

UC SANTA BARBARA

# *THE Current*

November 29, 2007

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## **Southern California Institutions to Collaborate on Stem Cell Research**

Research institutions across Southern California have joined forces to advance stem cell research by establishing the Southern California Stem Cell Scientific Collaboration (SC3).

Members of the collaboration include UC Santa Barbara, the University of Southern California (USC), Childrens Hospital Los Angeles, City of Hope, the California Institute of Technology, and the House Ear Institute.

Through grants from organizations such as the California Institute for Regenerative Medicine (CIRM) and the National Institutes of Health, SC3 members have a long history of partnering on various research projects. The new agreement is a major step forward in supporting potential significant stem cell findings by allowing members to share training programs, scientific core facilities and expertise, and to team up on a wide range of research programs.

"The SC3 collaboration is already engendering new ideas for collaborative projects between scientists at the participating institutions," said Dennis Clegg, director of the Stem Cell Program at UC Santa Barbara and chair of the Department of Molecular, Cellular, and Developmental Biology.

"UCSB will benefit from shared resources and synergistic collaborations in stem cell research as part of a new proposed Center for Stem Cell Biology and Engineering."

UCSB has a CIRM-funded stem cell training program and a shared lab facility.

Research in the proposed center will focus on two areas of basic and discovery stem cell research: molecular mechanisms and bioengineering.

The long-term goal will be the application of results to the development of stem cell-based therapeutics for human disease, particularly macular degeneration.

"The potential applications for stem cell research in medicine are enormous," said Martin Pera, director of USC's Center for Stem Cell and Regenerative Medicine.

"Tackling these complex problems requires scientists with diverse expertise.

We are delighted to have an opportunity to work with such an outstanding collection of scientists to really accelerate the pace of discovery and translational research in regenerative medicine."

Each institution will appoint a faculty member to serve on a joint scientific advisory committee, which will serve as a forum to develop collaborative research ventures, facilitate access to scientific resources, and provide expertise across the collaboration.

Regional seminar programs and courses, such as the ongoing CIRM funded stem cell biology course involving USC, Caltech, and Childrens Hospital Los Angeles, will be expanded to allow additional participation.

The agreement also ensures each member provides access to resources to investigators for training or to conduct short-term research projects.

"For patients and their families, cures for cancer, HIV/AIDS and other diseases cannot come soon enough," said Michael A. Friedman, M.D., president and chief executive officer of City of Hope.

"As an institution, City of Hope is working to speed advances in medical science to improve and save lives.

We believe the SC3 collaboration provides a critical mass of expertise that will create new knowledge and significantly accelerate treatments for diseases that impact so many."

"Stem cell research is vibrant at Childrens Hospital Los Angeles because of the long-term commitment of our hospital to support high quality research in general, and stem cell research in particular," said Gay M. Crooks, M.D., director of the Stem Cell Program at Childrens Hospital Los Angeles and professor of pediatrics at the Keck School of Medicine at USC. "We believe that such innovative research should be available to the children of California."

"The ultimate goal of the collaborative stem cell research at the House Ear Institute is the regeneration or transplantation and successful functioning of sensory cells and other cell types in the inner ear to restore hearing," said David Lim, M.D., executive vice president of research at the House Ear Institute (HEI).

Scientists at HEI have discovered that sensory cell progenitors (stem cells) in the inner ear (cochlea) are supporting cells that may help manipulate hair cell regeneration to restore hearing.

Future work seeks to more fully understand the biology of these two pathways, while at the same time examining their potential in therapeutic approaches to hair cell regeneration.

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## **About UC Santa Barbara**

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.