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**For Immediate Release**

**GLADSTONE'S SHINYA YAMANAKA TO RECEIVE WARREN PRIZE  
FROM MASSACHUSETTS GENERAL HOSPITAL**

SAN FRANCISCO, CA—December 16, 2010—The Massachusetts General Hospital (MGH) announced today that Shinya Yamanaka, MD, PhD, will receive the 2011 Warren Triennial Prize. Dr. Yamanaka discovered a method to convert adult cells into cells with characteristics of embryonic stem cells. He is on the faculty of both the Gladstone Institutes in San Francisco and Kyoto University in Japan. He will share the award with Rudolph Jaenisch, MD, of the Whitehead Institute and Massachusetts Institute of Technology. Dr. Jaenisch extended Dr. Yamanaka's work to generate animal models of important human diseases. The award will be presented at a daylong symposium in October 2011, part of the celebration of the 200<sup>th</sup> anniversary of the founding of the MGH.

"The Warren Prize is the top scientific award presented by the MGH, and we are delighted to be able to honor the groundbreaking work of Drs. Yamanaka and Jaenisch," says Daniel Haber, MD, chair of the MGH Executive Committee on Research and director of the MGH Cancer Center. "Their research has opened up a new direction for the future of medicine, which is particularly appropriate at a time when we are commemorating the scientific leadership the MGH has displayed throughout its history."

At a time when researchers investigating the potential of embryonic stem cells focused on controlling cellular differentiation, Dr. Yamanaka took a different approach – returning differentiated adult cells to the embryonic state. In 2006, he discovered that

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inducing activation of four transcription factors converted adult skin cells into what he named induced pluripotent stem cells (iPSCs) that displayed many properties of embryonic stem cells. In subsequent work, his team confirmed that iPSCs can give rise to any type of mammalian tissue and refined the technology to reduce potential hazards associated with using the cells.

Joseph Goldstein, MD, the Regental Professor and chairman of Molecular Genetics at the University of Texas Southwestern Medical Center, a member of the Warren Prize Selection Committee, says, "Yamanaka's development of iPSC technology and Jaenisch's pioneering work demonstrating the use of reprogrammed cells to treat models of human disease have pushed stem cell research to the forefront of biomedical science."

Adds Phillip Sharp, PhD, Institute Professor in the Koch Institute for Integrative Cancer Research at MIT, also a member of the selection committee, "These research advances have greatly expanded knowledge of the plasticity of control of cellular identity and hold the potential for new treatments for many of the degenerative diseases of mankind."

Created in 1871, the Warren Prize was named for Dr. John Collins Warren, a co-founder of the MGH who played a leading role in establishing what became the *New England Journal of Medicine* and also performed the first public surgical operation on a patient under ether anesthesia on October 16, 1846. Usually given every third year, the Warren Prize honors scientists who have made outstanding contributions in fields related to medicine; and 22 Warren recipients have also received the Nobel Prize.

**Dr. Shinya Yamanaka** is the L.K. Whittier Foundation Investigator in Stem Cell Biology at the Gladstone Institute of Cardiovascular Disease. He is also professor of anatomy at the University of California, San Francisco, and has

affiliations and research laboratories at Kyoto University's Center for iPS Cell Research and Application.

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

Gladstone is an independent, nonprofit biomedical research organization dedicated to accelerating the pace of scientific discovery and biomedical innovation to prevent illness and cure patients suffering from cardiovascular disease, neurodegenerative disease, or viral infections. Gladstone is affiliated with the University of California, San Francisco. More information can be found at [www.gladstone.ucsf.edu](http://www.gladstone.ucsf.edu).

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