2010/2011 EEG Awards Report

Organization Name
Primary Contact
Project Title
Project Description

Appalachian State University

Dr. Mark E. Venable

Cellular and Molecular Biology 2010

PUBLIC INFORMATION SUMMARY

Funding for new equipment will upgrade the laboratories for Cell Biology and Genetics and support the establishment of a third course, Plant Molecular Biology, at Appalachian State University. Approximately 200 students will be impacted each year.

Avery County Public Schools

Mr. John A. Grice

Growing Biotechnology One Student at a Time

PUBLIC INFORMATION SUMMARY

Avery County High School will initiate an Agriscience Research course with an emphasis on plant tissue culture, a propagation technique applicable to the local Christmas tree and plant nursery industries in Avery County.

Campbell University

Dr. Karen Guzman

Enhancement of an Undergraduate Program by Improving Student Understanding of the Relationship Between Biotechnology and the Biology of the Cell

PUBLIC INFORMATION SUMMARY

Dr. Guzman will enhance a Cellular and Molecular Biology course at Campbell University by developing a set of labs to illustrate how the molecular mechanisms that operate in living cells are the basis for recombinant DNA technologies. The course serves 180 biology, pre-pharmacy, pharmaceutical science, and clinical research students each year.

Organization Name
Primary Contact
Project Title
Project Description

Contemporary Science Center

Ms. Pamela Blizzard

Development and First-Year Implementation of a Nanobiotechnology Camp for Students in Secondary and Post-Secondary School

PUBLIC INFORMATION SUMMARY

To engage high school students in nanobiotechnology research and increase career awareness, a nanobiotech summer camp will be developed by the Contemporary Science Center. It will be hosted annually at the Joint School of Nanoscience and Nanoengineering, a joint endeavor of North Carolina A&T State University and the University of North Carolina at Greensboro. About 40 high school students will be impacted in the first year.

East Carolina University

Dr. Xiaoping Pan

Incorporation of Capillary Electrophoresis into ECU's Biotechnology Education Curriculum

PUBLIC INFORMATION SUMMARY

Modules teaching hands-on capillary electrophoresis separation will be added to three core courses for advanced undergraduate and graduate students in the Biotechnology Program at East Carolina University, impacting 60-85 students annually.

Lenoir-Rhyne University

Dr. Scott C. Schaefer

Recombinant Biotechnology Intensive Course

PUBLIC INFORMATION SUMMARY

New equipment will be purchased to support a new laboratory-intensive upper-level course in molecular biology at Lenoir-Rhyne University in Hickory that will integrate genetics, biochemistry and computational biology. Approximately 6-8 students will be impacted in this course the first year, while up to 170 students in other courses will also use the equipment.

Organization Name
Primary Contact
Project Title
Project Description

Mars Hill College

Dr. Kari D. Loomis

Reviving Biotechnology at Mars Hill College

PUBLIC INFORMATION SUMMARY

The project would revitalize the Biotechnology Program at Mars Hill College by (1) reestablishing the core Biotechnology course in the program, impacting 115 chemistry and biology majors; (2) designing and incorporating a new 2-week biotechnology module into a Biology course for non-majors, serving 1250 students; and (3) conducting a professional development workshop for Biology and Chemistry faculty to encourage the incorporation of biotechnology throughout these curricula.

Olympic High School

Ms. Angela P. Bozeman

Feeding the Biotech Pipeline

PUBLIC INFORMATION SUMMARY

Faculty seek to increase student awareness and interest in biotechnology by offering a two-week summer camp for 25 ninth and tenth grade students at the School of Biotechnology, Health and Public Administration at Olympic High School in Charlotte. In addition, a new one-semester Introduction to Biotechnology Science course will be developed and implemented, serving 60 junior and senior-level students each year.

Pitt Community College

Ms. Ulla S. Dittmar

PCC Cell Culture Enhancement: Cellometer Auto T4

PUBLIC INFORMATION SUMMARY

New equipment will be purchased to support a new laboratory-intensive upper-level course in molecular biology at Lenoir-Rhyne University in Hickory that will integrate genetics, biochemistry and computational biology. Approximately 6-8 students will be impacted in this course the first year, while up to 170 students in other courses will also use the equipment.

Organization Name
Primary Contact
Project Title
Project Description

Polk County High School

Mrs. Jennifer C. Allsbrook

PCHS Magnolia Detectives Project

PUBLIC INFORMATION SUMMARY

This project will integrate a real world research opportunity, the Magnolia Detectives Project, into Polk County High School's Introduction to Biotechnology class and incorporate related activities into four other biology courses. The goal of the project is to determine, through DNA analysis, the closest relatives to an unusual stand of Sweetbay Magnolia growing in Polk County, rather than along the coast where this species is usually found. The project will impact a total of 250 students in the first year.

SciWorks

Dr. Beverly S. Sanford

Biotechnology and BrainWorks

PUBLIC INFORMATION SUMMARY

A planning grant will enable SciWorks museum staff to research and develop content as well as design concepts for a new, interactive, hands-on exhibit entitled BrainWorks. The exhibit will be shown at SciWorks in Winston-Salem and travel to other museums. The traveling exhibit, projected to reach 200,000 visitors in North Carolina and Florida, will feature biotechnology-based advances in the diagnosis and treatment of neurological disorders.

Wake Technical Community College

Dr. Michael K. Morgan

Implementation of GC-FAME Instrumentation at the NC BioNetwork Capstone Center

PUBLIC INFORMATION SUMMARY

The NC BioNetwork Capstone Center provides hands-on training in biotechnology to incumbent workers, new hires, and students planning to begin a career in the biotechnology industry. Acquisition of a GC-FAME chromatographic system for automated, high-throughput microbial identification will enhance training of job seekers, pharmaceutical industry employees, and FDA inspectors at the BioNetwork Capstone Center.