

SPONSORED PROGRAMS and RESEARCH
SPH Award Activity - April, 2004

Education, College of

Education

Michaels, David

* *Reading First Data Warehouse - (15200-FL01)*

\$25,515

Sponsor: SC Department of Education/USDE

Educational Psychology

Yell, Mitchell

* *State Improvement Partnership Grant - (15240-FL01)*

\$25,000

Sponsor: SC Department of Education/USDE

Instruction & Teacher Education

Battle-Bailey, Lora

* *Increasing Second and Third Grade Teachers' Mathematics Knowledge using Standards-Based Instructional Strategies and Homework - (15250-GJ04)*

\$70,856

Sponsor: SC Commission on Higher Education

Brown, Mac

* *Graduate Coursework and Certification for Early Childhood Faculty and Mentors - (15250-FJ05)*

\$125,843

Sponsor: SC Department of Health & Human Services/HHS

Co-PI: Freeman, Nancy

DeFord, Diane

* *SCRI Continuing Contact Professional Development - (15250-GJ09)*

\$10,000

Sponsor: SC Department of Education

Engineering & Information Technology, College of

Chemical Engineering

Amiridis, Michael

* *Fundamental FTIR Studies of the Mechanism of NO_x Reduction under FCC Regeneration Conditions - (15510-JA35)*

\$58,000

Sponsor: USCRF/W.R. Grace & Co.

Balbuena, Perla

* *Abi Initio-Molecular Dynamics Investigations of Reaction Mechanisms for Catalysis and Electrocatalysis - (15510-FQ01)*

\$200,880

Sponsor: USCRF/Department of the Army/DOD

Chemical Engineering

- * *Modeling Lithium-Ion Conducting - (15510-FA23)* **\$35,000**
Sponsor: USCRF/University of Dayton Research Institute/DOD

Ploehn, Harry

- * *Modeling Efforts for the Advanced Alternate Power Source - (15510-FA28)* **\$82,176**
Sponsor: USCRF/US Government (USG) - General

Ritter, James

- * *Development of an Adsorption Process Simulator for Extraterrestrial Applications - (15510-FA51)* **\$20,000**
Sponsor: USCRF/National Aeronautics & Space Administration (NASA) - General

Weidner, John

- * *REU Site: Novel Technologies for Pollution Prevention - (10060-FA00)* **\$107,492**
Sponsor: National Science Foundation (NSF) - General

Computer Science & Engineering

Eastman, Caroline

- * *REU Site: Multidisciplinary Research in Computing - (15590-FA21)* **\$149,890**
Sponsor: USCRF/National Science Foundation (NSF) - General
Co-PI: Bowles, John

Electrical Engineering

Dougal, Roger

- * *S3D: Integrative Environment for Design of Dynamic Ship Systems -* **\$782,163**
Sponsor: USCRF/Florida State/ONR
Co-PI: Monti, Antonello

Santi, Enrico

- * *CAREER: Modeling, Control and Stability Investigation of Multiple Power Converter Systems - (15530-FA33)* **\$396,557**
Sponsor: USCRF/National Science Foundation (NSF) - General

Seminario, Jorge

- * *Design of Programmable Molecules and Molecular Chips - (15530-FQ01)* **\$295,000**
Sponsor: USCRF/Department of the Army/DOD

Sudarshan, Tangali

- * *Lapping and Polishing of Silicon Carbide Wafers - (15530-LA00)* **\$5,200**
Sponsor: USCRF/Various Sponsors

Mechanical Engineering

Giurgiutiu, Victor

* *Predictive Methodologies for the Design of Lamb-Wave Piezoelectric Wafer Active Sensors for Structural Health Monitoring, Damage Detection and Failure Prevention - (15540-FA42)* **\$189,999**

Sponsor: USCRF/National Science Foundation (NSF) - General

Sutton, Michael

* *CNT Size Effects on Polymer Composite Properties - (15540-FA28)* **\$116,072**

Sponsor: USCRF/National Aeronautics & Space Administration (NASA)

Co-PI: Reynolds, Anthony; Myrick, Michael

Law, School of

Law, School of

Morris, Carolyn

* *Status Offender Project - (15800-FL18)* **\$155,683**

Sponsor: SC Department of Public Safety/DOJ

Liberal Arts, College of

Criminology & Criminal Justice, Department of

Brame, Robert

* *A Group-Based Method for Analyzing Development - (12200-FA06)* **\$10,192**

Sponsor: USCRF/Carnegie Mellon University/NIH

McKissick Museum

Williams, Jay

* *COURAGE Project - (34000-FA05)* **\$9,000**

Sponsor: The Humanities Council/NEH

Political Science

Angel, Robert

* *Collaborative Research: Oceanic Application of Laser Induced Breakdown Spectroscopy - (13020-FA61)* **\$75,000**

Sponsor: USCRF/National Science Foundation (NSF) - General

Psychology

Allen, Gary

* *Higher Education Mathematics Partner (HEMP) - (17110-FL24)* **\$4,000**

Sponsor: SC Department of Education/USDE

Psychology

Kelly, Sandra

* *FIBR: Planning for Grant Proposal on Cortical Organization and Limits of Human Potential - (13580-FA31)*

\$34,676

Sponsor: USCRF/National Science Foundation (NSF) - General

Co-PI: **Morris, Robin**

Kilmann, Peter

* *GA: Lexington School District Two - (13580-HP11)*

\$3,600

Sponsor: Lexington School District Two

Public Service & Policy Research, Institute for

Oldendick, Robert

* *Tobacco Growers Survey - (21100-FL14)*

\$54,565

Sponsor: USCRF/Wake Forest/NIH

Medicine, School of

Cell & Developmental Biology & Anatomy

Goldsmith, Edie

* *Role of Discoidin Domain Receptor 2 in Valvulogenesis - (18020-FA17)*

\$335,274

Sponsor: USCRF/National Institutes of Health (NIH) - General

Co-PI: **Potts, Jay**

Family & Preventive Medicine

McDermott, Suzanne

* *The South Carolina Disability and Health Project - (18130-FL06)*

\$454,545

Sponsor: USCRF/Centers for Disease Control (CDC)/HHS

Microbiology & Immunology

Fox, Alvin

* *Proteomics and Advanced Bio-Analytical Instrumentation for Microbial Characterization - (18060-FA10)*

\$18,166

Sponsor: SC Universities Research and Education Foundation (SCUREF)/WSRC/DOE

Pathology & Microbiology

Wargovich, Michael

* *Prostate Cancer Consortium Award "Nutrition Project" - (18060-FA11)*

\$5,646

Sponsor: University of NC at Chapel Hill/DOD

Pediatrics/Developmental Disabilities, Center for

Derrick, C. Warren

- * *South Carolina Children's Advocacy Medical Response System -* **\$416,036**
Sponsor: USCRF/The Duke Endowment

Neuberg, Ronnie

- * *National Children's Cancer Foundation Research Project - (18140-FA04)* **\$6,657**
Sponsor: National Childhood Cancer Foundation/NIH

- * *Per Case and Specimen Reimbursement Agreement - (18140-FA05)* **\$2,000**
Sponsor: USCRF/National Childhood Cancer Foundation/NIH

Pharmacy, College of

Basic Pharmaceutical Sciences

Zhu, Bao

- * *2-Methoxyestradiol and Hormonal Cancer - (11110-FA08)* **\$207,338**
Sponsor: USCRF/National Cancer Institute (NCI)/NIH

Public Health, Arnold School of

Communication Sciences & Disorders

Healy, Eric

- * *Flexibility in Research Design using Current Experimental Control* **\$5,645**
Mechanisms - (11560-KA02)
Sponsor: MUSC/James E. & Pamela Knowles Foundation

Epidemiology & Biostatistics

Hebert, James

- * *Self-report Dietary Data: Influence of Bias and Imprecision on Intervention* **\$16,859**
Effect Estimates - (11520-KA04)
Sponsor: SC Nutrition Research Consortium/SCRA

Epidemiology & Biostatistics

Vena, John

- * *Impact of Physical Fitness and Exercise on Health - (11570-FA47)* **\$17,096**
Sponsor: Cooper Institute/NIH

Health Services & Policy Research, Center for

Phillips, Evelyn

- * *Consultation/Research with Epilepsy Foundation of South Carolina -* **\$3,488**
Sponsor: USCRF/Epilepsy Foundation/MUSC/CDC

Woods, John

- * *Design of a Health Care Pay-for-Performance Program - (18130-KL00)* **\$50,000**
Sponsor: USCRF/Fullerton Foundation

Health Services Policy & Management

Glover, Sandra

- * *African American Public Health Fellowship and Development Program to Address Health Disparities - (11500-KJ00)* **\$674,978**
Sponsor: USCRF/W.K. Kellogg Foundation

Laditka, Sarah

- * *GA: SC Campaign to Prevent Teen Pregnancy - (11550-KP11)* **\$108**
Sponsor: SC Campaign to Prevent Pregnancy

Prevention Research Center

Hooker, Steven

- * *Department of Insurance Focus Group Review Project - (11570-FL05)* **\$12,800**
Sponsor: Office of Research & Statistics/HRSA

Public Health, Arnold School of - Dean

Pastides, Harris

- * *Columbia Area Public Health Professional Partnership - (11500-K200)* **\$73,431**
Sponsor: Robert Wood Johnson Foundation

Walker, Samuel

- * *Use of Integrated Remote Sensing and Field Techniques for Assessing and Managing the Distribution of Invasive Plants of Southeastern Estuaries - (11510-FA55)* **\$20,000**
Sponsor: USCRF/National Oceanic & Atmospheric Administration (NOAA)/DOC
Co-PI: Porter, Dwayne

Science and Mathematics, College of

Baruch Institute

Lewitus, Alan

* *The Effectiveness of Vegetative Buffers in Reducing Nonpoint Source Pollution in Stormwater Detention Ponds - (21600-FA63)*

\$66,083

Sponsor: SC Sea Grant Consortium/NOAA

Biological Sciences

Ely, Berten

* *REU Site: Undergraduate Research in Integrative Evolutionary Biology - (13010-FA21)*

\$13,250

Sponsor: National Science Foundation (NSF) - General

Mousseau, Timothy

* *Collaborative Research: Reproductive Behavior and Immune Disease - (13010-FA48)*

\$6,000

Sponsor: USCRF/National Science Foundation (NSF) - General

Quattro, Joseph

* *Zoogeography of the Centrarchidae of the South Atlantic Slope -*

\$10,000

Sponsor: SC Department of Natural Resources

Sawyer, Roger

* *Workshop to Establish a Middle School Science Teachers Summer Institute - (13000-FL01)*

\$4,000

Sponsor: SC Department of Education/USDE

Co-PI: Singer, Jonathan

Chemistry & Biochemistry

Angel, S. Michael

* *An Investigation of Enhanced Laser-Induced Spark Emission and Material Ablation Following Sequential Laser Pulse Excitation - (13020-FA49)*

\$220,000

Sponsor: USCRF/National Science Foundation (NSF) - General

Dawson, John

* *Editing: Journal of Inorganic Biochemistry - (13020-J400)*

\$2,834

Sponsor: Elsevier Science, Inc.

Ferry, John

* *Developing South Carolina's Ability to Write Center- Level Environmental Proposals: An Expert Seminar - (13020-GA06)*

\$10,000

Sponsor: SC Research Authority/EPSCoR

Chemistry & Biochemistry

Morgan, Stephen

* *Analysis of Fiber Dyes by Raman Spectroscopy - (13020-FA31)* **\$159,198**

Sponsor: USCRF/Federal Bureau of Investigation/DOJ

Murphy, Catherine

* *REU Site: Undergraduate Research in Nanoscience - (22040-FA15)* **\$59,612**

Sponsor: USCRF/National Science Foundation

Co-PI: zur Loye, Hans-Conrad

Myrick, Michael

* *CNT Size Effects on Polymer Composite Properties - (13020-FA38)* **\$123,208**

Sponsor: USCRF/National Aeronautics & Space Administration (NASA)

Co-PI: Scrivens, Walter

Sodetz, James

* *Purified Human Complement Proteins - (13020-JA05)* **\$7,500**

Sponsor: USCRF/Advanced Research Technologies

Wuthier, Roy

* *Role of Matrix Vesicles in Calcification - (13020-FA35)* **\$60,000**

Sponsor: USCRF/National Institute of Arthritis & Musculoskeletal & Skin Diseases (NIAMS)/NIH

zur Loye, Hans-Conrad

* *Structural Investigations of Complex Oxides Using Synchrotron Radiation - (13020-FA60)* **\$149,978**

Sponsor: USCRF/US Department of Energy (DOE) - General

* *Structural Investigations of Complex Oxides Using Synchrotron Radiation - State Match for 13020-FA60 - (13020-GA07)* **\$13,003**

Sponsor: South Carolina Research Authority

Geological Sciences

Cohen, Arthur

* *Strategic Improvement Plan Educational Activity: Environmental Science Research/Training Activities in the Everglades of Florida - (13040-FJ01)* **\$2,190**

Sponsor: SC Research Authority/SC EPSCoR Program/EPA

Kellogg, James

* *Editorship of Elsevier Science Ltd: Journal of South American Earth Sciences - (13040-J400)* **\$5,200**

Sponsor: Elsevier Science Ltd.

Geological Sciences

Lakshmi, Venkataraman

- * *Modeling the Influence of Plant Cover on Water and Energy Cycling at the Land-Atmosphere Interface: Constraints from Satellite and Ground Data -* **\$6,308**
Sponsor: USCRF/National Aeronautics & Space Administration (NASA)

Prokopenko, Alexander

- * *Collaborative Research: Holocene Climatic Changes in the Mongolian Plateau - (13040-FA76)* **\$1,200**
Sponsor: USCRF/National Science Foundation (NSF) - General

White, Scott

- * *Collaborative Research: Hydrothermal System Response to Magma Supply and Crustal Thickness Gradients Along the Galapagos Spreading Center, 89.5-94W - (13040-FA77)* **\$77,583**
Sponsor: USCRF/National Science Foundation (NSF) - General

Yogodzinski, Gene

- * *Primitive Plutonism in an Island Arc - (13040-FA75)* **\$31,172**
Sponsor: USCRF/National Undersea Research Program/NOAA

Mathematics

DeVore, Ronald

- * *Collaborative Research: Compression of Geometry Datasets - (13060-FA02)* **\$75,000**
Sponsor: USCRF/National Science Foundation (NSF) - General
- * *Mathematical Analysis for Data and Image Processing in an Integrated Computational Environment - (13060-FQ01)* **\$71,235**
Sponsor: USCRF/Department of the Army/DOD

Physics & Astronomy

Blanpied, Gary

- * *Pilot Course for Physical Science Companion - (13070-GJ00)* **\$14,152**
Sponsor: SC Department of Education

Johnson, Joseph

- * *Maintenance, Upgrades, and Fixes for Geologic Computer Systems -* **\$1,320**
Sponsor: USCRF/Tramontane, Inc.

Kunchur, Milind

- * *Transport Behavior of Superconductors at High Dissipative Currents - (13070-F129)* **\$72,965**
Sponsor: US Department of Energy (DOE) - General

Statistics

Grego, John

* *Modeling the Impact of Reservoir Management on Important Ecosystem in the Santee River Basin - (13080-FA15)* **\$30,000**

Sponsor: Clemson University/USGS/DOI

Piegorsch, Walter

* *Low-dose Risk Bounds via Simultaneous Confidence Bands - (13080-FA16)* **\$138,225**

Sponsor: USCRF/SC Department of Health & Human Services/NIH

West, Webster

Senior and Regional Campuses

USC Aiken

Priest, Jeffrey

* *2004 Advanced Placement Teacher Institute - Follow-Up - (17110-GL20)* **\$4,506**

Sponsor: SC Department of Education

* *2004 Advanced Placement Teacher Institutes - (17110-GL19)* **\$42,894**

Sponsor: SC Department of Education

USC Salkehatchie

Chavous, Warren

* *Salkehatchie Summer Scholars 2004 Camp - (17660-KL12)* **\$26,000**

Sponsor: USCRF/Gaylord & Dorothy Donnelley Foundation

USC Spartanburg

Davis, Thomas

* *Electrodialysis of Caustic Electrolyte Waste - (15510-JA36)* **\$45,000**

Sponsor: USCRF/Gibbs Energy, LLC

Ferrell, Jim

* *Palmetto Professorship - (17880-K128)* **\$5,000**

Sponsor: Carilina Piedmont Foundation

* *St. Francis Learning Resource Center at UCG - (17880-KL05)* **\$94,979**

Sponsor: Carolina Piedmont Foundation, Inc.

Rogers, Susan

* *USCS Achieve Program (Union) - (17880-FJ10)* **\$5,000**

Sponsor: Spartanburg County/DOL

USC Spartanburg

* *USCS Achieve Program - (17880-FJ09)* **\$5,000**
Sponsor: Spartanburg County/DOL

Turner, Jack

* *Dynamic of Lake Blalock - (17880-HA00)* **\$7,850**
Sponsor: Spartanburg Water System

Social Work, College of

Social Work, College of

DeHart, Dana

* *Ethics in Victim Services - (15900-FJ12)* **\$100,842**
Sponsor: USCRF/Valor/DOJ

Ginsberg, Leon

* *GA: Child Abuse Prevention Services, Inc. - (15900-LP32)* **\$4,032**
Sponsor: Child Abuse Prevention Services, Inc.

* *GA: Research Associates - (15900-JP20)* **\$2,136**
Sponsor: Research Associates

* *GA: Research Associates - (15900-JP21)* **\$20,160**
Sponsor: Research Associates

* *GA: Senior Primary Care - (15900-LP30)* **\$2,000**
Sponsor: Senior Primary Care

Philp, Joel

* *Training HIV Prevention Staff in Evaluation - (15900-FJ11)* **\$28,000**
Sponsor: SC Department of Health & Environmental Control/CDC

Grand Total

\$7,187,671