### Stanford CIRM Training Program

#### Grant Award Details

**Grant Type:** Research Training II  
**Grant Number:** TG2-01159  
**Project Objective:** To provide stem cell emphasis and laboratory training to pre-doctoral, post-doctoral and clinical fellows at Stanford. This program has a focus on “translational medicine”, which exists at the crossroads of stem cell biology, regenerative medicine and human disease. Program seeks to foster future leaders in this field.

**Investigator:**  
- **Name:** Theo Palmer  
- **Institution:** Stanford University  
- **Type:** PI

**Award Value:** $7,017,629  
**Status:** Closed

### Progress Reports

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Grant Application Details

Application Title: CIRM Training Program

Public Abstract: This application proposes to continue, and expand, our CIRM-funded integrated training and research program in the fundamental biology of embryonic stem cells, nuclear reprogramming, tissue- and organ-specific stem cells and cancer stem cells. We aim to produce the next generation of leaders positioned to understand basic stem cell mechanisms, develop relevant human stem cell lines for investigation into pathogenesis and treatment of diseases, and provide the basis for development of new molecular and cellular therapies. During the previous funding period, the CIRM Training program has been highly-successful and vital to our stem cell efforts, providing valuable resources for both Scholars and the greater community in which they are educated. Our Program offers outstanding opportunities for training predoctoral, postdoctoral and clinical Scholars, in stem cell biology, regenerative medicine, and human disease. Because the School of Medicine, Hospitals, and the University are situated on one campus, our Program brings a powerful combination of assets to this mission. Our faculty have extensive experience in basic research, clinical translation, and training in stem cell biology and medicine. Moreover, our Program is strongly committed to stem cell biology. In 2002, we established a regenerative medicine institute, which nucleated a University-wide Program in Regenerative Medicine that promotes interactions between Departments and Programs in the Schools of Engineering, Law, Humanities & Sciences, Business, Medicine, and an interdisciplinary program in biology and medicine. In addition, [REDACTED] has established a center for human embryonic stem cell research and education, which is housed in our regenerative medicine institute. Program activities form a foundation for research and include a comprehensive course on Stem Cell Biology and Regenerative Medicine to educate CIRM Scholars regarding stem cells and applications to human disease, and opportunities to provide non-medical CIRM Scholars with an understanding of the considerations necessary to translate basic research to the clinic. Courses in Biomedical Ethics, Responsible Conduct of Research, basic and advanced courses in human embryonic stem cell (hESC) and pluripotent stem cell biology, a seminar series [REDACTED], an annual retreat and a robust program in stem cells and Society offer additional and unique educational opportunities. We seek funding for our Type I comprehensive training program with 16 concurrent positions devoted to 6 predoctoral, 5 postdoctoral, and 5 clinical fellow CIRM Scholars.
Statement of Benefit to California: This application proposes to continue and expand our CIRM-funded integrated training and research program in the fundamental biology of embryonic, adult, and reprogrammed-stem cell research and its applications to human disease. We aim to produce leaders positioned to understand basic stem cell mechanisms, develop relevant human stem cell lines in order to investigate the pathogenesis and treatment of diseases, and provide the fundamental and practical basis for the development of new molecular and cellular therapies. These activities have significant implications for the State of California and its citizens. We are requesting CIRM funds in order to continue our highly successful Research Training Program, with 6 predoctoral, 5 post-doctoral and 5 clinical fellow trainees for a total of 16 concurrent CIRM Scholar positions. Trainees will have the opportunity to learn from pre-eminent stem cell biologists as well as physicians, scientists and physician-scientists at one of the State’s leading academic institutions. Furthermore, our program in Regenerative Medicine, with which trainees are closely associated, represents a unique University-wide collaboration that brings together over 150 faculty members in life, physical, and engineering sciences, together with leaders in business, law, and education. This CIRM Research Training Program proposal will provide real benefits to the State of California and its citizens in the following ways: First, all trainees will be exposed to vital medical issues amongst Californian patients and this will foster new ideas and lead to exploration of novel strategies with associated faculty in their pursuits of novel stem cell therapies. Second, our programmatic activities including courses, seminars, annual retreats, symposia and journal club components as part of this training program, will serve to connect with a much greater number of student, fellows, and basic and clinical faculty across the disciplines, from Biochemistry to Law and Business to Medicine from across the campus in all seven schools and across the State. Third, this training program has significant potential to provide the support and momentum to explore advances in stem cell biology and novel therapies which will further attract additional world class faculty over the next decade. Finally, by bringing together our stem cell faculty and trainees in one program, and connecting and coordinating (via our program in Regenerative Medicine), our efforts across the campus will maximize our capability to develop innovative new diagnostics, tools, and novel therapies in stem cell biology and regenerative medicine and also gain the attention and momentum of researchers across the campus and beyond. These innovations ultimately promise to improve the lives of Californians and bring additional research talent and business into the State.