



NEWS RELEASE

U.S. Department of Defense organizations launch inaugural Joint Science and Technology Institute

ABERDEEN PROVING GROUND, Md. — The Defense Threat Reduction Agency's Joint Science and Technology Office (DTRA-JSTO) partnered with the U.S. Army Edgewood Chemical Biological Center (ECBC), the U.S. Army Public Health Command (USAPHC), the U.S. Naval Research Laboratory (NRL) and the U.S. Army Criminal Investigation Laboratory (USACIL) to launch its inaugural Joint Science and Technology Institute (JSTI) from July 28 to Aug. 10.

The two-week residential program, administered by Oak Ridge Associated Universities (ORAU), afforded 23 high school students from Maryland and Virginia and six high school teachers from Cecil and Harford County Public Schools in Maryland the opportunity to work on leading-edge science, technology, engineering and math (STEM) projects with Department of Defense (DoD) scientists and engineers. In addition, students and teachers participated in extracurricular activities and toured sites, such as the Maryland Science Center, Fort McHenry and the National Aquarium in Baltimore.

"As leaders within the chemical and biological defense enterprise, we have a responsibility to attract and sustain a highly-skilled technical workforce that is prepared to protect our nation against current and future threats," said Alan Rudolph, PhD, the director of the Chemical and Biological Technologies Department, DTRA. "With the establishment of the JSTI, DTRA's goal was to demonstrate its commitment to DoD's strategic STEM objectives. Therefore, we asked other DoD organizations to join us in this collaborative STEM effort and to help us provide participating students and teachers an innovative, hands-on STEM experience."

After the two-week JSTI kicked off with a tour of ECBC's state-of-the-art facilities, students and teachers were divided into research groups led by mentors from each participating organization. Students conducted their science and engineering projects at ECBC's and Harford Community College's research laboratories.

"The chemical and biological defense community has been dedicated to offering students and teachers relevant hands-on STEM experiences," said ECBC Technical Director Joseph D. Wienand. "I am very proud and honored that ECBC was part of this first-of-its-kind DoD STEM initiative and, that we were able to collectively make a significant impact in the lives of participating students and teachers."

Students were divided into six groups with research topics ranging from water quality monitoring to the design and testing of military packaging solutions, soil toxicology, forensic science, testing of bacteria resistant surfaces, and operational research focused on Wounded Warriors.

"The opportunity to work in a biology lab with an environmental toxicologist has expanded my understanding and appreciation for this STEM field," said 11th-grade student Daezha Logan from Galileo Magnet High School in Danville, Va.

Cody Short, 12th-grade student at Buckingham County High School, Va., was assigned to the same research group and added, "This experience has increased my interest in biology, because I've learned something new in everything we've done so far."

Teachers' research areas included the design and testing of military packaging solutions, air monitoring, disease surveillance, toxicology screening, tactical biological detection, as well as environmental chemical analysis.

The JSTI concluded with a closing ceremony Aug. 10 at the Clarion Hotel in Aberdeen, Md. with welcoming remarks from Wienand and a keynote speech from Maj. Gen. Jimmie O. Keenan, commander of the USAPHC. Students and teachers then presented their research results to family members and senior leaders of participating organizations.

Keenan, a nurse by profession, reminded students during her keynote address that they should consider a career in healthcare taking care of America's Sons and Daughters.

"The medical community needs individuals with the schooling and smarts to be doctors, nurses, behavioral health professionals, epidemiologists, engineers, and other scientific and technical disciplines that are STEM related."

For additional information on the Joint Science and Technology Institute, please visit: bit.ly/R6Wmk6.

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DTRA is the U.S. Department of Defense's official Combat Support Agency for countering weapons of mass destruction. Our people are Subject Matter Experts on WMD, and we address the entire spectrum of chemical, biological, radiological, nuclear and high yield explosive threats. DTRA's programs include basic science research and development, operational support to U.S. warfighters on the front line, and an in-house WMD think tank that aims to anticipate and mitigate future threats long before they have a chance to harm the United States and our allies. DTRA and SCC-WMD are working hard to protect American warfighters and their allies from threats posed by chemical and biological weapons. They provide a wide spectrum of support to the military services, combatant commands and international partners, from innovating new technologies to detect chemical and biological threats, to developing new capabilities to protect them through programs such as the Transformational Medical Technologies Initiative.

ECBC is the Army's principal research and development center for chemical and biological defense technology, engineering and field operations. ECBC has achieved major technological advances for the warfighter and for our national defense, with a long and distinguished history of

providing the Armed Forces with quality systems and outstanding customer service. ECBC is a U.S. Army Research, Development and Engineering Command laboratory located at the Edgewood Area of Aberdeen Proving Ground, Maryland.

***NRL** is the corporate research laboratory for the Navy and Marine Corps and conducts a broad program of scientific research, technology and advanced development. NRL has served the Navy and the nation for over 85 years and continues to meet the complex technological challenges of today's world.*

ORAU is a university consortium leveraging the scientific strength of 105 major research institutions to advance science and education by partnering with national laboratories, government agencies, and private industry. ORAU manages the Oak Ridge Institute for Science and Education for the U.S. Department of Energy.

***USACIL**, located at the Gillem Enclave in Georgia, provides forensic laboratory services to Department of Defense investigative agencies and other Federal law enforcement agencies. USACIL is the only full service forensic laboratory in the DoD and trains special agents and investigators from the Army, Air Force, Navy and Marines in the Special Agent Laboratory Training Course and manages the USACIDC criminalistics and visual information programs. The examiners and analysts testify in federal, military and state courts as well as multi-national courts. USACIL is on the forefront of battlefield forensics and has a robust Science and Technology Program collaborating with other laboratories and researchers, customers, law enforcement, academia and industry to develop state of the art protocols in scientific investigation.*

***USAPHC** focuses on promoting health and preventing disease, injury and disability in Soldiers and military retirees, their families, and Army civilian employees. As well, the USAPHC is responsible for effective execution of full-spectrum veterinary services throughout the DOD. The USAPHC was created from the merger of the U.S. Army Center for Health Promotion and Preventive Medicine and the U.S. Army Veterinary Command.*