

# Office of Research IT and Data Management Office

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## **University of SC Beaufort**

### **BFT Fine Arts**

**Angell, Eliot**

*Title:* USCB Emerging Artists 2023-2024

*Sponsor:* South Carolina Arts Commission/SCDE/OESE - USDE

*Total Projected:* \$11,865

*Project Years:* 1

## **Arnold School of Public Health**

### **Exercise Science**

**Arent, Shawn**

*Title:* Improving Neuroprotection, Cognitive Function, and Mental Focus with Neurodegradation Countermeasure

*Sponsor:* AmpHP, Inc dba Momentous/US Air Force/DOD

*Total Projected:* \$232,169

*Project Years:* 1

## **College of Engineering & Comp.**

### **Mechanical Engineering**

**Banerjee, Sourav**

*Title:* Fully Autonomous Omnidirectional Adaptive Robots for the disinfection and decontamination of transit assets

*Sponsor:* Advent Innovations Limited Company/DOT

*Total Projected:* \$100,000

*Project Years:* 2

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## **College of Engineering & Comp.**

### **Mechanical Engineering**

**Besmann, Theodore**

*Title:* Joint Appointment with Oak Ridge National Lab

*Sponsor:* UT-Battelle c/o Oak Ridge National Laboratory (ORNL)/DOE

*Total Projected:* \$68,572

*Project Years:* 2

## **College of Arts and Sciences**

### **Mathematics**

**Binev, Peter**

*Title:* Foundations of Computational Mathematics Conference – FoCM 2023

*Sponsor:* National Science Foundation (NSF)

*Total Projected:* \$49,500

*Project Years:* 1

## **University Libraries**

### **Univ Libraries - Dean's Office**

**Boyd, Kate**

*Title:* Underrepresented Perspectives in South Carolina Newspapers

*Sponsor:* National Endowment for the Humanities (NEH)

*Total Projected:* \$314,620

*Project Years:* 2

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## **School of Medicine**

### **Path, Microbio. & Immunology**

**Busbee, Philip**

*Title:* 2022 Careers in Immunology Fellowship

*Sponsor:* American Association of Immunologists

*Total Projected:* \$55,227

*Project Years:* 1

## **College of Arts and Sciences**

### **Geography**

**Cutter, Susan**

*Title:* Assessment of Resilience Best Practices and Metrics in support of State Resilience Planning Efforts

*Sponsor:* South Carolina Office of Resilience

*Total Projected:* \$65,000

*Project Years:* 1

## **College of Arts and Sciences**

### **Geography**

**Dow, Kirstin**

*Title:* Heat Mapping in Richland County

*Sponsor:* Richland County Conservation Commission

*Total Projected:* \$6,250

*Project Years:* 1

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## **College of Engineering & Comp.**

### **Civil & Environmental Eng.**

**Dykstra, Steven**

*Title:* Assessing sea-level rise and flooding changes in the Sacramento/San Joaquin Delta using historical water-level records

*Sponsor:* California Polytechnic State University/US Bureau of Reclamation/DOI

*Total Projected:* \$40,529

*Project Years:* 1

## **College of Pharmacy**

### **Pharm - Clin Pharm & Outcomes Sciences**

**Fabel, Patricia**

*Title:* Community Pharmacy-Provided Maternal Health Services Training and Implementation Toolkit Program Pilot

*Sponsor:* SC Center for Rural and Primary Healthcare, UofSC School of Medicine Educational Trust/SC DHHS

*Total Projected:* \$105,975

*Project Years:* 1

## **School of Medicine**

### **Pharm., Physiology & Neuroscience**

**Fadel, Jim**

*Title:* Hypocretin/orexin modulation of cognitive correlates of brain aging

*Sponsor:* National Institute on Aging (NIA)/NIH

*Total Projected:* \$1,100,907

*Project Years:* 3

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## College of Arts and Sciences

### Psychology

**Federico, Alexis**

*Title:* Infant Predictors of ADHD and ASD Symptomology

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

*Total Projected:* \$125,721

*Project Years:* 3

## College of Arts and Sciences

### Archaeology & Anthropology

**Fisher, John**

*Title:* Phase I Survey of a 20-acre Tract for the River Falls Access Area, Greenville County, South Carolina

*Sponsor:* SC Department of Parks, Recreation and Tourism (SCPRT)

*Total Projected:* \$14,829

*Project Years:* 1

## College of Pharmacy

### Drug Discovery & Biomed Sci.

**Francis, T. Chase**

*Title:* Substance P-Mediated Enhancement of Salience for Cues Predicting Aversive Outcomes

*Sponsor:* National Institute of Mental Health (NIMH)/NIH

*Total Projected:* \$734,503

*Project Years:* 3

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## **Arnold School of Public Health**

### **Health Prom., Educ. & Behavior**

**Frongillo, Edward**

*Title:* *The Effect of Social Capital on Global Food Insecurity*

*Sponsor:* Economic Research Service/USDA

*Total Projected:* \$30,000

*Project Years:* 2

## **Arnold School of Public Health**

### **Health Prom., Educ. & Behavior**

**Frongillo, Edward**

*Title:* *Promoting Nutrition Security by Examining the Relationships between Food Insecurity and Nutrition and Health Indicators in Federal Data*

*Sponsor:* Economic Research Service/USDA

*Total Projected:* \$30,000

*Project Years:* 2

## **College of Arts and Sciences**

### **Biological Sciences**

**Fu, Zhengqing**

*Title:* *Coordination of Plant Growth and Defense Through Key Regulators in Salicylic Acid and Brassinosteroid Pathways*

*Sponsor:* National Science Foundation (NSF)

*Total Projected:* \$574,446

*Project Years:* 3

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## College of Arts and Sciences

### School of Earth, Ocean & Env.

**Fuente, David**

**Title:** Collaborative Research: NNA Research: Meq unguvatkarput (water is our livelihood) - building community resilience for the future

**Sponsor:** National Science Foundation (NSF)

**Total Projected:** \$55,827

**Project Years:** 4

## College of Engineering & Comp.

### Eng. & Computing Dean's Office

**Gholizadeh, Sona**

**Title:** ECR: BCSEER: Generational Family Patterns, and Engineering Entry and Persistence; A Bowen Family Systems Approach

**Sponsor:** National Science Foundation (NSF)

**Total Projected:** \$349,999

**Project Years:** 6

## College of Arts and Sciences

### Statistics

**Habing, Brian**

**Title:** IPA for NISS Associate Director for Education Activities and Research

**Sponsor:** National Institute of Statistical Sciences (NISS)

**Total Projected:** \$74,528

**Project Years:** 1

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## ***Economic Engagement***

### ***Ofc of Economic Engagement***

**Hardaway, Chad**

**Title:** USC STEM Workforce Development Network

**Sponsor:** Economic Development Administration (EDA)/DOC

**Total Projected:** \$548,090

**Project Years:** 5

## ***College of Engineering & Comp.***

### ***Mechanical Engineering***

**Harik, Ramy**

**Title:** (PI: Matthew Godbold) - GRF 2022-23: Inspection Influenced Manufacturing: Characterization of an Automated Fiber Placement System

**Sponsor:** College of Charleston/SC Space Grant Consortium/NASA

**Total Projected:** \$16,000

**Project Years:** 1

## ***Arnold School of Public Health***

### ***Epidemiology & Biostatistics***

**Hebert, James**

**Title:** A Transdisciplinary Approach to Investigating Metabolic Dysregulation in Obese Parent and Child Dyads and Risk of Colorectal Cancer

**Sponsor:** National Cancer Institute (NCI)/NIH

**Total Projected:** \$5,869,948

**Project Years:** 5



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## College of Engineering & Comp.

### Chemical Engineering

**Heyden, Andreas**

**Title:** Collaborative Research: ECO-CBET: Coupled homogeneous and heterogeneous processes for an environmentally sustainable lignin-first biorefinery

**Sponsor:** National Science Foundation (NSF)

**Total Projected:** \$860,000

**Project Years:** 4

## College of Arts and Sciences

### Geography

**Hiscox, April**

**Title:** Radar-based Spray Drift Detection and Quantification System

**Sponsor:** Application Insight, LLC/USDA

**Total Projected:** \$23,053

**Project Years:** 1

## College of Arts and Sciences

### Biological Sciences

**Hollis, Brian**

**Title:** Experimental speciation and the genomics of reinforcement in *Drosophila*

**Sponsor:** National Science Foundation (NSF)

**Total Projected:** \$383,432

**Project Years:** 3

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## College of Arts and Sciences

### Psychology

**Hudac, Caitlin**

**Title:** *BioGENE Study at the Simons Searchlight 2022 Family Meeting*

**Sponsor:** Simons Foundation

**Total Projected:** \$15,000

**Project Years:** 1

## Hosp., Retail, & Sport Mgmt

### Hotel, Restaurant & Tour Mgmt

**Hudson, Simon**

**Title:** *An online toolkit for tourism success post-pandemic*

**Sponsor:** Economic Development Administration (EDA) - US Department of Commerce (DOC)

**Total Projected:** \$144,000

**Project Years:** 1

## College of Engineering & Comp.

### Civil & Environmental Eng.

**Imran, Jasim**

**Title:** *LEAP-HI: A data-driven Fragility Framework for Risk Assessment of Levee Breach*

**Sponsor:** National Science Foundation (NSF)

**Total Projected:** \$2,000,000

**Project Years:** 5

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## **College of Engineering & Comp.**

### **Computer Science & Engineering**

**Jamshidi, Pooyan**

*Title: Collaborative Research: EAGER: Towards a Design Methodology for Software-Driven Sustainability*

**Sponsor:** National Science Foundation (NSF)

**Total Projected:** \$100,001

**Project Years:** 1

## **College of Engineering & Comp.**

### **Electrical Engineering**

**Khan, Asif**

*Title: Development of A New High Temperature Source Metalorganic Chemical Vapor Deposition System (HTS-MOCVD) for Next Generation IIIA/B-Nitrides*

**Sponsor:** National Science Foundation (NSF)

**Total Projected:** \$629,656

**Project Years:** 2

## **College of Education**

### **Research, Eval., & Measurement**

**Lewis, Ashlee**

*Title: South Carolina Arts Assessment Program (SCAAP)*

**Sponsor:** SC Department of Education (SCDE)

**Total Projected:** \$80,000

**Project Years:** 1

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## **Arnold School of Public Health**

### **Health Prom., Educ. & Behavior**

**Li, Xiaoming**

**Title:** *BDHC Excellence Pilot Project: A two-pronged big data approach to critically analyze Strongyloides stercoralis infections among rural, impoverished South Carolina residents*

**Sponsor:** SC Center for Rural and Primary Healthcare, UofSC School of Medicine Educational Trust/SC DHHS

**Total Projected:** \$15,000

**Project Years:** 1

## **University of SC Aiken**

### **AK School of Education**

**Martin, Melissa**

**Title:** SC CREATE 22-23

**Sponsor:** South Carolina Department of Education

**Total Projected:** \$102,845

**Project Years:** 1

## **College of Arts and Sciences**

### **Theatre and Dance**

**Milling, Stephanie**

**Title:** *Culturally Responsive Dance Pedagogy as a Vehicle for SEL and Responding to Learning Loss in Dance Education*

**Sponsor:** SC Arts Commission

**Total Projected:** \$15,000

**Project Years:** 1

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### ***Arnold School of Public Health***

#### ***Exercise Science***

**Moore, Robert**

*Title:* IPA Agreement with Dorn VA Medical Center - Adam Harrison

*Sponsor:* WJB Dorn VA Medical Center/VA

*Total Projected:* \$52,119

*Project Years:* 1

### ***Arnold School of Public Health***

#### ***Exercise Science***

**Potter, Elizabeth**

*Title:* Feasibility of a clinic-to-community partnership providing vouchers to promote healthy food access among SNAP families with food insecurity

*Sponsor:* Prisma Health - Upstate

*Total Projected:* \$19,966

*Project Years:* 1

### ***College of Arts and Sciences***

#### ***Psychology***

**Quattlebaum, Mary**

*Title:* Integrating Family Resilience and Cultural Assets to Inform the LEADS Health Promotion Trial with African American Families

*Sponsor:* National Institutes of Health (NIH)

*Total Projected:* \$116,256

*Project Years:* 3

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### **College of Pharmacy**

#### **Drug Discovery & Biomed Sci.**

**Roninson, Igor**

*Title:* Preventing adaptive drug resistance through Mediator kinase inhibition

*Sponsor:* National Cancer Institute (NCI)/NIH

*Total Projected:* \$3,043,009

*Project Years:* 5

### **University of SC Upstate**

#### **UPS Science & Eng**

**Rosario, Astrid**

*Title:* Increasing Undergraduate Success in Science through Learning Cohorts Focused on Career Readiness

*Sponsor:* National Science Foundation (NSF)

*Total Projected:* \$749,998

*Project Years:* 6

### **College of Arts and Sciences**

#### **History**

**Schulz, Constance**

*Title:* The South Carolina Revolutionary Era Pinckney Papers Projects: Preserving the Digital Research Assets of Two Digital Documentary Editions - Final Year

*Sponsor:* National Historical Publications & Records Commission (NHPRC)

*Total Projected:* \$100,000

*Project Years:* 1

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## **University of SC Aiken**

### **AK Biology & Geology**

**Shervette, Virginia**

**Title:** *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*

**Sponsor:** US Department of Commerce (DOC)

**Total Projected:** \$299,962

**Project Years:** 2

## **Arnold School of Public Health**

### **Center for Community Health Alignment**

**Smithwick, Julie**

**Title:** *Enhancement of Telehealth Skills & Capacity for At-Risk South Carolinians*

**Sponsor:** SC Research Foundation (SCRF)/Fullerton Foundation

**Total Projected:** \$138,000

**Project Years:** 3

## **College of Arts and Sciences**

### **Mathematics**

**Sun, Yi**

**Title:** *Hybrid Kinetic Monte Carlo Methods with Applications in Biofabrication and Epidemics*

**Sponsor:** National Science Foundation (NSF)

**Total Projected:** \$176,321

**Project Years:** 3

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### *University of SC Upstate*

#### *UPS Science & Eng*

**Tanner, Scott**

*Title:* MaKenna DeYoung Histochemical Society

*Sponsor:* The Histochemical Society

*Total Projected:* \$1,000

*Project Years:* 1

### *College of Arts and Sciences*

#### *Chemistry & Biochemistry*

**Wang, Qian**

*Title:* MRI: Acquisition of the MALDI-MS rapifleX system as an analytical tool to support multidisciplinary research at University of South Carolina

*Sponsor:* National Science Foundation (NSF)

*Total Projected:* \$470,000

*Project Years:* 3



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### **College of Engineering & Comp.**

#### **Mechanical Engineering**

**Wang, Yi**

*Title:* Configurable Parametric Aeroservoelastic Reduced Order Models for Aerostructural Sensing and Control

*Sponsor:* CFD Research Corporation/NASA

*Total Projected:* \$43,996

*Project Years:* 1

### **College of Engineering & Comp.**

#### **Mechanical Engineering**

**Wang, Yi**

*Title:* Improving Data Assimilation in Numerical Weather Prediction of Winter Cyclones using Artificial Intelligence and Machine Learning

*Sponsor:* CFD Research Corporation/NASA

*Total Projected:* \$35,999

*Project Years:* 1

### **College of Arts and Sciences**

#### **Psychology**

**Weist, Mark**

*Title:* Development and Implementation of a SC School Behavioral Health Academy

*Sponsor:* South Carolina Department of Health and Human Services (SCDHHS)

*Total Projected:* \$3,224,526

*Project Years:* 2

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## **College of Engineering & Comp.**

### **Chemical Engineering**

**White, Ralph**

*Title:* Battery Cell High Frequency Electrochemical Impedance Spectroscopy (EIS) Measurement and Model Development

*Sponsor:* General Motors (GM) Holdings LLC

*Total Projected:* \$239,784

*Project Years:* 2

## **School of Medicine**

### **Pharm., Physiology & Neuroscience**

**Wilson, Marlene**

*Title:* VA Contract: Pujhari Molecular and Viral Services

*Sponsor:* Department of Veterans Affairs (VA)

*Total Projected:* \$106,000

*Project Years:* 4

## **College of Pharmacy**

### **Drug Discovery & Biomed Sci.**

**Xu, Peisheng**

*Title:* Cancer cell selective killing nanoparticle for advanced ovarian cancer treatment

*Sponsor:* National Cancer Institute (NCI)/NIH

*Total Projected:* \$1,692,530

*Project Years:* 5

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### **College of Engineering & Comp.**

#### **Mechanical Engineering**

**Yuan, Lang**

*Title:* Numerical investigation of freckling in the Vacuum Arc Remelting process

*Sponsor:* TDY Industries, LLC dba ATI Specialty Materials

*Total Projected:* \$114,788

*Project Years:* 2

### **College of Engineering & Comp.**

#### **Electrical Engineering**

**Zhang, Bin**

*Title:* An FMCW Radar based Cable Remaining Useful Life Estimator

*Sponsor:* Alex and Alice, Inc/US Army AVN and Missile CMD

*Total Projected:* \$69,200

*Project Years:* 1

### **College of Engineering & Comp.**

#### **Computer Science & Engineering**

**Zhang, Qi**

*Title:* CCRI: Planning-C: Planning to Build Digital Infrastructure for Real-Time, Continual, and Intelligent Transportation Analysis and Management

*Sponsor:* National Science Foundation (NSF)

*Total Projected:* \$93,702

*Project Years:* 1