## RFA 08- 04 Concept Proposal: CIRM Bridges to Stem Cell Research Awards

Fulfilling the mission of the California Institute for Regenerative Medicine (CIRM) – to promote rapid progress in stem cell research leading to treatments and cures for diseases and to the growth of a stem cell industry critical to future clinical applications – will require an expanding pool of professionals with specialized training, interests, and skills.

While most stem cell research and training supported by CIRM is expected to be carried out in California's research-intensive universities, research institutes, and private-sector companies, CIRM nonetheless recognizes the large reservoir of talent residing in California State Universities and other public and private California colleges. Many of these institutions serve students from widely diverse ethnic, racial, and socio-economic backgrounds who may have limited opportunities in pursuing careers in regenerative medicine and related health sciences. Harnessing the talents and skills of outstanding science students from these institutions within CIRM-sponsored research programs can only advance stem cell research progress in our state.

To engage students from these institutions in stem cell research, CIRM proposes "Bridges to Stem Cell Research Awards," a program that will provide funds to candidates for certificate, undergraduate, and master's degree programs in their home institutions to become engaged in stem cell research via internships and associated training activities particularly at research-intensive host institutions carrying out CIRM-sponsored research. These CIRM-supported research internships will augment and be integrated into educational programs at the students' home institution. The ultimate goal of the program will be to expand California's workforce in stem cell science, and, in the course of doing so, to expand the career horizons of students who are interested in research careers, and to provide students opportunities for future employment and professional training.

The Bridges to Stem Cell Research Awards will be open to public and private educational institutions that do not have a CIRM-funded shared lab facility and, as such, do not have a critical mass of stem cell labs providing training and research opportunities in regenerative medicine. The program will require the partnering of home institutions -- the applicants for the awards -- with one or more internship-host organizations, including research universities, institutes, and companies with active stem cell programs.

CIRM expects that students who enter this Bridges program will receive a wide array of training including but not limited to cell culture techniques, live-imaging microscopy, fluorescence activated cell sorting and analysis, micromanipulation techniques, animal research techniques, and good laboratory practices (GLP), all of which will play essential roles in advancing research from basic studies through translational approaches and on to clinical investigations. Students who enter these programs stand to benefit from advanced training in these research techniques, from involvement in specific research projects, and from networking with stem cell researchers and their students. CIRM-funded trainees will form connections that will benefit their own career development, whether by creating opportunities for further technical training and employment in a

CIRM-sponsored research center or private firm (e.g. as research associates, technicians, laboratory managers, or science administrators) or by opening doors to further advanced professional training, including the M.S., M.D., and Ph.D. degrees.

CIRM intends to provide home institutions with financial support for student stipends, educational expenses, and program administration and educational enhancement activities. Host institutions will receive funding for research supplies, for training courses at CIRM-funded shared lab facilities, and for appropriate administrative costs. Each award will support up to 10 internship trainees per year from a home institution for internships of 6-12 months duration. Individual programs will be funded for up to three years, with progress monitored by CIRM annually. Eligible home institutions may each submit one application, with a senior faculty member from the home institution serving as Program Director.

CIRM proposes to fund a total of ten awards at a total cost of up to \$18 million.

## **Provisional Timetable**

RFA Release Review of Applications ICOC Approval June 2008 November 2008 Early 2009