Harvard announces stem cell research with human embryos: Private funding supports studies

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Describing an ambitious, privately funded study using human embryonic stem cells, Harvard University researchers announced an ethically charged, long-term project that could produce treatments for a variety of diseases.

The Harvard Stem Cell Institute, joined by researchers from Columbia University, said June 6 that it would begin recruiting women in Boston to donate eggs to generate lines of embryonic stem cells, the master cells that give rise to all other tissues in the human body.

Time magazine said it would be the first reported program launched by an academic institution to use fresh eggs in somatic cell nuclear transfer (SCNT) to create stem cells. That technique is one that South Korean scientists had claimed they used to create stem cell lines from diseased patients—work that early this year they admitted was fraudulent.

By using private donations, the Harvard institute will circumvent President Bush's ban on use of federal funds to create new embryonic stem cell lines. Religious conservatives generally object to research that results in the destruction of human embryos.

The announcement came after two years of internal reviews at Harvard, two affiliated hospitals and a fertility clinic. It could be much longer before results are shown in treating diabetes, sickle cell anemia, Alzheimer's disease and other disorders, scientists said.

"This research is very much in its infancy, and clinical applications could be a decade or more" away, said Dr. George Daley, associate director of the Boston Children's Hospital stem cell program.

Scientists hope eventually to create replacement tissues for patients. Dr. Douglas Melton, codirector of the Harvard Stem Cell Institute, said he hopes also that the stem cell lines will enable researchers to study how diseases develop at the earliest stages of life.

“We hope to move the study from patients to the petri dish,” said Melton, who shifted his studies to Type-1 diabetes several years ago when both of his children were diagnosed with that disease.