

**Office of VP for Research
IT and Data Management Office**

Arnold School of Public Health

Applied Research & Evaluation (CARE)

Gillam, Pamela

Title: Establish and Launch a Collective Strategy to Address Social Determinants of Health

Sponsor: USC Educational Foundation/The Duke Endowment

Total Projected: \$596,000

Project Years: 2

Exercise Science

Dugger, Roddrick

Title: A Positive Deviance Inquiry into the Health Behaviors of Children during Summer

Sponsor: National Institute of Child Health & Human Development (NICHD)/NIH

Total Projected: \$79,150

Project Years: 2

Herter, Troy

Title: Validation of a Biofeedback Intervention and Objective Biomarkers for Post-Concussion Syndrome - Elizabeth Holt, Doctoral Student PI

Sponsor: The Woodcock Institute

Total Projected: \$15,000

Project Years: 1

Moore, Robert

Title: IPA Agreement with Dorn VA Medical Center - Robert Davis Moore

Sponsor: WJB Dorn VA Medical Center/VA

Total Projected: \$20,174

Project Years: 1

**Office of VP for Research
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Health Prom., Educ. & Behavior

Turner-McGrievy, Gabrielle

Title: Targeting important behaviors for weight loss through the use of social gaming and points: The Social Pounds Off Digitally (Social POD) study

Sponsor: National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)/NIH

Total Projected: \$2,367,084

Project Years: 4

Health Services Policy & Mgmt

Andrews, Christina

Title: Medicaid Managed Care Coverage and Utilization Management of Opioid Use Disorder Treatment

Sponsor: National Institute on Drug Abuse (NIDA)/NIH

Total Projected: \$2,528,947

Project Years: 4

College of Arts and Sciences

Biological Sciences

Quattro, Joseph

Title: Soil Macrofauna Inventory at Congaree National Park With an Emphasis on Synchronous-Flashing Fireflies

Sponsor: National Park Service (NPS)/DOI

Total Projected: \$99,505

Project Years: 2

**Office of VP for Research
IT and Data Management Office**

Twiss, Jeffery

Title: Stimuli-responsive polymers to modulate peptide efficacy in axon regeneration

Sponsor: Clemson University/SC EPSCoR/IDeA/SC CHE (via UofSC)

Total Projected: \$18,000

Project Years: 2

Title: Axonal Stress Granules in Spinal Cord Injury

Sponsor: Craig H. Neilsen Foundation

Total Projected: \$600,000

Project Years: 3

Wessinger, Carolyn

Title: Quantitative genetics and population genomics of repeated complex trait evolution

Sponsor: National Institute of General Medical Sciences (NIGMS)/NIH

Total Projected: \$1,840,840

Project Years: 5

Chemistry & Biochemistry

Richardson, Susan

Title: Collaborative Proposal: Treatment of Cyanotoxins by UV/Chlorine: Optimizing Removal While Developing Strategies to Minimize Disinfection Byproducts and Toxicity

Sponsor: National Science Foundation (NSF)

Total Projected: \$150,000

Project Years: 3

Wang, Hui

Title: Pathway Switch of Catalytic Hydrogenation Reactions on Sub-5 nm Platinum Nanocatalysts

Sponsor: Petroleum Research Fund (PRF)/American Chemical Society (ACS)

Total Projected: \$110,000

Project Years: 2

**Office of VP for Research
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English

Chun, Elaine

Title: Doctoral Dissertation Research: Language Ideologies and Activism in Transgender Communities in the U.S South - Archie Crowley

Sponsor: National Science Foundation (NSF)

Total Projected: \$9,216

Project Years: 2

Env. & Sustainability Program

Warner, Langdon

Title: Pay as You Throw Demonstration Project

Sponsor: SC Department of Commerce

Total Projected: \$0

Project Years: 1

Geography

Lackstrom, Kirsten

Title: Drought Planning in the Southeast United States: An Assessment of State Approaches, Planning Needs and Gaps, and Opportunities for the Southeast Drought Early Warning System

Sponsor: University Corporation for Atmospheric Research (UCAR)/NOAA

Total Projected: \$18,455

Project Years: 1

History

Schulz, Constance

Title: Papers of the Revolutionary Era Pinckney Statesmen - FINAL NHPRC proposal

Sponsor: National Historical Publications & Records Commission (NHPRC)

Total Projected: \$110,000

Project Years: 1

**Office of VP for Research
IT and Data Management Office**

Mathematics

Lu, Linyuan

Title: RTG: Mathematical Foundation of Data Science at University of South Carolina

Sponsor: National Science Foundation (NSF)

Total Projected: \$1,530,973

Project Years: 5

McKissick Museum

Przybysz, Jane

Title: Pearl Fryar's Topiary Garden

Sponsor: Central Carolina Community Foundation (CCCF)

Total Projected: \$37,263

Project Years: 1

Psychology

Bradshaw, Jessica

Title: Embodied Infant Experience and Neurodevelopmental Disorders

Sponsor: James S. McDonnell Foundation

Total Projected: \$250,000

Project Years: 4

Smith, Courtnie

Title: South Carolina School Mental Health Internship and Educational Program

Sponsor: SC Research Foundation (SCRF)/Blue Cross Blue Shield of South Carolina Foundation

Total Projected: \$382,295

Project Years: 3

**Office of VP for Research
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School of Earth, Ocean & Env.

Dragovic, Besim

Title: Collaborative Research: Developing crystal clocks in metamorphic rocks: Using lithium in subduction zone garnets to decipher fluid release timescales

Sponsor: National Science Foundation (NSF)

Total Projected: \$314,922

Project Years: 3

College of Education

Child Development Res. Center

Googe, Heather

Title: South Carolina Partnerships for Inclusion

Sponsor: SC Department of Education/USDE

Total Projected: \$860,997

Project Years: 1

McDonald, Melissa

Title: Management & Administration of the Child Care Resource and Referral Network (2021/2022)

Sponsor: SC Department of Social Services (DSS)/HHS

Total Projected: \$3,855,690

Project Years: 1

Education - Dean's Office

Van Buren, Cindy

Title: Supporting Effective Educator Development (SEED) 2020

Sponsor: National Institute for Excellence in Teaching (NIET)/SCPLN/DOE

Total Projected: \$10,000

Project Years: 1

**Office of VP for Research
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Educational Studies

Stinnett, Chelsea

Title: CarolinaLIFE College Access and Preparation (CL-CAP)

Sponsor: SC Vocational Rehabilitation Department/USDE

Total Projected: \$600,000

Project Years: 2

College of Engineering & Comp.

Chemical Engineering

Mustain, William

Title: Electrodeposition of Low-Cost Cathodes for High Performance EVs

Sponsor: Lordstown EV Corporation

Total Projected: \$150,000

Project Years: 1

Civil & Environmental Eng.

Qian, Yu

Title: Optimizing First Responder's Routes Based on Railroad PTC System and Street Traffic Information

Sponsor: Federal Railroad Administration (FRA)/DOT

Total Projected: \$118,000

Project Years: 1

**Office of VP for Research
IT and Data Management Office**

Rizos, Dimitris

Title: *Satellite Radar Imagery for Ground Hazard Risk Monitoring in Railway Track and Slopes*

Sponsor: Federal Railroad Administration (FRA)/DOT

Total Projected: \$310,819

Project Years: 2

Title: *A Non-Contacting System for Longitudinal Rail Stress Measurements: Field Deployment and Validation*

Sponsor: Federal Railroad Administration (FRA)/DOT

Total Projected: \$453,208

Project Years: 3

Sasanakul, Inthuorn

Title: *Cyclic Behaviors of Mine Waste Rocks: Cerro Verde Project*

Sponsor: Golder Associates Ltd

Total Projected: \$111,715

Project Years: 4

Office of VP for Research IT and Data Management Office

Ziehl, Paul

Title: NASA HiCAM - Thermoplastic Assembly - PWP 2.5

Sponsor: National Aeronautics and Space Administration (NASA)

Total Projected: \$191,667

Project Years: 1

Title: NASA HiCAM - PWP 2.4 Thermoplastic forming

Sponsor: National Aeronautics and Space Administration (NASA)

Total Projected: \$16,750

Project Years: 1

Title: NASA HiCAM - Thermoplastic AFP - PWP 2.6

Sponsor: National Aeronautics and Space Administration (NASA)

Total Projected: \$39,132

Project Years: 1

Computer Science & Engineering

Jamshidi, Pooyan

Title: Collaborative Research: SHF: Medium: Causal Performance Debugging for Highly-Configurable Systems

Sponsor: National Science Foundation (NSF)

Total Projected: \$407,048

Project Years: 3

Electrical Engineering

Ahmad, Iftikhar

Title: High Efficiency UV-LEDs Based on Hybrid 2D/3D Materials.

Sponsor: National Science Foundation (NSF)

Total Projected: \$375,501

Project Years: 3

Office of VP for Research IT and Data Management Office

Ginn, Herbert

Title: *Assessment of Marine Hydrokinetic-based Reliable and Resilient Electrification in Alaska*

Sponsor: Alliance for Sustainable Energy, LLC/NREL/DOE

Total Projected: \$30,000

Project Years: 1

Mechanical Engineering

Barazanchy, Darun

Title: *Multi-disciplinary topology optimization for induction welding coils*

Sponsor: Collins Aerospace

Total Projected: \$25,000

Project Years: 1

Gray, Joshua

Title: *Proof of Concept: Trulite Form Factor 3 Design*

Sponsor: Trulite Inc.

Total Projected: \$37,555

Project Years: 1

Hu, Ming

Title: *Deep Learning Accelerated Inverse Design of Lab-Scale Energy Efficient Heterojunctions for Wide-Bandgap Devices*

Sponsor: National Science Foundation (NSF)

Total Projected: \$375,000

Project Years: 3

Title: *Development of Robust Cationic Metal-Organic Frameworks for Removing Anionic Radionuclides from Nuclear Waste Streams*

Sponsor: Claflin University/SRNS/DOE

Total Projected: \$30,000

Project Years: 1

**Office of VP for Research
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College of Information & Comm.

Journalism & Mass Comm.

Hickerson, Andrea

Title: Collaborative Research: DeFake: Deploying a Tool for Robust Deepfake Detection

Sponsor: National Science Foundation (NSF)

Total Projected: \$114,234

Project Years: 3

McKeever, Brooke

Title: Media Advocacy and the Health Belief Model in the Context of COVID-19: A Mixed Methods Study

Sponsor: Association for Education in Journalism and Mass Communication (AEJMC)

Total Projected: \$2,000

Project Years: 1

College of Pharmacy

Pharm - Clin Pharm & Outcomes Sciences

Sutton, Scott

Title: The advancement of rural pharmacy education infrastructure in South Carolina through clinical practice training and research: The UofSC College of Pharmacy & Tandem Health rural health pharmacy training model.

Sponsor: SC Center for Rural and Primary Healthcare/SCDHHS

Total Projected: \$727,500

Project Years: 3

**Office of VP for Research
IT and Data Management Office**

College of Social Work

Social Work - Dean's Office

Levkoff, Sue

Title: South Carolina - Advancing Diversity in Aging Research Undergraduate Program

Sponsor: National Institute on Aging (NIA)/NIH

Total Projected: \$1,689,629

Project Years: 5

Darla Moore School of Business

Moore Sch - Div. of Research

Von Nessen, Joseph

Title: SC Sea Grant Consortium - ROI Analysis

Sponsor: SC Sea Grant Consortium/NOAA

Total Projected: \$25,000

Project Years: 1

Title: Jamie Kimble Foundation for Courage: Economic Impact of Domestic Violence on SC

Sponsor: Jamie Kimble Foundation for Courage

Total Projected: \$25,000

Project Years: 1

Small Business Dev. Ctr.

Abraham, Michele

Title: South Carolina Department of Commerce Award Fiscal Year 2021-2022

Sponsor: SC Department of Commerce (SCDOC)

Total Projected: \$550,000

Project Years: 1

Office of VP for Research IT and Data Management Office

Enrollment Management

TRIO Programs

Counts, Althea

Title: Talent Search Program

Sponsor: US Department of Education (USDE)

Total Projected: \$2,690,545

Project Years: 5

School of Law

Children's Law Center

Morris, Carolyn

Title: South Carolina Network of Children's Advocacy Centers Contract

Sponsor: SC Network of Children's Advocacy Centers/DOJ

Total Projected: \$9,344

Project Years: 1

Law - Dean's Office

Samuels, Joel

Title: Justice for All in Conflict-Affected Countries: Sierra Leone and Liberia

Sponsor: New York University (NYU)/Netherlands Ministry of Foreign Affairs

Total Projected: \$100,000

Project Years: 1

Title: Supporting Criminal Justice Reform and Strengthening Anticorruption Efforts in Moldova - Subaward from ABA ROLI

Sponsor: American Bar Association (ABA) - Rule of Law Initiative (ROLI)/DOS

Total Projected: \$200,000

Project Years: 2

**Office of VP for Research
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School of Medicine

Cell Biology & Anatomy

Eberth, John

Title: Reducing intravascular stent thrombogenicity by hyaluronic acid coating

Sponsor: PRISMA Health - Midlands

Total Projected: \$25,000

Project Years: 3

Internal Medicine

Weissman, Sharon

Title: Housing Opportunities for Persons With AIDS

Sponsor: City of Columbia/HUD

Total Projected: \$476,169

Project Years: 1

**Office of VP for Research
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Pediatrics

Rotholz, David

Title: Training Programs and Technical Assistance for Staff

Sponsor: SC Department of Disabilities and Special Needs

Total Projected: \$162,484

Project Years: 1

Title: Provision and Training and Certification for Self-Directed Attendant Care for ID/DD and HASCI Waiver Participants

Sponsor: SC Department of Disabilities and Special Needs

Total Projected: \$200,000

Project Years: 1

Title: SC Developmental Disability Council Professional Services

Sponsor: SC Developmental Disability Council/ACL/HHS

Total Projected: \$29,435

Project Years: 1

University 101

U101 and National Resource Ctr.

Young, Dallin

Title: The State of Math Readiness in SC

Sponsor: Francis Marion University/SC CHE

Total Projected: \$6,000

Project Years: 1

**Office of VP for Research
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University of SC Aiken

AK Biology & Geology

Mills, Mary

Title: Identification and Characterization of the Culicoides Small Non-coding RNA Transcriptome

Sponsor: United States Department of Agriculture (USDA)

Total Projected: \$1,000

Project Years: 1

University of SC Beaufort

BFT Hospitality Management

Olivetti, Keri

Title: Vision for the Future: A Collaboration between USC Beaufort and the Town of Hilton Head Island

Sponsor: SCRF/Town of Hilton Head Island

Total Projected: \$186,367

Project Years: 1

BFT Natural Sciences

Pettay, Daniel

Title: Bacterial source tracking for the Town of Bluffton in the May River, SC.

Sponsor: Town of Bluffton

Total Projected: \$50,000

Project Years: 5