CSUN Receives $1.6 Million to Train Students for Careers in Stem Cell Research

Cal State Northridge has received a $1.6 million grant from the California Institute for Regenerative Medicine (CIRM), the state stem cell agency, to train undergraduate and graduate students for research careers in stem cell biology.

Specifically, the three-year grant will provide an opportunity through the CSUN-UCLA Bridges Stem Cell Research Program for ten Northridge students each year of the grant—six graduate and four undergraduates—to intern with some of the world leaders in stem cell research at UCLA’s Eli and Edythe Broad Center of Regenerative Medicine and Stem Cell Research Center (Broad Stem Cell Research Center), assisting with research and working with the latest technologies in the rapidly emerging field of regenerative medicine.

“There is no question that when these kids are done, they will be in high demand—whether they are interested in continuing their studies in academia or going out into the work place,” said biology professor Randy Cohen. “They are going to have a chance to work alongside world-class researchers with tomorrow’s technology.” In addition to the internships, the CIRM grant will provide funding for a new course at CSUN in regenerative medicine that will be open to all Northridge students and the community. The course is expected to debut in about a year.

“We touch on regenerative medicine in our basic biology class,” said assistant professor of biology Cindy Malone, who is helping to coordinate the Bridges program. “The new course will give us an opportunity to really explore emerging issues in regenerative medicine and allow students across the campus and members of the community to explore the issues with us.”

Robert Klein, chair of CIRM’s governing board, said funding programs such as CSUN’s are an important step in ensuring that California has a well-trained stem cell workforce.

“Training is critical to our mission of developing new therapies,” he said. “During a time when the state is having to cut funding to higher education, our agency is bridging part of the gap, ensuring that highly qualified students receive the training they need to fill the high-tech stem cell research jobs of the future.”

The Bridges awards fund coursework and internships to prepare undergraduate and masters level students for careers in academic and industry stem cell laboratories.

Malone said she and Cohen will spend this winter getting the word out to students that the program has been funded and is accepting applications.

Once the first cohort has been selected, Malone and her colleagues in the biology department will make sure that they have taken the prerequisites, including a special laboratory skills class next summer, so they can hold their own in the Broad Stem Cell Research Center laboratories when they begin their internships—two semesters for the undergrads and a year for the graduate students—in the fall of 2010.

Neither she nor Cohen have any doubts that the CSUN students will do just fine assisting world-class researchers in the field of regenerative medicine at UCLA. “We have a long tradition here at CSUN of doing a very good job of giving our biology and biochemistry undergraduate students hands-on experience working in laboratories,” Cohen said.
Those students selected for Bridges internships will receive up to $5,000 toward their educational expenses, a monthly stipend of $2,500 and up to $3,000 to offset the cost of their supplies for their work at the host laboratory. Though the CIRM grant funds only three cohorts of ten students during each of its three years, Cohen and Malone are hoping that it will be extended.

“Knowing the caliber of our students, there is no doubt in my mind that they will be in high demand,” Cohen said. Malone added, “And once the word gets out among our students that this program is out there, they are going to be lining up to get in.”

CIRM was established in November 2004, with the passage of Proposition 71, the California Stem Cell Research and Cures Act. The statewide ballot measure, which provided $3 billion in funding for stem cell research at California universities and research institutions, was overwhelmingly approved by voters, and called for the establishment of an entity to make grants and provide loans for stem cell research, research facilities and other vital research opportunities. To date, the CIRM governing board has approved 328 grants totaling more than $1 billion, making CIRM the largest source of funding for human embryonic stem cell research in the world.

The UCLA Stem Cell Research Center was established in 2005 with a $20 million dollar commitment over five years. A $20 million gift from the Broad Foundations in 2007 resulted in the naming of the center. With more than 200 members, the Broad Stem Cell Research Center is committed to a multi-disciplinary, integrated collaboration of scientific, academic and medical disciplines for the purpose of understanding adult and human embryonic stem cells. The center supports innovation, excellence and the highest ethical standards focused on stem cell research with the intent of facilitating basic scientific inquiry directed towards future clinical applications to treat disease.

California State University, Northridge’s College of Science and Mathematics, home to the Department of Biology, is among the top institutions in the nation in preparing students who go on to earn doctoral degrees in the sciences. The college is home to several nationally recognized programs where students gain valuable experience through hands-on work using the latest technologies and equipment. Students also have an opportunity to co-author publications with faculty members and to present their research at national and international meetings. The Department of Biology has received national recognition for its faculty’s work in ensuring the success of their students. Two members of the department have received honors from the White House for their roles in mentoring students.