UMES breaks ground on new ag facility.

ARDUPdates

ASSOCIATION OF 1890 RESEARCH DIRECTORS

Message from the Chair
DR. LOUIS WHITESIDES

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Dear Friends and Colleagues,
As we gather to celebrate this holiday season and throughout the New Year, we find ourselves filled with appreciation and gratitude for the incredible community we have the privilege of serving. Each passing year deepens my appreciation for the remarkable directors, deans, administrators and other extraordinary individuals and organizations we connect with along this journey. This season is a time for reflection on the abundance of gratitude in our lives and an opportunity to give back to those who make our community truly special. Creativity and innovation will continue to be our only sustainable competitive advantage. These two dynamic forces can bring solutions to our most pressing challenges in the food and agricultural sciences.
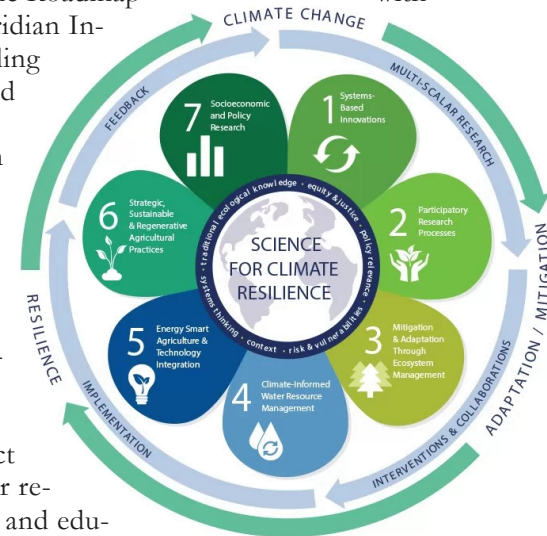
In the spirit of this holiday season, I want to thank the ARD members, researchers, supporters, friends and The 1890 Universities Foundation who have worked tirelessly to advance the ARD vision, mission, goals, values and value proposition.

At the APLU 2023 annual meeting in Seattle, Washington, ARD, AEA and the Council of 1890 Deans of Agriculture had a joint session with the Council of 1890 Presidents and Chancellors. We gave an update on the legislative actions affecting the 1890 community, including, but not limited to, the FY 2024 and FY 2025 funding appropriations requests, the effects of the Continuing Resolution and the delay in the passage of the 2023 Farm Bill, the 1890 Farm Bill priorities, 1890 Scholarship Program, 1890 Centers of Excellence, the ARD Biennial Research Symposium and the $79 million in competitive grants awarded through the inaugural "From

CSU IDs national climate-change priorities

The National Climate Change Roadmap was released at the APLU Annual Meeting on Nov. 13. It identifies national priorities for U.S. climate-change research related to working lands over the next decade. With a NIFA grant, a Colorado State University (CSU) research team developed the Roadmap with support from Meridian Institute and 61 leading scientists. CSU and Meridian implemented a Horizon Scan methodology—a visioning process that synthesizes trends and knowledge gaps related to agricultural research and climate change—to project key focus areas for research, Extension and education. The horizon scan engaged 61 leading scientists from 51 institutions across the U.S. who contributed expertise in a wide range of disciplines and a broad diversity of perspectives to inform the Roadmap.

Guiding research principles and cross-cutting themes emerged, culminating in a framework for science and funding that is systems-based and highly participatory. The framework presented is not an endpoint but rather a starting place from which to evolve and refine to meet climate science challenges for the benefit of agriculture, working landscapes and the communities that rely upon them. You can find more about the process, principles and themes from the National Climate Change Roadmap here.

Tuskegee increases AI use in land-grant programs

Tuskegee University is collaborating with AI FARMS (The Institute for Artificial Intelligence in Future Agricultural Resilience, Management and Sustainability) executives, faculty and staff to integrate new technologies into the university's research, teaching, and Extension infrastructure.

AI FARMS is a central hub for interdisciplinary research, aiming to propel fundamental advancements in artificial intelligence (AI) and apply these breakthroughs to address substantial challenges in global agriculture. The institute prioritizes technologies that impact production practices, emphasizing autonomous farming, efficiency enhancement for livestock operations, environmental resilience, soil health and technology adoption.

Additionally, the institute is committed to developing a diverse and technically proficient workforce in digital agriculture. Furthermore, a key focus is providing support to women and minority farmers. This comprehensive research approach positions the institute as a driving force in shaping the future of sustainable and resilient agricultural practices by integrating AI technologies.

Tuskegee administrators, faculty and staff partner with AIFARMS Principal Investigator, Dr. Vikram Adve (Co-Founder and Co-Director of the Center for Digital Agriculture, Univ. of Illinois), Dr Jessica Wedow (exec. dir. AI FARMS) and other faculty, staff and administrators from the University of Illinois Center for Digital Agriculture to establish a AI microsite at Tuskegee University. Several faculty, staff and students are involved in the research program.

Dr. Olga Bolden-Tiller (dean, College of Ag. Envr. and Nutr. Sci, Tuskegee Lead for AI FARMS) is leading a project titled "Digital Agriculture Professional Development Training," collaborating with researchers Ariel Polk and Joyce Hunter. The goals and objectives include developing an Introduction to Computer Science course for CS teachers, increasing the number of educators eligible for CS course-specific certification and providing an agricultural immersion.

Recent success metrics include the participation of 18 K-12 educators in a digital administrative and educational personnel representing local school systems engaged in an experiential learning activity at the Tuskegee Organic Farm to gain insights into the application of autonomous crop phenotyp-

ing technologies.

They also hosted a June 2023 agriculture training workshops with virtual and in-person participation of 10 educators. The expected outcomes involve an increased number of educators eligible for CS certification, heightened awareness of careers in digital agriculture and hosting more digital agriculture training workshops for K-12 educators.

Dr. Joseph Quansah (College of Ag. Envr. and Nutr. Sci.) is leading Project 1, titled "Digital Infrastructure for Research and Extension on Crops and Technology for Agriculture (DIRECT4AG)."

The project involves collaboration with researcher Dr. Desmond Mortley and student Ruben Doria. The goals and objectives include developing and implementing the DIRECT4AG digital platform for communication and data sharing with producers, addressing funding limitations for sensor acquisition and recruiting graduate students. Recent success metrics encompass the installation of 24 soil sensors in farmer fields, processing of satellite remote sensing data and developing the Microsoft Vibes farm for future projects. The expected outcomes involve increased use of field sensors for precision

A Tuskeegee staff member installing soil sensors at the university's organic farm.

Project 2 under **Dr. Joseph Quansah** is "iCOVER = Innovative Cover-crop Opportunity, Verification and Economy Stimulating," is conducted in collaboration with researchers **Drs. Raymon Shange, Olga Bolden-Tiller** and **Anthony Kumi**, along with student Eniola Olakanmi. The goals and objectives include scaling up robotic cover crop planting, enabling robotic soil carbon measurement and creating markets for climate-smart products for minority, underserved farmers.

Dr. Rui Chen (College of Ag. Envr. and Nutr. Sci.) is leading a project titled "Image Classification of Fruits and Vegetables for Tracking Food Pantry Inventory" in collaboration with researchers **Suchit Bapatla and Yin Sun**, along with students Suchit Bapatla, Mengxue Li and Atiya Salam. The goal and objective are to create a classification algorithm for detecting vegetables in food pantries. Recent success metrics include a MobileNet-v2 model accuracy of 94.58% and the potential expansion to cereals and canned foods. The ex-

pected outcomes involve classifying and tracking vegetables in food pantries, application for various food identification purposes and integration into AI education at TU.

Dr. Gregory C. Bernard (College of Ag. Envr. and Nutr. Sci.) is leading a project titled "Enhancing Agricultural Sustainability." The project involves collaboration with researchers **Drs. Joseph Quansah, Rui Chen, Olga Bolden-Tiller, Chuck Okere, Soulyemane Fall, Inocent Ritte** and **Marceline Egnin**, along with students Cameron Jones, Kalon Jones, Chriistian Peterson, Kohl Perry, Mychal-Mali McCaskill and Elise Ranselle.

Dr. Michelle Samuel-Foo, USDA acting chief of staff, along with Dr. Manjit Misra, USDA director, Dr. Olga Bolden-Tiller, dean, Dr. Vikram Adve, AIFARMS PI, Dr. Jessica Wedow, AIFARMS executive director, Dr. Britt Carlson, associate director of STEM Programs, Dr. Gregory C. Bernard and others recently visited the Carver PhytoResearch Unit at the G.W.C. Agricultural Experiment Station. They observee and assessed the autonomous crop phenotyping technologies including TerraSentia rovers (EarthSense), multispectral drones and the Farmbot, implemented at the facility.

The goals and objectives include integrating high-throughput crop phenotyping technologies, monitoring crop health for small-scale and minority farmers and outreach and Extension programs. Recent success metrics include deploying autonomous robots for crop health assessments and disseminating knowledge through outreach and experiential learning.

Anticipated outcomes involve the fusion of autonomous robotic systems for high-throughput crop phenotyping, data-informed decisions for optimizing agricultural practices, and integrating AI-assisted analysis and machine learning for crop health assessments.

Participants at a drone demonstration held at the university farm.

Christian Peterson (M..S animal science) is conducting a project titled "Detection of Estrus Behaviors in Individually Housed Does," collaborating with researchers **Drs. Bolden-Tiller, James Mungin** and **Angela Green-Miller**. Student Jenish Hirpara is also involved in the project.

The project's goals and objectives are to train a computer vision model for accurate tail position detection in individually housed Kiko does, compare the efficiency of machine learning platforms (Teachable Machine vs. Yolo) for object detection and install an automated camera tracking system at the Tuskegee Caprine Research and Education Unit.

Recent success metrics include the development of an ethogram for housed Kiko does, ongoing wifi installation in the TU goat barn, a teachable machine success rate of 70%, a Yolov8 algorithm success rate of 45% and the expansion of the dataset for housed Kiko does to over 200 images. The anticipated outcomes involve training an object detection algorithm with a success rate of approximately 90%, installing an automated camera at the Tuskegee barn and creating an ethogram for individually housed Kiko does.

Dr. Chukwuemeka Okere is assisting in the animal systems project involving the development of ethograms on animal behavioral patterns. **Ariel Polk-** serves as the program manager for the TU AIFARMS microsite. Ariel develops quarterly and yearly research progress reports, coordinates TU AI FARMS events and attends professional meetings where research progress is disseminated.

ADVANCING RESEARCH CAPACITY AT HBCUS THROUGH EXPLORATION AND INNOVATION (ARC-HBCU)

This solicitation invites participation in an Ideas Lab, which is an intensive, facilitated workshop that brings together multiple diverse perspectives to find innovative solutions to a grand challenge.

This Ideas Lab will focus on exploration of innovative approaches for addressing the research capacity needs of the nation's HBCUs and development of collaborative networks among HBCUs that enable research in science, technology, engineering and mathematics (STEM).

Ideas Lab's aim is to bring together HBCU faculty, staff, research administrators and academic leadership to stimulate the generation and execution of innovative and transformative approaches for enhancing opportunities for HBCUs to finance and conduct STEM research. In alignment with recommendations from Preuss, Eck, Fechner and Walker (2020)[1], Ideas Lab outcomes should lead to new models and practices that sustainably increase research capacity by enabling inter-institutional and intra-institutional collaboration. Click for more information.

ENABLING PARTNERSHIPS TO INCREASE INNOVATION CAPACITY (EPIIC)

The purpose of this solicitation is to broaden participation in innovation ecosystems in key technologies (e.g., advanced manufacturing, advanced wireless, artificial intelligence, biotechnology, quantum information science, semiconductors, novel materials and microelectronics) by supporting capacity-building efforts in growing external partnerships for institutions of higher education.

Traditionally, those MSIs, PUIs and two-year institutions with limited or no research capacity have been limited to partnerships with larger IHEs and industry in the area of workforce development. This solicitation aims to expand the opportunities for these institutions to participate in one or more aspects of an emerging innovation ecosystem, spanning workforce development, use-inspired research and the trans-

lation of research to practice through the creation of new or expanded partnerships.

The goals of awards made under this solicitation are to enable recipients to:

- Create partnerships with external organizations to grow programs in workforce development, use-inspired research and development (R&D) and/or the translation of research to practice in emerging technology fields; and
- Develop the capacity and institutional knowledge needed to build new partnerships and secure future external funding to support ongoing efforts in emerging technology fields and regional innovation ecosystems.

Awards made in response to full proposals under this solicitation will provide funding to support award management, relief time for faculty and staff for developing external partnerships, infrastructure and resources to facilitate participation in future NSF solicitation

Preliminary Proposal Due Date(s) *(required)* (due by 5 p.m. submitter's local time): Dec. 15 and June 27, 2024

Full Proposal Deadline(s) (due by 5 p.m. submitter's local time): May 16, 2024 and Jan. 21, 2025

Click here for full program solicitation.
NSF 23-625

EXPANDING AI INNOVATION THROUGH CAPACITY BUILDING AND PARTNERSHIPS (EXPANDAI)

The National Science Foundation and its partners support the continued growth of a broad and diverse interdisciplinary research community for the advancement of AI and AI-powered innovation, providing a unique opportunity to broadly promote the NSF vision and core values, especially inclusion and collaboration. The Expanding AI Innovation through Capacity Building and Partnerships (ExpandAI) program aims to significantly broaden participation in AI research, education and workforce development through capacity development projects and through partnerships within the National AI Research Institutes ecosystem.

Program contacts

For all inquiries, you can email the entire program team at:

ExpandAIProgram@nsf.gov

Primary Contacts

- James Donlon, CISE/IIS, Program co-lead
- Abby Ilumoka, EDU/DUE, Program co-lead
- Dillon Watring, CISE/IIS, AAAS Science & Technology Policy Fellow
  Learn more information by clicking here.

Climate, Health & Cultivating the Next Generation of Agricultural Leaders:
Creating Solutions in Food, Agricultural and Natural Resources

April 6-9, 2024 | Gaylord Opryland, Nashville, TN

Regular Registration: Oct. 18, 2023—Feb. 23, 2024—$700
Late Registration – Feb. 24 – April 5, 2024—$725
On-Site Registration - April 6, 2024—$750

REGISTRATION

Symposium Registration No refunds. Substitutions will be accepted until April 4, 2024. (Note: Credit card users need to pay an additional fee to cover bank charges).

HOTEL REGISTRATION

Hotel Guest Room Rates: Single and Double Occupancy: $249
Tax and Surcharges: Hotel rates are confirmed in 2024 and are subject is applicable taxes (currently 9.25% state tax, 6% occupancy tax, plus a $2.50 per night city tax) in effect at the time of check in. Deadline to book, March 7, 2024.

DISPLAYS & EXHIBITS

Each 1890 campus is invited to display a university display at no-cost. Additional exhibits and non-1890 exhibits must pay the fee of $3,000 by Feb. 9, 2024. All exhibitors, including the 1890s, must submit the Exhibit Registration Form by the deadline of Feb. 9. To become an exhibitor, click here. To become a sponsor, click here.

MORRISON-EVANS, MAYBERRY, HILL & MAYES AWARDS

The application deadline for the Morrison-Evans Outstanding Scientist Award and the B.D. Mayberry Young Scientist Award, the Walter Hill Distinguished Service Award and the McKinley Mayes Mentoring Award is Jan. 19, 2024. External reviewers, i.e. NIFA National Program Leaders will evaluate the applications. Access the applications here.

In preparing the submissions, please use the following criteria: 8 1/2 x 11 inch page; Times Roman no smaller than 11 points, 1.5 line spacing, one-inch margins all around.

For additional information contact: Dr. Alton Thompson, ARD Executive Director, (336) 285-2955 or Dr. Orlando McMeans (225) 771-4310.

FSLI announces criteria for leadership award

The APLU Food Sysems Leadership Award annually recognizes a leader who has made an extraordinary impact on the food system through leadership and service and who exemplifies the core principles established by the Food Systems Leadership Institute (FSLI), including personal leadership, organizational leadership and food systems leadership. The award also recognizes the leadership, innovation, engagement and service that APLU promotes through its programs.

The APLU Food Systems Leadership Award will be presented at "A Community of Scholars Honoring Excellence" award program at the APLU Annual Meeting held in November. The award program honors awardees for regional and national excellence in food and agricultural sciences from colleges and universities across the United States. The meeting is attended by top-level administrators from the 216 university memberships within the APLU and administrators from USDA and FDA. The recipient will be invited to address the current cohort of FSLI Fellows during one of the webinar sessions.

The criteria for the award and the directions for submitting, along with the nomination form, can be found on the FSLI Website www.FSLI.org . To get a sense of the caliber of the person who would be competitive for this award, please visit the FSLI website on the Leadership Award page. The deadline for submittal is **February 29th.**

Please contact Dr. Sarah Kotzian, FSLI Program Manager, with any questions. Sarah can be reached by email at sarah_kotzian@ncsu.edu.

NIA hosts writing workshop on working with rural populations

As part of the National Institute on Health (NIA) funded Interdisciplinary Network on Rural Population Health and Aging (INRPHA), the Southern Rural Development Center is hosting a proposal writing workshop on Feb. 3, 2023, in Atlanta, GA.

The hands-on writing workshop will bring together social science and population health scholars interested in rural aging issues to expand their networks, knowledge and skills for proposal development. Scholars new to rural population health and aging research and new to applying for grants from the National Institutes of Health and National Institute on Aging are encouraged to participate.

Please see INRPHA's priorities on its website

There is no registration cost, and a partial travel honorarium is available for successful applicants. Please apply by submitting this form by **Dec. 18.** Space is limited.

Application link.

The workshop will be held at the Peach Tree Plaza Hotel in Atlanta. More information, including reservation rates and dates can be found on the following website.

This event is being held in conjunction with the Southern Rural Sociological Association and Southern Association of Agricultural Scientists, but it is open to a wide range of disciplines concerned with rural population health and aging. Applicants do not have to be a member of these organizations. INRPHA receives support from the National Institute on Aging (grant R24-AG065159).

Scan to register.

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Learning to Leading: Cultivating the Next Generation of Diverse Food and Agriculture Professionals Program" (NEXT GEN). This program was funded by President Biden's Inflation Reduction Act, which aims to lower costs for American families, expand access to markets to producers from all backgrounds and communities, build a clean energy economy, strengthen American supply chains and foster the next generation of diverse agricultural professionals across the nation.

As the 1890 leaders across the three mission areas continue to work collaboratively to better serve the persons, families and communities in the 1890 region, AEA and ARD will again host a joint meeting with the Council of 1890 Deans of Agriculture on Jan. 23-26, 2024, at The Inn at Opryland in Nashville, TN. If you have not already registered, please to so as soon as possible by contacting Ms. Lisa Williamson, ARD Executive Assistant.

Finally, I wish each of you a joyous holiday surrounded by family, and many blessings for the coming year.

JOB OPPORTUNITIES

UNIVERSITY OF MARYLAND EASTERN SHORE, School of Agriculture and Natural Resources.
Assistant or Associate Professor: Bioinformatics and/or Biostatistics
Assistant or Associate Professor: Precision Agriculture
Assistant Professor of Biology: Cell Biology/Immunotoxicology/ Metabolism
Assistant or Associate Professor: Fashion Merchandising and Textiles Program
Assistant or Associate Professor: Nutrition and Dietetics
Assistant Professor and Agribusiness /Resource Economist Specialist
Chair, Department of Agriculture Food Resources Science

WEST VIRGINIA STATE UNIVERSITY, WVSU Research & Development Corporation, Associate Dean/Associate Director for Research

USDA FOREST SERVICE, SOUTHERN RESEARCH STATION, **Research Economist** or **Research Forester** to conduct research in in economics and policy focused on wildfire and other forest-based disturbances. This is a permanent, full time position at the GS-12 level or the GS-13 level.

ALCORN STATE UNIVERSITY, School of Agriculture and Applied Sciences, Dean.

FLORIDA A&M UNIVERSITY, COLLEGE OF AGRICULTURE AND FOOD SCIENCES, Executive Director, Brooksville Agricultural and Environmental Research Station (BAERS) in Brooksville, Florida.

CALIFORNIA POLYTECHNIC STATE UNIVERSITY, San Luis Obispo | San Luis Obispo, CA, College of Agiculture, Food and Environmental Sciences, Dean.

NEW APPOINTMENTS

MARCUS BERNARD, interim dean, College of Agriculture, Communities and the Environment, Kentucky State University, effective Dec. 1.
AVINASH TOPE, interim director of Land-Grant Programs, College of Agriculture, Communities and The Environment, Kentucky State University, effective Dec. 1.

CALENDAR

AEA-ARD JOINT WINTER MEETING, The Inn at Opryland, Nashville, TN, Jan. 24-26, 2024. The rates are $175 plus tax for exterior rooms and $195 plus for atrium/interior rooms. One-day pre and one-day post will be at the group rates, but are based on availability. A credit card is required to hold the room. The hotel does not charge a deposit. The cancellation policy is 72 hours prior to arrival. Cancellation within 72 hours of arrival will forfeit one (1) night room and tax. **Hotel (s) offering your special group rate:**
The Inn at Opryland, A Gaylord Hotel for 175 USD and 195 USD per night
Book your group rate for 1890 Research Directors Planning/Joint AEA-ARD Winter Meeting - Jan 22-26, 2024. **The cut-off date for the block is Tuesday, Dec. 26, 2023.**

CARET/BAA WASHINGTON CONFERENCE
February 25-28, 2024 | Washington, DC

2024 CARET/AHS JOINT MEETING, Omni Shoreham Hotel, Washington, DC, Feb. 25-28, 2024
Register early to take advantage of the early bird rate of $500. This rate is good through Jan. 15, 2024. Book your hotel reservation at the Omni Shoreham Hotel. Reservations can be made online or by calling 1-800-THE-OMNI and ask for the "APLU 2024 CARET/BAA Meeting Block". To take advantage of the discounted rate of $215++/night, please book by Feb. 2, 2024. We look forward to seeing you there.
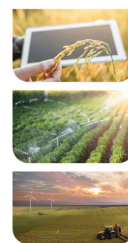
USDA'S 100TH ANNUAL AGRICULTURAL OUTLOOK FORUM
CULTIVATING THE FUTURE
Link
HYBRID EVENT · February 15-16, 2024 · Crystal City Gateway Marriott, Arlington VA