

SRNL and Augusta Technical College Sign Memorandum of Understanding

Augusta Technical College (Augusta Tech) and SRNL signed [a memorandum of understanding](#) (MOU) in September to establish staff workforce development and advanced manufacturing collaborations. The MOU provides the opportunity for practical learning by Augusta Tech students in certain technical programs, lays out a career pathway for those students, and expands Augusta Tech's academic research network.

This is the second MOU Savannah River National Laboratory has signed with a local university or college in the last four months. In May, SRNL signed a workforce and research development agreement with [Augusta University](#) (AU). Both agreements will enhance the educational experience of local students, bolster the pipeline for new SRNL employees, and create opportunities for SRNL employees to expand their knowledge and capabilities by mentoring and collaborating with the faculty, staff and students at AU and Augusta Tech.



Dr. Melissa Frank-Alston, Provost (Augusta Tech); Julie Langham, Vice President, Economic Development (Augusta Tech); Dr. Jermaine Whirl, President (Augusta Tech); Tammy Taylor, Associate Lab Director, SRNL Global Security Directorate (GSD), George Floyd, Chief of Staff, SRNL GSD; Jacqueline Brigido, SRNL GSD

SRNL Project Receives DOE RENEW Funding to Strengthen Research at Minority Serving Institutions



SRNL Researcher Binod Rai, Ph.D.

SRNL Researcher Binod Rai, Ph.D., is the principal investigator at SRNL on a project funded by DOE's Reaching a New Energy Sciences Workforce (RENEW) program in collaboration with Bhoj Gautam, Ph.D., at Fayetteville State University (FSU), Fayetteville, N.C. The project aims to significantly strengthen the quality of research at two minority serving institutions: FSU and North Carolina Agricultural and Technical (NC A&T) State University in Greensboro, N.C.

Reaching a New Energy Sciences Workforce (RENEW) aims to build foundations for Office of Science research at institutions historically underrepresented in the Office of Science research portfolio. RENEW leverages the Office of Science's unique national laboratories, user facilities, and other research infrastructures to provide training opportunities for undergraduate and graduate students, postdoctoral researchers, and faculty at academic institutions not currently well represented in the U.S. science and technology ecosystem.

Rai says the three-year project "Structure Property Relationships in Two-Dimensional MXenes" will give underrepresented student populations at FSU and NC A&T opportunities to understand research techniques and methodologies. The project received \$540,000 in RENEW funding.

SRNL to Work with Local South Carolina Company Metatomic

SRNL will partner with Greenville, S.C., company Metatomic to accelerate the innovation and application of advanced nuclear technologies. Specifically, Metatomic received a Gateway for Accelerated Innovation in Nuclear (GAIN) Nuclear Energy (NE) Voucher to further characterize a molten salt immersed hydrochlorination subsystem to convert spent nuclear fuel into fuel for molten salt fast reactors.

SRNL provides bench scale demonstration and data generation for Metatomic molten salt immersed hydrohalogenation system and cover/off-gas management system. SRNL will provide the requisite expertise and spent-fuel-handling capability to enable the laboratory-scale assessment and demonstration. The data generated at laboratory scale would provide confirmation of feasibility and basis for scaling to an industrial scale capability.

Advanced Manufacturing Materials for Fusion Power

The development of polymers is crucial to the success of commercial fusion energy. SRNL researchers collaboratively worked with researchers at Lawrence Livermore National Laboratory to provide an overview of the materials science and technology challenges needing to be addressed in the process of getting to a fusion pilot plant, focusing on the mechanically “soft” materials that will serve functional needs in a fusion pilot plant. Read about [“The ‘Softer’ Side of Fusion Materials Development”](#) in the September edition of ASM International’s Advanced Materials and Processes.

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SRNL Research SLAM

Eight SRNL researchers recently competed in the 2023 SRNL Research SLAM at the Aiken Community Theatre. Sean Noble won First Place and will represent SRNL in the national event. Steven Demers won Second Place. Alex Bretaña won the People’s Choice Award.

Noble will now go on to represent SRNL at the inaugural National Lab Research SLAM in Washington, D.C., Nov. 15. The National Lab Research SLAM is a collaboration among the 17 Department of Energy National Labs to highlight DOE research programs and educate policy-makers and their staff about the key role DOE National Labs play in the nation’s innovation ecosystem and their impact on the nation. The House of Representatives National Labs Caucus and the Senate National Labs Caucus are sponsoring the inaugural National Lab Research SLAM.

The main focus of the SLAM is to highlight the importance of effective science communication, especially while communicating with the general public. The event is also a great career development opportunity for participants and provides visibility into scientific disciplines and research. Participating in the SLAM promotes cross-discipline collaboration and networking opportunities with other offices and labs.

The other SRNL scientists who participated included Vincent DiNova, Holly Flynn, Nathaniel Losey, Kori McDonald, and Alex Robb.

Each participant had three minutes on the Aiken Community Theatre stage to provide a summary presentation of their scientific work. The audience was composed of community members, friends of SRNL, and SRNL employees. Brad Means, anchor and reporter for WJBF in Augusta, was the emcee for the event.



SRNL Research SLAM participants with WJBF news reporter and anchor Brad Means.

SRNL in the Community

2023 SEED STEM Festival

SRNL was a platinum sponsor of the 2023 SEED STEM Festival held recently at the Ruth Patrick Science Education Center on the campus of University of South Carolina Aiken. The SRNL exhibit had 28 Team SRNL volunteers helping students create dry ice bubbles that modeled sublimation, or the transition of a substance directly from the solid to the gas state, without passing through the liquid state. More than 2,800 people participated in the event.



Remi Hoover, age 4, receives a carbon dioxide filled soap bubble from Team SRNL volunteer Maria Kriz



Brendan Blosser, age 10, of Barnwell, South Carolina, (center) tosses a carbon dioxide filled soap bubble into the air as his sister Larissa Blosser, age 8, waits for Stephanie Craig, a Team SRNL volunteer, to dispense her bubble



Team SRNL volunteers at SRNL’s display