

NEWS ARTICLE

ASPIRNAUT DISCOVERY SCIENCE PIPELINE IN ARKANSAS DELTA INVOLVES A-STATE'S ABI

09/10/2024

JONESBORO – The Aspiernaut Discovery Science Pipeline in the Arkansas Delta is partnering Wynne High School with two research universities, Vanderbilt University Medical Center and the Arkansas Biosciences Institute (ABI) at Arkansas State University.

The program gets underway Thursday, Sept. 12, at Wynne High School in Wynne.

"The pipeline will bring hands-on research experience to high school students, focused on real-world problems of health, environment and agriculture, including diabetic kidney disease and toxic microplastics," according to the program directors from Vanderbilt, Drs. Billy and Julie Hudson, who founded the program in 2006.

Science, technology, engineering and mathematics (STEM) careers are the fastest-growing occupation in the United States. The holistic training approach includes a guided discovery science experience.

Representing ABI at A-State, Dr. Maureen Dolan, associate professor of molecular biology, and Shea Harris, outreach coordinator, are collaborating in the Aspiernaut program.

"The proximity of ABI and A-State makes the resources and environments of a research institute and R-2 university accessible and 'visible' to these K-12 students participating in the Aspiernaut experience," Dolan said. "Through our ABI Outreach program, these students will be able to arrange visits to our campus and interact with our student researchers.

Many of these ABI undergraduate student researchers are from the Arkansas Delta, so the opportunity for the participants to see students like themselves doing 'real' science and studying to become scientists and STEM specialists is invaluable," she continued. "ABI is an amazing place on our campus as it allows these Aspiernauts to see for themselves how interdisciplinary science is put into action."

"We're excited to start this collaboration with VUMC," Harris added. "I think one of the coolest aspects of this project is the hands-on STEM experience for the Wynne students. They will have the opportunity to advance research into the link between diabetes and kidney failure, with which we in the Delta region are all too familiar. Their contributions will give us a better understanding of how to slow or stop diabetic kidney damage in the future," Harris added.

Community engagement activities in the Aspiernaut program involve earlier learners and the broader community. The Hudsons expect the anticipated outcomes will increase the numbers and diversity of rural high school students entering STEM disciplines and the STEM workforce and, ultimately, improve public health and STEM education in the region.

The Hudsons also will be keynote speakers Wednesday, Sept. 18, for ABI's celebration of its 20th anniversary at A-State. They will be bringing students, faculty and staff from Wynne High School to the event.

"This is a great synergy of rural science education, and we are delighted to host this group," added Dr. Travis D. Marsico, vice provost for research, innovation, and discovery and executive director of ABI at A-State. "At the A-State ABI, we emphasize interdisciplinary experiential learning and we make these opportunities available to high school students."

"The ABI outreach team including Dr. Dolan and Mr. Harris have connected with the Aspiernaut team from Vanderbilt, and this collaboration is shaping up to be one of those magical combinations," Marsico added. "Both groups strive to see improved STEM education in the Arkansas Delta region, and both teams have a depth of experience to bring something unique to the partnership. This approach will lead to a more robust, diverse science workforce to help solve Arkansas's pressing health, agricultural and environmental problems."

ABI is an agricultural and medical research consortium dedicated to improving the health of Arkansans. In addition to Arkansas State, the other ABI member institutions are the University of Arkansas, Arkansas Children's Research Institute, University of Arkansas for Medical Sciences, and the University of Arkansas Division of Agriculture.



Drs. Julie and Billy Hudson

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