The research programs in the College of Textiles at NC State University are innovative, life-saving, creative, global and thriving. The College also provides tech service to all stakeholders and supports the economic development of the State and beyond. This newsletter gives a brief overview on the research and tech service activities of the faculty, staff and students during the first quarter of Fiscal Year 2018. The College is off to a relatively slow start in terms of proposals, awards and TSAs/FSAs. However, research and tech service activities are up in October, which will be reflected in next quarter’s newsletter.

**FY18 vs. FY17 (Q1)**

<table>
<thead>
<tr>
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<th>FY18</th>
<th>FY17</th>
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<tbody>
<tr>
<td>Proposals</td>
<td>$5,278,995</td>
<td>$3,616,539</td>
</tr>
<tr>
<td>Awards</td>
<td>$2,570,211</td>
<td>$1,640,298</td>
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<tr>
<td>TSAs/FSAs</td>
<td>$1,891,200</td>
<td>$532,221</td>
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</tbody>
</table>

**Research Awards Received** ($1,640,298)
- Federal: $1,570,909 | DHHS, DHS, DOD, NSF, USDA
- Industry: $69,389 | Haining Xinshixin Textiles, Hanesbrands, ITG, IVCC, SCEYE SARL, ThermoFlex Technologies

**Research Proposals Submitted** ($3,616,539)
- Federal: $2,852,905 | DHHS, DHS, DOD, NIJ, USAID
- Industry: $763,634 | Haining Xinshixin Textiles, Eastman Chemical Company

**FY18 Q1 Federal Awards by Agency**
- DHS, $935,625
- DOD, $466,585
- NIJ, $61,744
- USAID, $56,955
- DHHS, $30,000

**FY18 Q1 Federal Proposals by Agency**
- DHS, $1,801,225
- DOD, $366,675
- USDA, $500,000
- NSR, $355,005
- DHHS, $30,000
NUMBERS TO DATE (FY18 Q1) Cont.

Inter-college Research Proposals (5)
- COT share: $676,709
- With CALS, COE and CNR

Inter-college Research Awards (2)
- COT share: $267,793
- With COE

Inter-department Research Proposals (2)
- $1,601,225

Inter-department Research Awards (1)
- $935,625

Graduate Student Support
- 55 Ph.D. Student RAs (Avg Stipend: $16,906 / year)
- 18 M.S. Student RAs (Avg Stipend: $16,104 / year)

RESEARCH AWARDS ABOVE $50,000 (FY18 Q1)

1. Roger Barker, $935,625, FEMA (DHS) (Co-PIs: Emiel DenHartog, Shawn Deaton)
2. Renzo Shamey, $276,793, US Army (Co-PI: Henry Trussell)
4. Stephen Michielsen, $61,744, RTI International (NIJ)
5. Wei Gao, $60,000, Storagenergy Technologies, Inc. (US Army)
6. Martin King, $56,955, National Academy of Sciences (US Agency for International Development)
7. Yingjiao Xu, $50,000, Haining Xinshinxin Textiles Co., Ltd.

Manganese oxide coated, nonwoven nanofibers are studied to remove manganese and other heavy metals from contaminated North Carolina well waters (as documented by the Environmental Protection Agency). Professors Ericka Ford (Textiles), Terrence Gardner (Ag & Life Sciences) and Yaewon Park (graduate research fellow in Textiles) add manganese oxidizing fungi to nanofibers to support the bioremediation of contaminated groundwater. This research is sponsored by NC Sea Grant and Water Resource and Research Institute.

The U.S. Home Textiles Market is undergoing significant changes due to evolving consumer needs, new retailing channels, as well as innovations in materials and production. Home textiles is one of the most attractive, fashion sensitive and lucrative segments in the textiles industry. The U.S., along with China and Europe, is dominating the global home textiles market as consumers. Professor Yingjiao Xu and her team are conducting a market analysis of the U.S. Home Textiles Market with a focus on furnishing fabrics and bed linens. The research will provide an insight to the current U.S. home textiles market in terms of industry trend, new retailing formats, and consumer behaviors toward home textiles products.