

**EXECUTIVE SUMMARY [NON-CONFIDENTIAL, NON-TECHNICAL ABSTRACT FOR PUBLIC INFORMATION OR PROGRAM PROMOTION]:** State in layman's terms the application's broad, long-term objectives and specific aims, making reference to the potential public benefits of the project relevant to California. Do not include proprietary or confidential information. This may be distributed before the funding decision has been finalized.

There is a growing need for workers for the developing biotechnology industry in California. Students need exposure to biotechnology in high school so they can make informed decisions about careers in biotechnology. Also, advances in biotechnology need to be examined by society to address bioethical issues of new technologies. High school science teachers in Santa Clara County have a broad range of abilities. Even teachers entering the profession with a high level of science background or straight from industry are under-prepared for the inquiry-based approach of teaching science or lack skills necessary to teach hands-on biotechnology labs. We provide training for the teachers in the use of kits we have developed on various biotechnology topics. The demand for additional materials has led us to develop curricula for two new kits: diabetes and spectroscopy. All kits contain materials for relevant bioethical discussions as well as all reagents and equipment for the laboratory activities. At the training workshops, teachers receive materials and instruction from other high school teachers about how the kits can be implemented in a variety of courses.