



# THE J. DAVID GLADSTONE INSTITUTES

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## NEWS

### FOR IMMEDIATE RELEASE

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### GLADSTONE RECEIVES CIRM SEED GRANTS FOR RESEARCH INTO HIV BIOLOGY, NEUROLOGICAL DISEASE AND FACTORS AFFECTING STEM CELL DEVELOPMENT AND REGENERATION

*Funding to enable study of potential protective factor in HIV,  
the origins of developmental disorders including autism and the regulation of stem cell  
development*

SAN FRANCISCO, CA—February 16, 2007 ---The J. David Gladstone Institutes announced they have been awarded three (two-year) stem cell seed grants from the California Institute for Regenerative Medicine (CIRM). Dr. Warner Greene's laboratory at the Gladstone Institute of Virology and Immunology (GIVI) received \$777,467 to study the potential protective role of APOBEC3G in inhibiting the action of retroelements or "jumping genes" within the genome of human stem cells. The cellular factor APOBEC3G has been shown *in vitro* to have potent anti-HIV effects.

Dr. Fen-Biao Gao at the Gladstone Institute of Neurological Disease was awarded \$791,000 to study a new regulatory pathway that may contribute to mental disorders and age-dependent neurological diseases including autism. The regulatory pathway involves very small RNAs called microRNAs that control the development of cells. By studying how microRNAs control the expression of their target genes, some of which may be involved in autism, Dr. Gao will gain insights into how embryonic stem cells develop into neurons or other types of cells.

Understanding how the histone deacetylase (HDAC) proteins influence how stem cells develop and regenerate will be the focus of Dr. Eric Verdin's lab. Dr. Verdin, also at GIVI, will receive \$790,999 to explore the biological role of a variety of HDACs on stem cell growth and differentiation. HDACs are critical regulators of transcription, and the Verdin group has recently observed that the expression of several HDAC is modified during stem cell development.

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“Stem cell research has been an important approach in Gladstone’s work in cardiovascular and neurodegenerative disease for several years,” said Gladstone President Robert W. Mahley, MD, PhD. “We’re pleased to expand our capability into a broader understanding of how stem cells develop and how they may be applied to HIV biology, and mental disorders.”

In 2005 Gladstone was a recipient of \$2.4 million from CIRM to create a Scholars Training program in stem cell research. In addition, the Gladstone Institute of Cardiovascular Disease, under the direction of Deepak Srivastava, M.D., has several research efforts investigating the role of stem cells in heart development and heart disease.

#### **About the Gladstone Institutes**

The J. David Gladstone Institutes, affiliated with the University of California, San Francisco (UCSF), is dedicated to the health and welfare of humankind through research into the causes and prevention of some of the world’s most devastating diseases. Gladstone is comprised of the Gladstone Institute of Cardiovascular Disease, the Gladstone Institute of Virology and Immunology and the Gladstone Institute of Neurological Disease. More information can be found at [www.gladstone.ucsf.edu](http://www.gladstone.ucsf.edu).

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