



## News Release

News Release No. 16

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11 March 2011

# ECBC Scientists Lend Expertise, Judge Student Projects at Aberdeen High School Science Fair

**Aberdeen Proving Ground, Md.** — Scientists from the U.S. Army Edgewood Chemical Biological Center (ECBC) recently served as project judges during Aberdeen High School's (AHS) Third Annual Science Fair, where 100 students in the 10<sup>th</sup>-, 11<sup>th</sup>- and 12<sup>th</sup>-grade presented the results of their independent research projects.

Sponsored by the National Defense Education Program, ECBC Biologist Stacey Broomall, Research Microbiologist Lauren McNew and Research Biologist Lalena Wallace collectively evaluated 25 out of nearly 60 science presentations that afternoon.

Two of the presenters, AHS 12<sup>th</sup>-grade students Bryanna Alford and Josseline Alvarado, briefed their project "*The Effects of E.Coli Growth in Different Temperatures*" to McNew. Taking a scientific approach and conducting a series of plating experiments, they learned about the varying growth rates of the bacteria at different temperature settings.

The real-world experiences in their jobs at fast food restaurants enticed Alford and Alvarado to engage in research on pathogenic and non-pathogenic E.Coli. They were both interested in expanding their knowledge about the causes and prevention of food poisoning.

Based on their findings, they shared recommendations on ways to reduce the risk of getting food poisoning, such as not to order meat in medium or rare, to wash hands thoroughly, to throw away meat that has been at room temperature for more than two hours or at freezing temperature for more than four months.

This was one of the projects that impressed McNew most and that she graded with a high score, despite her strict evaluation criteria.

"These girls did a great job on their science project and demonstrated great presentation skills," she said. "I was able to tell that they were genuinely interested in their project, making the direct connection to their jobs."

Christine Zatalava, AHS science department chair, biology teacher and science fair coordinator, expressed her pride of all participating students and the outcome of their research projects. Furthermore, she shared her appreciation for the participation of external project judges in this year's science fair.

"I'm extremely proud of our students and the project results they have presented today," she said. "We are very thankful for the valuable support and feedback we received from project judges that work for external organizations like ECBC."

Garrison Commander Col. Orlando W. Ortiz also served as a judge during this event and commented on the fulfilling nature of seeing students turn their ideas into science, technology, engineering and mathematics experiments.

"It has been very refreshing to see how students translate their thoughts and perspectives on certain issues and concerns into independent research," Ortiz said. "The innovative ideas that they have applied to their projects are truly amazing."

For more information about ECBC, visit <http://www.ecbc.army.mil/>.

*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. Located at the Edgewood Area of Aberdeen Proving Ground, Md., ECBC is a U.S. Army Research, Development and Engineering Command laboratory. For more information about the Edgewood Chemical Biological Center, please visit our web site at <http://www.ecbc.army.mil/> or call (410) 436-7718.*