



UNIVERSITY OF  
CENTRAL FLORIDA

## Monthly New Awards - September 2017

### **Ahmed, Kareem A. / Blair, Richard George / Kapat, Jayanta S. / Vasu Sumathi, Subith**

Multitude Characterization and Prediction of DOE Advanced Biofuels Properties

U.S. Department of Energy

\$894,336

College of Engineering and Computer Science - Center for Advanced Turbomachinery and Energy Research /  
Mechanical and Aerospace Engineering / Florida Space Institute

### **Almagro-Moreno, Salvador**

Genomic Adaptations of *Vibrio Vulnificus* Allowing Host Microbiome Invasion During Pathogenic Infection

United States-Israel Binational Science Foundation

\$30,000

College of Medicine - School of Biomedical Science

### **Amezcuca Correa, Rodrigo / Schulzgen, Axel**

Antiresonant Hollow Core Fibers for Extreme Light Propagation

U.S. Army Research Office

\$389,600

College of Optics and Photonics - CREOL

### **Bass, Michael**

Modeling Studies of Yb-Doped Slab Amplifiers to Determine Spatially Resolved Inversion and Spatially Resolved Gain Profile, Deriving Influence on Amplified Beam Profile as well as Deriving Origins

TRUMPF, Inc.

\$49,449

College of Optics and Photonics - CREOL

### **Blair, Richard George**

Technology Translation: Demonstration and Validation of a Novel Field Drug Test System for Law Enforcement

National Science Foundation

\$200,000

College of Sciences - Physics / Faculty Cluster Initiative - Energy Conversion and Propulsion

### **Burke, Shawn**

JJHWS Behavior Change App Evaluation

Merging Traffic

\$25,000

Institute for Simulation and Training – Dept. of Human Systems Integration Research

**Chambers, Lisa**

Marsh to Mangrove Habitat Switching: Increasing the Coastal Carbon Sink?  
University of South Florida  
\$245,394  
College of Sciences - Biology

**Christodoulides, Demetrios N. / Khajavikhan, Mercedeh**

Supersymmetry in Optics & Photonics  
U.S. Army Research Office  
\$300,000  
College of Optics and Photonics - CREOL

**Coffey, Kevin R. / Jiang, Tengfei / Kaden, William Edward / Mucciolo, Eduardo R. / Schelling, Patrick K.**

Collaborative Research: Type I: Interconnects Beyond Cu  
National Science Foundation  
\$75,499  
Advanced Materials Processing and Analysis Center / College of Sciences - Physics

**Crabbs, Robert F.**

Laser Testing Support  
U.S. Air Force  
\$80,656  
College of Optics and Photonics - CREOL

**Ellis, Amy Beth**

Center for Community Schools  
Florida Department of Education  
\$46,250  
College of Health and Public Affairs

**Fiore, Stephen M.**

Team Science Training for Virginia Marine Science Graduate Student Education  
Virginia Institute of Marine Science  
\$67,227  
College of Arts and Humanities - Philosophy / Institute for Simulation and Training

**Giroux, Amy L.**

IPA Agreement for Amy Giroux  
U.S. Department of Veterans Affairs  
\$25,493  
College of Arts and Humanities - Arts Dean's Office

**Hamilton, Angela Catherine**

JHWS Behavior Change App Development and Testing  
Merging Traffic  
\$30,000  
Institute for Simulation and Training - Mixed Emerging Technology Integration Lab

**Huang, Helen J / Huang, Hsin-Hsiung / Thiamwong, Ladda**

Adaptation of Brain and Body Responses to Perturbations During Gait in Young and Older Adults  
National Institutes of Health

\$1,494,714

College of Engineering and Computer Science - Mechanical and Aerospace Engineering / College of Nursing -  
Nursing / College of Sciences - Statistics and Actuarial Science

**Jin, Yier / Zhang, Teng**

Security Certification of Autonomous CyberPhysical Systems  
National Science Foundation

\$830,649

College of Engineering and Computer Science - Department of Electrical and Computer Engineering / College  
of Sciences - Mathematics

**Katsevich, Alexander I**

Development of Novel CT Data Imaging Algorithms  
iTomography Corp.

\$85,168

College of Sciences - Mathematics

**Kent-Walsh, Jennifer E.**

FAAST Atlantic Regional Demonstration Center Project 2017-2018  
Florida Alliance for Assistive Services and Technology, Inc.

\$18,375

College of Health and Public Affairs - Communication Sciences and Disorders

**Khajavikhan, Mercedeh**

EAGER: Fundamental Considerations in Using Non-Hermitian Microscale Resonant Optical Structures for  
Rotation Sensing

National Science Foundation

\$200,000

College of Optics and Photonics - CREOL

**Khaled, Annette**

Inhibiting Protein-Folding Activity for the Treatment of Metastatic Breast Cancer  
Breast Cancer Research Foundation

\$250,000

College of Medicine - School of Biomedical Science

**Lamanna, Jacqueline M. / Conner, Norma E. / Loerzel, Victoria / Valenti, Michael T.**

The Invisible Man: Lived Experiences of Older Male Caregivers  
American Nurses Foundation

\$5,000

College of Nursing

**Nutta, Joyce W. / Johnson, Jerry / Mihai, Florin / Purmensky, Kerry**

Dual Language Support through Technology Enhanced Programs and Strategies

U.S. Department of Education

\$2,691,313

College of Education and Human Performance - School of Teaching, Learning and Leadership / College of Arts and Humanities - Modern Languages and Literatures

**Qu, Zhihua / Dimitrovski, Aleksandar / Reedy, Robert Martin / Sun, Wei / Zhou, Qun**

Scalable/Secure Cooperative Algorithms and Framework for Extremely-high Penetration Solar Integration (SolarExPert)

U.S. Department of Energy

\$1,275,000

College of Engineering and Computer Science (CECS) - Department of Electrical and Computer Engineering / Faculty Cluster Initiative - Renewable Energy Systems / Florida Solar Energy Center

**Raghavan, Seetha**

FSGC Advanced Thermal and Environmental Barrier Coating Configurations for Durability in Reusable Systems under Extreme Environments

NASA Shared Services Center

\$25,000

College of Engineering and Computer Science - Mechanical and Aerospace Engineering

**Richardson, Martin C.**

High Power Thulium Laser Marking System Development for Visibly Transparent Polymers

EoL Co., Ltd.

\$72,000

College of Optics and Photonics - CREOL

**Schleith, Susan T.**

Connecting Communities with Opportunities for Success

Battelle Memorial Institute

\$50,000

Florida Solar Energy Center

**Seal, Sudipta / Branting, Scott / Roy, Tania / Sohn, Yongho**

MRI: Acquisition of State of the Art Imaging X-Ray Photoelectron Spectroscopy: Integrating Nanotechnology, Catalysis, Physics, Manufacturing and Archaeological Research & Education

National Science Foundation

\$629,650

Advanced Materials Processing and Analysis Center / NanoScience Technology Center / College of Sciences - Anthropology

**Sohn, Yongho**

CMAS and Heavy Fuel Oil Corrosion Resistance Test of Thermal Barrier Coatings for Gas Turbine Applications

Doosan Heavy Industries and Construction Company

\$58,252

Advanced Materials Processing and Analysis Center

**Sohn, Yongho / Coffey, Kevin R.**

Mechanisms of Retention and Transport of Fission Products in Virgin and Irradiated Nuclear Graphite  
U.S. Department of Energy  
\$239,281  
Advanced Materials Processing and Analysis Center

**Vodopyanov, Konstantin L.**

Fundamental Studies of Nonlinear Optics and Laser-plasma Phenomena in Gases and Solids Using High-Power LWIR Lasers  
The Regents of The University of California  
\$100,000  
College of Optics and Photonics - CREOL

**Wahl, Thomas**

An Indicator for U.S. Coastal Extreme Sea Levels  
National Oceanic and Atmospheric Administration (NOAA)  
\$266,473  
College of Engineering and Computer Science - Civil, Environmental, and Construction Engineering / Faculty Cluster Initiative - Sustainable Coastal Systems

**Wells, Adam J.**

Effects of a Simulated Soccer Match on Neuropsychological and Cognitive Function: A Pilot Study (ID: 1062677)  
American Athletic Conference Academic Consortium  
\$8,000  
College of Education and Human Performance - Educational and Human Sciences