TUSKEGEE
UNIVERSITY

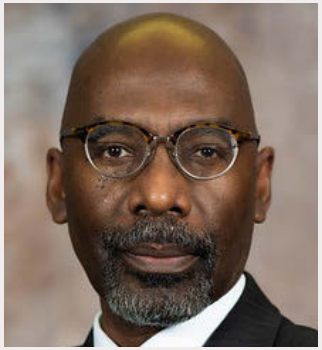
DIVISION OF

# RESEARCH AND SPONSORED PROGRAMS

## 2023-2024 ANNUAL REPORT

# DIVISION OF RESEARCH AND SPONSORED PROGRAMS

**Dr. Charlotte Morris**
President



**Dr. Keith Hargrove**
Provost

**Dr. Vijay Rangari**
Interim Assoc. VP,
Research & Sponsored Programs

**Jasmine Jackson**
Interim Director,
Sponsored Programs

**Felecia Moss-Grant, B.S., M.S., M.J.**
Assoc. Director, Compliance
and Technology Transfer

## 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 make 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 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, colleges and schools and other institutional units, our faculty, staff and students are engaged in research that is critical to address the needs of today's citizens, industries and governments.

Since 1996, the Division of Research and Sponsored Programs has substantially increased, its annual funding for research and other sponsored programs. The university concluded 2023-2024 with a total annual funding of **$84 million**, which represents a significant increase 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. The staff members 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 are prime examples of programs that are offered solely based on the expertise offered and resources developed by the faculty members.

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

This report highlights only a few major grants received during July 2023- June 2024, while all grants and contracts received are shown towards the end of the report.

# TUSKEGEE UNIVERSITY RESEARCH COUNCIL

The Research Council, appointed by the president of the university, 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 the funding agencies when there is a restriction on the number of proposal that may be submitted.

Members:

**Vijay Rangari**
Interim Assoc. VP,
Research & Sponsored Programs

**Felecia Moss-Grant, Secretary**
Compliance & Technology Transfer

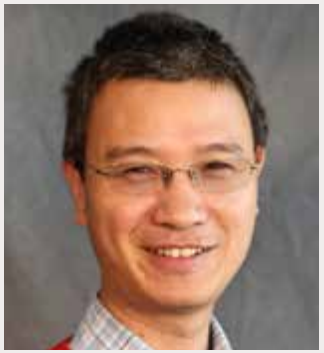
**Jasmine Jackson**
Sponsored Programs

**Ramble Ankumah**
Assistant Dean for Academic Programs

**Gwendolyn Gray**
Assoc. Professor Allied Health & Nursing

**Naga Korivi**
Asst. Professor Electrical Engineering

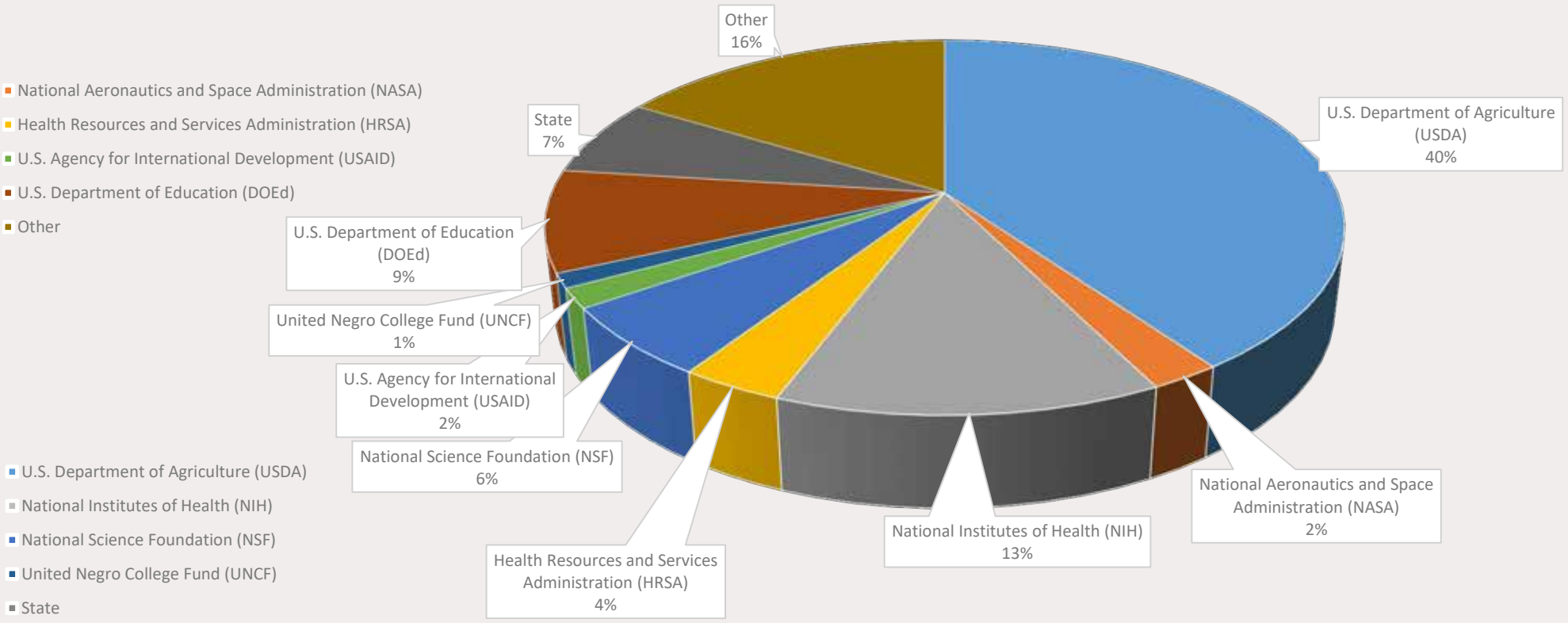
**Temesgen Samuel**
Assoc. Dean, Research & Advanced Studies



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

**Mohammed Qazi**
Professor, Mathematics Department

# Funds Received During 2023-2024




| COLLEGES/SCHOOLS | TOTAL GRANTS | AMOUNT |
|---|---|---|
| College of Agricultural, Environment & Nutrition Sciences | 66 | $45,721,220.13 |
| College of Arts & Sciences | 48 | $19,007,524.21 |
| College of Business & Information Science | 1 | $192,046.00 |
| College of Engineering | 49 | $4,957,083.84 |
| College of Veterinary Medicine | 22 | $8,610,395.92 |
| Bioethics | 1 | $320,000.00 |
| President | 8 | $1,460,975.00 |
| VAA | 4 | $4,500,258.00 |
| Library | 2 | $126,000.00 |
| **TOTALS** | **201** | **$84,895,503.10** |

**TITLE:** TU FASP
**PRINCIPAL INVESTIGATOR:** Barrett Vaughan, PhD
**FUNDING AGENCY:** USDA-NIFA


Barrett Vaughan

The College of Agriculture, Environment and Nutrition Sciences administers the Tuskegee University Food and Agricultural Scholars (TUFAS) program. The goals of the program are to recruit, train, and prepare underrepresented minorities to meet the needs of the workforce or pursue further studies in the food and agricultural sciences. The program supports incoming first-year and transfer students who have demonstrated in food and agricultural careers and excellence in scholarship with a partial scholarship. In addition, in the TUFAS program, students are encouraged to participate in programs organized by the College to expose them to the food and agricultural industry. TUFAS incorporates curriculum enhancement, mentoring internships, and experiential learning to assist the students to support their successful progress toward their career goals. The first cohort was selected in 2020 under former Associate Dean, Dr. Ramble Ankumah (retired), where a total of thirty students were supported. Of that first cohort, twenty-three students have graduated or will graduate with a bachelor's degree in Agribusiness, Animal and Veterinary Sciences, Environmental, Natural Resource, and Plant Sciences, or Food and Nutritional Sciences. Many of these students are pursuing graduate or professional degrees. Over one-hundred students have been selected for the program in the successive years. The 2024-25 academic year marks the fifth cohort of students in the TUFAS program. The program is funded by the USDA National Institute of Food and Agriculture (USDA-NIFA).

**TITLE:** Expanding the Participation of Marginal Producers and Landowners to Promote Climate-Smart Agriculture and Forestry Practices: Continuous Efforts of 1890 Agroforestry Consortium
**PRINCIPAL INVESTIGATOR:** Dr. Uma Karki, Ph.D. Tuskegee University
**CO-PRINCIPAL INVESTIGATORS:** Dr. Srinivasa Rao Mentreddy Alabama A&M University,Dr. Vitalis Temu Virginia State University, Dr. Lila Karki University of Maryland Eastern Shore
**FUNDING AGENCY:** USDA/NRCS


Uma Karki,

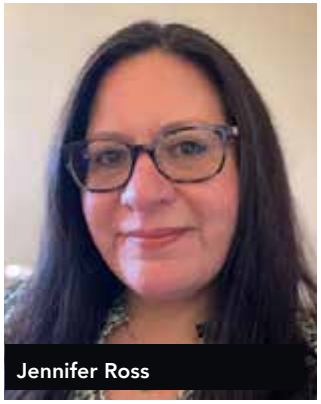
This project aims at increasing the Climate-Smart agriculture and agroforestry practices in Alabama, Virginia, and Maryland by involving limited-resource, small-scale, underserved producers and landowners (hereafter producers and landowners). It is a continuous effort of 1890 Agroforestry Consortium (1890AC) to serve the historically underserved and marginalized producers and landowners. The overall project goal is to enhance the agroforestry-based and other Climate-Smart agriculture practices by involving the producers and landowners. Project objectives are to 1) increase the awareness and understanding of small-scale, limited-resource, underserved producers and landowners about climate-smart production practices and expand their participation, 2) facilitate and incentivize participant producers and landowners to adopt climate-smart agricultural practices, 3) monitor and verify carbon sequestration, greenhouse gas emission, and associated benefits of climate-smart production systems, 4) enhance the marketing potential of climate-smart commodities, and 5) disseminate project findings to farmers, landowners, scientists, professionals, and the public.

**TITLE:** Improved Practices of Climate-Smart Livestock Production Systems and Agricultural Commodities While Enhancing Carbon Sequestration in the Southern USA: Innovating Toward a New Climate-Smart Commodity by Investing in Minority Producers
**PRINCIPAL INVESTIGATOR:** Byeng Ryel Min, PhD
**FUNDING AGENCY:** USDA/NRCS


Byeng Ryel Min

Climate change poses a significant risk to agriculture, forests, and grasslands across the United States and the communities that support and depend upon them. This risk is markedly high for disadvantaged communities, including Tribal nations and low-income and minority communities. Profitable opportunities in the Southeast for limited-resource farmers, primarily sheep and goat producers, are challenging to identify. In addition, the soils of this region are often seriously depleted of nutrients and unproductive. To maximize economic return, it is essential to maximize return per acre. In addition, the soils of this region are often seriously depleted of nutrients and unproductive. The greenhouse gas (GHG) emissions can be mitigated by 1) improving soil health (reducing emissions and enhancing sustainable climate-smart commodities), 2) enhancing nitrogen (N) management (implementing the 4Rs (right source, right rate, right time, and right place) of N management and reducing nitrous oxide, a potent GHG, 3) improving feed efficiency and livestock management (reducing potent methane emissions from ruminant and manure), 4) improving grazing and pasture management (adding legume cover crops and climate resistant forages to minimize N fertilizer and irrigation system, respectively), 5) improving agroforestry practices (building carbon stocks in perennial biomass and soils), and 6) adding bioactive feed additives to promoting rumen fermentation and increasing average daily gain. This can serve as climate-smart (CS) practices and complement our effort to improve CS livestock production system and agricultural commodities practices while enhancing sustainable CS commodities in Southern USA.

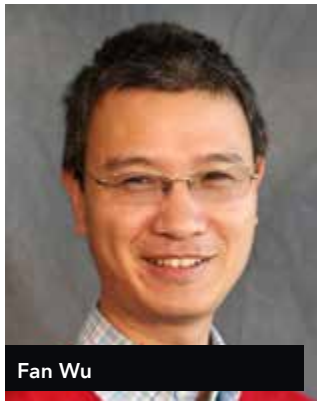
**TITLE:** Collaborative Research: Build and Broaden Faculty Learning Community
**PRINCIPAL INVESTIGATOR:** Dr. Jennifer Ross, PhD
**FUNDING AGENCY:** NSF


Jennifer Ross

This award supports the creation of a Faculty Learning Community (FLC) that fosters connections between scholars appointed at teaching-intensive MSIs and mentors appointed at research-intensive institutions. The FLC pairs early career faculty or postdoctoral fellows at MSIs with tenured faculty (Faculty Mentors) who share research areas and have been successful in grantsmithing and mentoring research scholars. The FLC catalyzes cutting-edge, developmental research using projects focused on underrepresented families at pivotal developmental transitions while considering the familial, financial, and social factors impacting those developmental stages. The FLC brings scholars together to enrich their learning and awareness, build their strategies for success, engage in constructive dialogue and reflection, and foster a sense of belonging. The FLC is designed to provide a supportive scholarly community and mentoring experience to encourage early career faculty or postdoctoral fellows appointed at teaching-intensive MSIs to acquire the skills needed develop successful grant proposals and cultivate their network of professionals who share their research interests.

The goal of this project is to increase the number of MSI scholars who submit competitive proposals to NSF. Two cohorts of MSI scholars will participate in the FLC for one year. FLC activities will include an in-person kick-off meeting, virtual FLC sessions, a grantsmithing workshop, and writing retreat. The FLC will afford MSI scholars with formal mentoring, connection to a network of developmental scientists, access to institutional resources at Iowa State University, the University of Minnesota, Tuskegee University, or their Faculty Mentor's university to support grant development, and cultivate grantsmithing to better position MSI scholars to submit competitive proposals to the NSF.

**TITLE:** CyberCorps SFS
**PRINCIPAL INVESTIGATOR:** Dr. Fan Wu, PhD
**FUNDING AGENCY:** NSF


Fan Wu

Tuskegee University received the renewal grant with total $2,863,511 from National Science Foundation (NSF) for the next 5 years to support Tuskegee University CyberCorps® Scholarship for Service (SFS) program. The Tuskegee University SFS program is to help prepare qualitied and well-trained professionals in AI/ML and cybersecurity to address the global and national cybersecurity challenges. This is a collaborative project with the University of Tennessee at Chattanooga. The project team includes Dr. Fan Wu, Professor and Head of Computer Science Department, Dr. Faye Hall Jackson, Assistant Provost, Dr. Li Jiang, Professor of Electrical and Computer Engineering.

This project has been selected to be presented during a congressional hosted by during a congressional showcase hosted by the National Science Foundation, U.S. House Artificial Intelligence Caucus and U.S. Senate Artificial Intelligence Caucus at the Capitol Hill in Washington, D.C, as one of the 13 NSF-funded projects invited to the showcase of the thousands of projects funded annually on September 19, 2024. The NSF's CyberCorps: Scholarship for Service is a highly prestigious and competitive program. This SFS grant provides the scholarships of about 65K for senior students and 75K for graduate students. We received CyberCorps® Scholarship for Service (SFS) grant initially in 2017. We have achieved substantial success in recruiting and retaining SFS scholars. We have recruited 16 SFS scholars. 9 of them has graduated from MS-ISCS program. Currently, 100% of the SFS graduates who have been placed are in the executive branch of the federal government.

**TITLE**: Black Belt Food Corridor: Expansion of processing capabilities at the Black Belt Marketing and Innovation Center
**PRINCIPAL INVESTIGATORS:** K. Woods, King, D., Quarcoo, F., Robinson, M., Vaughan, B., & Shange, R.
**FUNDING AGENCY:** USDA-NIFA


K. Woods

The overarching goal of this project is to enhance the capacity of Tuskegee University and its partners to provide essential extension services, conduct relevant research, and train the next generation of agricultural professionals to improve equity in the Black Belt regional food system. Tuskegee University Cooperative Extension is partnering with community-based organizations to do this by: 1) Conducting product and process development research at the Black Belt Marketing and Innovation Center (BBMIC) that will lead to increasing markets for underserved producers and the availability of local produce year-round, 2) Strengthening relationships between Black Belt producers, institutional buyers, and intermediaries, 3) Developing and implementing strategies to expand the availability of Black Belt grown produce, and 4) Increasing the capacity of Tuskegee University faculty, staff, and students to advance the food system in the Black Belt region. Along with these objectives, the project supports the transformation of the 18,000 square foot BBMIC into a cutting-edge regional extension, research, and education hub in the western part of the state. This project will enable the partners to create a model for prioritizing the needs of Black Belt farmers, small businesses, and institutions that could be replicated in other regions or expanded to address the challenges faced by socially disadvantaged producers across the country. Our partnerships are key ingredients to the success of this endeavor. In the years to come, the BBMIC will help producers capture more of the food dollars spent locally and lead to greater generational wealth through value added processing.

**TITLE:** Promoting Health Equity through Ethical AI/ML: A Collaborative Initiative for Data Governance and Access in Healthcare
**PRINCIPAL INVESTIGATOR:** Dr. Channa Prakash, PhD
**FUNDING AGENCY:** NIH


Channa Prakash

This initiative is designed to tackle significant challenges in the healthcare sector by focusing on the ethical use and governance of Artificial Intelligence and Machine Learning (AI/ML) technologies. As AI/ML continues to play an increasingly influential role in healthcare, the project seeks to ensure that these technologies do not exacerbate existing health disparities but contribute to advancing health equity, particularly for underserved and minority populations in Macon County and the Black Belt region.

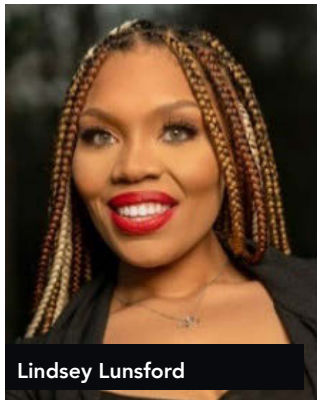
The main objectives include 1) Enhancing data governance frameworks: developing comprehensive policies and procedures to ensure that AI/ML technologies are applied ethically in healthcare, focusing on protecting data privacy, security, and integrity. 2) Improving equitable access to healthcare data: The project advocates for including diverse data sets in AI/ML training processes, ensuring that the benefits of these technologies are accessible to all communities. 3) Addressing health disparities: By identifying and mitigating biases in AI/ML algorithms, the project aims to reduce health disparities that disproportionately affect minority populations. A significant project component is launching the Undergraduate Accelerated Master's (4+1) Biomedical Informatics program starting in Fall 2024. See link https://bit.ly/TUUT-4plus1accMS. This program allows TU students to earn a Bachelor's degree and a Master of Science in Biomedical Informatics within five years by integrating graduate coursework into the undergraduate curriculum. In collaboration with Tuskegee University, the McWilliams School of Biomedical Informatics at UTHealth Houston offers this program to equip students with the education, skills, and experience needed to pursue careers in various biomedical informatics fields. Please visit our project website for additional information - https://aim-ahead-dicb.github.io/dicb_uttu/

**TITLE:** Agricultural Extension Programs at Tuskegee University
**PRINCIPAL INVESTIGATOR:** Raymon Shange, PhD
**FUNDING AGENCY:** USDA/NIFA


Raymon Shange

Tuskegee University Cooperative Extension Program (TUCEP), in partnership with the Evans Allen Research Program, Carver Integrative Sustainability Center (USDA 1890 Center of Excellence) and other research, teaching and outreach units, carries out a comprehensive plan-of-work in cooperation with Alabama Cooperative Extension Service. Though committed to serve throughout the state of Alabama, TUCEP continues to focus its major efforts in the Alabama Black Belt and adjacent counties, but also has programs in other counties whose residents find value in and request our expertise to be uniquely applied to their circumstances. The TUCEP team is grounded in its county agent system, in which county agents live and work throughout the Alabama Black Belt with a diverse set of backgrounds and skills. Though the original model of Cooperative Extension was focused primarily on Agriculture, TUCEP as well as the national Cooperative Extension System has grown to address a diverse set of critical issues that impact rural and urban communities. Our programs are then developed across four program areas: 1) Agricultural and Natural Resources, 2) 4H and Youth Development, 3) Family and Consumer Sciences, and 4) Community and Economic Development. Key programming of TUCEP includes its EXERT 4H and Positive Youth Development Program, Small Farm Outreach Program, Small Business Development and Entrepreneurship Program, Black Belt Beef Cattle Program, in addition to the largest Extension internship program in the 1890 land grant system. TUCEP also supports two annual conferences: Annual Farmers Conference (133 years) and the Booker T. Washington Economic Development Summit (29 years)

**TITLE:** Growing Connection: Linking Climate Smart Urban and Rural Agriculture Communities of Learning for Marginalized Populations
**PRINCIPAL INVESTIGATOR:** Lindsey Lunsford, PhD
**CO-PRINCIPAL INVESTIGATORS:** Franklin Quarcoo, Harold Higgins
**FUNDING AGENCY:** USDA/NIFA


Lindsey Lunsford

The "Growing Connection: Linking Climate Smart Urban and Rural Agriculture Communities of Learning for Marginalized Populations" project aims to bridge the gap in access to essential agricultural skills, resources, and funding for marginalized populations in both urban and rural settings. In collaboration with Tuskegee University, the University of the District of Columbia, and the Urban Growers Collective, this initiative promotes sustainable and climate-smart agricultural practices by integrating education, research, and extension activities. Key objectives include empowering underserved communities through targeted support and specialized training, fostering the development of future agricultural leaders, and facilitating knowledge exchange between urban and rural farming communities. The project engages students and faculty in workshops, fellowships, community outreach, and collaborative research to address challenges such as limited access to internships, mentorships, and professional networks. It also emphasizes expanding urban farming by supporting farmers from historically underserved groups through training programs, policy advocacy, and innovative strategies like student-led mini-grants and community partnerships.

By building on established successes and strategic alliances, "Growing Connection" enhances institutional capabilities, promotes sustainable agricultural techniques, and fosters a more equitable agricultural sector. Committed to creating a lasting impact on food system resilience and inclusivity, the project aligns with national priorities to develop a diverse workforce in agriculture. Through collaborative efforts and strategic partnerships, it seeks to catalyze significant advancements in agricultural practices and community empowerment

**TITLE:** Reimagining Controlled Environment Agriculture In A Low Carbon World
**PRINCIPAL INVESTIGATOR:** Rui Chen, PhD
**CO-PRINCIPAL INVESTIGATORS:** Desmond Mortley, Youssouf Diabate
**COLLABORATING INSTITUTE PIS:** Brendan Higgins (Auburn University-Host), Yongsig Kim (Michigan State University), Ying Zhang (University of Florida)
**FUNDING AGENCY:** USDA/NIFA


Rui Chen

Controlled environment agriculture (CEA) has great potential to improve access to local, nutritious fruits and vegetables on a year-round basis, however, the greenhouse gas (GHG) emissions associated with greenhouse production is roughly 5 times higher than field-grown produce. CEA must be reimagined to become a sustainable approach to food production. Our team's long-term goal is to transform CEA strategically, managerially, technologically, and socially to position it as a viable food production system capable of producing sufficient and nutritious foods within the low-carbon economy. Our team will engage in research, extension, and educational activities that align with four over-arching strategies to lower the carbon intensity of CEA: 1) Reduce demand for heating and cooling in CEA, 2) Improve efficiency of CEA climate control, 3) Lower the carbon intensity of resource inputs, and 4) Shift consumer and producer behavior surrounding CEA products and practices. Our team of 18 investigators across five land-grant institutions brings expertise in the areas of plant biology, horticulture, biosystems engineering, computer science, and agricultural economics. The project focus is on greenhouse production of lettuce and tomatoes, given the large existing markets for these products and the large difference in their environmental needs. Our project is informed by an advisory board representing producers and CEA equipment vendor, and has a dedicated project evaluator. The outcome of our efforts will be a climate-smart CEA production system that enables future generations to accrue the health benefits of fresh, local produce while sustaining local economies.

**TITLE:** Benjamin-Carver UAB/TU Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Partnership PRINCIPAL
**INVESTIGATOR:** Timothy Turner, PhD
**FUNDING AGENCY:** NIH Common Fund


Timothy Turner

The National Institutes of Health (NIH), through its Common Fund, created the Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Program. The FIRST Program was designed to determine whether a cohort and cluster design model of faculty hiring supported by sponsorship, continual mentoring, and professional development would produces significant change in the metrics of institutional culture and biomedical research workforce diversity. Tuskegee University (TU) and the University of Alabama at Birmingham (UAB) have been in partnership for over 20 years. Through a shared interest in health equity research, our partnership has resulted in important research findings, grant funding, publications, and the training of investigators to conduct health disparities research. This longstanding partnership laid the foundation for the funding of the UAB/TU Benjamin-Carver FIRST Scientists Partnership. The Benjamin-Carver FIRST Scientists Partnership offers an important overall theme of research in health disparities across the southeastern region of the US and represents a broad area of substantial and significant research opportunities for both institutions. The Benjamin-Carver community of scientists are anchored by a group of junior-level faculty that represent research interests across our two institutions in the areas of: obesity and diabetes, cancer, cardiovascular disease, and neuroscience, with an overarching theme of impacting health equity and health disparities. FIRST Scientists residing at TU and UAB are afforded opportunities to interact, experience career development support, and explore in ample collaboration efforts, and also have affiliate appointments at each respective secondary institution. Drs. Stacy Lloyd (Assistant Professor, Department of Pathobiology) and Tyvette Hilliard (Assistant Professor, Department of Biology) represent the Benjamin-Carver FIRST Scientists here at TU. Dr. Lloyd's passion to end decades of health inequities among marginalized communities is the driving force of her research. Her goal is to expand her knowledge beyond the field of cancer to inform all aspects of health. Dr. Hilliard has made significant strides in her research on ovarian cancer, with a focus on racial health disparities and the impact of generational obesity on ovarian cancer metastasis. Through the Benjamin-Carver UAB/TU FIRST Partnership and the commitment of these great universities, we look to introduce alterations to policies and environment that support sustainable institutional cultural changes that benefit all.

**TITLE:** Dr. Vijaya Rangari, PhD
**CO-PRINCIPAL INVESTIGATORS:** Jeffrey Shield, Evgeny Tsymbal (UNL), Shaik Jeelani and Naga Srinivas Korivi (TU)
**FUNDING AGENCY:** National Science Foundation (NSF)


Vijaya Rangari

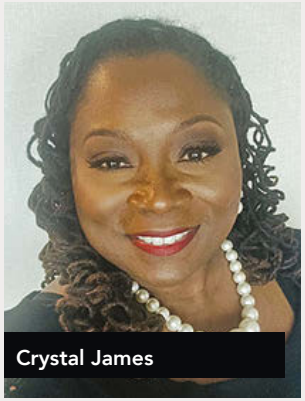
Tuskegee University Cooperative Extension Program (TUCEP), in partnership with the Evans Allen Research Program, Carver Integrative Sustainability Center (USDA 1890 Center of Excellence) and other research, teaching and outreach units, carries out a comprehensive plan-of-work in cooperation with Alabama Cooperative Extension Service. Though committed to serve throughout the state of Alabama, TUCEP continues to focus its major efforts in the Alabama Black Belt and adjacent counties, but also has programs in other counties whose residents find value in and request our expertise to be uniquely applied to their circumstances. The TUCEP team is grounded in its county agent system, in which county agents live and work throughout the Alabama Black Belt with a diverse set of backgrounds and skills. Though the original model of Cooperative Extension was focused primarily on Agriculture, TUCEP as well as the national Cooperative Extension System has grown to address a diverse set of critical issues that impact rural and urban communities. Our programs are then developed across four program areas: 1) Agricultural and Natural Resources, 2) 4H and Youth Development, 3) Family and Consumer Sciences, and 4) Community and Economic Development. Key programming of TUCEP includes its EXERT 4H and Positive Youth Development Program, Small Farm Outreach Program, Small Business Development and Entrepreneurship Program, Black Belt Beef Cattle Program, in addition to the largest Extension internship program in the 1890 land grant system. TUCEP also supports two annual conferences: Annual Farmers Conference (133 years) and the Booker T. Washington Economic Development Summit (29 years)

**TITLE:** Research Center for Minority Institutes (RCMI)
**PRINCIPAL INVESTIGATOR:** Deepa Bedi, Timothy Turner
**FUNDING AGENCY:** NIHMD/NIH


Deepa Bedi

The Tuskegee University Research Centers in Minority Institutions Center for Biomedical Research (TU RCMI CBR) has received a $20.8 million grant from the National Institute on Minority Health and Health Disparities (NIMHD) to help researchers develop health solutions for minority populations, particularly around obesity, and breast and cervical cancer. This is the largest research grant ever awarded to Tuskegee, which will partner with local and national health organizations to distribute research results directly to community members. The overall objective of the TU CBR/RCMI Program is to build upon and expand the University's research infrastructure and develop researchers to conduct research related to health disparities. This initiative is centered around: 1) providing the necessary infrastructure, resources, services, and technical support to enhance the ability of the University's researchers to stay on the cutting-edge of multidisciplinary basic biomedical/clinical health/ and population research focused on health disparities; 2) supporting the research and career development of post-doctoral fellows, junior- and mid-level investigators; and 3) enhancing the research excellence by facilitating the recruitment of competitive and highly expert research scientist. These objectives are to be achieved primarily through the following aims: 1) Provide pilot-level funding to support the development and expansion of the research capacity of TU; 2) Provide core research facilities equipped with the infrastructure, instrumentation, and personnel to support the needs of the TU research community; 3) Engage the community through RCMI-sponsored activities that include the research faculty; 4) Expand the clinical health research component in the current initiative; and 5) Provide mentorship and career guidance to enhance the transition of junior-level investigators into independent scientists. The overall goal of the CBR/RCMI project (2023-2028) is to continue the development of its 4 core components, Administrative, Investigator Development, Research Infrastructure and Community Outreach infrastructure and increase the numbers and skill proficiency of minority scientists engaged in scientific areas that includes basic biomedical, clinical health and population research focused on health disparities. The three scientific areas, basic biomedical, clinical health and population research have research objectives focused on breast cancer, obesity and cervical cancer, all of which disproportionately affect African Americans and underrepresented minorities. The goal is to continue support for a competitive, multidisciplinary collaborative environment that advances these scientific areas of research. The leadership consist of multi-PI team, Deepa Bedi, Director of Center for Biomedical Research and Timothy Turner, Associate VP for Research.

**TITLE:** Maternal Health Research Network (MH-RN)
fr MSIs-Research Award
**PRINCIPAL INVESTIGATOR:** Attorney Crystal James
**FUNDING AGENCY:** HHS/HRSA


Crystal James

Many structural, systemic, and environmental factors influence the health of mothers and babies, especially in underrepresented minority populations. *The 2022 March of Dimes Report Card Supplemental Report for Alabama* states that 80% of minority mothers received inadequate prenatal care. Statewide, Black mothers had the highest preterm birth rate (17% of births) compared with only 11% among White mothers. According to the Alabama Department of Health (ADPH), The Black Belt region of Alabama lacks access to obstetrical service providers, even in counties with a community hospital. This severely impacts access to care afforded to residents as the ADPH reflects that 14.7% of the population lack access to transportation and no public transportation system. This creates an environment where residents are less likely to receive preventative care and resources that could help to decrease the incidence of disease amongst residents and directly align with the rule of inaccessibility to care, which plagues Black Belt communities.

Problem: Since the development of a national surveillance system that has included stratification by race/ethnicity, black women have been twice as likely to die during childbirth. The absence of accessible and acceptable health strategies that can be consistently and persistently utilized by rural women during their life spans has a dramatic impact on their mental and physical health.

The grant provided by the Health Resources and Services Administration's (HRSA) Maternal Health Research Collaborative for Minority-Service Institutions Research Centers represents a significant milestone in the mission to address health disparities, particularly in maternal health, among marginalized populations. The $2.2 million grant provides resources for community-based participatory research to improve health outcomes for expecting mothers and infants in rural black belt counties in Alabama.

Focusing on holistic solutions that tackle economic barriers alongside health issues, the center's innovative approach is poised to revolutionize rural healthcare by bridging gaps in access to care and economic opportunities. This work will develop best practices that may be replicated in rural communities nationwide. As one of the most multi-disciplinary community-engaged programs currently funded, principal investigator Crystal James is supported by Drs. Deloris Alexander, Dr. Janette Lewis-Clark, Dr. ToRhonda Lee, Dr. Cordelia Nnedu, and Mr. Abraham George, who serve as Co-PIs for the program.

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Abdalla, Ehsan | See Us-Be Us: Inspiring Future Veterinarians Using a Veterinary STEM Ecosystem | $1,500.00 |
| Abdella, Woubit | Feed the Future Concept Note | $12,719.00 |
| Abdelrahmen, Mohamed | Acquistion of High -Throughput Sequencing Equipment For Food and Agriculture Research at Tuskegee University | $160,080.00 |
| Abebe, Woubit | Feed the Future Concept Note | $12,719.00 |
| Abrahamsen, Frank | Sustainable Marketing Strategies to Enhance the Value of Weaned Beef Calves Marketed by Socially and Economically Disadvantaged Small Producers | $79,002.00 |
| Abrahamsen, Frank | Genetic Improvement Symposium For Small Beef Producers | $25,000.00 |
| Aglan, Heshmat | Delivery Order No. 0108 | $250,691.66 |
| Aglan, Heshmat | Delivery Order No. 0109 | $208,158.30 |
| Aglan, Heshmat | NUCOR: Education and Research Center (NERC) - (2021-2022) | $200,000.00 |
| Aglan, Heshmat | Delivery Order No. 0105 | $194,281.08 |
| Aglan, Heshmat | Fatigue Crack Growth Rate Material Characterization of Targeted Microstructures of Welded Rail | $146,553.00 |
| Aglan, Heshmat | Delivery Order No. 0107 | $132,940.00 |
| Aglan, Heshmat | Delivery Order No. 0106 | $122,749.75 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Aglan, Heshmat | Delivery Order No. 0112 | $111,250.55 |
| Aglan, Heshmat | Delivery Order No. 0110 | $107,899.00 |
| Aglan, Heshmat | Influence of Process-Induced Defects on Mode 1 Fracture Resistance of Laminated Composites - Phase II | $100,000.00 |
| Aglan, Heshmat | Delivery Order # 0114 | $96,237.50 |
| Aglan, Heshmat | Delivery Order No. 0111 | $76,490.50 |
| Aglan, Heshmat | Delivery Order # 0116 | $70,830.80 |
| Aglan, Heshmat | Boeing Undergraduate Student Projects | $64,000.00 |
| Aglan, Heshmat | Delivery Order No. 0103 | $62,615.00 |
| Aglan, Heshmat | Delivery Order No 0113 | $33,312.60 |
| Aglan, Heshmat | Boeing Undergraduate Student Projects | $32,000.00 |
| Aglan, Heshmat | Drake State Engineering Frontieres Coalition | $29,992.00 |
| Aglan, Heshmat | Dynetics-NASA Space Launch System (SLS) Program | $26,555.25 |
| Aglan, Heshmat | Delivery Order No 0099 | $14,278.28 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Aglan, Heshmat | Delivery Order No 0098 | $11,982.00 |
| Aglan, Heshmat | Delivery Order No. 0104 | $9,761.50 |
| Aglan, Heshmat | Delivery Order No 0117 | $6,347.00 |
| Aglan, Heshmat | Delivery Order 0102 | ($184,712.30) |
| Aglan, Heshmet | Delivery Order 0100 | $62,131.50 |
| Alexander, Deloris | COVID Vaccination | $250,000.00 |
| Alexander, Deloris | HHMI IE3-LCC | $102,200.00 |
| Alexander, Deloris | EXCITE: Extension Collaborative on Immunization, Teaching & Engagement | $99,885.47 |
| Alexander, Deloris | HHMI IE3-LCC | $46,100.00 |
| Ankumah, Ramble | Ocean Exploration Cooperative Institute (OCEI): Discovering the New America (MEC E/O Task) | $130,000.00 |
| Ankumah, Ramble | Ocean Exploration Cooperative Institute (OCEI): Discovering the New America (MEC E/O Task) | ($9,027.22) |
| Bedi, Deepa | Tuskegee University for Biomedical Research/RCMI | $4,600,758.00 |
| Bedi, Deepa | Tuskegee University for Biomedical Research/RCMI | $4,103,661.00 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Bedi, Deepa | Evaluation of HSPD1( Heat, Shock, Protein, 60) as a Thernostic Target for Breast Cancer | $367,500.00 |
| Bedi, Deepa | Cancer genomic study to characterize genetic and epigenetic diversity of immune landscape in triple-negative breast cancer in women of African ethnicity | $50,000.00 |
| Bernard, Gregory | Developing High throughput Phenotyping Tools for Climate Smart Sweet Potato | $60,000.00 |
| Bernard, Gregory | Robotics Integrated High Tunnels (RobinHighTs): Creating Profitable Food Oases in Urban Ecosystems | $55,219.00 |
| Bernard, Gregory | Robotics Integrated High Tunnels (RobinHighTs): Creating Profitable Food Oases in Urban Ecosystems | $43,684.00 |
| Bhuyan, Jay | Collaborative Research: Data-Driven EmployerAcademia Partnership For Continual Computing Curricular Change | $78,506.00 |
| Blackmon,Genece | Title III Strengthening HBCU Program | $3,511,532.00 |
| Blackmon,Genece | HBCU (FUTURE Act) | $828,926.00 |
| Bolden-Tiller, Olga | Meat and Poultry Processing Capacity - Technical Assistance | $4,500,000.00 |
| Bolden-Tiller, Olga | Agricultural Research Program | $3,762,778.00 |
| Bolden-Tiller, Olga | 1890 State Matching Funds for USDA/NIFA/Agricultural Research Programs | $3,341,539.00 |
| Bolden-Tiller, Olga | System Approach to Promote Learning and Innovation for the Next Generations (SAPLINGS) of Professionals and Leaders in Food, Agriculture, Natural Resources, and Human Sciences | $1,431,935.00 |
| Bolden-Tiller, Olga | USAID Agriculture Higher Education | $1,415,617.00 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Bolden-Tiller, Olga | AL FY 2023 NLTP | $827,200.00 |
| Bolden-Tiller, Olga | 1890 State Matching Funds for McIntire Stennis Cooperative Forestry | $375,464 |
| Bolden-Tiller, Olga | McIntire Stennis Cooperative Forestry Research Program | $375,464.00 |
| Bolden-Tiller, Olga | AMS Student Enrichment Program at Tuskegee University | $225,000.00 |
| Bolden-Tiller, Olga | Tuskegee University 2023-2024 Verizon Innovative Learning STEM Achievers Program | $160,000.00 |
| Bolden-Tiller, Olga | Tuskegee University 2024-2025 Verizon Innovative Learning STEM Acievers Program | $160,000.00 |
| Bolden-Tiller, Olga | AMS Student Enrichment Program at Tuskegee University | $10,000.00 |
| Bonsi, Conrad | Increase the Supply of Trained Degree Recipients in the STEM Disciplines with Readiness for the Workforce - Phase II | $30,000.00 |
| Bonsi, Conrad | The 1890 Universities Center of Excellence for Global Food Security and Defense | $22,000.00 |
| Bonsi, Eunice | FY24 SNAP-ED | $272,114.00 |
| Bonsi, Eunice | Expanded Foods and Nutrition Education Program for Low-Income Families with Young Children and Youth K thru 12 Grades | $118,180.00 |
| Bonsi, Eunice | Expanded Foods and Nutrition Education Program for Low-Income Families with Young Children and K Thru 12 Grades | $118,180.00 |
| Bonsi, Eunice | Strengthening the Pre- and Post-Harvest Practices in the Food Supply Chain for Improved food Security | $50,000.00 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Bonsi, Eunice | Enhancing Nutrition Education in Underserved Communities through a Mobile App | $36,202.54 |
| Bratton, Lisa | Tierney Macon General Sub-Grant- Tales from Tuskegee | $200.00 |
| Carter, Vivian | UAB Center for AIDS Research: Strengthening Training and Advancement in Research (STAR): A Pipeline Program Gearded to Promote Excellence through Fostering Diversity (SubProject) | $45,912.00 |
| Carter, Vivian | A Comparative Study of Media Consumption in Relation to Healthcare in Rural and Urban Counties in Alabama | $38,783 |
| Carter, Vivian | Deep South Resource Center for Minority Aging Research-RCMAR | $32,513.00 |
| Chandler, Dana | National Museum of American History & Society | $154,800.00 |
| Chandler, Dana | Internship | $26,000.00 |
| Chang, Xiao | Target Infusion Project: Infusing Deep Learning into the undegraduate computer science and engineering curricula | $399,997.00 |
| Chen, Rui | Reimagining Controlled Environment Agriculture in a Low Carbon World | $1,899,999.00 |
| Chen, Rui | Assessing Opportunities and Challenges of the Small Ruminant Industry: Consumer Preferences, Market Trends and Potential Economic Impacts | $30,471.00 |
| Collier, Rhonda | Civic Engagement Block Grant Sep23-Mar24 Project | $20,000.00 |
| Collier, Rhonda | Student Activity Agreement Form OSUN Bard College Student Exchange Fall 2023 | $19,276.00 |
| Collier, Rhonda | OSUN Undergraduate Student Mobility Spring 2024 | $15,196.00 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Collier, Rhonda | Civic Engagement Bridging Classroom and Community Grant Project | $10,000.00 |
| Collier, Rhonda | Student activity Agreement Form OSUn Bard College Student Exchange Fall 2023 | $813.00 |
| Curry, Michael | NSF Engines Development Award:Advancing Carbon-Neutral Crop Technologies to Develop Consumer Goods | $28,624.00 |
| Curry, Michael | NSF Engines Development Award Advancing carbon-neutral crop technologies to devlop consumer goods | $28,624.00 |
| Curry, Michael | Revaloratization and utilization of downed timber into sustainable composite materials for food packaging | ($26,946.32) |
| Dawkins, norma | Center for Excellence for Nutrition, Health, Wellness, and Quality Life | $826,347.00 |
| Dibaba, Asseged | Pan African Conference and Training | $199,999.80 |
| Dimitrov, Dimitrar | Photonic Crystal Light Sails: Propelling Through Space on the Wings of Light, Design and Manufacture a Photonic Crystal Slab for Light Sail Space Propulsion with more Dielectric Regions and Improved Area-to-Mass Ratio | $121,721.00 |
| Eginin, Marceline | STC: Center for Research on Programmable Plant System | $277,081.00 |
| Egnin, Marceline | URoLEN: Convergence of Biology and Architecture: How Emergent System Dynamic Generate Adaptable, Robust, and Resilient Forms | $141,852.00 |
| Egnin, Marceline | FMSG: BIO: Integrated Bioprocess and Synthetic Biology for Future Biomanufacturing of Industrial Products | $85,000.00 |
| Egnin, Marceline | High Precision Sorting, Fractionation, and Formulation of Municipal Solid Waste for Biochemical Conversion | $75,000.00 |
| Fall, Soulemayne | Ocean Exploration Cooperative Institute (OCEI): Discovering the New America (MEC E/O Task) | $60,000.00 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Fan, Wu | Bridge to Cyber (Supplemantal) | $294,989.00 |
| Farid, Rashidah | MSCGP-Extending Academics Afield to Advance Equity in College R3 Programming | $18,683.00 |
| Farid-Tilghman, Rashidah | Sustainable Land Management Alternatives for Limited Resources Landowners in the Blackbelt Region | $32,490.00 |
| Gautam, Tej | Production of Compostable Horticulture Plant Containers Using Biochar From Downed Timber | $43,735.00 |
| George, Abraham | Technology Procurement | $174,000.00 |
| Gilbreath, Ebony | Tuskegee University College of Veterinary Medicine Student Scholarship Program | $75,000.00 |
| Gilbreath, Ebony | ToxMSDT: An Innovative toxicology Pathway Mentoring Program Targeting Underrepresented STEM Students | $30,026.00 |
| Hargrove, S.Keith | NIST PREP Consortium | $5,000.00 |
| Hargrove, Tasha | Appalachian Leadership Institute | $49,049.00 |
| Harris, Clarissa | SARE Meat and Poultry | $410,000.00 |
| Harrison, Olakunle | Remore-Controlled Mobile Robotics Technology for Nuclear Cleanup Operations | $119,999.86 |
| Hill, Walter | Center for Farming Systems, Rural Prosperity and Economic Sustainability (CFSRPES) | $1,680,000.00 |
| Hodge, David | The Tuskegee University Public Health Ethics Program | $320,000.00 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Hubbard, Tomeshia | The Mug-Z-Moo Fund | $600,000.00 |
| Hubbard, Tomeshia | The Steve Melman Foundation Grant | $10,000.00 |
| Jackson, Jacquelyn | Ag-Discovery Summer Enrichment Program | $52,000.00 |
| Jafarinejad, Shahryar | Biochar-enabled Platform for Enhanced PFAS Degraduation and Deflourination in Water | $24,994.00 |
| Jafarinejad, Shahryar | Enhanced STEM learning with Hands-on Innovative Experience and Lab Infrastructure Improvement through the Acquisition of a Polymerase Chain Reaction (PCR) System | $20,000.00 |
| James, Crystal | Maternal Health Research Network (MH-RN) fr MSIs-Research Award | $483,150 |
| James, Crystal | Black Girls Spring for R&R | $250,000.00 |
| Jones, April | Higher Education Consortium on Child Welfare FY24 Title IV-E-Federal | $363,132.43 |
| Karam, Marc | Research Institute for Tactical Autonomy (RITA) Task Order 2 - Topic # 3 | $233,928.00 |
| Karam, Marc | Research Institute for Tactical Autonomy (RITA) Task Order 2 - Topic # 6 | $230,115.00 |
| Karki, Uma | Expanding the Participation of Marginal Producers and Landowners to Promote Climate-Smart Agriculture and Forestry Practices: Continuous Efforts of 1890 Agroforestry Consortium | $4,999,999.00 |
| Karki, Uma | Sustainable Agricultural Research and Education (SARE) Program 2021 | $21,696.00 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Khan, M.J. | Air Force Junior Officer Training Corps at Tuskegee University | $250,000.00 |
| Khan, M.J. | CUBES: Capacity Building Using Cubesats for Earth Science | $162,581.00 |
| Khan, M.J. | Context-Aware Mobile Mixed Reality assistance DEvice (CAMMRAD) for Crew e-Training and e-Assistance | $124,385.00 |
| Khan, M.J. | APOP Challenge | $19,000.00 |
| Khan, Mohammad J. | Fellowship and Scholarship Awards | $4,960.00 |
| Kpomblekou, Kokoasse | CFP23 MSI Urban Ag @ Tuskegee | $149,628.65 |
| Kpomblekou, Kokoasse | Advancing Diversity, Equity, Inclusion, and Accessibility in Organic Agriculture to Strengthen Research, Education, and Extension in the Southeast United States | $75,000.00 |
| Kumi, Anthony | Soil and Water Conservation | $15,000.00 |
| Lunsford, Lindsey | Growing Connection: Linking Urban and Rural Agriculture Communities of Learning for Marginalized Populations | $600,000.00 |
| M.J., Khan | Air Force Junior Reserve Officer Training Corp at Tuskegee University | $260,000.00 |
| Mahavadi, Sunila | Gender Bias in Gastrointestinal motility in Health & Diabetes | $355,856.00 |
| Malone, Walter | Collaborative Research: DMREF: Computationally Driven Discovery and Synthesis of 2D Materials through Selective Etching | $314,920.00 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Marceline Egnin | Metabolic and Process Engineering of Solventogenic Clostridis for Stable, Continuous, N-Butanol Production Lignocellulosic Biomass Hydrolysates | $60,000.00 |
| McGarity, LaStarsha | Museum Grants for African American History and Culture-2024 | $100,000.00 |
| Min, Byeng | Improved Practices of Climate-Smart Livestock Production Systems and Agricultural Commodities While Enhancing Carbon Sequestration in the Southern USA: Innovating Toward a New Climate-Smart Commodity by Investing in Minority Producers | $4,081,137.00 |
| Mohamed, Abdelrehman | Improving Aquacultural in Alabama State by Identifying Circulating Antibiotic Resistance Genes in Natural Waters and Strengthening Fish Health Education | $13,926.00 |
| Morris, Charlotte & Samuels, Kellei | UNCF HBCU Transformation Project | $133,916.00 |
| Morris, Charlotte & Edna Woodson | UNCF HBCU Transformation Project | $125,000.00 |
| Morris, Charlotte/Abrahm George | UNCF HBCU Transformation Project | $136,220.00 |
| Morris, Charlotte/Faye Hall-Jackson | UNCF HBCU Transformation Project | $249,839.00 |
| Morris, Charlotte/Ntam, Moses | UNCF HBCU Transformation Project | $228,000.00 |
| Morris/Charlotte & James, Advergus | Finacial Aid Strategy-Iniative 381 | $164,000.00 |
| Murphy, Gregory | Fellowship and Scholarship Awards | $1,000.00 |
| Nayak, Chitra | RCN-UBE: Sustainable, nationwide network to promote reproducible big data analysis in biology programs within community colleges and minority-serving institutions | $6,431.00 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Noor, Dewan | AI Institute for Artificial and Natural Intelligence | $81,122.00 |
| Ortigoza, Marisol | HBCU Undergraduate Program Toward ab initio Prediction of Single-Photon-Emitters and Spin Qubits in Defected 2 D Semiconductors | $1,565,400.00 |
| Perry, Ruby | Endowment | $3,219,061.00 |
| Perry, Ruby | Strengthening Historically Black Graduate Institutions Program | $3,051,359.00 |
| Perry, Ruby | Centers of Excellence-HBCU | $3,000,000.00 |
| Perry, Ruby | Centers of Excellence (HBCU) | $780,318.00 |
| Prakash, C | U.S. Egypt Science and Technology joint Fund Cycle 21 U.S. Subaward | $128,862.86 |
| Prakash, C | The intersection of Social Capital, Mentorship, and Networking on Persistence Engagement and Science Identity | $70,337.00 |
| Prakash, C | U.S. Egypt Science and Technology joint Fund Cycle 21 U.S. Subaward | $5,347.87 |
| Prakash, Channa | Promoting Health Equity through Ethical AI/ML: A Collaborative Initiative for Data Governance and Access in Healthcare | $500,000.00 |
| Puri, Pawan | Role of Protein Kinase A (PKA)-Mediated mesenchymal-epithelial crosstalk in gastric preneoplasia | $147,000.00 |
| Puri, Pawan | Role of Protein Kinase A (PKA)-mediated Mesenchymal-epithelial crosstalk in gastric preneoplasia | $139,950.00 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Qazi, Mohammad | Collaborative Research: SEI: creating a Lasting LEGACY-Scaling a Peer-learning Community Model to Provide AP CS Preparation and Career Awareness for Black Young Women | $146,347.00 |
| Qazi, Mohammed | Greater Alabama Black Belt Region (GABBR) LSAMP | $117,783.96 |
| Qazi, Mohammed | Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR-UP) | $48,250.00 |
| Qazi, Mohammed | NSF INCLUDES Alliance: The Alliance of Students with Disabilities for Inclusion, Networking, and Transition Opportunities in STEM (TAPDINTO-STEM) | $22,256.00 |
| Quansah, Joseph | CIROH: Addressing Environmental Justice Issues and Assessing Economic Impacts of Drought on Agriculture for Underserved Communities | $291,828.00 |
| Quansah, Joseph | ICOVER | $250,000.00 |
| Quansah, Josephh | DSFAS: Digital Infrastructure for Research and Extension on Crops and Technology for Agriculture (DIRECT4AG) | $19,885.00 |
| Rangari, V. | Partnership for Research & Education in Multiferroic Polymer Nanocomposites Between Tuskegee University and University of Nebraska-Lincoln | $510,000.00 |
| Rangari, V.J. | NRT: Research Training in Sustainable Packaging and BioDegradable Polymer Composites for the Next Generation of Stem Graduates | $122,103.00 |
| Rangari, Vijaya | Center for Additivity Manufactured Complex Systems Under Extremes (CAMCSE) | $150,000.00 |
| Rangari, Vijaya | EFRI E3P: Supercritical Extraction for the Elimination of End-of- Life Plastics (SCE3P) | $99,999.00 |
| Rangari, Vijaya | FTTP: Future Technologies Enabled by Plasma Processes | $20,000.00 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Robinson, Lecia | Tuskegee Summer Institute for Increasing Diversity Among Incoming STEM Undergrauates | $84,997.00 |
| Ross, Jennifer | Collaborative Research: Build and Broaden Faculty Learning Community | $752,402.94 |
| Ross, Jennifer | MPS-ASCEND EM: A Postdoc Community of Mentoring and Networking | $41,168.00 |
| Salehian, Seyyed | Safe Low-Noise Operation on UAM in Urban Canyon via Integration of Gust Outcomes and Trim Optimization | $71,322.00 |
| Salehian, Seyyed | Safe, Low-Noise Operation of UAM in Urban Canyons via Integration of Gust Outcomes and Trim Optimization | $30,000.00 |
| Salehian, Seyyed | Active Control of Jet Noise Via Bi-Modal Excitation | $20,000.00 |
| Shange, Raymon | Agricultural Extensin Programs at Tuskegee University | $3,289,039.00 |
| Shange, Raymon | 1890 State Matching Funds for Agricultural Extension Programs at Tuskegee University | $1,893,196.00 |
| Shange, Raymon | 1890 Facilities Grant Program at Tuskegee University: Development of Facilities for Food and Agriculture Sciences Research, Extension, & Teaching: 2023-2023 | $1,031,751.00 |
| Sodeke, Stephen | Southern All of Us Network | $30,866.00 |
| Sodeke, Stephen | Southern of of Us Network | $7,900.00 |
| Temesgen, Samuel | Summer Research Experience for Veterinary Students | $28,791.00 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Tilghman-Farid, Rashidah | Building Small Town and Rural Resilience Through Equity-Informed Land-Use Planning and Policy | $2,500.00 |
| Turner, Timothy | UAB/Tuskegee Faculty Institutional Recruitment for Sustainable Transformation Partnership | $981,115.00 |
| Turner, Timothy | 2/3 Morehouse School of Medicine/Tuskegee University/UAB Oneal CCC Partnership | $92,604.00 |
| Vaughan, Barrett | TU FASP | $505,263.16 |
| Wan, Changhuang | Collaborative Research: A Solar-Powered Aerial Transformer for Enhanced Mobility and Endurance | $335,526.00 |
| Whittington, Richard | 4-H Tech Changermakers (2023-2024) | $185,000.00 |
| Wirtu, Gemechu | FY23 SCRP Tuskegee-Kenya-BeeKeeping | $49,999.07 |
| Wirtu, Gemechu | 2024 Boehringer Ingelheim Veterinary Scholars Program | $15,400.00 |
| Woods, Kristin | Black Belt Food Corridor: Expansion of Processing Capabilities at The Black Marketing and Innovation Center | $600,000.00 |
| Woods, Kristin | Minimizing Postharvest Loss, Improving Product Quality, and Food Safety in the Black Belt Food Corridor | $300,000.00 |
| Woods, Kristin | Strengthening Instituitional Procurement: Lessons from LFPA | $39,636.00 |
| Woods, Kristin | Feeding America Equity Impact Fund | $24,540 |

# 2023-2024 GRANTS RECEIVED

| PRINCIPAL INVESTIGATOR | TITLE OF PROJECT | TOTAL |
|---|---|---|
| Wu, Fan | CyberCorps SFS (Renewal) | $906,790.00 |
| Wu, Fan | Collaborative Research: CyberTraining: Implementation: Medium: AI and Cybersecurity Education for Cyberinfrastructure: A Hands-on Approach | $359,999.00 |
| Wu, Fan | Virtual Institutes for Cyber and Electromagnetic Spectrum Research | $192,046.00 |
| Wu, Fan | RII Track FEC: IGM-A Framework for Harnessing Big Hydrological datasets For Integrated Groundwork Management | $106,228.00 |
| Yates, Clayton | 2/3 Morehouse School of Medicine/Tuskegee University/University of Alabama at Birmingham O'Neal CCC Partnership/ | $1,197,000.00 |
| Yates, Clayton | 2/3 Morehouse School of Medicine/Tuskegee University of Alabama at Birmingham O'Neal Comprehensive Cancer Center Partnership | $444,683.00 |
| Yates, Clayton | Deep South Center to Reduce Disparities in Chronic Diseases | $210,347.00 |
| Yates, Clayton | Center for Clinical and Transitional Sciences | $85,688.00 |
| Zabawa, Robert | Small Farm Outreach Training and Technical Assistance Project | $537,504.00 |
| Zabawa, Robert | Understanding Heirs' Property in the Alabama Black Belt | $150,000.00 |
| Zainuddin, Shaik | Graduate Research Scholars Programs (GRSP) | $79,704.00 |
| Perry, Ruby | Centers of Excellence (HBCU) | ($786,742.95) |

# Research and Sponsored Programs

## 2023-2024 Semi-Annual Report

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**MAIL:** U.S. Department of Agriculture
Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW
Washington, D.C. 20250-9410

**FAX:** (833) 256-1665 or (202) 690-7442
**EMAIL:** program.intake@usda.gov for inquiries related to discriminatory complaints on interactions with USDA

TUSKEGEE UNIVERSITY

Tuskegee University is accredited by the Southern Association of Colleges and Schools Commission on Colleges (sacscoc.org) to award baccalaureate, master's, doctoral and professional degrees.