

# RESEARCH AND SPONSORED PROGRAMS 2018-2019 SEMI-ANNUAL REPORT

## FIRST TIME GRANT WINNERS



Deepa Bedi



Pawan Puri



Sharif M. A. Bhuiyan



Carla Jackson Bell

# DIVISION OF RESEARCH AND SPONSORED PROGRAMS



**Lily D. McNair, Ph.D.**  
President



**Roberta Troy, Ph.D.**  
Interim Provost



**Shaik Jeelani, Ph.D., P.E.**  
Vice President for Research &  
Dean of the Graduate School



**Danette Hall**  
Director of Sponsored Programs



**Felecia Moss-Grant**  
Associate Director of Compliance

## MESSAGE FROM THE DIVISION OF RESEARCH AND SPONSORED PROGRAMS

Tuskegee University recognizes the importance of external support of research and sponsored programs and the impact these vital programs have on the development of its students, faculty and society in general. Tuskegee University has a long-standing reputation of being among the nation's premiere minority research institutions committed to the total development of its students and faculty. In this annual report it is evident that through our centers of excellence, academic colleges and other institutional units, our faculty, staff and students are engaged in research that is critical to addressing the needs of today's citizens, industries and governments.

Since 1996, the Division of Research and Sponsored Programs has more than doubled its annual funding for research and other sponsored programs. The university concluded 2017-2018 with total extramural funding of **\$35 million**, which represents an increase of 16% over the last year. Credit for this enormous success goes to faculty members and staff who continue to search for resources and write winning proposals. Staff in the Division of Research and Sponsored Programs, and various departments of Business and Fiscal Affairs, are also to be commended for their enthusiastic support of the researchers in the grantsmanship process. These grants and contracts not only allow us to fulfill the research mission of Tuskegee University, but also make a huge impact on our academic programs. Tuskegee University's two Ph.D. programs in Materials Science and Engineering and Integrative Biosciences are prime examples of programs that are offered solely based on the expertise and resources developed by these faculty members.

Our long-term plan focuses on actively expanding Tuskegee University's research enterprise in the areas of nanobiotechnology, information technology, environmental science and engineering, energy, astronomy, sensors and devices, molecular biology, immunology, public health, toxicology, epidemiology, reproductive and environmental biology, and modeling and simulations.

This report highlights only a few major grants received during the first half of FY19 between July 1, 2018, and December 31, 2018, while all grants and contracts received are shown toward the end.

# TUSKEGEE UNIVERSITY RESEARCH COUNCIL

The Research Council, appointed by the university president, functions as the advisory body to the vice president for research and sponsored programs, with the responsibility of recommending policies and procedures to increase the university's external funding for research and other sponsored programs. The council is also responsible for selecting proposals for submissions to funding agencies when there is a restriction on the number of proposal that may be submitted for consideration.

## Members:



**Shaik Jeelani**  
Research & Graduate School



**Felecia Moss-Grant**  
Research & Compliance



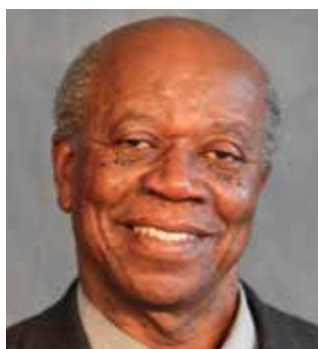
**Conrad Bonsi**  
College of Agricultural,  
Environment & Nutrition Sciences



**Gwendolyn Gray**  
School of Nursing & Allied Health



**Danette Hall**  
Office of Sponsored Programs



**Henry Findlay**  
School of Education



**Naga Korivi**  
College of Engineering



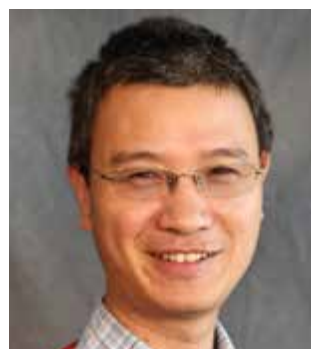
**Vijay Rangari**  
Biosafety Committee



**Aymen Sayegh**  
College of Veterinary Medicine



**Joel Wao**  
Taylor School Architecture & Construction Science



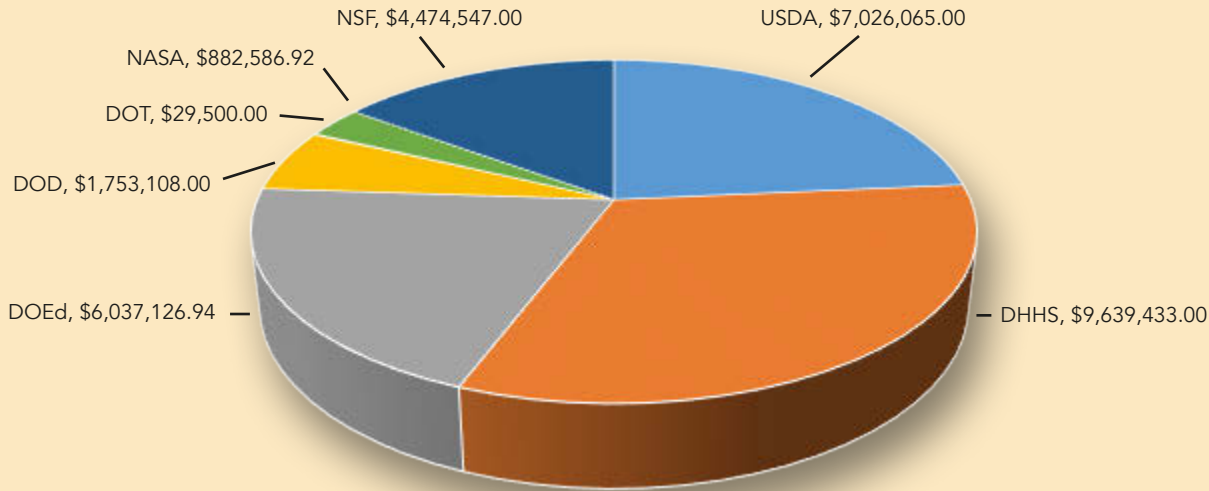
**Fan Wu**  
College of Business & Information Science



**Clayton Yates**  
College of Arts & Sciences

# Funds Received Between July 1, 2018, and December 31, 2018

- U.S. Department of Education (DOEd)
- U.S. Department of Defense (DOD)
- U.S. Department of Transportation (DOT)
- National Aeronautics and Space Administration (NASA)
- National Science Foundation (NSF)
- U.S. Department of Agriculture (USDA)
- U.S. Department of Health and Human Services (DHHS)



## AWARDS REWARDED BY UNITS

	# of Awards	Dollar Amount
College of Agriculture, Environmental and Nutrition Sciences (CAENS)	26	\$11,295,711.00
College of Arts and Sciences (CAS)	20	\$4,549,080.00
Brimmer College of Business and Information Science (CBIS)	1	\$149,996.00
College of Engineering (COE)	28	\$3,864,339.92
College of Veterinary Medicine, Nursing and Allied Health (CVMNAH)	20	\$9,181,473.94
Taylor School of Architecture and Construction Science (TSACS)	3	\$141,110.00
National Center for Bioethics in Research and Health Care	3	\$356,275.00
Office of Graduate Studies	1	\$2,120,663.00
Provost	2	\$68,362.00
President's Office	9	\$3,474,460.00
<b>TOTAL</b>	<b>113</b>	<b>\$35,201,470.86</b>

**TITLE:** A Precision Medicine Study of How Inflammation May Underlie the Excessive Burden of Prostate Cancer in Men of African Ancestry

**PRINCIPAL INVESTIGATOR:** Dr. Clayton Yates

**FUNDING AGENCY:** Department of Defense/USAMRAA



Clayton Yates

Men of African descent experience a disproportionately high prostate cancer (PCa) mortality. In collaboration with Drs. Stefan Ambs and Michael Cook at the National Cancer Institute (NCI), our labs have shown that African-Americans harbor a distinct immune-inflammation signature, and this is a risk factor that is associated with aggressive disease. Therefore, our objective is to find genes in African Americans that are responsible for this inflammation, so we can then apply the most appropriate drug regimen to treat

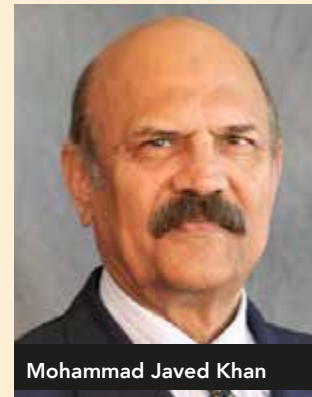
these men who suffer from prostate cancer the most. In this study, we will determine if there is a specific inflammation associated gene signature in more than 3,000 men of West African ancestry from the U.S., Ghana and Nigeria. We will perform next-generation sequencing to determine the gene expression profile of these patients and relate it to black men with prostate cancer in the U.S. Our study is the first to explore the relationship between systemic/chronic inflammation, African ancestry, and tumor biology as a cause of disease progression in men of African descent. Creating an understanding of how the interaction between chronic inflammation and tumor biology affects PCa progression in a high-risk population like African-American men offers the opportunity to develop improved prevention and therapeutic strategies using anti-inflammatory drugs and immune modulators to decrease the burden prostate cancer presents for all men. Out of a total of 48 applicants, this proposal is one of the two proposals selected for funding by the Department of Defense Congressionally Medical Directed Research Programs for Prostate Cancer. The total award amount is \$2.6 million, in which Tuskegee will receive \$1.1 million.

**TITLE:** Excellence in Research: Tolerance of Ambiguity and Academic Success

**PRINCIPAL INVESTIGATOR:** Dr. Mohammad Javed Khan

**CO-PRINCIPAL INVESTIGATOR:** Dr. Chadia Affane Aji

**FUNDING AGENCY:** National Science Foundation (NSF)



Mohammad Javed Khan

This three-year \$600,000 project is to study tolerance of ambiguity and academic success. The correlation between students' tolerance of ambiguity as signified by their cognitive models of the world and academic success has received limited attention. Additionally, limited research has been conducted to understand factors affecting the development of STEM identity of students—especially from underrepresented groups. The project team will conduct cross-sectional and longitudinal studies of

STEM and non-STEM students at Tuskegee University to measure the influence of the current curriculum in context of the constructs of tolerance of ambiguity, intellectual mental models and STEM identity. The main goal of the project is to determine the influence of tolerance of ambiguity on (a) academic success, (b) relativistic cognitive models, and (c) the process of identity development. The project team will redesign one introductory aerospace engineering course and one calculus course to provide a learning environment that will facilitate movement toward relativistic cognitive models promoting tolerance of ambiguity. The impact of this academic intervention on persistence and student academic success will be measured. The redesign of these two pilot courses will incorporate the essential elements of an authentic learning environment to engage students affectively and cognitively.

The findings of the research are expected to inform a data-supported curriculum improvement plan resulting in a learning environment that will facilitate the development of relativistic cognitive models, tolerance of ambiguity and professional identity of students. Therefore, the pedagogical techniques that will be identified under this research project will help increase academic success of STEM students.

**TITLE:** Collaborative Research: The AGEP Historically Black Universities Alliance: A Model to Advance Early Career Minority Faculty in the STEM Professoriate

**PRINCIPAL INVESTIGATOR:** Dr. Shaik Jeelani

**FUNDING AGENCY:** National Science Foundation (NSF)



Shaik Jeelani

This is an alliance led by Tuskegee University is one of six new grants awarded by the National Science Foundation's newest Alliances for Graduate Education and the Professoriate (AGEP) program. Through this five-year grant, a multi-university alliance will implement and study a model to provide junior minority faculty in science, technology, engineering and mathematics (STEM) at historically black colleges and universities (HBCUs) with experiences to promote their academic growth during their critical early years of employment as they build their tenure and

promotion applications.

The new AGEP alliance will include three HBCU implementation sites: Tuskegee University (lead), Jackson State University (Jackson, Mississippi) and Tennessee State University (Nashville, Tennessee). Faculty members holding tenure-track within three years will be recruited and immersed in project interventions, including proposal development workshops and research assignments at one of three national laboratories: Lawrence Berkeley in California, Brookhaven in New York and Oak Ridge in Tennessee, all of which are part of this alliance. In addition, the alliance will also include a knowledge-generating partner, Oakland University (Rochester, Michigan), which will study the proposed AGEP model for its effectiveness.

"RED Team Members"—a group of senior researchers who have an impressive record of mentoring and grantsmanship—will guide the junior faculty in developing and submitting white papers and full proposals to various funding agencies.

A unique feature of this grant is the use of the Virtual Sponsored Research Interactive Platform, which Tuskegee University has developed and implemented through a couple of other NSF-funded grants.

**TITLE:** Partnership for Research and Education in Multiferroic Polymer Nanocomposites Between Tuskegee University and the University of Nebraska-Lincoln

**PRINCIPAL INVESTIGATOR:** Dr. Vijaya Rangari

**CO-PRINCIPAL INVESTIGATORS:** Jeffrey Shield, Evgeny Tsymbal (UNL), Mahesh Hosur and Naga Srinivas Korivi (TU)

**FUNDING AGENCY:** National Science Foundation (NSF)



Vijaya Rangari

Multiferroics are a class of multifunctional materials that display simultaneous magnetic spin, electric dipole and ferroelastic ordering. Depending on the chemistries and structures of these materials, the properties change from their parent compounds because of the interactions between the magnetic and electronic orders, leading to unique functionalities. These materials have various electric, magnetic and structural properties, and have potential applications in novel multifunctional devices such as data storage, spin valves, spintronics, memories, sensors, and microelectronic devices. This new partnership between Tuskegee University and the University of Nebraska-Lincoln (UNL) will establish an emerging field of multiferroic polymer nanocomposites (MFPNG) research program to develop MF-PNCs for structural, energy and sensing applications. This partnership will also increase the production of African-American graduates in a new fields of materials science and engineering through exposure to MRSEC research facilities and educational activities. This new partnership will also strengthen Tuskegee's expertise in synthesis, manufacturing and characterization of advanced polymer nanocomposites, along with UNL-MRSEC's expertise in multiferroic materials. Through this grant, our graduates will help bring much-needed diversity to the nation's advanced technology workforce. It is also anticipated that the knowledge gained by the students through their involvement in these new research areas will eventually result in new design and manufacturing methodologies that may well lead to patentable processes for large-scale production of multiferroic composite materials and applications. At Tuskegee, grant funding will increase opportunities for UNL-MRSEC's multiferroic materials research collaboration; summer undergraduate research programs; cross-institutional courses; workshops and training sessions; and K-12 student/teacher training.

**TITLE:** Development of Automatic Target Recognition and Tracking Algorithm with Novel Detection and Classification Approaches

**PRINCIPAL INVESTIGATOR:** Dr. Sharif M. A. Bhuiyan, Department of Electrical and Computer Engineering

**CO-PRINCIPAL INVESTIGATOR:** Dr. Jesmin F. Khan, Department of Electrical and Computer Engineering

**FUNDING AGENCY:** Department of Defense (DoD)



Sharif M. A. Bhuiyan

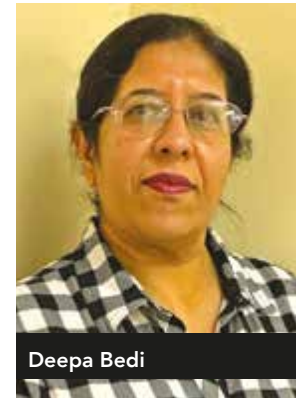
This project is based on the scientific development of a new automatic target recognition and tracking algorithm. Formulating a novel correlation filter for target detection is the key objective for this project. In the correlation approach, a target image is compared with a reference image by means of optical correlation between the two. The proposed correlation filter is expected to combine the advantages of two major, currently available correlation approaches: matched filter correlator and joint transform correlator. Developing a robust classification algorithm is the second major task. New correlation and classification approaches should increase the accuracy of separating target images from non-target images under difficult background conditions and increase the capability of classifying/differentiating many targets that are very similar. Although the algorithm will be developed for military applications in this project, it can be adopted for other types of pattern-recognition and machine-learning applications.

This project will make a significant impact in boosting the graduate and undergraduate programs of the Department of Electrical and Computer Engineering, and the university as a whole. Two graduate students and two undergraduate students will be directly involved in the project. They will work on the theoretical formulation and on simulations involving high resolution video sequencing with multiple targets. The students will learn and apply techniques of signal processing, image processing, Fourier optics and mathematics. Summer workshops will be arranged on campus by inviting students and faculty from engineering, technology, mathematics and science majors to encourage the participants for research and education in the broader areas of image processing.

**TITLE:** Phage display to Identify Epithelial to Mesenchymal Transitioned Breast Cancer Cells

**PRINCIPAL INVESTIGATOR:** Deepa Bedi

**FUNDING AGENCY:** NIH/NCI/NIGMS



Deepa Bedi

Breast cancer is the most common cancer in women, and the second-leading cause of cancer-related deaths. The cause of death in breast cancer is often due to metastasis to distant sites, resulting in organ failure accounting for a five-year survival rate of 23 percent. Evidence supports the observation that metastasis is an early event in breast cancer progression, with possibly up to 90 percent of patients already having metastasis at the time of diagnosis. The concept of EMT in breast cancer has been well demonstrated in numerous in vitro studies in different normal, malignant mammary epithelial cells and in mouse models of mammary cancers. There is a lack of specific ligands that can recognize mesenchymal-like cancer cells and define EMT in tumors and in cancer-associated fibroblasts.

The goal of this study is to identify phage ligand that can specifically and selectively bind to the mesenchymal breast cancer cells. The phage peptide can be used for preparation of targeted devices for drug and gene delivery to metastatic cells; development of probes for molecular imaging of metastasis; and identification and isolation of cancer-specific receptors as potential components for development of therapeutic antibodies, anticancer vaccines and diagnostics.

Through this NIH/NCI/NIGMS-funded research, Tuskegee University researchers will be able to gain a better understanding of the metastasis phenomenon related to cancer, which would help in diagnostics and effective treatment of metastatic breast cancer.

**TITLE:** Preserving Booker T. Washington's Mission  
"Learning to do by Doing"

**PRINCIPAL INVESTIGATOR:** Dr. Carla Jackson Bell

**CO-PRINCIPAL INVESTIGATORS:** Kwesi Daniels

**FUNDING AGENCY:** The National Trust for Historic Preservation



Carla Jackson Bell

Through this National Trust for Historic Preservation grant, Tuskegee University was awarded \$150,000 to expand the Robert R. Taylor School of Architecture and Construction Science and Management's mission "learning to do by doing." The objective of the project is to renovate Willcox Trade Building E to develop the first phase of a Center for Craft Training and Historic Preservation. The ultimate goals are to preserve the historic heritage of Tuskegee's buildings and to support the development of an innovative educational system, which will be a leader among other HBCUs in developing

craft-training skills and service through its undergraduate, research and interdisciplinary programs.

Underserved Macon County young adults, current architecture and construction science students, will be trained to become citizen architects, builders and community leaders who are able to design and build sustainable tiny houses in the Tuskegee community. Funding was awarded in two construction phases of Willcox E: first, the installation of TPO material roof replacement and window repairs on the central and east wings; and secondly, interior improvements of current construction classrooms and repairs, faculty offices, and the expansion of the existing woodshop lab space in the east wing. New classrooms and lab spaces will be used to train young adults and students to preserve the historic character of the buildings and Tuskegee's illustrious history. Ultimately, a new construction lab will be used to build on-going construction of low-cost and energy-efficient tiny houses. The project will enhance the university's town-and-gown relationship and will play an active role in re-conceptualizing the sustainable framework for Tuskegee residents, faculty, and students to live and grow.

**TITLE:** Protein Kinase A (PKA) Signaling in the Cystogenesis and De-differentiation of Proximal Tubules

**PRINCIPAL INVESTIGATOR:** Dr. Pawan Puri

**FUNDING AGENCY:** National Institute of General Medical Sciences (NIGMS)



Pawan Puri

Autosomal dominant polycystic kidney disease (ADPKD) affects more than 600,000 people in the USA and about 13 million people worldwide. In polycystic kidney disease (PKD), renal tissue is replaced by fluid-filled cysts and fibroids that decrease renal function and can ultimately lead to renal failure. Currently in the U.S., there are no approved therapies to stop or slow down cyst growth, and renal transplantation and dialysis are the only options available for such patients.

PKD is a genetic disease caused by mutations primarily in genes PKD1 and PKD2. Although a genetic mutation is considered to be the primary event initiating cyst formation, secondary non-genetic factors such as renal injury and associated maladaptive de-differentiation program are known to influence the rate and severity of cyst formation. De-differentiation refers to a "primitive or less-specialized" state that a kidney epithelial cell acquires for repair to occur. However, unregulated and unabated de-differentiation aggravates cyst formation.

The identity and precise role of cellular communication networks that regulate de-differentiation and aggravate cystogenesis are not well defined. A better understanding of these aberrant signaling mechanisms that exacerbate cyst progression may enable the design of rational therapeutic interventions to retard cyst growth. The focus of the current project is to define the role of an important cellular enzyme Protein Kinase A (PKA) in the de-differentiation and cystogenesis of proximal tubules of the kidney. The expected outcomes of these studies will establish PKA as a potential therapeutic target to ameliorate the development and growth of renal cysts.



# GRANT AWARDS 2018-2019

SPONSOR	PRINCIPAL INVESTIGATOR	TITLE OF PROJECT	TOTAL
The Boeing Company	Aglan, Heshmat	Boeing Undergraduate Student Projects	\$50,000.00
Jacobs ESSCA/NASA	Aglan, Heshmat	Delivery Order No. 011	\$24,818.95
Jacobs ESSCA/NASA	Aglan, Heshmat	Delivery Order No. 010	\$10,827.03
Jacobs ESSCA	Aglan, Heshmat	Delivery Order No. 0013	\$1,125.37
Jacobs ESSCA	Aglan, Heshmat	Delivery Order No. 0012	\$647,279.83
Jacobs ESSCA	Aglan, Heshmat	Delivery Order No. 0012	\$195,110.69
Jacobs ESSCA/NASA	Aglan, Heshmat	Delivery Order No. 011	\$6,300.66
Jacobs ESSCA	Aglan, Heshmat	Delivery Order No. 0013	\$394.63
Jacobs ESSCA Group/ NASA	Aglan, Heshmat	Delivery Order No. 0008	\$3,116.00
Millennium Engineering & Integration Co.	Aglan, Heshmat	Millennium Internship Program	\$1,066.80
Millennium Engineering & Integration Co.	Aglan, Heshmat	Millennium Internship Program	\$280.00
Dynetics-NASA	Aglan, Heshmat	Dynetics - NASA Space Launch System (SLS) Program	\$20,000.00
National Trust for Historic Preservation	Bell, Carla	Preserving Booker T. Washington's Mission- Learning to do by Doing	\$75,000.00
State of Alabama/BOA	Bell, Carla	Board of Architect Alabama Grant	\$16,110.00
US Army	Bhuiyan, Sharif	Development of Automatic Target Recognition and Tracking Algorithm with Novel Detection and Classification and Classification Approaches	\$596,522.00
USDA/NIFA	Bolden-Tiller, Olga	Ag-Discovery Summer Enrichment Program	\$52,000.00
USDA/NIFA	Bonsi, Eunice	Expanded Food and Nutrition Education Program (EFNEP)	\$92,240.00

# GRANT AWARDS 2018-2019

SPONSOR	PRINCIPAL INVESTIGATOR	TITLE OF PROJECT	TOTAL
MERCK	Casimir, Roslyn	Tuskegee Veterinary Medicine Student Scholarship Program	\$25,000.00
University of Wisconsin-Madison	Curry, Michael	CCI Phase II: Center for Sustainable Nanotechnology	\$20,000.00
J.M. Kaplan	Daniels, Kwesi	Historic Preservation Capacity Building Project for Alabama Civil Rights Sites	\$50,000.00
NIH	Deepa, Bedi	Phage Display to Identify Epithelial to Mesenchymal Transitioned (EMT) Breast Cancer Cells	\$147,000.00
USDA/NIFA	Dibaba, Asseged	Africa Sanitary/Phyto Sanitary (SPS) Capacity Building	\$200,000.00
USDA/NRCS	Hargrove, Tasha	75th Annual Professional Agricultural Workers Conference	\$65,000.00
USDA/NRCS	Hargrove, Tasha	76th Annual Professional Agricultural Workers Conference	\$10,000.00
USDA/Rural Development	Hargrove, Tasha	Enhancing Agricultural Entrepreneurship Opportunities for Socially Disadvantaged Groups	\$173,960.00
USDA/NIFA	Hill, Walter	1890 Facilities Grant Program	\$266,414.00
USDA/NIFA	Hill, Walter	1890 Facilities Grant Program	\$266,414.00
USDA/NIFA	Hill, Walter/Bonsi, Conrad	Administrative Budget	\$4,857.00
USDA/Nifa	Hill/Bonsi, E./Bonsi, C./Baharanyi	1890 Facilities Program at TU	\$953,029.00
ACHE	Hosur, Mahesh	Graduate Research Scholars Program (GRSP)	\$165,735.00
NSF	Jeelani, Shaik	Collaborative Research: The AGEP Historically Black Universities Alliance: A Model to Advance Early Career Minority Faculty in the STEM Professoriate	\$2,120,663.00
Dominican Republic	Jeelani, Shaik	MESCTY-Tuskegee University Agreement	\$44,340.00
Baylor University/NIH	Karanam, Bala	Racial Disparity in Bladder Cancer and Identification of Altered Metabolism in African Americans Compared to European Bladder Cancer	\$16,485.00
Baylor University/NIH	Karanam, Bala	Racial Disparity in Bladder Cancer and Identification of Altered Metabolism in African Americans Compared to European Bladder Cancer	\$7,570.96

# GRANT AWARDS 2018-2019

SPONSOR	PRINCIPAL INVESTIGATOR	TITLE OF PROJECT	TOTAL
Baylor University/NIH	Karanam, Bala	Racial Disparity in Bladder Cancer and Identification of Altered Metabolism in African Americans Compared to European Bladder Cancer	\$7,570.96
NSF	Khan, Mohammad	Excellence in Research: Tolerance of Ambiguity and Academic Success	\$458,246.00
USDA/NIFA	Mohamed, Abdelrahman	Use of Rapid Detection of Pathogens Causing Diseases in Catfish in Alabama	\$13,414.00
U.S. Department of Education	Moss-Smith, Jeanette	Activity 5: Renovation/Construction of Instructional Facilities	\$771,803.00
U.S. Department of Education	Moss-Smith, Jeanette	Activity 1: Enhancing Student Success and Retention through Tutoring, Counseling and Student Academic Skills Programs	\$626,282.00
U.S. Department of Education	Moss-Smith, Jeanette	SAFRA Activity 2: Enhancing Academic Success for the 21st Century Learners through Technology Advancement in Classrooms and Laboratories	\$552,729.00
U.S. Department of Education	Moss-Smith, Jeanette	Activity 4: Development and Implementation of Expanded Library Resources	\$365,500.00
U.S. Department of Education	Moss-Smith, Jeanette	Activity 3: Enhancing Institutional Effectiveness and Improving Student Retention through Increased Engagement and Data-Informed Decision Making	\$344,864.00
U.S. Department of Education	Moss-Smith, Jeanette	Activity 6: Program Administration	\$314,056.00
U.S. Department of Education	Moss-Smith, Jeanette	SAFRA Activity 1: Office of Distance Education and Online Learning (ODEOL)	\$287,926.00
U.S. Department of Education	Moss-Smith, Jeanette	Activity 2: Enhancing Faculty Effectiveness through Strategic Development Activities and Acquisitions	\$211,300.00
U.S. Department of Education	Moss-Smith, Jeanette	SAFRA: Program Administration	\$-
University of Tennessee/NSF	Murphy, Gregory	NSF Engineering Research Center for Ultra-wide-area Resilient Electric Energy Transmission Network	\$100,000.00
UAH-NASA	Murphy, Gregory	Alabama Space Grant Consortium	\$5,000.00
FAMU / NNSA	Oni, Ben	Consortium for Materials and Energy Studies (CMAES)	\$17,380.00
NIH	Perry, Ruby	Endowment	\$2,920,539.00
HHS/HRSA	Perry, Ruby	Centers of Excellence	\$2,891,266.00

# GRANT AWARDS 2018-2019

SPONSOR	PRINCIPAL INVESTIGATOR	TITLE OF PROJECT	TOTAL
U.S. Department of Education	Perry, Ruby	Activity 6: Maintenance and Renovation of Instruction Facilities	\$640,512.48
U.S. Department of Education	Perry, Ruby	Activity 1: Academic Reinforcement and Instruction	\$612,178.89
U.S. Department of Education	Perry, Ruby	Activity 2: Student Support Services	\$304,906.90
U.S. Department of Education	Perry, Ruby	Activity 4: Strengthening the Infrastructure in Graduate and Research Education	\$255,000.00
U.S. Department of Education	Perry, Ruby	Activity 8: Improvement and Maintenance of the Development/Public Relations Office	\$199,202.00
U.S. Department of Education	Perry, Ruby	Activity 3: Advancing the Virtual Biomedical Learning Resources	\$160,654.00
U.S. Department of Education	Perry, Ruby	Activity 5: Development of Teaching Modules for Computer-Assisted Learning	\$156,224.67
U.S. Department of Education	Perry, Ruby	Activity 9: Administrative Management Tools & Capabilities	\$143,988.00
U.S. Department of Education	Perry, Ruby	Activity 7: Purchase and Installation of Laboratory and Classroom Equipment	\$90,000.00
USA/NIFA	Perry, Ruby	Enhancing Diversity Among Food Animal Veterinarians	\$230,769.00
NIH	Puri, Pawan	Protein Kinase A (PKA) Signaling in the Cystogenesis and Dedifferentiation of Proximal Tubules	\$139,950.00
Hyundai	Qazi, Mohammed	Stem Work-related Experiences	\$8,000.00
NSF	Qazi, Mohammed Rawajfih, Yasmeen	Peer-learning Communities to Develop Rural, African American Girls Computer Science Knowledge and Career Awareness	\$175,019.00
Auburn University/NSF	Qazi, Mohammed/Russell, Albert/ Sharma, Prakash/ Windham, Herman	Greater Alabama Blackbelt Region (LSAMP)	\$161,873.00
NSF	Rangari, Vijaya	Partnership for Research & Educ. In Multiferroic Polymer Noncomposites Between TU aaa& University of Nebraska-Lincoln	\$1,288,750.00
USDA/FAS	Reddy, Gopal	CFP-19 Myanmar Intelligent Port Inspect	\$43,369.00
Egyptian Cultural and Educational Bureau	Reddy, Gopal	Epidermiological Studies on Environmental Pollution of Poultry Farms	\$4,000.00

# GRANT AWARDS 2018-2019

SPONSOR	PRINCIPAL INVESTIGATOR	TITLE OF PROJECT	TOTAL
Institute of Museum and Library Services	Robinson, Johntyle	The Visibility and Viability Project	\$24,022.00
State of Alabama Historical Commission	Russell, Albert	Samuel C. Armstrong Capital Enhancement Grant	\$13,946.00
NASA	Smith, Tamara Floyd	MUREP Scholarship	\$4,500.00
ALSDE/USDA	Sullen, Janet	At-Risk After School Program	\$93,695.00
DOT/FHWA	Tcherbi-Narteh, Alfred	Dwight D. Eisenhower Fellowship Program Administration of the (DDETFP) Local Competition at Designated Institutions of Higher Education - Jalon Levett	\$10,000.00
DOT/FHWA	Tcherbi-Narteh, Alfred	Dwight D. Eisenhower Fellowship Program Administration of the (DDETFP) Local Competition at Designated Institutions of Higher Education - Kayla Triche	\$8,000.00
DOT/FHWA	Tcherbi-Narteh, Alfred	Dwight D. Eisenhower Fellowship Program Administration of the (DDETFP) Local Competition at Designated Institutions of Higher Education - Ahmad Johnson	\$6,500.00
DOT/FHWA	Tcherbi-Narteh, Alfred	Dwight D. Eisenhower Fellowship Program Administration of the (DDETFP) Local Competition at Designated Institutions of Higher Education - Damiene Pam	\$5,000.00
NIH	Wang, Honghe	Influence of Androgen Deprivation and Tumor Microenvironment on Epigenetic Silencing of Tumor Metastasis Suppressor KISS1 during Prostate Cancer Progression	\$147,000.00
MERCK	Warren, Reuben	Public Health Ethics Fellowship	\$101,275.00
Emory University	Warren, Reuben	Promoting Fresh Fruits and Vegetables on a Food Desert	\$5,000.00
HHS/PDS/CDC	Warren, Rueben	Tuskegee University Apology Commemoration Activities	\$250,000.00
NSF	Wu, Fan	Spokes:Medium:South:Collaborative: Integrating Biological Big Data Research into Student Training and Education	\$149,996.00
NIH	Yates, Clayton	Administrative Core, Infrastructure Core, Investigative Core, Community Engagement and Project 2	\$1,683,799.00
DOD/USAMRAA	Yates, Clayton	A Precision Medicine Study of How Inflammation May Underlie the Excessive Burden of Prostate Cancer in Men of African Ancestry	\$1,146,586.00
CRDF Global	Yates, Clayton	Development of Standard Operating Procedures (SOPs) and Best Practices for Pathology in Africa and the Caribbean	\$40,000.00
Birmingham Racing Commission	York, Elizabeth/Livesey, Leanda	Radiographic Evaluation between Equine Lameness and Hind Limb Plantar Angles	\$3,500.00
USDA/FS/SRS	Zabawa, Robert	Impact of Heir Property on Personal and Community Asset Building	\$10,000.00
Clarkson Aerospace Corporation/AFRL	Zainuddin, Shaik	AFRL Collaboration Program - Materials and Manufacturing Research	\$10,000.00



# Research and Sponsored Programs

## 2018-2019 Semi-Annual Report

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