

## University of South Carolina — October 2024 New Grant Awards Report

PI's College	PI's Department	PI Name	Award Title	Sponsoring Agency	Award Total
Arnold School of Public Health					
	Applied Research & Evaluation (CARE)				
		Workman, Lauren	SC Title V Maternal and Child Health Needs Assessment	SC Department of Public Health (SCDPH)/HRSA	72,751
	Environmental Health Sciences				
		Langan, Laura	Phase III wastewater testing	Baylor University/HHS	43,750
		Sabo-Attwood, Tara	Harmonizing Wastewater Generated Drug Consumption Trends with Epidemiological Indicators in NDEWS	University of Florida/NIDA/NIH	13,495
	Epidemiology & Biostatistics				
		Brown, Monique	Optimizing PrEP uptake for African American women in the South by empowering women to make informed HIV prevention and sexual health choices	University of Georgia Research Foundation (UGRF), Inc./NIMH/NIH	105,420
	Health Prom., Educ. & Behavior				
		Kim, Minji	Evaluating culturally appropriate anti-smoking messages for high-risk Asian ethnic subgroups	National Institute on Minority Health and Health (NIMH)/NIH	409,750
		Larson, Leila	Meta-analysis of the effects of double fortified salt	Iodine Global Network (IGN)	10,000
		Thrasher, James	Building Stochastic Actor-Oriented Models to investigate social network influences on youth nicotine product use transitions and to simulate different intervention effects across contexts	National Cancer Institute (NCI)/NIH	2,769,942
		Yang, Xueying	Sex Differences of Cardiovascular Diseases among People with HIV: utilization of data from All of Us research program	Augusta University/NHLBI/NIH	20,000
	Health Services Policy & Mgmt				
		Natafji, Nabil	PRIDE-CARES Center: Patient-Responsive Initiatives for Diverse Engagement - LGBTQ+ Community Action in Research to Eliminate Substance Use Disorder Center	National Institute on Drug Abuse (NIDA)/NIH	2,507,004
		Ostermann, Jan	Confidential Social Network Referrals for HIV Testing (CONSORT)	Fogarty International Center (FIC)/NIH	814,931
College of Arts and Sciences					
	Anthropology				
		Schreiner, Nina	Documenting Collections from 38KE12 for Consultation and Repatriation	National Park Service (NPS)/DOI	96,903
	Archaeology & Anthropology				

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		<i>King, Adam</i>	<i>NPS Save America's Treasures: SCIAA Collections</i>	<i>Institute of Museum and Library Services (IMLS)</i>	629,001
	History				
		<i>Donaldson, Bobby</i>	<i>African American Civil Rights Network Programmatic Initiatives for the Center for Civil Rights History and Research</i>	<i>National Park Service (NPS)/DOI</i>	3,362,100
		<i>Matthews, Marty</i>	<i>THE PAPERS OF WILLIAM SHORT: A DIGITAL SELECTIVE DOCUMENTARY EDITION 2024-2025</i>	<i>The National Historical Publications and Records Commission (NHPRC)</i>	125,000
	Mathematics				
		<i>Ju, Lili</i>	<i>DyGenAI: Dynamic Generative Artificial Intelligence for Prediction and Control of High-Dimensional Nonlinear Complex Systems</i>	<i>US Department of Energy (DOE)</i>	450,000
	Physics & Astronomy				
		<i>Lopez Rodriguez, Enrique</i>	<i>Baselines: Revealing the central extended emission of Circinus with interferometric mode</i>	<i>Space Telescope Science Institute (STScI)/NASA</i>	139,980
			<i>AGN and their outflows: probing fragmentation and survival of polycyclic aromatic hydrocarbons</i>	<i>Space Telescope Science Institute (STScI)/NASA</i>	93,238
	Psychology				
		<i>Harrison, Sayward</i>	<i>Integrated Care for Recovery (I-CaRe) Paraprofessional Training for Supporting Youth and Families affected by the Opioid Crisis</i>	<i>Health Resources and Services Administration (HRSA)</i>	599,828
		<i>Mactutus, Charles</i>	<i>Executive Function Impairments in HAND and Aging</i>	<i>National Institute on Aging (NIA)/NIH</i>	2,871,255
		<i>Wilson-King, Dawn</i>	<i>Are Interventions Supporting Physical ACTivity modified by the Environment (InSPACE)?</i>	<i>Seattle Children's Hospital d/b/a Seattle Children's Research Institute/NIH</i>	8,940
	School of Earth, Ocean & Env.				
		<i>Fuente, David</i>	<i>Applied Implementation Research for Clean Cooking in Cambodia (AIR-C3): equity, exposure,</i>	<i>Emory University/NIEHS/NIH</i>	25,832
		<i>Hardy, Dean</i>	<i>Oyster Reef Restoration on Sapelo Island for Coastal Hazard Protection and Multiple Benefits</i>	<i>University of Georgia Research Foundation, Inc./NOAA/DOC</i>	30,883
		<i>Meyer-Gutbrod, Erin</i>	<i>Collaborative Proposal, Real-time Acoustic Detections of right whales in the Southeast US to mitigate vessel strikes..</i>	<i>USC Educational Foundation/Maine Community Foundation</i>	65,715
		<i>Voulgaris, George</i>	<i>Disaster Relief Supplemental Act (DRSA) - Repair and Replacement of Observing Assets, Real Property, and Equipment in the Gulf of Mexico, Southeast, and Caribbean Regions Non-competitive Request for Applications (RFA) - NOAA-NOS-IOOS-2023-2008259 Disaster</i>	<i>Southeast Coastal Ocean Observing Research Association (SECOORA)/NOAA</i>	137,596

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		Wilson, Alicia	<i>RII Track-2 FEC: Risks, Impacts, and Strategies for Coastal Communities (RISCC): Advancing Convergent Science to Support Climate Change Adaptation and Community Resilience</i>	College of Charleston/NSF	398,419
College of Education					
	Educational & Developmental Science				
		Wolfe, Katie	<i>Family Training and Support Service: Development and Pilot</i>	SC Department of Disabilities and Special Needs (DDSN)	606,726
	Research, Eval., & Measurement				
		D'Amico, Leigh	<i>Countdown to Kindergarten Multilingual Learners Project</i>	South Carolina First Steps to School Readiness	10,800
		Lewis, Ashlee	<i>South Carolina Arts Assessment Program (FY25)</i>	South Carolina Department of Education (SCDE)	84,000
	Teacher Education				
		Cook, Daniella	<i>Sustaining Culturally Relevant Teaching: A Survey of Educator Use and Choice of Primary Sources</i>	TPS Eastern Region/Waynesburg University	2,500
College of Nursing					
	Biobehavioral Health & Nursing Science				
		Adams, Swann	<i>A Systems Theory Approach to the Study of Colon and Lung Cancer Health Disparities using Novel Data Linkages</i>	National Cancer Institute (NCI)/NIH	1,686,315
College of Pharmacy					
	Drug Discovery & Biomed Sci.				
		Xu, Peisheng	<i>Develop a novel strategy to deliver N-acetylcysteine for AD treatment</i>	AcePre, LLC./NIA/NIH	274,927
	Pharm - Clin Pharm & Outcomes Sciences				
		Hastings, Tessa	<i>(PI: Abby Davies) Improving Pharmacy Based Contraceptive Prescribing using an Implementation Science Approach</i>	American Foundation for Pharmaceutical Education (AFPE)	20,000
	Pharmacy - Dean's Office				
		Cutler, Stephen	<i>USC FAST Center</i>	US Small Business Administration (SBA)	196,112
College of Social Work					
	Social Work - Dean's Office				
		Levkoff, Sue	<i>Hevolution Foundation Supplemental Funding</i>	American Federation for Aging Research (AFAR)	10,000
		Reese, Lenora	<i>First 5 SC Interactive Training Development</i>	SC First Steps	29,118

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		<i>Soto-Ramirez, Nelis</i>	<i>Relations between Teachers' Professional Development in Migrant and Seasonal Head Start Programs and Children's Cognitive and Academic Outcomes, Parent Engagement, and Teachers' Mental Health</i>	<i>ACF/OPRE Office of Discretionary Grant/HHS</i>	99,998
<b>Darla Moore School of Business</b>					
	Moore Sch - Div. of Research				
		<i>Powers, Eric</i>	<i>DMSB - Quantathon</i>	<i>SC Quantum</i>	24,304
		<i>Von Nessen, Joseph</i>	<i>SCRA: Economic Impact Analysis - FY24</i>	<i>SC Research Authority (SCRA)</i>	10,000
			<i>NIWC Atlantic: Economic Impact Analysis (FY24)</i>	<i>NIWC Atlantic/US Navy/DOD</i>	242,000
<b>Division of Student Affairs</b>					
	Substance Abuse and Prevention				
		<i>Hourigan, Aimee</i>	<i>Collegiate Community Recovery Programs 2024-2025</i>	<i>SC Department of Alcohol &amp; Other Drug Abuse Services (SC DAODAS)</i>	180,000
<b>Joseph F. Rice School of Law</b>					
	Law - Dean's Office				
		<i>Samuels, Joel</i>	<i>Advancing Justice for Workers (AJW) in Zambia and Malawi</i>	<i>US Department of State (DOS)</i>	900,000
<b>Koger Center</b>					
	Koger Center				
		<i>Terracio, Nathan</i>	<i>Arts for All SC: Koger Center Expanded Access Restrooms</i>	<i>SC Arts Commission</i>	50,000
			<i>Richland County Hospitality Grant</i>	<i>SC Research Foundation (SCRF)/Richland County Administration</i>	4,833
<b>Molinaroli College of Engineering &amp; Computing</b>					
	Chemical Engineering				
		<i>White, Ralph</i>	<i>A Coupled Experimental and Mechanistic Modeling Approach to Virtual Prototyping Lithium-Sulfur Batteries</i>	<i>US Department of Energy (DOE)</i>	1,580,020
	Civil & Environmental Eng.				
		<i>Gaillard, Jay</i>	<i>Intensified Dynamic Non-Equilibrium Reactions by Pulsed Microwave Heating for Efficient Chemical Processing</i>	<i>West Virginia University (WVU)/DOE</i>	184,617
		<i>Imran, Jasim</i>	<i>An Antifragile Future for Naval Installations and Coastal Host Communities</i>	<i>Office of Naval Research (ONR)/DOD</i>	1,625,000
		<i>Qian, Yu</i>	<i>Track Lateral Stability Assessment under Climate Change and Extreme Weather Conditions</i>	<i>Federal Railroad Administration/DOT</i>	155,000
			<i>UAV-Imagery Based Track Component Health Condition Inspection</i>	<i>National Academies of Sciences (NAS)/FRA/DOT</i>	100,000

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		<i>Rizos, Dimitris</i>	<i>Qualification of a Mobile, Non-Contacting System for RNT and Longitudinal Rail Stress Measurements</i>	<i>Federal Railroad Administration/DOT</i>	398,213
		<i>Sasanakul, Inthuorn</i>	<i>(PI: Sufal Biswas) Geosynthetic Institute Fellowship</i>	<i>Geosynthetic Institute</i>	5,000
		<i>Schmitz, Nicole Berge</i>	<i>Development of Database and Analytic Tools for Identification of Causal Factors Associated with Fatalities for Solid Waste Collection and Post Collection Processes</i>	<i>Environmental Research and Education Foundation (EREF)</i>	198,966
	Electrical Engineering	<i>Khan, Asif</i>	<i>A New Nitride Era (ANNE): AIN vertical conduction pn-diodes</i>	<i>Georgia Tech/DARPA/DOI</i>	106,480
			<i>An integrated microsystem-on-a-chip to enable ultra-fast ultra-wide bandgap (UWBG) power electronics</i>	<i>University of Wisconsin/ARPA-E DOE</i>	199,745
	Mechanical Engineering	<i>Bayoumi, Abdel</i>	<i>Advanced Electric Rim Drive for Ultra-Heavy Vertical Lift (UHVL)</i>	<i>KRyanCreative, LLC/SC EPSCoR/NSF</i>	2,300
		<i>Farouk, Tanvir</i>	<i>Fundamental Understanding of Self-Organizing Pattern Formation During Plasma-Liquid Interface Interaction - Multiphysics Simulations and Experiments</i>	<i>Department of Energy (DOE)</i>	784,049
		<i>Huang, Kevin</i>	<i>Membrane-Based Catalytic CO2 Hydrogenation Reactors</i>	<i>Save Mother Earth LLC</i>	50,000
		<i>Yu, Lingyu</i>	<i>laser induced wideband ultrasonic guided waves modeling and machine learning driven interpretation</i>	<i>US Department of Energy (DOE)</i>	1,000,000
School of Medicine					
	Basic Science Research	<i>McCarthy, Cameron</i>	<i>The Janus face of O-GlcNAcylation in female aortic compliance and stiffening</i>	<i>Board of Regents of the University System of Georgia on behalf of Augusta University/NHLBI/NIH</i>	20,000
			<i>Cerebrovascular O-GlcNAcylation Worsens Diabetes-associated Neurovascular Injury and Recovery Post-stroke</i>	<i>NHLBI/NIH</i>	511,702
	Cell Biology & Anatomy	<i>Azhar, Mohamad</i>	<i>Develop natural compound emodin as a novel therapy for calcific aortic valve disease</i>	<i>AcePre, LLC/NHLBI/NIH</i>	178,800
	Internal Medicine	<i>Al-hasan, Majdi</i>	<i>Housing Opportunities for Persons With AIDS (HOPWA)</i>	<i>City of Columbia/HUD</i>	530,480
	MDC Ctr Disability Resources	<i>Rotholz, David</i>	<i>Team for Early Childhood Solutions Data System Management and Compliance Indicator Analysis</i>	<i>SC Department of Health and Human Services (SCDHHS)</i>	445,000

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			2024 SC Assistive Technology Leadership Conference	SC Developmental Disabilities Council (SCDDC)/HHS	5,000
	Pharm., Physiology & Neuroscience				
		Hollis, Fiona	Antioxidant supplementation as a therapeutic intervention for chronic stress-induced pathologies	MitoQ Ltd./Antipodean Pharmaceuticals, Inc.	195,876
		Pocivavsek, Ana	Pilot Project: Interplay between prenatal sleep fragmentation and kynurenine pathway metabolism in utero (Pilot under 10012968)	University of Maryland/NIH	25,000
University of SC Aiken					
	AK School of Education				
		Beck, Judy	Project CREATE 2024-25	SC Department of Education (SCDE)	227,845
University of SC Beaufort					
	BFT Natural Sciences				
		Madden, Kathryn	USCB's Life Science Education Living Laboratory - (Grant Making Partners Fund - Assoc. with account 10014304)	SC Research Foundation(SCRFF)/Hilton Head Island Foundation Endowment Fund/Community Foundation of the Lowcountry (CFL)	67,500
University of SC Lancaster					
	LAN PALMETTO COLLEGE				
		Catledge, Courtney	University of South Carolina Lancaster Updated Simulation Equipment	Health Resources & Services Administration (HRSA)/HHS	110,000
			USC Lancaster Center for Healthcare Workforce Development	Health Resources & Services Administration (HRSA)/HHS	2,800,000
University of SC Salkehatchie					
	SA PALMETTO COLLEGE				
		Beach, Tracy	USC Salk DRIVES: University of South Carolina Salkehatchie Driving Rural Innovators into Visions of Employment in STEM	Department of Energy (DOE)	1,091,809
University of SC Upstate					
	UPS Achieve				
		Marshall, Elaine	ACHIEVE - Professional Development Supplement	Upstate Workforce Board/DOL	12,775
	UPS College of Education				
		Hardin, Brooke	Center of Excellence for Reading and Engagement for All Learners (REAL)	SC Commission on Higher Education	141,405
	UPS Human Perform and Hlth				

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		<i>Pae, Holly</i>	<i>Project CREATE 2024-25</i>	<i>SC Department of Education (SCDE)</i>	44,389
	UPS Nursing				
		<i>Dunlap, Shirleatha</i>	<i>Nursing Equipment and Technology Initiative</i>	<i>HRSA/HHS</i>	1,331,000
	UPS Psychology				
		<i>Gray, Jennifer</i>	<i>Miranda Graves: Community-Based Perceptions of People Experiencing Homelessness: Contributions of Race and Gender on Bias and Discrimination</i>	<i>Psi Chi</i>	1,500