
Specialty in Stem Cell Biology

Grant Award Details

Specialty in Stem Cell Biology

Grant Type: Bridges

Grant Number: TB1-01197

Project Objective: This grant supplements the training for students enrolled in the biotechnology program at Berkeley City College by offering the Certificate in in Stem Cell Biology. Certification includes additional coursework, training at the UCSF Shared lab, and 9 month research internships in stem cell laboratories around the Bay Area. Students also take courses in bioethics and scientific writing.

Investigator:

Name:	Barbara Des Rochers
Institution:	Berkeley City College
Type:	PI

Award Value: \$2,227,230

Status: Closed

Grant Application Details

Application Title: Specialty in Stem Cell Biology

Public Abstract:

This Bridges to Stem Cell Proposal will prepare community college students, particularly members of racial and ethnic minorities underrepresented in the health sciences, to obtain positions in the field of stem cell research by providing them with hands-on laboratory experience as well as academic instruction. A second purpose is to encourage students to pursue careers as stem cell scientists and thus, continue their education until they have obtained the required advanced degree. Selected students will serve an internship in a collaborating laboratory and will have the opportunity to work alongside scientists and technicians as they proceed through their experiments. Along with honing their laboratory skills, students will develop critical thinking skills and confidence in their ability to work in today's world of biological science, which can be daunting when viewed from the outside. Students will earn a special certificate that will require that they complete advanced training in working with stem cells and participate in a course devoted to the scientific, ethical and legal aspects of stem cell research, along with their internship. Students will have the opportunity to participate in a myriad of seminars and workshops in stem cell research offered by the host laboratory. To encourage students to share their experiences with others, they will be invited as guest lecturers in a number of the biology and biotechnology classes offered by local colleges so that they can educate and inspire other students in this new and exciting field of biological research. Well-trained laboratory technicians are critical to the success of all research laboratories. This proposal will support training students to work in stem cell research laboratories and encourage them to pursue careers as stem cell scientists.

Statement of Benefit to California:

Developing and maintaining leadership in the field of stem cell research requires a critical mass of exceptional scientists, adequate resources, laboratories equipped with the latest specialized technology required for stem cell research, and a large pool of laboratory technicians trained in stem cell research techniques. Stem cell research requires specialized skills and knowledge that is not normally taught in biotechnology programs, especially in community colleges. The proposed Bridges to Stem Cell research will benefit the State of California by providing skilled technicians to work in the field of stem cell biology. Importantly, this proposal will encourage and prepare students from non-traditional and underrepresented backgrounds to participate in the science of stem cell biology and to consider completing degrees at four-year colleges as well as pursue advanced degrees in order to become stem cell researchers. The proposal will also ensure that students are well versed in the many legal, ethical, and social issues surrounding stem cell research so that Californians from all races and ethnic communities as well as from a wide range of socioeconomic groups will be able to participate in a meaningful way in the debate of how best to pursue stem cell research in California.

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