

**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.

Knowledge of DNA manipulation and/or analysis is key to an understanding of Biotechnology. This project seeks funding to incorporate basic biotechnological techniques into student laboratory exercises, and to present these lab exercises to all incoming Biology majors at CSU Chico during their first semester. The new lab exercises will allow students to investigate corn products for potential genetic modification and to address questions on human origins through hands-on experiences with DNA isolation, amplification, separation, sequencing, and analysis.

California will benefit through an expansion of Biotechnology education. All Biology majors entering CSU Chico (nearly 200 annually) will participate in the new lab exercises during their first year. As an additional benefit to the increased exposure, California may realize increased numbers of graduating seniors entering the Biotechnology workforce. The newly designed labs exploit the recent popularity of Biotechnology topics including genetically modified organisms and use of genetic information for human identification.