroat, Arthur S., Kansas State University Foundation, $40,837, "Kansas Masons Partnership in Military and Veterans Affairs."

DeGroat, Arthur S., Kansas State University Foundation, $46,963, "Military Affairs Director Funds."

Franklin, E. Bernard, and Bosco, Pat J., Greater Kansas City Community Foundation, $405,000, "KSCAC -Greater Kansas City Community Foundation."

Franklin, E. Bernard, and Bosco, Pat J., Kauffman Foundation, $135,000, "KSCAC -Kauffman Foundation Funds."

Franklin, E. Bernard, and Bosco, Pat J., National College Advising Corps, $127,208, "KSU College Advising Corps in Kansas City -2016 -2017."