



THE COLLEGE OF WILLIAM AND MARY

GRANT AND CONTRACT AWARDS, FISCAL YEAR 2011

SCHOOL OF ARTS AND SCIENCES

Allen, Jonathan D., Predator Induced Transgenerational Plasticity in a Marine Snail, Jeffress Memorial Trust, \$10,000

Armstrong, David, Qweak Data Taking and Analysis, U.S. Department of Energy, \$21,444

Armstrong, David, Michael J. Kelley, William Detmold, J-Lab support, Physics Students, U.S. Department of Energy, \$175,500

Bailey, Christopher M., Brent E. Owens, Framing the Neoproterozoic Iapetan Rift sequence, Eastern Blue Ridge: Geologic Mapping of the Alberene 7.5' Quadrangle, Virginia, United States Geological Survey, \$28,109

Beck, Ruth A., Monitoring and Protection of Endangered and Threatened Avian Species, U.S. Army Corps of Engineers, \$25,000

Benner, D. C., Malathy D. Venkataraman, Laboratory Spectroscopy of CO₂ at 2.08 Microns for OCO-2, Jet Propulsion Laboratory California Institute of Technology, \$140,000

Berquist, Jr., Carl R., Geologic Mapping in the Williamsburg, Eastern Shore, and Tunstall Areas of Virginia, Virginia Division of Geology and Mineral Resources, \$10,156

Chambers, Randolph M., Strategies for Commercial and Recreational Blue Crab Fisheries, National Oceanic and Atmospheric Administration/Virginia Sea Grant, By-catch Reduction \$5,019

Cooke, William E., Dennis M. Manos, Biofouling Screens for Improving Water Quality in the Chesapeake Bay, Blackrock Algae, LLC, , \$60,000

Cristol, Daniel A., Sublethal Effects of Mercury in Birds: A Realistic Dosing Study, Virginia Department of Game and Inland Fisheries, \$261,784

Dallaire, Danielle H., Janice L. Zeman, Emotional Competence as a Protective Factor against Risk and Maladjustment for Children with Incarcerated Mothers, National Institutes of Health, \$379,435

Day, Sarah L., CAREER: Computational Dynamics and Topology, National Science Foundation, \$472,000

Del Negro, Christopher A., Maria Cristina Picardo, Evaluating Dbx1-derived Neurons as the Core Rhythm Generator in Mammalian Respiration, National Institutes of Health, \$52,622

Del Negro, Christopher A., Neurophysiology of Breathing Behavior in Mammals Studied in Neonatal Mice *in vitro*, National Institutes of Health, \$460,049

Delos, John B., Neonatal Apnea: Online Risk Score from New Analyses of Bedside Monitor Waveforms, National Institutes of Health, \$145,821

Engstrom, Eric M., Comparative Genomics Investigation of Ethylene Biosynthesis in Basal Plant Lineages: Groundwork for Forward Genetic Analysis of Ethylene Signaling in *selaginellaceae*, Jeffress Memorial Trust, \$10,000

Finifter, David H., Multi-Program Participation in SNAP and Unemployment Insurance: How Tight are the Strands of the Recession Safety Net?, U.S. Department of Agriculture, \$40,000

Finifter, David H., MARC Green Consortium: Green Industries and Employment, ICF Incorporated, LLC, \$224,348

Finifter, David H., Study of the Long-Term Unemployed in Virginia, Virginia Employment Commission, \$96,509

Galano, Joseph B., FY 2011 Healthy Families Virginia Evaluation Project, Prevent Child Abuse Virginia, \$54,172

Gallivan, Martin D., Analysis of Human Remains from the Chickahominy River, Virginia Department of Historic Resources, \$17,235

Gert, Joshua N., Response-Dependence, and Secondary Qualities Value, Brown University, \$25,000

Greenia, George D., Guide to Pilgrimage Studies and Movie *The Way*, Virginia Foundation for the Humanities and Public Policy, \$1,500

Griffioen, Keith A., FY 2011 Summer Undergraduate Research Fellowship (SURF), National Institute of Standards and Technology, \$15,250

Harbron, Elizabeth J., New Stimulus-responsive Fluorescent Systems: Rhodamine Spirolactam Sensors for Mercury and pH, Camille and Henry Dreyfus Foundation, \$60,000

Harris, Michael B., Resistance Training Improvement in Age Associated Endothelial Dysfunction, National Institutes of Health, \$212,040

Haug, Matthew C., Methodology and Metaphysics in the Sciences of the Mind (Scholars Award) National Science Foundation, \$137,297

Heideman, Paul D., Combinatorial Contributions of Heritable Neuroendocrine Variation to Male Infertility (AREA), National Institutes of Health, \$378,182

Heideman, Paul D., Reducing the Achievement Gap: Creating a Free Resource for Teachers and Learners for a Short Course and Readings on Developing Active Learning Skills, Jesse Ball DuPont Fund, \$25,650

Hinders, Mark K., Year 2: Specific Emitters Identification (SEI) for Radio Frequency Identification (RFID), Office of Naval Research, \$40,234

Hinders, Mark K., Intelligent Structural Health Monitoring with Guided Ultrasonic Waves, Airbus, \$73,500

Hinkle, Robert J., Tuning Oxocarbenium Ion and Acyl Iminium Ion Reactivity and Stereoelectronics, National Science Foundation, \$340,622

Hinton, Shantá, Elucidating the Mechanism of Pseudophosphatase MK-STYX as a Regulator of mRNRA Stability in the Stress Sesonse Pathway, National Science Foundation, \$150,000

Jones, Joe B., Proposal for Archaeological Research at the Hite-Whitham Farm Property, Cedar Creek & Belle Grove National Historic Park, National Park Service, \$129,610

Jones, Joe B., Intensive Archaeological Assessment Virginia Armories, Virginia Department of Military Affairs, \$82,677

Jones, Joe B., Crosstail Blvd, Dewberry & Davis, \$31,101

Jones, Joe B., Cumberland Marsh Dewatering, The Nature Conservancy, \$7,993

Jones, Joe B., Forestry and Integrated Training Area Management Archaeological survey of 250 Acres at MTC Fort Pickett, Virginia Department of Military Affairs, \$259,607

Jones, Joe B., Fort Pickett 3 FY2011 surveys, Virginia Department of Military Affairs, \$129,030

Jones, Joe B., Geddings & Lukens Houses ARCGLVIMS, Virginia Institute of Marine Science, \$3,880

Jones, Joe B., Intensive Historical Background Research, Cartographic Analysis, and Archaeological Assessment of the City Point War-Era Wharf, City of Hopewell, VA, \$20,000

Jones, Joe B., Jamestown Glasshouse Pt Access, Preservation Virginia, \$7,179

Jones, Joe B., Lord Fairfax Community College Student Center, Lord Fairfax Community Collge, \$11,784

Jones, Joe B., Nike Missile Site Virginia Beach, City of Virginia Beach, \$3,572

Jones, Joe B., Powhatan Plantation Drainage Improvement, The Historic Powhatan Resort - Diamond Resorts International, \$5,062

Jones, Joe B., Rice House Property Assessment, Science Museum of Virginia, \$7,384

Jones, Joe B., Site Assessments, Commonwealth of Virginia, Virginia Department of Transportation, \$124,678

Jones, Joe B., York River Bluff Stability, Vanasse Hangen Brustlin, Inc, \$105,702

Kaste, James M., Gregory S. Hancock, Riparian Buffer Bypassing by Agricultural Runoff in the James and York River Riversheds, Virginia Environmental Endowment, \$20,000

Kaste, James M., Changes in Lead Biogeochemistry in Forest Soils during Litter Decomposition, Jeffress Memorial Trust, \$30,000

Kelley, Michael J., Konstantinos Orginos, William Detmold, CWM Joint Faculty Personal Service Support, U.S. Department of Energy, \$242,000

Kerscher, Oliver P., New Targets and Functions for SUMO-targeted Ubiquitin Ligases, National Science Foundation, \$191,266

Kerscher, Oliver P., The Role of SUMO-targeted Ligases in Prevention and Resolution of Protein Aggregates, Jeffress Memorial Trust, \$20,000

Kiefer, Richard L., Robert A. Orwoll, Multilayer Polymeric Shielding to Protect Humans from Galactic Cosmic Radiation, National Aeronautics and Space Administration, \$199,999

Hanson, Steven E., Keio University: Cross-Cultural Collaboration, Keio University, \$149,000

Korinek, Loraine A., Special Education Training and Technical Assistance Center for Regions 2 and 3, 2009-11 (TTAC), U.S. Department of Education, \$1,295,320

Krakauer, Henry K., "Center for the First-Principles Design (CPD) of Piezoelectrics and Related Materials," Office of Naval Research, \$127,999

Kranbuehl, David E., Characterizing Lactamic Acid Cure, International Specialty Products, \$17,043

Kranbuehl, David E., Measurement and Analysis of Balder PVDF Coupons, Force Technology, \$42,900

Leemis, Lawrence M., NASA Techwatch: Student support, Meagan Pitluck, National Aeronautics and Space Administration, \$500

Leu, Matthias, The Human Footprint of the Eastern United States, Virginia Space Grant Consortium, \$10,000

Lewis, Robert M., Approximation and Model Management for Optimization of Systems Governed by Flow in Porous Media, ExxonMobil Upstream Research, \$20,000

Luepke, Gunter, Photo-enhanced Hydrogen Transport Technology for Clean Renewable Electrochemical Energy Systems, National Aeronautics and Space Administration, \$30,000

Lukaszew, Rosa A., Operations Support: Jose Riso, U.S. Department of Energy, \$17,500

Lukaszew, Rosa A., Phased Transition Switches Based on the Electrically Induced Metal-Semiconductor Transition in VO₂, Semiconductor Research Corporation, \$100,000

Lukaszew, Rosa A., Development of Materials and Processes of Spin-Torque Transfer (STT) Phenomenon Grandis, Inc., \$50,000

Macdonald, R. Heather, Collaborative Research: On the Cutting Edge: A Community Resource Transforming Geoscience Education, National Science Foundation, \$467,379

Manos, Dennis M., William E. Cooke, Sustainable Algal Energy Production and Environmental Remediation, U.S. Department of Energy, \$500,000

McBeth, Elaine S., A Forecast of State Responsible Inmate Admissions Populations in Virginia's Jails and Prisons, VA Department of Corrections, \$5,742

Mellor, Jennifer M., SHIP Survey Research and BMI Analysis, Williamsburg Community Health Foundation, \$80,275

Mellor, Jennifer M., Daifeng He, Hospital Responses to Medicare's Outpatient Prospective Payment System, The Robert Wood Johnson Foundation, \$117,423

Nelson, Jeffrey K., Prototype Scintillator Arrays for the CREAM TEA Project, University College London, \$48,673

Orwoll, Robert A., Richard L. Kiefer, Polyimide Nanocomposite Circuit Board Materials to Mitigate Internal Electrostatic Discharge, National Aeronautics and Space Administration, \$31,133

Owens, Christopher L., 2010 General Operating Support for Virginia Shakespeare Festival, Williamsburg Area Arts Commission, \$6,273

Pagola, Silvina, Powder Diffraction Patterns of Functional Molecular Solids, International Centre for Diffraction Data, \$1,750

Parks, Bradley C., Proposal to Qatar Development Bank, Qatar Development, \$39,921

Paxton, Barton J., Monitoring Avian Productivity and Survival (MAPS) Program at Marine Corps Base Quantico, VA, U.S. Department of Defense, \$44,101

Peers, Pieter, RI: Small: Higher Order Statistics for Appearance, National Science Foundation, \$228,600

Peterson, Susan, A Reformation for the "Cult of the Irrelevant": A Blueprint for Reconnecting Academic Social Science and National Security Policymaking, Carnegie Corporation of New York, \$25,000

Pike, Robert D., X-ray Diffraction Analysis of Niobium Samples for the Thomas Jefferson Laboratory, Jefferson Science Associates, LLC, \$6,432

Poshyvanyk, Denys, Student Travel Support for the 26th IEEE International Conference on Software Maintenance (ICSM 2010), National Science Foundation, \$6,000

Poshyvanyk, Denys, III: Small: Collaborative Research: An Inductive Framework to Support Software Maintenance, National Science Foundation, \$247,835

Rice Gary W., GOALI: Semi-Packed Gas Separation Columns with Monolayer-Protected Gold Phases, Virginia Polytechnic Institute, \$10,106

Rossi, Enrico, Effects of Disorder in Graphene and Bilayer Graphene, Jeffress Memorial Trust, \$25,000

Saha, Margaret S., HHMI Education Program 2010, Howard Hughes Medical Institute, \$1,209,000

Scheerer, Jonathan R., Chiral Non-racemic Bicyclic Diketopiperazines: A Common Precursor to Explore Diverse Asymmetric Reactions, Research Corporation, \$35,000

Scheerer, Jonathan R., Synthesis and Biosynthesis of Loline Alkaloids, A Family of Insecticidal and Insect Antifeedant Natural Products, Jeffress Memorial Trust, \$20,000

Scheerer, Jonathan R., Chiral Non-racemic Bicyclic Diketopiperazines: A Common Precursor to Explore Diverse Asymmetric Reactions, American Chemical Society/Petroleum Research Fund, \$50,000

Schniepp, Hannes C., Collaborative Research: Defined Band Gap Materials by Fractionation of Graphene Oxide, National Science Foundation, \$74,126

Schniepp, Hannes C., Structure and Shear-induced Self-assembly of Silk Proteins, Jeffress Memorial Trust, \$20,000

Schniepp, Hannes C., Molecular-Scale Visualization of Soil Release, International Specialty Products, \$19,628

Schniepp, Hannes C., Engineering Ionic Interactions for Oil Recovery with Water Flooding, Shell International Exploration and Production BV, \$26,780

Shakes, Diane C., Coordinating the Developmental and Cell Cycle Programs of Spermatogenesis, National Institutes of Health, \$279,488

Shen, Xipeng, CAREER: Input-Centric Program Behavior Analysis and Adaptation, National Science Foundation, \$162,427

Shen, Xipeng, Context-Aware Correlation-Based Program Optimizations, IBM Canada Lab, \$28,000

Strikwerda, Carl, Undergraduate Research in Global Studies: Three Faculty Positions that will Institutionalize Undergraduate Research and Faculty Collaboration Across Five Global Studies Programs, Andrew W. Mellon Foundation, \$866,000

Tierney, Michael J., Global Facility for Disaster Reduction and Recovery, Development Gateway, \$78,484

Tierney, Michael J., WBI - Geocoding, Development Gateway, \$6,000

Vahle, Patricia L., CAREER: Commissioning Calibration and Data Analysis with Nova Detectors, National Science Foundation, \$121,000

Vishton, Peter M., Intergovernmental Personnel Act (IPA) Assignment, National Science Foundation, \$115,362

Vold, Robert L., Gina L. Hoatson, NMR Quadrupolar Spin Probes of Solid State Structure and Dynamics, National Science Foundation, \$259,316

Wang, Haining, Qun Li, Integration of Protocol and Hardware Designs for Securing Internet Communications, National Science Foundation, \$125,942

Wang, Haining, Bot or Human? A Behavior--based Classification System, U.S. Department of the Army, \$300,000

Ward, Thomas, Williamsburg James City County Education Intern, Williamsburg/James City County, \$15,000

Watts, Bryan D., Fletcher M. Smith, Assessment of Saltmarsh Mercury Contamination, U.S. Fish and Wildlife Service, \$18,000

Watts, Bryan D., Whimbrel Migration Tracking, U.S. Fish and Wildlife Service, \$60,003

Watts, Bryan D., Elizabeth Mojica, Additional Support of the Satellite Telemetry Tracking of Bald Eagles at Aberdeen Proving Ground, U.S. Army, \$71,718

Watts, Bryan D., Estimating Impacts to Raptors Resulting from Deepwater Horizon (MC252) Oil Spill, U.S. Fish and Wildlife Service, \$588,447

Watts, Bryan D., Whimbrel Stopover Ecology on the Eastern Shore, U.S. Fish and Wildlife Service, \$24,889

Watts, Bryan D., Elizabeth Mojica, Scrub-Shrub Migratory Bird Monitoring, U.S. Fish and Wildlife Service, \$14,291

Watts, Bryan D., Elizabeth Mojica, Bald Eagle Nest Surveys at Indian Head, Dahlgren, and Patuxent River, U.S. Department of the Navy, \$6,998

Watts, Bryan D., Fletcher M. Smith, Linking Staging areas of Red Knots and incorporating findings into environmental education programs, U.S. Fish and Wildlife Service, \$17,435

Watts, Bryan D., Red-Cockaded Woodpecker Fall Survey, Virginia Department of Game & Inland Fisheries, \$5,000

Watts, Bryan D., Saw-whet Migration Fall Migration Final Analysis, Virginia Department of Game & Inland Fisheries, \$2,000

Watts, Bryan D., Northern Saw-whet Owl Banding, Fall 2010, Virginia Department of Game & Inland Fisheries, \$2,000

Watts, Bryan D., Michael D. Wilson, Red-Cockaded Woodpecker Survey, Fall 2010, Virginia Department of Game & Inland Fisheries, \$5,000

Watts, Bryan D., Annual Report: Peregrine Falcon Management Activities 2010, Virginia Department of Game and Inland Fisheries, \$12,140

Watts, Bryan D., Michael D. Wilson, Red-Cockaded Woodpecker Population Monitoring and Management in the Piney Grove Preserve 2011, The Nature Conservancy, \$16,000

Watts, Bryan D., Yadkin Project Bald Eagle Nest and Productivity Survey, Long View Associates, Inc., \$11,116

Wawersik, Matthew J., Lizabeth A. Allison, Margaret S. Saha, Oliver P. Kerscher, Acquisition of a Laser Scanning Confocal Microscope for Biological Imaging in Research and Teaching, National Science Foundation, \$344,652

Williams, Jobila Y., An Ethnographic Approach to Needs Assessment: the Role of Academic Advising in West African Higher Education, National Academic Advising Association, \$5,000

Williamson, Kurt E., Viral Ecology of Freshwater Ecosystems: Abundance, Community Composition, and Seasonal Dynamics, Jeffress Memorial Trust, \$20,000

OFFICE OF ECONOMIC DEVELOPMENT

Bean, William E., Innovate!Hampton Roads, U.S. Department of Commerce, \$50,000

SCHOOL OF EDUCATION

Beers, Carol S., Lead Turnaround Partnership Agreement at Central High School, Virginia Department of Education, \$525,000

Beers, James W., National Writing Project, National Writing Project, \$81,000

Defur, Sharon., State Personnel Development Grant Evaluation, U.S. Department of Education, \$147,992

Foster, Victoria A., Charles R. McAdams, Engaging Families in Breaking the Cycle of Youth Aggression, Williamsburg Community Health Foundation, \$50,000

Gareis, Christopher R., William and Mary Clinical Faculty Program, Virginia Department of Education, \$61,619

Mason, Marguerite M., David J. Lutzer, Tidewater Team to Enhance STEM Education in Grades 4-5, U.S. Department of Education, \$213,961

Mason, Marguerite M., David J. Lutzer, Tidewater Team to Enhance K-3 STEM Education, U.S. Department of Education, \$586,113

Matkins, Juanita J., Virginia Initiative for Science, Teaching and Achievement (VISTA), U.S. Department of Education, \$547,581

Popp, Patricia A., James H. Stronge, Virginia Program for the Education of the Homeless Children and Youth, Project HOPE, Virginia 2009-10, LEA (Part 2), U.S. Department of Education, \$1,133,205

Popp, Patricia A., James H. Stronge, Ensuring Educational Services to Students With Special Needs Experiencing Homelessness: A Collaboration and Professional Development Initiative, U.S. Department of Education, \$30,000

Popp, Patricia A., James H. Stronge, Building State Capacity for Preventing Youth Substance Use and Violence (aka The Bridge Grant), U.S. Department of Education, \$37,511

Rozzelle, Jan J., Michael DiPaola, SURN Leadership for Effective Teaching 2.0 (SURN LET2.0), State Council of Higher Education for Virginia, \$216,746

Rozzelle, Jan J., English Capstone Collaborative Pilot, U.S. Department of Education, \$348,807

Stronge, James H., Virginia Department of Education School Improvement Project Administrative Grant, U.S. Department of Education, \$149,789

SCHOOL OF LAW

Lederer, Fredric I., Support for OMC's Courtrooms, U.S. Army, \$160,000

Lederer, Fredric I., Martin E. Gruen, Support for the Office of Military Commissions, U.S. Department of the Army, \$200,000

Lederer, Fredric I., Martin E. Gruen, Task Agreement: Cisco Systems, Cisco Systems, Inc., \$148,000