

## University of South Carolina — February 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) |                            |   |   |             |
|                                |                                      | <i>Workman, Lauren</i>     | <i>SC MIECHV FY23<br/>Coordinated State Evaluation<br/>(2023-2025)</i>  | Children's Trust of South Carolina/HRSA   | 150,896     |
|                                | Communication Sci & Disorders        |                            |   |   |             |
|                                |                                      | <i>Bonilha, Heather</i>    | <i>Excess Radiation Exposure in<br/>Infants and Children From<br/>Videofluoroscopic Swallow<br/>Studies</i>   | National Institute of Diabetes and Digestive and<br>Kidney Diseases (NIDDK)/NIH | 385,871     |
|                                |                                      |                            |   |   |             |
|                                |                                      | <i>Fridriksson, Julius</i> | <i>Neural Bases of Vocal<br/>Sensorimotor Impairment in<br/>Aphasia-Subaward</i>  | University of Texas at Dallas/NIH   | 434,916     |
|                                |                                      |                            |   |   |             |
|                                | Environmental Health Sciences        |                            |   |   |             |
|                                |                                      | <i>Jilling, Andrea</i>     | <i>Collaborative Research:<br/>Mineral-associated organic<br/>matter: an overlooked source<br/>and mediator of bioavailable<br/>nitrogen</i>  | National Science Foundation (NSF)   | 374,500     |
|                                |                                      |                            |   |   |             |
|                                | Epidemiology & Biostatistics         |                            |   |   |             |
|                                |                                      | <i>Perumal, Nandita</i>    | <i>Demonstrating non-inferiority<br/>of a lower dose (500 mg)<br/>calcium supplementation<br/>during pregnancy for reducing<br/>preeclampsia (PE) and<br/>neonatal outcomes</i>             | Harvard University/Bill & Melinda Gates<br>Foundation                           | 13,219      |
|                                |                                      |                            |   |   |             |
|                                | Exercise Science                     |                            |   |   |             |
|                                |                                      | <i>Arent, Shawn</i>        | <i>High-Intensity Functional<br/>Training Adaptations with and<br/>without Maximus Ventilatory<br/>Training Device</i>  | Neo-Ventures LLC, DBA MAXIMUS   | 11,011      |
|                                |                                      |                            |   |   |             |
|                                | Health Prom., Educ. & Behavior       |                            |   |   |             |
|                                |                                      | <i>Ghattas, Hala</i>       | <i>Using complex systems<br/>methods to co-produce<br/>solutions for how emergency<br/>food assistance can prioritise<br/>healthy foods for vulnerable<br/>populations in Lebanon/Gates</i> | London School of Hygiene and Tropical<br>Medicine/Gates Foundation              | 13,092      |

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|------------------------------|--------------------------------|---------------------------|--|--|---------|
|                              |                                |                           | <i>Using complex systems methods to co-produce solutions for how emergency food assistance can prioritise healthy foods for vulnerable populations in Lebanon/FCDO</i> | London School of Hygiene & Tropical Medicine/Foreign, Commonwealth and Development Office (FCDO) | 13,092  |
|                              |                                |                           |  |  |         |
|                              |                                | <i>Thrasher, James</i>    | <i>Advancing Tobacco Regulatory Science to Reduce Health Disparities: Advancing Communication Science to Reduce Disparities in Young Adult Cigar Use</i>               | UNC Chapel Hill/NIDA/NIH   | 191,413 |
|                              | Health Services Policy & Mgmt  |                           |  |  |         |
|                              |                                | <i>Andrews, Christina</i> | <i>South Carolina Center for Excellence in Addiction – General Assembly</i>  | SC Department of Alcohol and Other Drug Abuse Services (DAODAS)/General Assembly                 | 114,942 |
|                              | PASOS                          |                           |  |  |         |
|                              |                                | <i>Martin, Maria</i>      | <i>Greenwood Genetics Partnership for Folic Acid Promotion with Latino Communities 2024</i>  | Greenwood Genetic Center   | 26,000  |
| College of Arts and Sciences |                                |                           |  |  |         |
|                              | Archaeology & Anthropology     |                           |  |  |         |
|                              |                                | <i>King, Adam</i>         | <i>US Forest Service Supplemental Project Agreement: Archaeological Survey and Collections Curation ServicesXX</i>   | Forest Service, Francis Marion and Sumter National Forests - USDA                                | 104,405 |
|                              | Chemistry & Biochemistry       |                           |  |  |         |
|                              |                                | <i>Walters, Wendell</i>   | <i>Evaluating the Atmospheric Dynamics of Nitrate and Sulfate in Southern New England in Response to Emission Regulations</i>  | National Science Foundation (NSF)  | 6,722   |
|                              | Criminology & Criminal Justice |                           |  |  |         |
|                              |                                | <i>Adams, Ian</i>         | <i>Institutional Structure of Police Leadership.</i>   | University of Utah/National Institute of Justice   | 108,516 |
|                              | Geography                      |                           |  |  |         |
|                              |                                | <i>Barnes, Jessica</i>    | <i>Geographic and Sociodemographic Variability in Air Pollution Exposure</i>   | National Science Foundation (NSF)  | 144,474 |
|                              | Mathematics                    |                           |  |  |         |

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|                      |                                     | <i>Wang, Qi</i>            | <i>AI-enabled Mechanical Modeling of Cardiac Tissues</i>  | Clemson University/SC EPSCoR/SC CHE                                | 25,000  |
|                      | Political Science                   |                            |   |  |         |
|                      |                                     | <i>Schoenherr, Jessica</i> | <i>Collaborative Research: Precedent-Altering Opinions and Collegiality on the Supreme Court</i>  | National Science Foundation (NSF)                                  | 74,803  |
|                      | Psychology                          |                            |   |  |         |
|                      |                                     | <i>Roberts, Jane</i>       | <i>(PI - Rachel Hantman) Maternal - Child RSA Synchrony in Infants with Fragile X Syndrome</i>  | National Institute of Child Health & Human Development (NICHD)/NIH | 123,882 |
|                      |                                     | <i>Weist, Mark</i>         | <i>Technical Assistance Center on Positive Behavioral Interventions and Supports VI</i>   | University of Oregon/USDE  | 257,274 |
|                      | School of Earth, Ocean & Env.       |                            |   |  |         |
|                      |                                     | <i>Bourbonnais, Annie</i>  | <i>Collaborative Research: Multi-isotope and microbial ecology approaches to investigate sedimentary nitrous oxide production and consumption in the northern Benguela upwelling system</i> | National Science Foundation (NSF)                                  | 550,590 |
|                      | Sociology                           |                            |   |  |         |
|                      |                                     | <i>Brashears, Matthew</i>  | <i>Simulating and predicting social behavior from exposure and interaction with similar others: A data collection initiative and model advancement project</i>                              | US Army Research Office (ARO)/DOD                                  | 190,146 |
| College of Education |                                     |                            |   |  |         |
|                      | Educational & Developmental Science |                            |   |  |         |
|                      |                                     | <i>Plotner, Tony</i>       | <i>Project TEC: Technology to Enhance Careers</i>   | SC Commission of Higher Education                                  | 175,931 |
|                      | Research, Eval., & Measurement      |                            |   |  |         |
|                      |                                     | <i>Ene, Mihaela</i>        | <i>Evaluation of Florence County School District Three's Panther Reset School of Innovation Program</i>   | Florence County School District Three/SCDE                         | 20,000  |

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|                                |                                | <i>Leighton, Elizabeth</i> | <i>Evaluation of Florence County School District Two's Innovation Grant Program: The Pee Dee Health Healthcare Workforce Ready Program</i>       | Florence County School District Two/SCDE        | 30,000    |
|                                |                                | <i>Lewis, Ashlee</i>       | <i>Impact Evaluation of ArtsNOW (23-24)</i>  | ArtsNOW (ArtsNOW Learning)                      | 40,000    |
|                                | Teacher Education              |                            |  |   |           |
|                                |                                | <i>Baum, Angela</i>        | <i>PDG Planning Grant 2023</i>   | SC Department of Social Services (SCDSS)        | 692,789   |
| College of Engineering & Comp. |                                |                            |  |   |           |
|                                | Chemical Engineering           |                            |  |   |           |
|                                |                                | <i>Meekins, Benjamin</i>   | <i>Material Leaching for Nuvera Fuel Cells, LLC - 5 Samples - February 2024</i>  | Nuvera Fuel Cells, LLC                          | 4,250     |
|                                |                                |                            |  |   |           |
|                                |                                | <i>Mustain, William</i>    | <i>Improved Zinc Utilization (Battery Longevity) via Homogenous Anode Discharge</i>  | Duracell  | 115,000   |
|                                | Computer Science & Engineering |                            |  |   |           |
|                                |                                | <i>Huhns, Michael</i>      | <i>Information Competition Simulator Project</i>   | University of Maryland/ARLIS/DOD                | 10,000    |
|                                |                                |                            | <i>Information Competition Simulator Project - Project 1</i>   | University of Maryland/ARLIS/DOD                | 49,957    |
|                                | Electrical Engineering         |                            |  |   |           |
|                                |                                | <i>Mandal, Krishna</i>     | <i>Machine Learning Assisted CdZnTeSe Semiconductor Nuclear Detectors for Real-Time Monitoring Spent Nuclear Fuel in Storage Casks</i>           | CORE SC at College of Charleston                | 50,000    |
| College of Social Work         |                                |                            |  |   |           |
|                                | Social Work - Dean's Office    |                            |  |   |           |
|                                |                                | <i>Fram, Maryah</i>        | <i>What difference does it make? Learning from the stakeholders of the Weekend Food Program about their experiences of program participation</i> | Every Meal                                      | 29,920    |
|                                |                                |                            |  |   |           |
|                                |                                | <i>Xu, Yanfeng</i>         | <i>Children with Disabilities: Increasing Kinship Caregivers' Capacity and Improving Child Outcomes</i>  | University of North Carolina/The Duke Endowment | 1,143,507 |

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|--------------------------------|------------------------------|--------------------------------|--|--|---------|
|                                |                              |                                | <i>Multi-Site Randomized Controlled Trial of Better Futures Postsecondary Access Intervention for Youth in Foster Care</i> | Washington State University/USDE                       | 21,996  |
| Darla Moore School of Business | Moore Sch - Div. of Research |                                |  |  |         |
|                                |                              | <i>Von Nessen, Joseph</i>      | <i>Midlands Business Leadership Group: 2023-2024 Competitiveness Report</i>  | Midlands Business Leadership Group                     | 25,000  |
|                                |                              |                                | <i>SCRA: Economic Impact Analysis - FY23</i>   | South Carolina Research Authority (SCRA)               | 10,000  |
|                                |                              |                                | <i>Patriots Point: Economic Impact Analysis</i>  | Patriots Point   | 52,500  |
|                                |                              |                                | <i>Chernoff Newman: Century Aluminum Economic Impact Analysis</i>  | Chernoff Newman  | 38,500  |
|                                |                              |                                | <i>EDF Renewables: Economic Impact Analysis</i>  | EDF Renewables   | 34,500  |
| Koger Center                   | Koger Center                 |                                |  |  |         |
|                                |                              | <i>Magradey, Karen</i>         | <i>SC Arts Commission FY24 Operating Support</i>   | South Carolina Arts Commission                         | 29,889  |
| Office of the Provost          | Provost                      |                                |  |  |         |
|                                |                              | <i>Gibson, Robert</i>          | <i>Anne Frank and the Art of Storytelling Leadership Camp (AFASLC)</i>   | SC Humanities/NEH                                      | 5,000   |
| School of Law                  | Law - Dean's Office          |                                |  |  |         |
|                                |                              | <i>Samuels, Joel</i>           | <i>Building Capacity to Counter Complex Crimes in Mongolia</i>   | The Asia Foundation (TAF)/DOS                          | 42,600  |
|                                |                              | <i>Wasilczuk, Madalyn</i>      | <i>South Carolina Deaths Behind Bars - Arnold Ventures</i>   | Arnold Ventures LLC (Laura and John Arnold Foundation) | 99,575  |
| School of Medicine             | MDC Ctr Disability Resources |                                |  |  |         |
|                                |                              | <i>Rotholz, David</i>          | <i>South Carolina Assistive Technology Program</i>   | Administration for Community Living/HHS                | 205,318 |
|                                | MDC Office of Dean           |                                |  |  |         |
|                                |                              | <i>Rahemtullah, Omme-Salma</i> | <i>CDBG Grant: NeighborShare</i>   | SC Research Foundation (SCRF)/Richland County          | 71,540  |

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|                          |                            |                          | <i>Culinary Medicine: Improving Health Outcomes through Clinical Partnerships and Referrals</i>   | SC Research Foundation (SCRF)/Prisma Health   | 50,000 |
| University of SC Aiken   |                            |                          |   |   |        |
|                          | AK Mathematical Sciences   |                          |   |   |        |
|                          |                            | <i>Paul, Titan</i>       | <i>Exploring Thermophysical Properties of Ionic Liquids (ILs) based Nanofluids using Machine Learning Techniques for Solar Thermal Applications</i> | CORE SC at College of Charleston              | 49,958 |
|                          | AK School of Business      |                          |   |   |        |
|                          |                            | <i>Fawaz, Fadi</i>       | <i>Savannah River National Laboratory: Economic Impact on Aiken, Allendale, Barnwell, Columbia, and Richmond Counties</i>                           | Savannah River National Laboratory (SRNL)/DOE | 92,658 |
| University of SC Upstate |                            |                          |   |   |        |
|                          | UPS Human Perform and Hlth |                          |   |   |        |
|                          |                            | <i>Saracino, Patrick</i> | <i>The Effects of High Intensity Endless Rope Compared to Battle Rope Training on Reaction Time and Physical Performance</i>                        | Axios, LLC                                    | 18,662 |