



Studies tell us that engaging kids at an early age in STEM activities help them pursue higher education in STEM fields and have careers in those areas. Through CIBER we are reaching out to provide hands on research opportunities to undergraduates, K-12 students and k-12 teachers in the below mentioned areas. As of now we provided research opportunities to around 200 undergraduates and impacted approximately 400 k-12 students and teachers.

DSU-CIBER: Reaching out with Research

Who cares and why?

According to the United States Department of Education, only 16 percent of American high school seniors are proficient in mathematics and interested in a STEM (science, technology, engineering and mathematics) career. Even among those who do go on to pursue a college major in the STEM fields, only about half choose to work in a related career. Sustainable economy of a country depends on innovation and technology. The state of Delaware and the rest of the US need to engage students in STEM fields from early on so that we can retain more students in these areas in order to meet our future demands for skilled people in these areas.

What has the project done so far?

Here at Delaware State University (DSU), the Center for Integrated Biological and Environmental Research (CIBER) is providing opportunities to K-12 and undergraduate students in research in an array of disciplines including, agriculture and natural resources, environmental sciences, bioenergy, water and aquatic sciences, biology, chemistry, climate change and related areas.



CIBER scholars (undergraduates) and other research scholars hosted by CIBER during 2014 DSU summer research symposium.



NEWBio Bioenergy scholars during their Dupont visit.



Ag-Discovery students having research experience in Molecular Genetics and Epigenomics (MGE) Laboratory (led by Dr. Kalavacharla) with basic molecular biology techniques.



Agri. Science and Technology summer camp students (ages 9-14) visiting MGEL.



Del-Tech students visiting CARS research facilities.



CIBER's MGE lab hosted Jamaican scholars Kirk Williams and Winston Jones for basic molecular biology training, Summer 2014.



K-12 Delaware teachers participated in CIBER workshops on plant based biofuels, and water and climate change.

Impact Statement

Approximately 70 undergraduate students (from institutions throughout the country) obtained research experience in molecular biology through CIBER –REU.

Through EPSCoR, around 60 undergraduate students got research experience in agriculture and natural resources, environmental sciences, bioenergy, water and aquatic sciences, biology, chemistry, climate change and related areas.

For the 2013-2014 fiscal year CIBER helped provide research experience to approximately 41 students

CIBER coordinated to provide research opportunities to approximately 200 undergraduates through various programs and introduced research environment to nearly 200 k-12 students and teachers from 2007.

Want to know more?

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Strategic Priority – STEM

Additional links:

<http://www.umes.edu/ard/Default.aspx?id=46285>

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