$20 million NSF EPSCoR RII Track-1 Award, Materials Assembly and Design Excellence in South Carolina (MADE in SC) for materials science research, education and development

200+ faculty hired at institutions state-wide since 1995 with 11 MORE to be hired through MADE in SC by 2022

35 South Carolina-based, American-owned SMALL BUSINESSES can receive seed funding for SBIR/STTR by 2022

$4.2 million for state-of-the-art equipment to be purchased through MADE in SC by 2022 – accessible by all SC faculty members

$2.1 million in SEED FUNDING to be awarded in our state by 2022

400+ faculty members and students participated in state-wide professional development opportunities in 2018 alone

320 undergrad and grad students to receive funded training in materials science and 35 high school STEM teachers to receive research training by 2022

Overall EPSCoR/IDeA Funding

<table>
<thead>
<tr>
<th>District</th>
<th>Institution</th>
<th>Amount (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>District 1</td>
<td>College of Charleston</td>
<td>$9.3</td>
</tr>
<tr>
<td></td>
<td>Medical University of SC</td>
<td>112.5</td>
</tr>
<tr>
<td></td>
<td>UofSC Beaufort</td>
<td>2.4</td>
</tr>
<tr>
<td>District 2</td>
<td>UofSC Aiken</td>
<td>1.1</td>
</tr>
<tr>
<td>District 3</td>
<td>Clemson University</td>
<td>60.9</td>
</tr>
<tr>
<td></td>
<td>Presbyterian College</td>
<td>0.8</td>
</tr>
<tr>
<td>District 4</td>
<td>Converse College</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>Furman University</td>
<td>8.4</td>
</tr>
<tr>
<td>District 5</td>
<td>Winthrop University</td>
<td>7.1</td>
</tr>
<tr>
<td>District 6</td>
<td>Claflin University</td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td>South Carolina State University</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>University of South Carolina</td>
<td>112.8</td>
</tr>
<tr>
<td></td>
<td>Voorhees College</td>
<td>0.1</td>
</tr>
<tr>
<td>District 7</td>
<td>Coastal Carolina University</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>Francis Marion University</td>
<td>2.2</td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td>$328.3</td>
</tr>
</tbody>
</table>

Other South Carolina institutions received subawards from those listed in the table. Total amount shows EPSCoR and IDeA funding and co-funding since 2006.
What are EPSCoR and IDeA?

Established Program to Stimulate Competitive Research and Institutional Development Awards (EPSCoR/IDeA) programs are merit-based, competitive, authorized programs operating within five federal agencies (NSF, NIH, DOE, USDA, and NASA) across 25 states and three US territories, including South Carolina. These programs invest in research that will lead to new technologies, as well as train the future science and engineering workforce during a time of increasing global competitiveness and economic challenges.

In SC, NIH-funded IDeA Programs are represented by:

10 NIH Centers of Biomedical Research Excellence (COBRE): Strengthen biomedical research infrastructure (~$100 million combined over five years). The COBRE Stroke Recovery Research Center at the Medical University of South Carolina is a collaboration of medicine, rehabilitation, and engineering experts working to understand the impact of stroke on brain function. These studies will lead to better post-stroke therapy and improve quality of life for survivors.

SC IDeA Network of Biomedical Research Excellence (SC INBRE): Program office oversees NIH $18.2 million, five-year renewable grant focusing on biomedical research at statewide network of 13 member and 4 outreach institutions.

Impact on South Carolina

NSF

Drs. Ehsan Mousavi (Clemson) and Shuo Xiao (UofSC) received NSF EPSCoR Track-4 Research Fellows Program awards.

Drs. Christopher McMahan and Rajandeep Sekton (Clemson), became co-PIs on a NSF EPSCoR Track-2 four-year, $6 million, multi-jurisdictional collaborative grant with Kentucky and Idaho.

11 NSF Faculty Early Career Development Program (CAREER) awards made to faculty from Clemson and UofSC totaling $3.4 million with $1.3 million cofounded by NSF EPSCoR.

DOE

Dr. Brian Powell (Clemson) is the PI of the project “Radio-nuclide Waste Disposal: Development of Multi-scale Experimental and Modeling Capabilities” which is funded as a DOE EPSCoR Implementation Award. This is a $7.25 million, five-year award for research into finding the safest ways of storing nuclear waste. As principal investigator on the grant, Powell is leading a team of more than 20 researchers from across the state including collaborators at the UofSC and SC State University.

NASA

Dr. Apparao Rao (Clemson) received a $375,000 grant for his project, “Nanomaterials-based hybrid energy storage devices and systems for space applications”

USDA

Dr. Matthew Rutter (College of Charleston) received a $384,812 grant for his project, “Teaching plant and agricultural phenomics through unPAK (undergraduates phenotyping Arabidopsis knockouts) (FACT REEU).”

SBIR/STTR

In 2018, 4 South Carolina-based, American-owned, for-profit small businesses received SC EPSCoR Phase-0 Program $6,000 seed grants. Program awards are for small businesses seeking funding for their innovative ideas from federal SBIR/STTR programs.

CarboNix LLC is commercializing a technology that removes household allergens that trigger allergies and asthma. The company leveraged four SC EPSCoR/IDeA grants into $1.24 million in federal SBIR awards from the NIH.

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Dr. Prakash Nagarkatti, State Director | VP for Research, UofSC SC EPSCoR/IDeA Program | 1000 Catawba Street | Columbia, SC 29201 | scepsoicridea.org