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For Immediate Use
March 16, 2006

**CALIFORNIA AWARDS COMPREHENSIVE STEM CELL RESEARCH GRANTS;
UCLA SCIENTISTS GARNER TWO OF 29 GRANTS AWARDED**

**Researchers from the Institute for Stem Cell Biology and
Medicine at UCLA Awarded More Than \$5 Million in Funding**

Scientists at the Institute for Stem Cell Biology and Medicine at UCLA received two comprehensive research grants from the state on March 16 as part of the second round of funding for embryonic stem cell research since voters approved Proposition 71 in November 2004.

The two UCLA grants total more than \$5 million over four years and will be used to fund research on neural cell repair and therapeutic strategies to target HIV. The grant submitted by Guoping Fan, UCLA assistant professor of human genetics, scored 95 points out of 100 - the highest score awarded to any grant by the selection committee during this round of funding.

The California Institute of Regenerative Medicine (CIRM), the state organization that oversees Proposition 71 funding, received 70 grant applications totaling more than \$175 million from researchers at 23 non-profit institutions. Of those, 29 were funded totaling \$75 million.

Dr. Owen Witte, renowned scientist and director of the Institute for Stem Cell Biology and Medicine at UCLA (ISCBM), said he was pleased that two UCLA researchers were awarded grants.

“These grants are given to scientists with a record of accomplishment in stem cell research, and I’m proud to have two ISCBM researchers among the grant winners, which represent the top scientists in California,” Witte said. “This funding will enable us to continue fostering leading-edge interdisciplinary collaborations and build upon our existing body of knowledge in stem cell science for the benefit of people worldwide.”

Funded grants at UCLA include:

- **Principal Investigator Guoping Fan: \$2,516,613**

Fan’s research will compare the quality and potential of eight human embryonic stem cells lines in their capacity to become nerve cells; examine the levels of gene expression and the mechanisms that control gene expression in human embryonic stem cell-derived nerve cells to determine how these cells compare to nerve cells in normal human beings; and, using a mouse model, test if human embryonic stem cell-derived nerve cells can repair the brain after stroke or injury.

“We hope our study will pave the way for the future use of human embryonic stem cell-derived nerve cells in the clinical treatment of nerve injury and neurodegenerative diseases such

as stroke and Parkinson's disease," Fan said. "Considering the restricted federal funding for research with human embryonic stem cells, the CIRM awards come at the perfect time."

- **Principal Investigator Jerome Zack: \$2,516,831**

Zack, associate director of the UCLA AIDS Institute, will test three different types of anti-HIV gene therapy approaches in laboratory models. The different genes will be inserted into human embryonic stem cells, and those cells will be allowed to develop into blood cells. Researchers will then test whether "therapeutic" genes can inhibit HIV infection in cell culture. Zack also seeks to develop novel mouse models that allow development of human embryonic stem cells into blood cells in the body. He will test the efficacy of the genetic approaches in these systems, as they most closely represent the situation in people.

Zack said his studies will "provide proof-of-principle that cells in the immune system can be modified by manipulation of human embryonic stem cells."

"This may help us develop future therapeutic approaches to combat HIV," he said. "These studies also will be relevant to other immune system disorders such as autoimmune diseases."

Comprehensive grants are intended to support mature, ongoing studies on human embryonic stem cells by scientists with a proven record of accomplishment in the field, CIRM officials said. The grants offer opportunities for investigators with well-developed expertise in human embryonic stem cells research or in closely-related stem cell fields to expand their programs or take promising new directions based on current research. The grants were reviewed by a committee of scientific experts from outside California and patient advocates from the Independent Citizens Oversight Committee, CIRM's governing board. The oversight committee approved the grants during its meeting in the Los Angeles area.

Last month, scientists from UCLA's stem cell institute received seven of 72 seed grants awarded by the state. The grants totaled more than \$4 million over two years. Seed grants are intended to bring new ideas and new investigators into human embryonic stem cell research.

The Institute for Stem Cell Biology and Medicine was launched in 2005 with a UCLA commitment of \$20 million over five years. The ISCBM 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 institute 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. The institute is a collaboration of the David Geffen School of Medicine, UCLA's Jonsson Cancer Center, the Henry Samueli School of Engineering and Applied Science and the UCLA College.

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To learn more about the ISCBM, visit <http://www.stemcell.ucla.edu/>.