



## **ASU AWARDS: July 2023 – August 5, 2024**

Please join the Office of Research and Sponsored Programs in extending **GOLDEN RAMS** congratulations to:

# **Anita Allen, Principal Investigator Chief of Police**

For receiving **new** funding in the amount of **\$250,000**, from the **Department of Justice -COPS** for the project '**Albany State University De-escalation Grant.**' This initiative is to develop a comprehensive program aimed at enhancing law enforcement de-escalation techniques and promoting safer interactions between police officers and the communities they serve. The initiative recognizes the critical need to address escalating tensions and build trust between law enforcement agencies and community members, ensuring the well-being and safety of all parties involved. The proposed program will encompass a multi-faceted approach, incorporating training, resources, and community engagement initiatives. First, specialized de-escalation training modules will be developed and implemented, focusing on effective communication, conflict resolution, and non-violent intervention strategies. Additionally, this grant will facilitate the creation and dissemination of educational materials and resources, including pamphlets, videos, and online content, to promote public awareness and understanding of de-escalation techniques. Finally, the grant will support the procurement of essential equipment and technology to aid officers in de-escalation efforts, such as body cameras, non-lethal weapons, and innovative communication tools. ASU will also look to incorporate VR training.

# **Alisha Cromwell, Principal Investigator**

## **Assistant Professor of History**

### **College of Arts & Sciences**

For receiving **new** funding in the amount of **\$50,000**, from the **American Council of Learned Societies** for the project **'The Garden Nexus: Reciprocity, Redistribution, and Exchange in the Nineteenth-Century American Lowcountry.'** The Fellowship supports the "The Garden Nexus" research that grew out of the gendered nature of Atlantic World marketplaces, where African and European cultures, customs, and common laws came together in port cities of the nineteenth-century American Lowcountry. It needed three things to function: the reciprocity of slave badges which allowed skilled enslaved workers to make their own contracts and live apart from their masters; slave-holding women who redistributed unfree labor through a hiring out system; and the exchange relationships between market women and plantation workers for fresh produce. The ways women and men participated in the spaces between plantations and urban markets tied them more to the Caribbean and Africa, rather than to the rest of the United States. "The Garden Nexus" is a new methodology for understanding American slavery.

# **Dorene Medlin, Principal Investigator**

## **Chair, Professor of Education**

### **School of Education**

### **College of Business, Education & Professional Studies**

For receiving **continued** funding in the amount of **\$600,677**, (**\$2.4 million for up to 4 years**) from the **U.S. Department of Education**, Child Care Access Means Parents in School Program (CCAMPIS) for the project **'Albany State University: Caring for the Next Generation of Golden Rams'**. The proposed CCAMPIS program will provide high-quality childcare at no cost for the 2-year-old, 3-year-old, and 4-year-old children of Pell-eligible student-parents who attend classes or use ASU study resources during weekday evenings or Saturday. The proposed program also provides case management, skills-building workshops, and family engagement activities for parents, and teacher professional development to ensure the consistent quality of care provided.

# **MD Niamul Kabir, Principal Investigator**

## **Assistant Professor of Biology**

## **Department of Natural Sciences College of Arts & Sciences**

For receiving **new** funding in the amount of **\$299,998**, from the **National Science Foundation HBCUP-RIA program** for the project ‘**Enhancing the Decontamination Process of Food Borne Pathogens to Increase the Shelf Life of Food.**’ The goal of this project is to improve the decontamination process of *Escherichia coli* O157:H7, non-typhoidal *Salmonella* and *Listeria monocytogenes* bacteria to increase the shelf life of different foods by utilizing elevated hydrostatic pressure/high pressure processing (HPP), mild temperature, and natural antimicrobials. This research on the synergistic effect of HPP with different natural antimicrobials and environmental factors can provide additional insight into how the HPP process can be augmented to more effectively improve food safety and prevent food borne disease outbreak.

### **Kristine Kelly, Principal Investigator Director of Athletics**

For receiving **new** funding in the amount of **\$33,000**, from the **NCAA** for the **NCAA Division II Ethnic Minorities and Women's Internship Grant**. Funds are dedicated to supporting the hiring of a Coordinator of Football Operations. This grant is designed to provide financial assistance to member schools and conferences that are committed to enhancing ethnic minority and gender representation in entry-level, intercollegiate athletics administrative positions.

Entry-level administrative positions should include exposure to a variety of the following areas: strategic planning; budget management; fundraising; campus and NCAA compliance; sport oversight; student-athlete welfare issues and initiative; academics; diversity and inclusion initiatives; and staff oversight and management. The Coordinator of Football Operations will play a crucial role in the daily operations of our football program, contributing to its overall success and efficiency.

### **Kristine Kelly, Principal Investigator Director of Athletics**

For receiving **new** funding in the amount of **\$51,000**, from the **NCAA** for the **NCAA Division II Coaching Enhancement Grant program**. Funds are dedicated to supporting the hiring of a Coordinator of Football Operations. This grant will fund the position of Assistant Softball Coach/Academic Coordinator. This grant is designed to provide financial assistance to

member schools that are committed to enhancing ethnic minority and gender representation in newly created assistant coaching positions for any NCAA-sponsored sport. The Assistant Softball Coach/Academic Coordinator will provide critical support to our softball program and play a pivotal role in the academic success of all our student-athletes. This dual focus ensures that our athletes receive comprehensive guidance, both on the field and in their academic pursuits, promoting their overall development and well-being.

## **Peter Ngwafu, Principal Investigator Dean, College of Business, Education and Professional Studies**

For receiving **new** funding in the amount of **\$99,998**, from the **Volcker Alliance** for the **Next Generation Service Corps (NextGen Service)**, a national initiative that seeks to expand public service-learning experiences for undergraduates. The primary objective of NextGen Service is to assist Schools of Public Service to design and implement new, or strengthen existing, credential (minor or certificate) programs for undergraduates focused on public sector problem-solving and cross-sector collaboration. NextGen Service programs are customized by each university but share a framework of common principles. The project will include the Implementation of a new civic engagement minor for undergraduate students (core component of the NextGen Service program); articulation of learning objectives, requirements, and expected activities for the NextGen Service cohort; and Communications strategy to propel launch and student recruitment.

## **Cheninye Ofodile, Principal Investigator Chair, Mathematics, Computer Science & Physics**

**John Williams, Co-PI**

**Chair, Department of Natural Sciences**

**Zephyrinus Okonkwo, Co-PI**

**Professor of Mathematics**

**Robert, Owor, Co-PI**

# **Professor of Computer Science College of Arts & Sciences**

## **Dorene Medlin, Co-PI Chair, School of Education College of Business, Education & Professional Studies**

For receiving **new** funding in the amount of **\$1,170,289**, (**\$2,999,904 over five years**) from the **National Science Foundation** for the project entitled '**Building A Community of STEM Practitioners.**' This project examines whether establishing a hub for STEM activities at an HBCU in rural southwest Georgia can catalyze community, school district, and industry partnerships to work toward a common goal of improving STEM education. Evidence-based teaching strategies, some of which are not typically utilized in STEM courses, will be taught to faculty and high school teachers participating in this project. An innovative STEM Ambassadors program will create new relationships between ASU faculty and teachers in local school districts by creating a cohort of 12-15 teachers who will meet monthly with ASU STEM faculty to receive training in up to three specialized skills. ASU STEM faculty will also work on a co-curricular and extra-curricular basis with teachers and students in area K-12 school districts to provide assistance and guidance with robotics competitions such as the FIRST Robotics Competition. Additionally, a Summer Bridge program for incoming undergraduate students will focus on the courses that freshmen STEM majors take during their first year at ASU to help enhance students' college readiness and technological skills. The project's support structures, program elements, and partnership-building activities could serve as a model to other universities seeking to revitalize and strengthen their STEM degree programs for the betterment of students and society.

# **Olabisi Ojo, Principal Investigator**

**Professor of Biology**

**Department of Natural Sciences**

**College of Arts & Sciences**

For receiving **new** funding in the amount of **\$20,592**, from the **Aim-Ahead Initiative** funded by the **National Institutes of Health** for the project entitled '**Generation of AI-enabled Diagnostic and Therapeutic Music from Biometric Data to Promote Equity of Medical Services.**' The primary objective of the proposed work is to lessen health disparity issues through the application of AI-enabled Musical formulation of Biometric data (AMB), which offers users diagnostic music about their physical and mental health states. The proposed research will advance the research and education of AI-enabled healthcare in institutions and public communities. We anticipate that it will offer a cutting-edge telemedicine modality to the underserved community.

# **Raven Payne, Principal Investigator**

**Chief Student Support Officer**

**Director, Quality Enhancement Plan**

For receiving **new** funding in the amount of **\$500,000**, from the **Carol & Gene Ludwig Family Foundation**, for the **National Institute for Student Acceleration Grant**. The program provides implementation Support and Coaching Services which are designed to drive institutional change and will guide the institution to identify strategic priorities and provide customized training to develop institutional capacity, team capabilities and campus buy-in. Coaching services include one or more of the following focus areas: Data; Onboarding and Outreach; First Year Support; Academic Design and Support; Career Oriented Learning; Proactive Advising; Financial Wellness; Communications. Individualized coaching and consulting services will provide ongoing, personalized consultations and customized implementation assistance based on each institution's unique characteristics and challenges, as evidenced by the Diagnostic Analysis and Custom Readiness Playbook. Coaching engagements can also include site visits from NISS coaches, who will observe and analyze the institution's campus culture, leadership strategies, and student services and academic support operations.

# **Raven Payne, Principal Investigator**

## **Chief Student Support Officer**

### **Director, Quality Enhancement Plan**

For receiving **new** funding in the amount of **\$100,000**, from the **Carol & Gene Ludwig Family Foundation, (National Institute for Student Success Initiative at Georgia State University)** for the **Keep Hope Alive Scholarship Program**. The Program is open to freshman and sophomore HOPE students with a 2.75 – 2.99 grade point average. Students must pursue a minimum of 30 credit hours within the next academic year (fall, spring, and summer semesters). Students must 1) attend student success workshops; 2) meet regularly with an academic coach; 3) attend mandatory academic advisement sessions. The \$500 scholarship is awarded each semester the student is enrolled in the program.

# **Marcia Poulos, Campus Liaison**

## **Director of Distance Learning**

For receiving **new** funding in the amount of **\$10,000** from the **Association of American Colleges and Universities (AAC&U)** for participating in a **two-year research project** funded by the William & Flora Hewlett Foundation, **entitled Advancing Evidence on the Efficacy of OER**. This project aims to investigate the impact of Open Educational Resources (OER) on key student success metrics across diverse institutions. The primary objective is to produce a study that strengthens the advocacy for OER beyond affordability. OER provides free and low-cost access to high-quality educational materials, ensuring that all students have the resources they need to succeed academically. These materials enhance learning experiences and support student success from the very first day of class. The project will involve collecting comprehensive data on student performance and course details, while facilitating the selection of faculty members for focus groups to include their perspectives in quality course design and delivery. The goal is to assess the impact of OER on student success metrics, such as final grades, DFW rates, and the performance of underserved student populations. Additionally, the project will examine the quality of OER adoption scenarios and their influence on student outcomes, providing valuable insights to support OER advocacy and strategic decision-making in higher education.

# **Seyed Roosta, Principal Investigator**

## **Professor of Computer Science**

## **Department of Mathematics and Computer Science College of Arts & Sciences**

For receiving **new** funding in the amount of **\$45,000**, from the **American Council of Learned Societies** for the project '**Undergraduate Research & Data-driven advisement, pathways and program maps.**' A cohort group of 15 underrepresented or minority students from Computer Science, Biology, Mathematics, Physics and Pre-Engineering majors will be selected from the Fall sophomore class of 2023. Although past academic performance will be a factor in selection, it will by no means be the only one. In fact, a declared interest in research, graduate or professional school as a next step will be weighted more strongly. Once enrolled in the program, students will be assigned to one of five faculty who are advisors and research mentors. Each mentor will be paid a stipend during the Spring and Fall semesters of 2024. Students will also receive a stipend for academic semesters. Generally, students and mentors would work together for two semesters, Spring and Fall. In addition to their roles as research mentors, faculty members will act as advisors to assist students with their pathway to graduation.

## **Arun Saha Principal Investigator Professor of Physics & Engineering Department of Mathematics, Computer Science & Physics College of Arts and Sciences**

For receiving **continued** funding in the amount of **\$10,000**, from **NASA – Georgia Space Grant Consortium** for the project, '**Design, Fabrication and Testing of an Ultra-Wide Band Pass Filter at Microwave Frequencies.** In this project, a bandpass filter, composed of two open ring type resonators printed on both side of a dielectric substrate (exhibiting broadside coupling), will be designed, fabricated and tested. The outcome of the proposed project is an ultra-wide band pass filter whose band width can be changed to narrow bandwidth by adjusting the thickness and dielectric property of the substrate. The proposed filter can be used in microwave communication devices used in NASA applications. Engineering students will be exposed to state-of-the-art 3D electromagnetic simulation tools that will better prepare them for coursework in undergraduate and future graduate studies and confidence to be able to work in an industrial setting.



# **Cindy Spann,** **Director for the Childcare Resource and Referral** **Center** **School of Education**

For receiving supplemental funding in the amount of **\$2,772,006**, from **Bright from the Start: Georgia's Department of Early Care and Learning for the Albany State University Childcare Resource and Referral Center**. The overall goal of the Center is to provide professional services to child care programs in a 48 county service region. Specifically, the services include onsite training and technical assistance with mini-grants to programs enrolled in Georgia's childcare rating system, Quality Rated, to improve childcare classroom quality that exceeds basic childcare licensure standards. Additionally, assistance is given with the Scholarships and Incentives Program for childcare workers to access and pay for higher education.

# **Balasubramani Subramani Paranthaman,** **Principal Investigator** **Assistant Professor of Biology** **Department of Natural Sciences** **College of Arts and Sciences**

For receiving **new** funding in the amount of **\$363,934**, from the **National Science Foundation HBCUP-RIA program** for the project '**Nano-vehicles for delivery of small molecules to mitochondria in *Saccharomyces cerevisiae* model.**' The three year project aims to develop resveratrol encapsulated nanoparticles capable of transgressing the cell boundaries and reaching the mitochondria. **Mitochondria are important organelles in the eukaryotic cells. They provide energy and play a major role in cell survival. Current research is focused on developing nanoparticle-based methods to deliver drug like molecules to mitochondria.** Resveratrol, is one natural product identified to have positive modulation effects on mitochondria by their ability to alter the production of reactive oxygen, modulating gene expression, thereby changing mitochondrial dynamics, which influence the physiology and survivability of cells. This strategy can help us to control the life and death of cells. Such

technology will have several applications in human and animal health, improving plant productivity, and also in biomanufacturing.

## **Yixuan Wang, Principal Investigator**

### **Professor of Chemistry**

### **Department of Natural Sciences**

### **College of Arts & Sciences**

For receiving **new** funding in the amount of **\$136,616**, (**\$558,328 over five years**) from the **National Institutes of Health** for the project **‘Comprehensive understanding about the binding of estrogen-related receptor alpha (ERR- $\alpha$ ) to inverse agonists with the first-principles based theoretical methods.’** Estrogen-related receptor (ERR- $\alpha$ ) is a new target to combat a few types of breast cancers. Inverse agonists (anticancer drug) can inhibit the activity of ERR- $\alpha$ , and reduce the proliferation and migration of cancer cells. The proposal will aim to provide new understanding for eventually developing more efficient inverse agonists to treat breast cancer.

## **Liqu Zheng, Principal Investigator**

### **Associate Professor of Physics**

### **Department of Natural Sciences**

### **College of Arts & Sciences**

For receiving **new** funding in the amount of **\$40,000**, from the **Department of Energy- Clean Energy Education Prize** for the project **‘Solar Energy Summer Camp--A step towards a Green Sustainable Society.’** The summer camp for solar energy is designed to increase youth awareness about renewable energy supply options and their impact on society and the environment, solar energy technologies, help low-income communities to overcome barrier to solar access and expand workforce development training for jobs in the solar field, particularly for African-Americans. The proposed program will allow for engaging the local youth and undergraduate students in authentic clean energy experiences, developing the leadership of the involved undergraduate students, and foundation-laying of stronger partnership’s with energy organizations, all of which are centered around the content of ASU goals and objectives.

# **Liqiu Zheng, Principal Investigator**

**Associate Professor of Physics**

**Department of Natural Sciences**

**College of Arts & Sciences**

For receiving **new** funding in the amount of **\$100,000**, from the **Department of Energy- Clean Energy Partnership Prize** for the project **'Team-up on tackling crises of energy and climate.'** By partnering with larger institutions like the University of Central Florida and Georgia Institute Technology, three energy projects will be designed which are partially conducted in those research-intensive labs to promote HBCU students learning/training opportunities, with state-of-the-art technologies, along with the frontier knowledge, paving the way for them to pursue clean energy as their future careers. The mutually beneficiary collaboration with research-intensive institutions will enhance HBCU academic productiveness, expanding research capacities, which in turn, will enrich partners' research culture and diversify their research landscape.

# **Liqiu Zheng, Principal Investigator**

**Associate Professor of Physics**

**Donna-May Sakura-Lemessy, Co-PI**

**Assistant Professor of Physics**

**Richard Mason, Co-PI**

**Assistant Professor of Chemistry**

**College of Arts and Sciences**

**Dorene Medlin, Co-PI**

**Professor of Education, Chair School of Education**

**College of Business, Education and Professional Studies**

For receiving **new** funding in the amount of **\$28,618**, from the **University System of GA Affordable Learning Georgia Transformation Grant Program**. The overall goal of this project is

to improve the quality of physical science education by reducing the cost. Specifically the project will compile customized teaching/learning materials such as textbooks which are accessible to students at zero cost by 1) compiling and adopting free customized textbooks (general majors and educational majors) instead of purchasing the costly commercial textbooks for physical science II; 2) designing homework assignments and lab activities to strengthen the learning of concepts, theories, rules, and laws in each chapter and 3 implementing pedagogical changes centering the course on relevant current issues, such as recent earth quakes and climate changes, which could motivate students to learn science as science actually affects their daily lives.

**So remember that no funding amount is too small or too large to pursue! The ORSP is here to help you pursue your research and external funding endeavors.**