Business, Moore School of Business Administration - Division of Research

Schunk, Donald

Economic Update - (JA06)  
USCRF/The South Financial Group  
$12,500

Education, College of Instruction & Teacher Education

Battle-Bailey, Lora

Increasing Second and Third Grade Teachers' Mathematics Knowledge using Standards-Based Instructional Strategies and Homework - (GJ04)  
SC Commission on Higher Education  
$77,591

Freeman, Nancy

Model Outdoor Learning Environment at the USC/Gateway Child Development Center - (FL10)  
SC Department of Health & Human Services/HHS  
$199,999

Stephens, Diane

The South Carolina Research Initiative: Impact on the Reading Skills and Strategies of Children in Grades K-5 and on Teacher's Reading Beliefs and Practices - (FA01)  
US Department of Education (USDE) - General  
$187,659

Office of Program Evaluation

Seaman, Michael

Evaluation of Arts Participation Initiative - (GA00)  
SC Arts Commission  
$20,000

Teacher Quality Enhancement Project Evaluation - (FA00)  
SC Department of Education/USDE  
$49,725

Engineering & Information Technology, College of Chemical Engineering

Amiridis, Michael  
Van Zee, John

REU Site: Chemical Engineering Research in Japan - (FA30)  
USCRF/National Science Foundation (NSF) - General  
$174,600

Balbuena, Perla

Modeling Lithium-Ion Conducting - (FA23)  
USCRF/University of Dayton Research Institute/DOD  
$20,000
Chemical Engineering
Ploehn, Harry

Modeling Efforts for the Advanced Alternate Power Source - (FA28) $200,000
USCRF/US Government (USG) - General

Ritter, James

International Travel: Third Pacific Basin Conference of Adsorption Science and Technology - (FA29) $15,000
USCRF/National Science Foundation (NSF) - General

Van Zee, John

I/UCRC for Fuel Cells Center Management - (KA07) $88,000
USCRF/USC Research Foundation

The Effects of Reformate Components and Impurities on MEA Performance - (JA25) $120,000
USCRF/W. L. Gore & Associates

Civil & Environmental Engineering
Rizos, Dimitris

Structural Evaluation and Monitoring of HPS 70W Steel Bridge - (FA18) $172,806
SC Department of Transportation/DOT

Computer Science & Engineering
Cameron, Kirk

Utilization of Aggregate Network Load Modules for High Performance Computing Applications - (JA01) $51,204
USCRF/Ixia

Clarke, Duncan

Testing Based on Hybrid System Model - (FA13) $15,000
USCRF/University of Pennsylvania/NSF

Electrical Engineering
Dougal, Roger

USC Participants in Electric Ship Research and Development Consortium - (FA17) $965,043
USCRF/Florida State University/ONR/DOD

Huhns, Michael

Research Allocation in Dynamic Uncertain Domains - (F168) $50,001
Air Force Research Laboratory/DARPA/DOD

Seminario, Jorge

Nanocell Approach to a Molecular Computer - (FA04) $118,160
USCRF/Rice University/DARPA/DOD
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<tr>
<th>Department</th>
<th>Name</th>
<th>Project Description</th>
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<tbody>
<tr>
<td>Electrical Engineering</td>
<td>Sudarshan, Tangali</td>
<td>Silicon Carbide: Material Characterization, Epitaxy, and Device Fabrication and Testing - (FA23)</td>
<td>$1,467,906</td>
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<td>Engineering &amp; Information Technology, College of</td>
<td>White, Ralph</td>
<td>SCUREF Project #16 Distinguished Scientist - (FA02)</td>
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<td>Mechanical Engineering</td>
<td>Chao, Yuh</td>
<td>Refinement of Constraint-Based Fracture Toughness Model to Include Shallow Cracks - (FA29)</td>
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<td>McNeill, Stephen</td>
<td>Characterization and Model Assessment for Impact Damage Evolution in Functionally Graded Composites Using a Novel Nano-Second 3D Deformation Measurement System - (FA25)</td>
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<td>English Program for Internationals</td>
<td>Rowe, J. Alexandra</td>
<td>Professional Development Seminar for Teachers from Kazakhstan and Russia and Celebrating Teaching Excellence Across Cultures - (FJ02)</td>
<td>$280,140</td>
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<td>Environment, School of the</td>
<td>Herren, LeAnn</td>
<td>Fixed Price Task Contract Between Industrial Ecology and the SC Manufacturing Extension Program - (GL00)</td>
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<td>Floyd, Anita</td>
<td>Contract to Amend the S.C. Analysis of Impediments to Fair Housing Report - (FA16)</td>
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<td>Technical Assistance to Northwest Crescent Center - (KL04)</td>
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Liberal Arts, College of

History
Chesnutt, David

*The Papers of Henry Laurens* - (FA02)
National Historical Publications & Records Commission

$10,384

Psychology
Flaspohler, Paul

*Daily Challenges and Coping-Competence* - (FA17)
USCRF/National Institute of Mental Health (NIMH)/NIH

$1,812

Kelly, Sandra

*Alcohol Exposure, Social Behavior and Development* - (FA06)
USCRF/National Institute on Alcohol Abuse & Alcoholism (NIAAA)/NIH

$290,667

Mendez, Julia

*Companion Curriculum: Connecting Head Start Parents and Teachers to Promote Early Learning* - (FA02)
Administration for Children & Families (ACF)/HHS

$250,000

Wandersman, Abraham

*Formative and Summative Evaluation of SC EPSCoR and BRIN Grants* - (GA01)
SC Research Authority

$20,000

Public Service & Policy Research, Institute for
Oldendick, Robert

*Expanding Health Care Coverage and Stabilizing Rates within South Carolina* - (FA10)
SC Department of Insurance/HRSA/HHS

$142,048

*Performance Outcomes Measures Project - IV* - (FL08)
SC Department of Health & Human Services

$70,275

*South Carolina Trails Survey* - (GL09)
SC Parks, Recreation & Tourism

$37,246

Sociology
Simpson, Brent

*Gender and Cooperation in Social Dilemmas* - (FA03)
USCRF/National Science Foundation (NSF) - General

$58,333

Southern Studies, Institute for
Edgar, Walter

*South Carolina Encyclopedia Project* - (KA00)
SC Humanities Council

$95,957
Mass Communications & Information Studies, College of Journalism & Mass Communications, School of Bierbauer, Charles

Strategic Communications Course - (FL19) USCRF/Social Security Administration (SSA) - General $131,461

Medicine, School of

Basic Science Research
Allen, Dennis

BRIM-SOM Equipment - (FA02) USCRF/National Center for Research Resources (NCRR)/NIH $90,000

Family & Preventive Medicine
McDermott, Suzanne

State Implementation Projects for Preventing Secondary Conditions - (FL04) USCRF/Centers for Disease Control (CDC)/HHS $398,807

Internal Medicine
Bryan, Charles

Midlands Care Consortium - SC ADAP Insurance Funding - (FL12) SC Department of Health & Environmental Control/HHS $50,000

Midlands Care Consortium-Ryan White Base Funds - (FL10) SC Department of Health & Environmental Control/HHS $1,698,345

Midlands Care Consortium-Ryan White Emerging Communities Fund - (FL11) SC Department of Health & Environmental Control/HHS $231,136

Ophthalmology
Pakalnis, V. Al

Protein Kinase C Beta Inhibitor - Diabetic Retinopathy Study 2 (PKC-DRS2) A Phase 3 Clinical Trial - (JA00) USCRF/Parexel $10,373

Pathology
Creek, Kim

HPIV16-Induced TGF-Beta Resistance in Human Keratinocytes - (FA02) USCRF/National Cancer Institute (NCI)/NIH $258,100

Pathology & Microbiology
Fox, Alvin

Source of Chemical Markers for Bacteria in Indoor Air - (JA00) Philip Morris USA $274,359
<table>
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<th>Pathology &amp; Microbiology</th>
<th>Ghaffar, Abdul</th>
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<td></td>
<td><em>Novel Cellular and Small Animal Models to Selectively Screen for Functional Food and Dietary Supplements Which Delay Fatigue and Enhance Physical Stamina and Mental Alertness</em> - (FA01)</td>
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<td><em>SC DHEC Division of STD/HIV</em> - (FL16)</td>
<td>SC Department of Health &amp; Environmental Control/HHS</td>
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<td><em>A Centralized Laboratory for CD34+ and CD3+ Enumeration for a Clinical Trial of T-Cell Inactivation for Unrelated Donor Transplants Phase I</em> - (FA03)</td>
<td>National Marrow Donor Program/ONR/DOD</td>
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<td><em>Basal/Bolus Therapy with Insulin Aspart</em> - (JA01)</td>
<td>USCRF/Novo Nordisk</td>
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<td><em>Mechanism of Taxotere-Induced Endothelial Barrier Dysfunction</em> - (JA01)</td>
<td>USCRF/Aventis Pharmaceuticals</td>
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<td><em>The Dean's Rural Primary Care Clerkship</em> - (K208)</td>
<td>The Duke Endowment</td>
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<td><em>Eastover Telemedicine Project-Matching Funds</em> - (KQ03)</td>
<td>Richland County Health Care Association</td>
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<td><em>Tissue Engineered Artificial Myocardium</em> - (FA00)</td>
<td>National Heart, Lung &amp; Blood Institute (NHLBI)/NIH</td>
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<td><em>Sister to Sister: Helping Low-Income Women Quit Smoking</em> - (FA00)</td>
<td>USCRF/National Institute of Nursing Research (NINR)/NIH</td>
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Pharmacy, College of

Basic Pharmaceutical Sciences

Wyatt, Michael

Effect of Dietary Components on DNA Repair - (FA07)  
USCRF/National Cancer Institute (NCI)/NIH  
$70,464

Pharmacy & Health Outcomes Sci.

Dickson, W. Michael

Analysis of SC Medicaid Schizophrenia Data - (JA04)  
USCRF/CareScience  
$35,000

Public Health, Norman J. Arnold School of

Communication Sciences & Disorders

Healy, Eric

Speech Perception by Normal and Impaired Listeners - (FA00)  
USCRF/National Institute of Child Health & Human Development (NICHD)/NIH  
$72,667

Environmental Health Sciences

Bernhard, Joan

Exploration of Eukaryotic Microbes in Sulfide-Enriched Sediments at Redox Boundaries in the Black Sea - (FA51)  
USCRF/National Science Foundation (NSF) - General  
$14,945

Newman, Lee

Phytoremediation - (FA33)  
USCRF/University of Washington/NIH  
$21,000

Epidemiology & Biostatistics

Mayer-Davis, Elizabeth

Defining Diabetes in Youth: South Carolina Site - (FA29)  
USCRF/University of Colorado/NIH  
$28,744

Weinrich, Sally

Collaborative Recruitment Centers for African American Hereditary Prostate Cancer - (F101)  
Wayne State University/Howard University/NIH  
$30,000

Exercise Science

Davis, J. Mark

Carbohydrates Electrolyte Drinks for Fluid Replacement During and After Exercise - (J120)  
Quaker Oats Company  
$50,000

Pate, Russell

Promotion of Physical Activity in High School Girls - (FA12)  
USCRF/National Heart, Lung & Blood Institute (NHLBI)/NIH  
$684,922
Health Promotion, Education & Behavior

Richter, Donna

GA: SC Campaign to Prevent Teen Pregnancy - (KP12) SC Campaign to Prevent Teen Pregnancy $3,884

Valois, Robert

Youth Risk Behavior Survey - (FA20) SC Department of Education/HHS $21,515

Health Services & Policy Research, Center for

Murday, David

Children's Access to Primary Care - (KA02) USCRF/The Duke Endowment $20,105

Public Health, Norman J. Arnold School of - (Dean)

Hebert, James Hurley, Thomas

Dietary Assessment-Randomized Trial of Sevelamer Hydrochloride in Chronic Kidney Disease Patients - (JA00) USCRF/GelTex Pharmaceuticals, Inc. $40,500

Regional and Four-Year Campuses

USC Aiken

Casdorph, Michael

Ubiquitous Campus Computing - (GQ00) SC Commission on Higher Education $798,000

Farmer, James

Pikens Salley Symposium on Southern Womens' History - (FL17) SC Humanities Council/NEH $1,200

Priest, Jeffrey

USC Aiken/USC Salkehatchie/Aiken Technical College Partnership to Prepare Paraprofessionals for Education Careers - (FL16) SC Commission on Higher Education/USDE $79,844

Weed, Keri

Evaluation of Youth Violence Prevention Cooperative Agreement - (FA12) The Mental Health Association of Aiken County/NIH $15,725

USC Beaufort

Meeks, Lila

Network Infrastructure to Support Increased Technology Use - (GL04) SC Commission on Higher Education $657,179

USC Spartanburg

Charles, James

Middle Level Teacher Education Initiative Grant - (GJ04) SC Education Oversight Committee $5,000
USC Spartanburg
Ferrell, Jim

Palmetto Professorship - (K128)
Carolina Piedmont Foundation

$5,000

Research, Vice President for
NanoCenter
Murphy, Catherine zur Loye, Hans-Conrad

REU Site: Undergraduate Research in Nanoscience - (FA15)
USCRF/National Science Foundation (NSF) - General

$59,612

Prozorov, Ruslan

Summer Research Fellowship - Using Ferromagnetic Nanoparticles to Increase Critical Currents in Type II Superconductors - (KA05)
USCRF/American Chemical Society

$8,000

Science and Mathematics, College of
Baruch Institute
Morris, James

Coastal Wetland Indicators - (FA41)
USCRF/University of North Carolina/EPA

$245,571

Staton, Joseph

Development of a Cross-Linked Copepod Life-cycle and Molecular-genetic Assay for Examining Exposures and Effects to Coastal Use Insecticides - (FA42)
SC Sea Grant Consortium/NOAA

$52,118

Biological Sciences
Brodie, Renae

CAREER: Colonizing Land Via the Estuarine Route: Ontogeny of Osmoregulation and Settlement Behaviors in Brackish Water Fiddler Crabs - (FA50)
USCRF/National Science Foundation (NSF) - General

$121,370

Dewey, Michael Holladay, John

Taxotere and Paclitaxel Disposition, Antitumor Activity and Hematopoietic Toxicity as a Function of Elevated Serum Alpha-1 Acid Glycoprotein - (JA00)
USCRF/Aventis Pharmaceuticals

$13,824

Felder, Michael

Alcohol Metabolism Genes in Transgenic Mice - (FA44)
USCRF/National Institute on Alcohol Abuse and Alcoholism (NIAAA)/NIH

$308,571

Higgins, Kevin

CAREER: The Assessment of Extinction Risk from Deleterious Mutation, Habitat Fragmentation, and Environmental Change - (FA51)
USCRF/National Science Foundation (NSF) - General

$630,000
Biological Sciences

Patel, Rekha

Regulation of Smooth Muscle Proliferation - (F198)  
National Heart, Lung & Blood Institute (NHLBI)/NIH  
$216,750

Vance, Vicki

Regulation of Post-Transcriptional Gene Silencing - (FA09)  
National Institute of General Medical Sciences (NIGMS)/NIH  
$209,525

Chemistry & Biochemistry

Bryson, Thomas

A.P. Sloan Foundation Recruiting Support for Chemistry and Biochemistry - (KJ00)  
Alfred P. Sloan Foundation  
$2,000

Bunz, Uwe

ADIMET: A Tool for the Synthesis of Alkyne-Briged Polymers - (FA18)  
USCRF/National Science Foundation (NSF) - General  
$10,000

Sugar-Coated PPEs, Novel Nanomaterials and Sensing Modules for Disease and Bioterrorism Related Threats - (FA37)  
USCRF/US Department of Energy (DOE) - General  
$99,586

Dawson, John

Editing: Journal of Inorganic Biochemistry - (J400)  
Elsevier Science, Inc.  
$5,668

Kistler, W. Stephen

Role of Specific Proteins in Spermatogenesis - (F173)  
National Institute of Child Health & Human Development (NICHD)/NIH  
$72,750

Myrick, Michael

Development of Prototypes of Multivariate Optical Imaging Systems for Packaging Adulterants - (JA03)  
USCRF/Detect-X, Incorporated  
$374,997

Shimizu, Ken

New Strategies for Improved Imprinted Polymers - (FA05)  
National Institute of General Medical Sciences (NIGMS)/NIH  
$225,781

Wuthier, Roy

Role of Matrix Vesicles in Calcification - (FA35)  
USCRF/National Institute of Arthritis & Musculoskeletal & Skin Diseases (NIAMS)/NIH  
$60,000

Geological Sciences

Kellogg, James

Editorship of Elsevier Science Ltd: Journal of South American Earth Sciences - (J400)  
Elsevier Science, Ltd.  
$10,400
**Geological Sciences**

**Owens, Thomas**

*The Lithospheric Structure of the Indian Subcontinent - (F186)*
National Science Foundation (NSF) - General  
$50,127

**Talwani, Pradeep**

*South Carolina Seismic Monitoring Network - (FA45)*
SC Universities Research and Education Foundation (SCUREF)/WSRC/DOE  
$105,995

**Torres, Raymond**

*Coastal Wetland Indicators - (FA15)*
USCRF/University of North Carolina/EPA  
$54,561

*Intertidal Marsh Hydrology and Geomorphology - (FA44)*
USCRF/National Science Foundation (NSF) - General  
$55,846

**Yogodzinski, Gene**

*Acquisition of a Quadrupole ICP Mass Spectrometer for the Department of Geological Sciences and Marine Science Program at the University of South Carolina - (FA46)*
USCRF/National Science Foundation (NSF) - General  
$173,268

*Collaborative Research: High Field Strength Elements and Hf-Nd Isotope Systematics in Aleutian Lavas: Implications for Conservative Element Behavior in Subduction Zones - (FA47)*
USCRF/National Science Foundation (NSF) - General  
$139,039

**Mathematics**

**Temlyakov, Vladimir**

*Greedy Approximation - (FA06)*
USCRF/National Science Foundation (NSF) - General  
$34,499

**Physics & Astronomy**

**Johnson, Joseph**

*Continued Enhancement and Deployment of IVIS - (FA30)*
SC Department of Public Safety/DOJ  
$77,428

*Donation Module for SC IRIS System - (GA05)*
SC Emergency Management Division  
$12,000

**Kulkarni, Varsha**

*Zinc Abundances in Damped Ly-alpha Systems at z<0.5: A Missing Link in the Chemical History of Galaxies - (FA29)*
USCRF/Space Telescope Science Institute/NASA  
$51,418

**Social Work, College of**

**Bond, Pamela**

*Interpreter Training and Testing Services - (FL13)*
SC Department of Social Services/HHS  
$31,287
Social Work, College of
Wright, Lois

Field Initiated Research: Successful Adolescent Adoption - (FA04) $83,271
Administration for Children & Families (ACF)/HHS

Grand Total $15,124,155