

UC SANTA BARBARA

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UC Santa Barbara Receives Grant for Stem Cell Research Tools

More than half a million dollars will be granted to UC Santa Barbara for tools and technologies to develop new treatments for diseases that can be helped by stem cell research. The granting agency is the California Institute for Regenerative Medicine (CIRM).

"This will fund an exciting project at UCSB that is truly interdisciplinary, with involvement of chemists, cell biologists, and engineers," said principal investigator Dennis O. Clegg, professor and chair of the Department of Molecular, Cellular and Developmental Biology. Clegg also co-directs the UCSB Center for Stem Cell Biology and Engineering.

The Tools and Technologies Awards are intended to support work that either creates new reagents and methods for stem cell research, or scales up existing technologies -- all designed to accelerate the development of critical therapies for patients with chronic disease or injury. CIRM will be funding 23 grants to 18 institutions with a total of \$19 million in funding for this round.

Clegg explained that UCSB will use the money to address a critical need for new technologies. These will facilitate cost-effective methodologies for the culture of human embryonic stem cells at clinically relevant scales.

"We propose to develop novel, well-defined synthetic matrices that support human embryonic stem cell survival and proliferation," said Clegg. "The proposed experiments, if successful, will address an important unmet need in bringing stem cell therapies to clinical use and provide the foundation for a wide range of additional applications."

The interdisciplinary research group on this project includes co-principal investigators Craig Hawker, professor in the Department of Chemistry and Biochemistry and director of the Materials Research Lab; and Erkki Ruoslahti of the Burnham Institute at UCSB. World-renowned biologist James A. Thomson, who was the first to grow human embryonic stem cells, is a consultant on the project. Thomson has a part-time faculty appointment at UCSB and co-directs the UCSB Center for Stem Cell Biology and Engineering. Lincoln V. Johnson, director of the Center for the Study of Macular Degeneration, is also serving as a consultant.

CIRM was established in early 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. The measure 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 253 research and facility grants totaling more than \$635 million, making CIRM the largest source of funding for human embryonic stem cell research in the world.

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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.