

University of South Carolina - August 2022 New Grant Awards Report

| PI's College | PI's Department | PI Name | Award Title | Sponsoring Agency | Award Total |
|---------------------------------------|----------------------------------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------|
| Arnold School of Public Health | | | | | |
| | <i>Center for Community Health Alignment</i> | | | | |
| | | Smithwick, Julie | | | |
| | | | Enhancement of Telehealth Skills & Capacity for At-Risk South Carolinians | SC Research Foundation (SCRF)/Fullerton Foundation | \$ 138,000 |
| | <i>Epidemiology & Biostatistics</i> | | | | |
| | | Hebert, James - Murphy, Angela - Hofseth, Lorne | | | |
| | | | A Transdisciplinary Approach to Investigating Metabolic Dysregulation in Obese Parent and Child Dyads and Risk of Colorectal Cancer | National Cancer Institute (NCI)/NIH | \$ 5,869,948 |
| | <i>Exercise Science</i> | | | | |
| | | Arent, Shawn | | | |
| | | | Improving Neuroprotection, Cognitive Function, and Mental Focus with Neurodegradation Countermeasure | AmpHP, Inc dba Momentous/US Air Force/DOD | \$ 232,169 |
| | | Moore, Robert | | | |
| | | | IPA Agreement with Dorn VA Medical Center - Adam Harrison | WJB Dorn VA Medical Center/VA | \$ 52,119 |
| | | Potter, Elizabeth | | | |
| | | | Feasibility of a clinic-to-community partnership providing vouchers to promote healthy food access among SNAP families with food insecurity | Prisma Health - Upstate | \$ 19,966 |
| | <i>Health Prom., Educ. & Behavior</i> | | | | |
| | | Frongillo, Edward | | | |
| | | | The Effect of Social Capital on Global Food Insecurity | Economic Research Service/USDA | \$ 30,000 |
| | | | Promoting Nutrition Security by Examining the Relationships between Food Insecurity and Nutrition and Health Indicators in Federal Data | Economic Research Service/USDA | \$ 30,000 |
| | | Li, Xiaoming | | | |
| | | | BDHC Excellence Pilot Project: A two-pronged big data approach to critically analyze Strongyloides stercoralis infections among rural, impoverished South Carolina residents | SC Center for Rural and Primary Healthcare, UofSC School of Medicine Educational Trust/SC DHHS | \$ 15,000 |
| College of Arts and Sciences | | | | | |
| | <i>Archaeology & Anthropology</i> | | | | |
| | | Fisher, John | | | |
| | | | Phase I Survey of a 20-acre Tract for the River Falls Access Area, Greenville County, South Carolina | SC Department of Parks, Recreation and Tourism (SCPRT) | \$ 14,829 |
| | <i>Biological Sciences</i> | | | | |
| | | Fu, Zhengqing | | | |
| | | | Coordination of Plant Growth and Defense Through Key Regulators in Salicylic Acid and Brassinosteroid Pathways | National Science Foundation (NSF) | \$ 574,446 |
| | | Hollis, Brian | | | |
| | | | Experimental speciation and the genomics of reinforcement in Drosophila | National Science Foundation (NSF) | \$ 383,432 |
| | <i>Chemistry & Biochemistry</i> | | | | |
| | | Wang, Qian | | | |
| | | | MRI: Acquisition of the MALDI-MS rapifleX system as an analytical tool to support multidisciplinary research at University of South Carolina | National Science Foundation (NSF) | \$ 470,000 |
| | <i>Geography</i> | | | | |
| | | Cutter, Susan | | | |
| | | | Assessment of Resilience Best Practices and Metrics in support of State Resilience Planning Efforts | South Carolina Office of Resilience | \$ 65,000 |
| | | Dow, Kirstin | | | |
| | | | Heat Mapping in Richland County | Richland County Conservation Commission | \$ 6,250 |
| | | Hiscox, April | | | |
| | | | Radar-based Spray Drift Detection and Quantification System | Application Insight, LLC/USDA | \$ 23,053 |
| | <i>History</i> | | | | |
| | | Schulz, Constance | | | |
| | | | The South Carolina Revolutionary Era Pinckney Papers Projects: Preserving the Digital Research Assets of Two Digital Documentary Editions - Final Year | National Historical Publications & Records Commission (NHPRC) | \$ 100,000 |
| | <i>Mathematics</i> | | | | |
| | | Binev, Peter | | | |
| | | | Foundations of Computational Mathematics Conference – FoCM 2023 | National Science Foundation (NSF) | \$ 49,500 |
| | | Sun, Yi | | | |
| | | | Hybrid Kinetic Monte Carlo Methods with Applications in Biofabrication and Epidemics | National Science Foundation (NSF) | \$ 176,321 |
| | <i>Psychology</i> | | | | |
| | | Federico, Alexis | | | |
| | | | Infant Predictors of ADHD and ASD Symptomatology | National Institute of Child Health & Human Development (NICHD)/NIH | \$ 125,721 |
| | | Hudac, Caitlin | | | |
| | | | BioGENE Study at the Simons Searchlight 2022 Family Meeting | Simons Foundation | \$ 15,000 |
| | | Quattlebaum, Mary | | | |
| | | | Integrating Family Resilience and Cultural Assets to Inform the LEADS Health Promotion Trial with African American Families | National Institutes of Health (NIH) | \$ 116,256 |

| | | | | | |
|-------------------------------------------|--------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------|
| | | Weist, Mark | | | |
| | School of Earth, Ocean & Env. | | Development and Implementation of a SC School Behavioral Health Academy | South Carolina Department of Health and Human Services (SCDHHS) | \$ 3,224,526 |
| | | Fuente, David | | | |
| | Statistics | | Collaborative Research: NNA Research: Meq unguvatkarput (water is our livelihood) - building community resilience for the future | National Science Foundation (NSF) | \$ 55,827 |
| | | Habing, Brian | | | |
| | Theatre and Dance | | IPA for NISS Associate Director for Education Activities and Research | National Institute of Statistical Sciences (NISS) | \$ 74,528 |
| | | Milling, Stephanie | | | |
| | | | Culturally Responsive Dance Pedagogy as a Vehicle for SEL and Responding to Learning Loss in Dance Education | SC Arts Commission | \$ 15,000 |
| College of Education | | | | | |
| | Research, Eval., & Measurement | | | | |
| | | Lewis, Ashlee | | | |
| | | | South Carolina Arts Assessment Program (SCAAP) | SC Department of Education (SCDE) | \$ 80,000 |
| College of Engineering & Comp. | | | | | |
| | Chemical Engineering | | | | |
| | | Heyden, Andreas | | | |
| | | | Collaborative Research: ECO-CBET: Coupled homogeneous and heterogeneous processes for an environmentally sustainable lignin-first biorefinery | National Science Foundation (NSF) | \$ 860,000 |
| | | White, Ralph | | | |
| | | | Battery Cell High Frequency Electrochemical Impedance Spectroscopy (EIS) Measurement and Model Development | General Motors (GM) Holdings LLC | \$ 239,784 |
| | Civil & Environmental Eng. | | | | |
| | | Dykstra, Steven | | | |
| | | | Assessing sea-level rise and flooding changes in the Sacramento/San Joaquin Delta using historical water-level records | California Polytechnic State University/US Bureau of Reclamation/DOI | \$ 40,529 |
| | | Imran, Jasim | | | |
| | | | LEAP-HI: A data-driven Fragility Framework for Risk Assessment of Levee Breach | National Science Foundation (NSF) | \$ 2,000,000 |
| | Computer Science & Engineering | | | | |
| | | Jamshidi, Pooyan | | | |
| | | | Collaborative Research: EAGER: Towards a Design Methodology for Software-Driven Sustainability | National Science Foundation (NSF) | \$ 100,001 |
| | | Zhang, Qi | | | |
| | | | CCRI: Planning-C: Planning to Build Digital Infrastructure for Real-Time, Continual, and Intelligent Transportation Analysis and Management | National Science Foundation (NSF) | \$ 93,702 |
| | Electrical Engineering | | | | |
| | | Khan, Asif | | | |
| | | | Development of A New High Temperature Source Metalorganic Chemical Vapor Deposition System (HTS-MOCVD) for Next Generation IIIA/B-Nitrides | National Science Foundation (NSF) | \$ 629,656 |
| | | Zhang, Bin | | | |
| | | | An FMCW Radar based Cable Remaining Useful Life Estimator | Alex and Alice, Inc/US Army AVN and Missile CMD | \$ 69,200 |
| | Eng. & Computing Dean's Office | | | | |
| | | Gholizadeh, Sona | | | |
| | | | ECR: BCSEER: Generational Family Patterns, and Engineering Entry and Persistence: A Bowen Family Systems Approach | National Science Foundation (NSF) | \$ 349,999 |
| | Mechanical Engineering | | | | |
| | | Banerjee, Sourav | | | |
| | | | Fully Autonomous Omnidirectional Adaptive Robots for the disinfection and decontamination of transit assets | Advent Innovations Limited Company/DOT | \$ 100,000 |
| | | Besmann, Theodore | | | |
| | | | Joint Appointment with Oak Ridge National Lab | UT-Battelle c/o Oak Ridge National Laboratory (ORNL)/DOE | \$ 68,572 |
| | | Harik, Ramy | | | |
| | | | (PI: Matthew Godbold) - GRF 2022-23: Inspection Influenced Manufacturing: Characterization of an Automated Fiber Placement System | College of Charleston/SC Space Grant Consortium/NASA | \$ 16,000 |
| | | Wang, Yi | | | |
| | | | Configurable Parametric Aeroelastical Reduced Order Models for Aerostructural Sensing and Control | CFD Research Corporation/NASA | \$ 43,996 |
| | | | Improving Data Assimilation in Numerical Weather Prediction of Winter Cyclones using Artificial Intelligence and Machine Learning | CFD Research Corporation/NASA | \$ 35,999 |
| | | Yuan, Lang | | | |
| | | | Numerical investigation of freckling in the Vacuum Arc Remelting process | TDY Industries, LLC dba ATI Specialty Materials | \$ 114,788 |
| College of Pharmacy | | | | | |
| | Drug Discovery & Biomed Sci. | | | | |
| | | Francis, Tanner | | | |
| | | | Substance P-Mediated Enhancement of Salience for Cues Predicting Aversive Outcomes | National Institute of Mental Health (NIMH)/NIH | \$ 734,503 |
| | | Roninson, Igor | | | |
| | | | Preventing adaptive drug resistance through Mediator kinase inhibition | National Cancer Institute (NCI)/NIH | \$ 3,043,009 |
| | | Xu, Peisheng | | | |
| | | | Cancer cell selective killing nanoparticle for advanced ovarian cancer treatment | National Cancer Institute (NCI)/NIH | \$ 1,692,530 |

| | | | | | |
|----------------------------------------|----------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------|
| | Pharm - Clin Pharm & Outcomes Sciences | | | | |
| | | Fabel, Patricia | | | |
| | | | Community Pharmacy-Provided Maternal Health Services Training and Implementation Toolkit Program Pilot | SC Center for Rural and Primary Healthcare, UofSC School of Medicine Educational Trust/SC DHHS | \$ 105,975 |
| Economic Engagement | | | | | |
| | Ofc of Economic Engagement | | | | |
| | | Hardaway, Chad | | | |
| | | | USC STEM Workforce Development Network | Economic Development Administration (EDA)/DOC | \$ 548,090 |
| Hosp., Retail, & Sport Mgmt | | | | | |
| | Hotel, Restaurant & Tour Mgmt | | | | |
| | | Hudson, Simon | | | |
| | | | An online toolkit for tourism success post-pandemic | Economic Development Administration (EDA) - US Department of Commerce (DOC) | \$ 144,000 |
| School of Medicine | | | | | |
| | Path, Microbio. & Immunology | | | | |
| | | Busbee, Philip | | | |
| | | | 2022 Careers in Immunology Fellowship | American Association of Immunologists | \$ 55,227 |
| | Pharm., Physiology & Neuroscience | | | | |
| | | Fadel, Jim | | | |
| | | | Hypocretin/orexin modulation of cognitive correlates of brain aging | National Institute on Aging (NIA)/NIH | \$ 1,100,907 |
| | | Wilson, Marlene | | | |
| | | | VA Contract: Pujhari Molecular and Viral Services | Department of Veterans Affairs (VA) | \$ 106,000 |
| University Libraries | | | | | |
| | Univ Libraries - Dean's Office | | | | |
| | | Boyd, Kate | | | |
| | | | Underrepresented Perspectives in South Carolina Newspapers | National Endowment for the Humanities (NEH) | \$ 314,620 |
| University of SC Aiken | | | | | |
| | AK Biology & Geology | | | | |
| | | Shervette, Virginia | | | |
| | | | Maximizing utility of eye lens core isotopic information for fisheries management: ageing validation and natal origins of reef fishes across the southeastern U.S. and U.S. Caribbean | US Department of Commerce (DOC) | \$ 299,962 |
| | AK School of Education | | | | |
| | | Martin, Melissa | | | |
| | | | SC CREATE 22-23 | South Carolina Department of Education/USDE | \$ 102,845 |
| University of SC Beaufort | | | | | |
| | BFT Fine Arts | | | | |
| | | Angell, Eliot | | | |
| | | | USCB Emerging Artists 2023-2024 | South Carolina Arts Commission/SCDE/OESE - USDE | \$ 11,865 |
| University of SC Upstate | | | | | |
| | UPS Science & Eng | | | | |
| | | Rosario, Astrid | | | |
| | | | Increasing Undergraduate Success in Science through Learning Cohorts Focused on Career Readiness | National Science Foundation (NSF) | \$ 749,998 |
| | | Tanner, Scott | | | |
| | | | MaKenna DeYoung Histochemical Society | The Histochemical Society | \$ 1,000 |