

Project Information

Name of Project BioTeach

Type of Project (e.g., Professional Development) High school professional development, equipment grants and experiential learning

Project Manager:	Name	Dr. Robert Ross
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PreK-16 Regional STEM Network affiliation (check one): ☒ Berkshire ☒ Central

☒ Metro West ☒ Northeast ☒ Pioneer Valley ☒ Southeastern ☒ Boston

Description of Project:

MassBioEd Foundation is committed to developing and delivering high quality educational programming that will enhance student's interest and capability to pursue science careers. Ten years ago the Foundation was created by MassBio the trade association serving over 600 members. The Foundation and Mass Bio work collaboratively to develop the workforce pipeline that will prepare future biotechnology workers at all professional levels.

BioTeach is an ambitious program that features teacher professional development, equipment supply and student experiential learning. The program is designed to support biotechnology instruction and career awareness activities. Over a six year period, BioTeach has provided professional training for nearly 500 educators in 177 Massachusetts high schools (attachment#1). The program prepares teachers to so access and use biotechnology curricula, expose students to career awareness activities, and partner with government and local businesses to support scientific curiosity and increase student participation in sciences.

Due to a lack of funding, for the past two years the Foundation has been unable to add new schools to the BioTeach program. Demand for the program is high with an ongoing waiting list of schools that would like to participate. To address this problem MassBioEd and the Massachusetts Life Sciences Center (MLSC) are actively exploring a dynamic integration of the BioTeach program with MLSC equipment and supply grant program. The goal of the partnership would be to increase the number of schools entering the BioTeach program by providing equipment, supplies and professional development necessary to offer cutting edge biotechnology labs. Intended outcome is to increase student's science abilities and increase student motivation to pursue science academics.

Program Highlights:

- Increase in high school biotechnology electives from 8 in 2005 to over 80 in 2010
- Over 30 corporate partners participating in "Job Shadow" days and "Biotech Futures" career exploration days. 600 students will participate in the June 2011 Job Shadow event.
- Four years of evaluation by TERC leading to ongoing program refinements
- Proven collaboration between the Foundation and Boston University, Museum of Science, Framingham State University, Springfield Technical Community College
- Demonstrated increased interest in biotechnology for teachers and students.