

SC EPSCoR/IDeA

South Carolina Established Program to Stimulate Competitive Research and Institutional Development Awards

\$20 million

NSF EPSCoR RII Track-1 Award, Materials Assembly

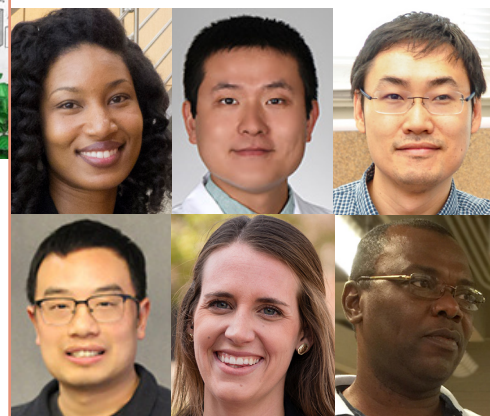
and Design Excellence in South Carolina (MADE in SC) for materials science research, education and development



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

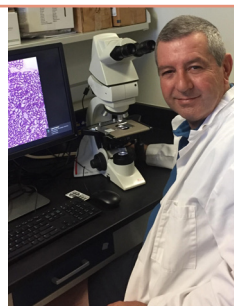
200+ faculty hired

at institutions state-wide since 1995 with **11 MORE** to be hired through MADE in SC 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



Overall EPSCoR/IDeA Funding



		\$ Amount (Millions)
District 1	College of Charleston	\$ 9.3
	Medical University of SC	112.5
	UofSC Beaufort	2.4
District 2	UofSC Aiken	1.1
District 3	Clemson University	60.9
	Presbyterian College	0.8
District 4	Converse College	0.6
	Furman University	8.4
District 5	Winthrop University	7.1
District 6	Claflin University	6.5
	South Carolina State University	2.9
	University of South Carolina	112.8
	Voorhees College	0.1
District 7	Coastal Carolina University	0.7
	Francis Marion University	2.2

Total: \$328.3

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

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



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

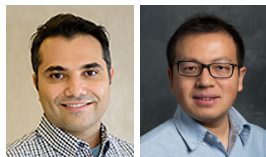
impact of stroke on brain function. These studies will lead to better post-stroke therapy and improve quality of life for survivors.

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 cofunded by NSF EPSCoR**.

DOE



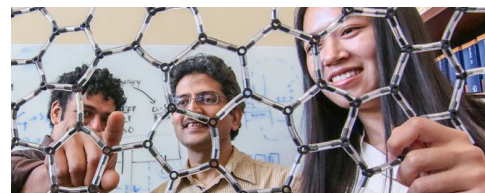
Dr. Brian Powell (Clemson) is the PI of the project "Radio-nuclide

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.



Resulting from research at UofSC, 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.