University of South Carolina — September 2021 New Grant Awards Report **Award** PI's College PI's Department PI Name **Award Title** Sponsoring Agency **Total** Arnold School of Public Health Environmental Health Sciences Natural Resources Conservation Kloot, Robin Growing Resilience in Our Soils Service (NRCS)/USDA 419,600 Southeast Coastal Ocean Observing SECOORA - Integrated Decision Support and Management Tools for Adaptive Public Health Practices: An Regional Association Early Advisement and Reporting System for Recreational and Shellfish Harvesting Waters of the Southeast (SECOORA)/NOAA 448.360 Porter, Dwayne WJB Dorn VA Medical Center/VA IPA: Ratanesh Seth Seth, Ratanesh 152,740 Epidemiology & Biostatistics Role of the Autonomic Nervous System in Gastrointestinal Inflammation and Colorectal Adenoma Risk -Subcontract with VCU - Joshua Mercadel Virginia Commonwealth University (VCU)/NCI/NIH 200.519 Hebert, James South Carolina's Initiative to Address COVID-19 Health Disparities Among Populations at High-Risk and SC Department of Health & Nolan, Melissa Underserved, Including Racial and Ethnic Minority Populations and Rural Communities Environmental Control (DHEC)/CDC \$ 5,480,832 Improving mosquito control methodologies through development of technology-driven traps and artificial intelligence guided detection of mosquito breeding habitats National Institute of Allergy & Nolan, Melissa Infectious Diseases (NIAID)/NIH \$ 3,719,912 Exercise Science National Institute of Diabetes & Digestive & Kidney Diseases Validity and Utility of a PATCH to Monitor Free-living Energy Expenditure in Children 3 to 8 Years Old (NIDDK)/NIH Armstrong, Bridget 216,150 Nutrasource Pharmaceutical and Impact of a Novel Marine Algae Supplement on the Inflammatory and Immune Response After High Nutraceutical Services Inc./Marinova McFadden, Bridget Intensity Exercise Pty Ltd. 85,000 Moore, Robert IPA Agreement with Dorn VA Medical Center - Elisabeth Holt WJB Dorn VA Medical Center/VA 39,966 National Institute of Diabetes and Digestive and Kidney Diseases Understanding Community Obesity Initiatives and Informing Tailored Community Interventions to Reduce (NIDDK)/NIH Pate, Russ Childhood Obesity \$ 1,520,375 Health Prom., Educ. & Behavior Frongillo, Edward Linkages between nutritional outcomes and food and nutrition security Economic Research Service/USDA 140.000 National Institute of Allergy & Multi-level Determinants of Racial Disparities in Maternal Morbidity and Mortality During the COVID-19 Infectious Diseases (NIAID)/NIH Li, Xiaoming Pandemic 886.188 Health Services Policy & Mgmt COVID-19-Focused VIrtual Patient Engagement Studio (CoVIP Studio): Using Technology to Engage Patient-Centered Outcomes Research Patients, Clinicians, and Researchers to Address Long-Term Effects of COVID-19 Institute (PCORI) 199.595 Natafgi, Nabil College of Arts and Sciences Baruch Institute National Ocean Service North Inlet - Winyah Bay NERR: Climate Vulnerability Web Application Development (NOS)/NOAA/DOC 68.970 Plunket, Jennifer Biological Sciences Ely, Berten Get Hurricane Smart: Centering Youth as Ambassadors of Community Hurricane Resilience SC Sea Grant Consortium/NOAA 8,380

University of South Carolina — September 2021 New Grant Awards Report

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	Chemistry & Biochemistry								
		Chen, Donna	Multimetallic Metal-Organic Frameworks as Tunable, Multifunctional Catalysts for Gas Phase Hydroformylation and Hydrogenation Reactions	US Department of Energy (DOE)	\$	219,276			
		Shustova, Natalia	Organometallic Catalysis form Molecular Catalysts Non-Covalently Confined in Metal-Organic Frameworks	Boston College/DOE	\$	66,327			
	History								
	, motory	Donaldson, Bobby	National Park Service: African American Civil Rights Grant Opportunity	National Park Service (NPS)/DOI	\$	500,000			
	Mathematics								
		Ju, Lili	Reliable and Efficient Machine Learning for Leadership Facility Scientific Data Analytics	US Department of Energy (DOE)	\$	300,000			
	McKissick Museum								
		Burgess, Lana	The Changing Cultural Climate in Museums	SC Humanities/NEH	\$	2,000			
	Physics & Astronomy								
		Ilieva, Yordanka	NSF-BSF: The Study of Nuclear Physics with Intermediate Energy Probes	National Science Foundation (NSF)	\$	1,350,000			
	Psychology								
		Weist, Mark	John H. Magill School Mental Health Certificate Program	SC Dept of Mental Health (SCDMH)	\$	35,476			
	School of Earth, Ocean & Env.								
		Bizimis, Michael	Nd, Hf, Sr isotope Analyses USGS (RFQ 140G0321Q0178)	US Geological Survey/DOI	\$	31,340			
	Statistics								
		Ho, Yen-Yi	scDECO: A novel statistical framework to systematically identify differential co-expression gene combinations using single-cell RNA sequencing data	National Cancer Institute (NCI)/NIH	\$	360,498			
		Wang, Dewei	Global significance test based on quantile regression with applications to genomic studies of Alzheimer's disease	University of Louisville Research Foundation, Inc./NIA/NIH	\$	98,351			
College of Engineering									
	Chemical Engineering	Ritter, James	Evaluation of Micron Ni Adsorbent for O2 Removal	Micro Technology Inc	\$	200,000			
		rater, James	Evaluation of Million 1111 Addition for the Annother	Whole recombinegy me	Ψ	200,000			
	Civil & Environmental Eng.					-			
		Berge, Nicole	Improving Ammonia Volatilization Through pH Adjustment	Environmental Research and Education Foundation	\$	127,784			
		Qian, Yu	Autonomous Power-efficient Track Inspection System (APTIS)	Federal Railroad Administration/DOT	\$	154,216			
		Rizos, Dimitris	Development of Performance-Based Concrete Crosstie Specifications for the US – and the Design, Manufacture, and Revenue Service Testing of Prototype Concrete Crossties	University of Illinois/Federal Railroad Administration/DOT	\$	25,000			
		Sasanakul, Inthuorn	Geosynthetic Institute Fellowship - (Student PI: Pitak Ruttithivaphanich)	Geosynthetic Institute	\$	5,000			
	IIT - Engineering				+				
		Crichigno, Jorge	CyberTraining: Implementation: Small: Cybertraining on P4 Programmable Devices using an Online Scalable Platform with Physical and Virtual Switches and Real Protocol Stacks	National Science Foundation (NSF)	\$	499,540			

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University of South Carolina — September 2021 New Grant Awards Report									
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	Pediatrics								
	, Gardeneo	Rotholz, David	Team for Early Childhood Solutions Data System Management and Compliance Indicator Analysis	SC Department of Health and Human Services/HHS	\$ 445,000				
		Rotholz, David	South Carolina Community Living Partnership (SC CLP)	Administration on Community Living (ACL)/HHS	\$ 99,696				
	Pharm., Physiology & Neurosci	ence Reagan, Lawrence	IPA for Dr. Cora Smiley	WJB Dorn VA Medical Center/VA	\$ 136,540				
School of Medicine(Gr	 ∿I)								
1	Medicine Greenville								
		Stevens, Margie	Project EXPAND: Enriching eXperiences by Providing Addiction learning in New Directions	Substance Abuse and Mental Health Services Administration (SAMHSA)/HHS	\$ 449,357				
University of SC Aiken									
Oniversity of GO Aiken	AK Childrens Center								
		Williams, Lynnette	EMERGENCY OPERATION GRANT	SC Department of Social Services (SC DSS)/HHS	\$ 40,000				
	AK School of Education								
		Martin, Melissa	SC CREATE Grant for UofSC Aiken 2021-22	SC Department of Education/USDE	\$ 93,715				
University of SC Beau	l fort								
	BFT Natural Sciences								
		Montie, Eric	Estuarine Soundscape Observatory Network in the Southeast (ESONS)	NOAA/IOOS via Southeast Coastal Ocean Observing Regional Association (SECOORA)	\$ 20,000				