

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.

The goal of this instrumentation proposal is to enhance CSUSB educational programs and research in Biology in an area related to biotechnology. Training students in the techniques involved in cell cultures gives them both a valuable skill for their future careers as well as a valuable experience in examining cellular functions. The proposed instrumentation consists of a tissue culture workstation which will increase teaching capacity in core Biology courses and assist with adult neural stem cell research. This equipment will be used for existing courses in the curriculum of both undergraduate and graduate students in Biology. In addition, the tissue culture workstation will be available for student and faculty research projects. A specific faculty project which will be enhanced by this equipment will be a new project examining the differentiation of adult human bone marrow stem cells into neurons and the differentiation of adult human adipose derived stem cells into neurons, cartilage and bone.