

## **CIRM RESEARCH TRAINING PROGRAM GRANTS EXTENSION**

### **Proposal:**

Request ICOC to conditionally extend the award period of CIRM Research Training Program grants for up to 3 additional years.

### **Overview:**

- Purpose: to extend CIRM support for the CIRM Research Training Awards for three additional years (beyond the initial three-year funded period)
- Eligibility: institutions with a currently CIRM-funded Research Training Program that is in good standing, has completed a program site visit, and has demonstrated effective program performance.
- Eligible costs: the extension award amount for each program is based on the amount awarded for the initial 3 years but adds anticipated 3% biennial adjustments to the stipend levels for years 4 and 6 of each award. Awards support trainee stipends, research, and program administration costs plus 10% indirect costs.
- Total cost for 3-year extension of 17 institutional grants: \$46,769,369

### **Rationale:**

The CIRM Research Training Program is a vital and successful program that has engendered the growth of stem cell research across California and advanced CIRM's goal to seed and expand the next generation of stem cell scientists.

In 2006, CIRM awarded 16 institutional grants to support the CIRM Research Training Program for a period of 3 years. In 2009, a second competition was held to renew this program and all applicants with an existing training program were successful in renewing their funding for an additional 3 years. This second competition reaffirmed the quality and success of these programs and introduced two new grantees. The 3-year award period for these training programs will come to the end beginning in 2012. CIRM would like to continue support for successful programs by extending the award period for up to 3 years so that training is not interrupted and the ongoing contributions of these programs are retained. The extension of these awards is to be implemented on a conditional basis.

The condition for extending an award beyond the original 3 years, is the demonstration of successful training outcomes for each of the trainee types supported including the advancement of trainees to stem cell research positions

(faculty or other), maintaining required stem cell biology coursework, having an active institutional stem cell program that provides adequate mentorship opportunities and career development activities and ongoing commitment from the institution for the program. Each program is normally reviewed on an annual basis to ensure that each one is meeting these key goals.

Each training program submits an annual progress report that includes a description of the trainee selection process, current number and type of trainees in the program, program activities (e.g., seminars, workshops, retreats), developments or changes in the required stem cell coursework, any changes in program administration, plans for the upcoming year, and anticipated budget changes. In addition, each appointed trainee submits an annual report that describes specific training activities, progress on their assigned research project, and outcomes such as publications or conference presentations. The training programs also provide documentation on an annual basis that certifies that each trainee has institutional approval to engage in research involving live vertebrate animals, covered stem cells, or human subjects as appropriate.

In addition to this annual monitoring, we propose that a site visit of the program that includes meeting with trainees, mentors and program directors be required prior to initiating the extended award period (i.e., 4<sup>th</sup> year). Limited adjustments to improve or focus a specific training program may be allowed at this time, such as the addition of trainee slots should the program prove capable of supporting a larger cohort (not more than two slots per year total for any one program) or the reduction of slots should the program experience difficulty in recruiting and supporting trainees. Any adjustment recommended by CIRM that would require an increase in funding would be brought to the ICOC for review and approval.

All training programs are currently in good standing and advancing the goals set out in the training RFA. A summary of features of each program is shown in the accompanying table. All programs are providing training that engages individuals in stem cell research and advances careers to produce an expanding next generation of stem cell scientists. Many trainees have already made impressive contributions to the field that is reflected in a growing list of high-quality scientific publications. Individual CIRM trainees have moved on to faculty positions at top universities, to scientific positions in biotechnology/pharmaceutical companies, or to further training at laboratories of leading stem cell scientists. Many physician CIRM trainees are now also practicing medicine with a strong knowledge base of stem cell science. Outstanding examples of CIRM trainee achievements include: research leading to the founding of a biotechnology company and the research leading to a Phase 1 clinical trial. A former trainee recently made a breakthrough in reprogramming cells with synthetic mRNA, which received wide recognition and spurred many laboratories to adopt the technology.