

Student Scientists Take Center Stage at 2014 eGovLive Conference in Atlanta



Above- left to right: Antonia Crews, Amber Young, Jett Hampton, Malik Bassett

Starting the school year off with high energy and momentum is an important part of the Ecotek Lab experience. On September 5, 2014, while many principals were processing enrollment forms; teachers were making last minute fixes to their classrooms and students were finding their locker in the school, student scientists from the Ecotek Lab program were in Atlanta, Georgia presenting their science research to attendees at the national 2014 eGovLive Conference sponsored by Emerald Data Solutions.

The student cohort consisted of Amber Young, 11th grader at Cranbrook Kingswood Upper School and three students from Detroit Edison Public School Academy (Ecotek Lab school partner since 2007): Antonia Crews 12th grader, Jett Hampton 11th grader, and Malik Bassett, 10th grader. The conference was held at the Atlanta Marriott Marquise. The conference attendees included over 300 school board executives from school districts from across the United States.

The student presentation was entitled “Science From a Different Point of View”. It focused on science education using a bottom-up approach where the student has a stake in the outcome of the learning experience. During the session Amber discussed her research work at John Hopkins School of Medicine regarding the impact of Alzheimer’s disease on neuron physiology. Antonia shared information regarding her work in biomechanical engineering and her current project on prosthetic 3-D printing, while Jett covered concepts related to environmental science and his summer experience at the Cornell University School of Veterinarian Medicine. Malik shared information regarding his interest in medicine and the research work he did at Thomas Jefferson University in Philadelphia involving the development of a cure for triple negative breast cancer using antioxidants found in fruit.

The attendees were amazed at the depth of knowledge, professionalism and expertise that the students showcased. Some of the conference attendees were in tears. At the conclusion of the student’s presentation, several attendees asked questions like “How did this happen in Detroit?” and “What is your secret?”. The answers provided by the students and Mr. Young (founder of the Ecotek Lab program) were simple, but forward thinking. Some of the responses to attendee inquiries included statements such as “think like a scientist, not a school administrator”; “parents want results, not promises”; “let students be involved in the learning process”; “invest early and often”; “take risks on our potential” and “offer real experiences in science that go beyond the classroom”.

There is no quick fix to the STEM dilemma in the United States or improving STEM outcomes in underserved communities. Showing students science videos on Youtube or bringing in a person to talk about careers in STEM will not get it done. They need working labs where they can explore and investigate the world! There is no replacement for doing the hands-on work. Some of students that participated in the eGovLive conference in Atlanta have been in the Ecotek Lab program since the 5th grade. They have made great sacrifices and have spent thousands of hours in STEM friendly environments honing their craft, ranging from forgoing a visit to the mall with friends to come to the lab to test the tolerance of methane biosensors to missing a school football game to walk through underground caves in rural Ohio to learn about the impact of climate change to giving up their summer to work with researchers to help find a cure to breast cancer. The work done by the students and the support that they have received from their families and community is remarkable and will continue to pay dividends long after they graduate and head off to college.

About the Ecotek Science Program

Ecotek is a science research lab program for young inventors and researchers in grades 5 thru 12. Student scientists work on projects aligned with the issues being addressed by world leaders at the United Nations. To learn more about Ecotek Lab go to <http://www.ecotek-us.com>