

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.

Phage display is a new and growing technology in the area of Biotechnology. It is a powerful method for generating novel diagnostic and therapeutic reagents. It is already having a significant impact on agriculture where it is being used to generate nutritionally modified and pathogen resistant plants. The technology is also being used in the fight against cancer, e.g., use of antigen specific single chain antibodies to target tumor cells *in vivo*. Moreover, phage display is adaptable to other areas of basic research, e.g., discovery and characterization of intracellular macromolecular interactions. Incorporation of this technology into research labs should result in an increase in the research applications for this technology. More importantly, the next generation of students will gain valuable experience with this technology and its application to Proteomics. This is critical if California is to maintain its current status as the leader in Biotechnology.