

**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.

**Goal 1: To provide a hands-on experience in the standard DNA amplification technique and in DNA sequence analysis tools** to faculty of Mount San Antonio Community College. **Goal 2: To then apply PCR to varied fields of instruction and develop laboratory exercises** in areas such as Microbiology, Anthropology, Biology, and Science Education courses. Examples would include emphases such as the power of PCR as applied to workforce skills in microbiology/ serology, anthropology, field biology, forensics, and paternity determinations as well as more research-based applications including genetic variation between organisms, and evolutionary patterns over time. **Goal 3: To disseminate information about these modules in several contexts: A. written information and resources:** publication on the web in two locations as a resource for other instructors world-wide; our site and inclusion on the Bio-Link resource page, poster at CSUPERB meeting, and possible other education publications; and **B. Workshop for high school biology teachers** to gain the background and skills required, using modular emphases with materials related towards the state science standards to facilitate incorporation in the high school curriculum. **Goal 4:** *extends beyond the dates of this grant cycle* to provide modular kits for loan to high school faculty including lesson plans and other required materials. ***The overall goal is to increase both awareness of and interest in biotechnology in the students in the high schools and community college: the future workforce in an area of rapid growth in biotechnology.***