

EXTERNAL AWARDS FISCAL YEAR 2016

ARTS AND SCIENCES

Allison, Lizabeth A., Thyroid Hormone Receptor Mislocalization and Pathogenesis, National Institutes of Health, \$421,729

Armstrong, David, Wouter Deconinck, Precision Studies of the Standard Model using Parity-Violating Electron Scattering, National Science Foundation, \$5,000

Aubin, Seth A., AC Zeeman potentials for atom interferometry on chips, Air Force Office of Scientific Research, \$99,602

Bailey, Christopher M., Geologic Mapping in the Church Road, Sutherland, Petersburg and Carson quadrangles with emphasis on Petersburg National Battlefield Park, Virginia Department of Mines, Minerals and Energy, \$5,000

Barnard, Timothy, FY 16 William & Mary Global Film Festival, Williamsburg Area Arts Commission, \$3,000

BenYishay, Ariel, Bradley C. Parks, Monitoring, Evaluation, Research, and Learning Innovations (MERLIN), United States Agency for International Development, \$69,986

BenYishay, Ariel, Impact Evaluation of Anti-Malaria Protection in Democratic Republic of the Congo, World Bank, \$46,175

Ben Yishay, Ariel, Phase KfW Impact Evaluation of Brazilian Rainforest Cover, KfW, \$23,430

BenYishay, Ariel, Daniel M. Runfola, Forest Cover, World Bank, \$49,626

Braxton, Joanne M., Religion, Spirituality and Health in the African American Experience, Library of Congress, \$50,400

Burk, Joshua A., Hypocretin orexin modulation of cognitive correlates of brain aging, National Institutes of Health, \$63,403

Burk, Joshua A., Cheryl L. Dickter, Sesame Workshop (Sesame Street), Online training-induced changes in implicit attitudes toward autistic individuals, \$2,095

Carlson, Carl E., Research in Theoretical Hadronic Physics and Related Topics, National Science Foundation, \$100,000

Carone, Christopher, Josh Erlich, Topics in Physics Beyond the Standard Model, National Science Foundation, \$280,000

Coleman, Randolph A., Biochemical systems theory modeling of Alzheimer's Disease using mitochondrial genes involved in amyloid precursor protein and tau processing, Virginia Center on Aging, \$11,150

Dalgleish, Harmony, Joshua Puzey, Garden Club of America, Student Awards, \$9,000

Dallaire, Danielle H., Catherine A. Forestell, Anthem Foundation, The William & Mary Healthy Beginnings Project, \$48,425

Deconinck, Wouter, Keith A. Griffioen, JSA Graduate Fellowships for Research at Jefferson Lab, Jefferson Science Associates, LLC, \$24,000

Deconinck, Wouter, Irina B. Novikova, REU Site: Physics Research in the Historic Triangle, National Science Foundation, \$102,738

Del Negro, Christopher A., Neurophysiology of breathing behavior in mammals studied in neonatal mice *in vitro*, National Institutes of Health, \$214,157

Delos, John B., Dynamics and Control of Atomic, Molecular and Macroscopic Systems, National Science Foundation, \$60,000

Delos, John B., Strategies to reduce apnea and optimize oxygenation in preterm infants, National Institutes of Health, \$41,500

Galano, Joseph B., Lee Huntington, Virginia, Healthy Families Virginia Statewide Evaluation FY 2016, Prevent Child Abuse, \$55,732

Gavaler, Joan, Commissioning of new work by Physical Theatre, Virginia Commission for the Arts, \$2,250

Gilmour, John B., Fulbright for teaching in the Czech Republic, U.S. Department of State, \$50,000

Griffioen, Keith A., Todd D. Averett, Nucleon Structure Studies, U.S. Department of Energy, \$402,000

Kelley, Michael J., Materials path to improved energy efficiency for high energy physics accelerators, Department of Energy, \$70,000

Kiefer, Richard L., Robert A. Orwoll, Hydrogenous Polymer-Regolith Composites for Radiation-Shielding Materials, National Aeronautics and Space Administration, \$217,600

Kier, Meredith, E-Communities: Investigating how a collaboration between STEM educators and engineers impact underserved youth's participation in engineering design, National Science Foundation, \$254,232

Kitamura, Hiroshi, History of the Virginia Science Museum, Virginia Academy of Science, \$9,500

Krakauer, Henry K., Shiwei Zhang, Quantum Monte Carlo Calculations of Chemical Binding and Reactions, U.S. Department of Energy, \$271,926

Krakauer, Henry K., *Ab Initio* Computational Studies of Strain-Coupled Properties of Transition Metal Oxides, Office of Naval Research, \$21,615

Leu, Matthias, Relations among cheatgrass-driven fire regimes, climate change, and sensitive-status bird species across the Great Basin, Bureau of Land Management, \$10,759

Lewis, Robert M., Approximation and model management for optimization of systems governed by flow in porous media II, ExxonMobil Upstream Research, \$45,000

Li, Chi-Kwong, Projection methods in quantum information science, Simons Foundation, \$35,000

McNamara, William, Catalytic Hydrogenations Using First Row Transition Metal Complexes, American Chemical Society /Petroleum Research Fund, \$55,000

Mellor, Jennifer M., SHIP Teacher Survey Fielding and Analysis for 2016, Williamsburg Community Health Foundation, \$9,209

Mordijck, Saskia, Development of long-pulse heating and current drive actuators and operational techniques compatible with a high-Z divertor and first wall, U.S. Department of Energy, \$113,000

Mordijck, Saskia, Research on DIII-D, U.S. Department of Energy, \$100,000

Nelson, Jeffrey K., Patricia L. Vahle, Michael A. Kordosky, Precision studies of neutrino oscillations and interactions, National Science Foundation, \$480,000

Novikova, Irina B., Generation of complex quantum polarization states of light in atomic ensembles via four-wave mixing, National Science Foundation, \$100,000

Novikova, Irina B., Non-linear and Quantum Optical Effects Based on Long-lived Spin Coherence in Atomic Ensembles at High Optical Depth, Air Force Office of Scientific Research, \$185,901

Owens, Christopher L., York County Arts Commission, Expanded Acting Company Salaries 2015 Season, \$1,500

Owens, Christopher L., Williamsburg Area Arts Commission, General Operating Support for Virginia Shakespeare Festival 2015 Season, \$8,000

Parks, Bradley C., Tracking and Analyzing Development Finance Flows from GCC Countries Creation and Analysis of GCC ODA, Bill and Melinda Gates Foundation, \$833,614

Parks, Bradley C., Danida Survey data analysis, Danish International Development Agency, \$94,131

Parks, Bradley C., African Development Bank Geocoding 2016, African Development Bank, \$19,309

Parks, Bradley C., Global Open Data for Agriculture and Nutrition (GODAN) Initiative: Open Data Research and Capacity-Building, Department for International Development, London, U.K., \$134,987

Parks, Bradley C., Supplemental Support for Hewlett 3-year grant for AidData, The William and Flora Hewlett Foundation, \$600,000

Parks, Bradley C., World Bank, WB Historical coding and SDGs, \$249,379

Parks, Bradley C., World Bank, World Bank Philippines, \$65,606

Parks, Bradley C., World Bank, WB Survey data analysis, \$19,829

Peers, Pieter, CAREER: Large Scale Appearance Modeling, National Science Foundation, \$94,741

Peterson, Susan, Michael J. Tierney, Survey of Junior Security and Defense Policymakers, Carnegie Corporation of New York, \$22,893

Peterson, Susan, Michael J. Tierney, Survey of APSIA Deans and Political Science Chairs, Carnegie Corporation of New York/University of Notre Dame, \$9,738

Peterson, Susan, Michael J. Tierney, Daniel Maliniak, Strengthening the Links Between Scholars and Practitioners of International Relations, Carnegie Corporation of New York, \$501,400

Peterson, Susan, Michael J. Tierney, Using Data to Bridge the Theory-Practice Divide, John D. and Catherine T. MacArthur Foundation, \$115,000

Poshyvanyk, Denys, CAREER: Enabling License Compliance Analysis and Verification for Evolving Software, National Science Foundation, \$171,029

Poshyvanyk, Denys, CI-EN: RUI: Collaborative Research: TraceLab and Beyond - Building a Shared Research Environment for Reproducible Software Engineering Experiments, National Science Foundation, \$250,000

Poshyvanyk, Denys, Deep Learning Software Repositories, National Science Foundation, \$400,000

Poutsma, John C., Collaborative Research: Intrinsic Gas-phase Properties of Amino Acids and Peptides: Thermochemistry, Fragmentation Mechanisms, H D exchange and IRMPD Spectroscopy, National Science Foundation, \$119,955

Poutsma, John C., Fragmentation Mechanisms, H D exchange and IRMPD Spectroscopy of Non-Protein Amino Acids and Non-Protein Amino Acid-Containing Peptides, National Institutes of Health, \$431,558

Qazilbash, M. Mumtaz, Broadband Infrared Nano-spectroscopy, National Science Foundation, \$135,000

Roessler, Philip, Improving Women's Access and Usage of Digital Financial Services, Gates Foundation, \$84,150

Rossi, Enrico, Two-dimensional Van Der Waals systems with tunable spin-orbit coupling, National Science Foundation, \$475,000

Runfola, Daniel M., Ariel BenYishay, VFM Analysis of GEF Land Degradation Projects, World Bank, \$87,241

Saha, Margaret S., Protocols for *Rhodococcus erythropolis*, Howard Hughes Medical Institute, \$2,000

Schniepp, Hannes C., CAREER: Exploring the Recluse Spider's Nanometer-Thin Silk Ribbons, National Science Foundation, \$90,000

Schniepp, Hannes C., DMREF: Collaborative Research: Polymeric composites and foams based on two dimensional surfactants, National Science Foundation, \$324,934

Schniepp, Hannes C., David E. Kranbuehl, Characterization of Coatings based on Polymers and Polymer Nanocomposites, Coatings Technology, Ltd., \$13,000

Stafford, Sarah, National Oceanic and Atmospheric Administration/Virginia Institute of Marine Science, Virginia Coastal Adaptation Data Portal Public Policy, \$64,000

Stafford, Sarah, US Army College Fellows Program, U S Army War College, \$18,000

Sun, Kun, Cyber Moat: adaptive virtualized network framework for deception and disinformation, Office of Naval Research, \$240,352

Sun, Kun, Design and Implementation of Decoy Enhanced Dynamic Virtualization Networks, Office of Naval Research, \$179,063

Sun, Kun, A Laboratory for Characterizing the Efficacy of Moving Target Defense, Army Research Office, \$100,890

Sun, Kun, Adaptive Virtualized Network Framework for Enterprise Network Protection, Cisco Systems, Inc., \$100,000

Swaddle, John P., GRO Fellowship Nathalie Moore, Environmental Protection Agency, \$50,000

Thelwell, Chinua A., Ford Foundation Post-Doctoral Fellowship, Ford Foundation, \$45,000

Thrash, Todd M., A motivational approach to the enhancement of imagination and human flourishing, Imagination Institute, \$175,000

Tierney, Michael J., Bradley C. Parks, Aiding Resilience? The Impact of Foreign Assistance on the Dynamics of Intrastate Armed Conflict, Office of Naval Research, \$82,072

Tierney, Michael J., Bradley C. Parks, Where the Money Goes: Mapping Aid for Better Impact, United States Agency for International Development, \$5,000,000

Tracy, Eugene R., SURF Gaithersburg - Summer Undergraduate Research Fellowship (SURF) Application for Nathan Super of the College of William and Mary, National Institute of Standards and Technology, \$9,065

van Zuylen, Anke, Closing the Gap: Finding Better Bounds and Better Algorithms, Simons Foundation, \$35,000

Walker-Loud, André, Konstantinos Orginos, Topical Collaboration in Nuclear Theory: Lowenergy probes of Fundamental Symmetries, Department of Energy, \$78,000

Wang, Haining, Investigation on Covert Channel Attacks and Countermeasures in the Cloud, Office of Naval Research, \$10,000

Wu, Xin, Gardens and Landscapes as Neo-Confucian Metaphors: Vision, Memory, and Placemaking in Song Academies, Library of Congress, \$46,200

Wustholz, Kristin L., Eppley Foundation, Conservation of our cultural heritage: surface-enhanced Raman analysis of fugitive pigments in historic paintings, \$20,100

Young, Douglas, Development of Novel Unnatural Amino Acids for Bioconjugations, National Institutes of Health, \$352,472

Zhang, Shiwei, *Ab Initio* Calculations in Correlated Electron Models and Materials, National Science Foundation, \$260,000

Zhang, Shiwei, Predictive Computing for Condensed Matter, Department of Energy, \$150,000

Zhou, Gang, Reducing Smartphone Application Delay through Read Write Isolation, Center for Innovation Technology, \$99,998

SCHOOL OF EDUCATION

Beers, James W., 2016-2017 SEED Advanced Institute to Scale Up the NWP College-Ready Program Grant, National Writing Project, \$3,295

Beers, James W., SEED 2016 National Writing Project, WP ILI Invitational Leadership Institute, U.S. Department of Education, \$15,000

Cross, Tracy, 2016 Summer Residential Governor's Schools for Engineering and Marine Science, Virginia Department of Education, \$73,119

Foster, Victoria A., Charles R. McAdams, Program Support, FY16, New Horizons Regional Education Center, \$78,650

Foster, Victoria A., Charles R. McAdams, New Kent Family Outreach Project FY16, New Kent County Public Schools, \$4,500

Hardinge, Gail B., Jacob Joseph, Integrating K-12 STEM Programs, U.S. Department of Defense, \$132,241

Hardinge, Gail B., Jacob Joseph, Military Connected Student Support System (MCASP) AY16 Professional Development, U.S. Department of Defense, \$40,449

Hardinge, Gail B., Jacob Joseph, Virginia Beach PRIDE (Positive, Resourceful, Innovative, Diverse, Engaging) 2015-2016 School Year, U.S. Department of Defense, \$190,056

Hardinge, Gail B., Jacob Joseph, K-12 STEM educational outreach in-school and summer program STEM implementation, program management and evaluation in designated Virginia school districts, U.S. Department of Defense, \$394,000

Hardinge, Gail B., Jacob Joseph, Virginia Beach PRIDE Summer Camp 2016, Department of Defense, \$90,823

Johnson, Lindy, Mark J. Hofer, Exploring Innovations in Principal and Teacher Professional Development: A Case Study of School Retool, Hewlett-Packard, \$38,500

Korinek, Loraine A., Training And Technical Assistance Center (T/TAC WM) 2015-2017, U.S. Department of Education/Virginia Department of Education, \$1,368,535

Mason, Marguerite M., George T. Rublein, Southern Virginia Elementary Mathematics Coalition to Enhance Student Achievement through Teacher Professional Development, US Department of Education/Virginia Department of Education, \$376,983

Mason, Marguerite M., George T. Rublein, Year 2 Southern Virginia Elementary Mathematics Coalition to Enhance Student Achievement through Teacher Professional Development, US Department of Education/Virginia Department of Education, \$397,855

Popp, Patricia A., James H. Stronge, FY16 Education for Homeless Children and Youth, US Department of Education/Virginia Department of Education, \$1,093,945

Popp, Patricia A., Supporting the Educational Stability of Students With Disabilities Placed in Foster Care, US Department of Education/Virginia Department of Education, \$25,000

Stoddard, Jeremy D., Spencer Foundation, Exploring Virtual Internships as a Model for Civic and Media Education, \$50,000

WILLIAM AND MARY RESEARCH INSTITUTE

Manos, Dennis M., William E. Cooke, Phase II - Baseline Studies of Molten Salt Technology for Thermal Energy Storage, Office of Naval Research, \$60,000

Manos, Dennis M., William E. Cooke, Xin Clean Energy Alternative Energy Storage, \$1,000,000

CENTER FOR ARCHAEOLOGICAL RESEARCH

Jones, Joe B., Various Projects: Cultural Resource Assessments, Virginia Department of Military Affairs, \$1,109,289

Jones, Joe B., Various Projects: Cultural Resource Assessments Denbigh Boulevard Bridge Survey, Virginia Department of Transportation, \$66,815

Jones, Joe B., Dinwiddie County Battlefields, Hanbury Preservation Consulting,\$31,340

Jones, Joe B., South Rockfish Valley, Hanbury Preservation Consulting, \$7,852

Jones, Joe B., W&M Facilities, Col of Wm & Mary, Facilities Planning, Design & Construction, \$19,197

Jones, Joe B., Various Projects: Cultural Resource Assessments, Dewberry, \$86,366

CENTER FOR CONSERVATION BIOLOGY

Watts, Bryan D., Red-Cockaded Woodpecker Fall Survey. Virginia Department of Game & Inland Fisheries, \$8,800

Watts, Bryan D., Winter Eagle Nest Surveys at NAS Oceana, NSAHR Northwest Annex, NASO Dam Neck Annex, and NALF Fentress and Fledgling Eagle Tracking, U.S. Department of the Navy, \$138,471

Watts, Bryan D., Barton J. Paxton, Assessment of Contaminant Exposure for Bald Eagles Nesting in Selected Northeast and National Capital Region Parks, National Park Service, \$59,250

Watts, Bryan D., Barton J. Paxton, Bald Eagle Nest Surveys at Mason Neck, Occoquan Bay, and Featherstone National Wildlife Refuges 2016, U.S. Fish and Wildlife, \$6,866

Watts, Bryan D., Barton J. Paxton, Bald Eagle Nest Surveys at Naval Support Facility Indian Head, Naval Support Facility Dahlgren, Naval Air Station Patuxent River Complex, and the Army's Blossom Point Research Facility 2015-2018, U.S. Department of Defense, \$16,615

Watts, Bryan D., Barton J. Paxton, Monitoring Avian Productivity and Survivorship on Quantico Marine Base, Indian Head Naval Support Facility, and Dahlgren Naval Surface Warfare Center (MAPS) 2015-2018, U.S. Department of the Navy, \$21,834

Watts, Bryan D., Elizabeth Mojica, 2015 Monitoring and Maintenance of the Coastal Virginia Peregrine Falcon Breeding Population, Virginia Department of Game and Inland Fisheries, \$24,676

Watts, Bryan D., Fletcher M. Smith, Shorebird Harvest along the Atlantic Flyway – Whimbrels, U.S. Fish and Wildlife, \$66,494

Watts, Bryan D., Michael D. Wilson, Red-cockaded Woodpecker Re-introduction on the Great Dismal Swamp National Wildlife Refuge, U.S. Fish and Wildlife, \$112,287

Watts, Bryan D., Elizabeth Mojica, Virginia Department of Transportation, Survey for Breeding Peregrine Falcons on Bridges in the Virginia Coastal Plain 2016, \$33,154

Watts, Bryan D., Barton J. Paxton, American Eagle Foundation, Working toward more effective bald eagle roost management – quantifying redundancy in roost networks, \$19,106

Watts, Bryan D., Barton J. Paxton, Elizabeth Mojica, U.S. Fish and Wildlife, Updating Virginia Bald Eagle Nest Locations to Inform Environmental Review, \$16,500

Wilson, Michael D., Bryan D. Watts, The Nature Conservancy, Red-Cockaded Woodpecker Population Monitoring and Management in the Piney Grove Preserve, \$20,000

SWEM LIBRARY

Gaidmore, Gerald P., Council on Library and Information Resources, Digitizing Over Fifty Years of Jukebox Music News: Cash Box, 1942-1996, \$60,214

SCHOOL OF LAW

Andrews, Elizabeth, Building a Resilient Coast: Extending Legal and Policy Services to Virginia's Coastal Communities, U.S. Department of Commerce/National Oceanic and Atmospheric Administration, \$48,482

Andrews, Elizabeth, Mathews County Ditch Mapping and Database, National Oceanic & Atmospheric Association, \$10,000

Hoagland, Roy, Sea Level Rise (SLR) Planning Tools, National Oceanic and Atmospheric Administration/ Middle Peninsula Planning District Commission, \$4,000

Hoagland, Roy, VIMS Portal, Blue Moon Fund, \$73,500

SCHOOL OF BUSINESS

Luchs, Michael, John Templeton Foundation, The Enhancing Life Project, \$50,000

Pearson, Roy L., Virginia Maritime Association, VA's export activity and its potential for expanding global trade, \$10,125