
Stem Cell Training Enhancement Program with a focus on Translational Research

Grant Award Details

Stem Cell Training Enhancement Program with a focus on Translational Research

Grant Type: Bridges

Grant Number: EDUC2-08400

Project Objective: This program provides stem cell training for up to 10 students per year (undergraduate or other level) at CCSF. Training includes coursework, patient engagement opportunities, outreach activities, and a 9 month internship at host labs around the Bay Area.

Investigator:

Name:	Carin Zimmerman
Institution:	City College Of San Francisco
Type:	PI

Award Value: \$1,978,247

Status: Active

Grant Application Details

Application Title: Stem Cell Training Enhancement Program with a focus on Translational Research

Public Abstract:

The proposed project will build on an existing robust stem cell technician training in place at the home institution by expanding and enhancing student training with a translational focus through the implementation of eight (8) internship experiences each year, as well as a range of other support activities.

Specifically, the proposed project will:

1. Offer full-time internships to eight (8) students each year in CIRM-funded research laboratories or industry labs working on translational stem cell research. Participating laboratories include both academic and industry labs operating throughout the region. Intern trainees will be recruited from a pool of students who have completed a series of cell culture courses at the home institution. Selected interns will engage in a nine-month internship for which they will earn college credit.
2. Offer a Human stem cell techniques course that will prepare student trainees to begin their internship experiences.
3. Mentor student trainees through two (2) four-unit independent study courses in both the fall and spring semesters.
4. Augment and update all existing cell culture courses with cutting-edge information, techniques, and equipment, including coursework regarding drug and therapy development compliance and regulations.
5. Create a network that allows research scientists in the field the opportunity to be guest lecturers and/or teach a laboratory to enhance the learning experience of the students in our program.
6. Engage a Project Director whose long-term experience in molecular biology and cell culture research will fully qualify her to implement the proposed project.
7. Engage students in community outreach through patient interactions and presentations to educate the public about the importance of stem cell research and regenerative medicine.

The proposed program will greatly enhance training of future stem cell laboratory personnel by augmenting the existing California community college program with hands-on experience in an academic and/or industry laboratory over a nine-month period. Students participating in this training to internship program will gain a robust set of skills that will allow them to enter the workforce and make a substantial contribution to stem cell research. Further, by enhancing partnerships between the home institution and regional academic and industry laboratories, the proposed project will pave the way for future student training, and professional development activities for faculty members.

Statement of Benefit to California:

The proposed program will benefit the state of California and its citizens by providing high-quality training to a cadre of future stem cell research technicians, with a focus on translational research. This project helps to ensure that California is developing its next generation of stem cell researchers, thereby enhancing California's workforce and economy. Over the five-year funding period, the proposed program will greatly enhance the training of future stem cell laboratory workforce by augmenting the existing community college program with hands-on experience at an academic or industry laboratory over a nine-month period. Students participating in this internship will gain a robust set of skills that will allow them to enter the workforce and make a substantial contribution to stem cell research. Furthermore, by enhancing partnerships between the community college and regional academic and industry laboratories, patients, and local high schools, the proposed project will pave the way for future student training and professional development activities for faculty members, along with a more informed local community.

