

Adult Stem Cell Therapies Trump Embryonic Ones

By [Chuck Missler](#)

First he rescinded the Mexico City Policy, which prevented US tax dollars from paying for abortions overseas. Now, as promised, President Obama has declared that the federal government will allow funding for embryonic stem-cell research. This reverses the Bush Administration's policy of protecting human embryos from being created and then destroyed in the name of science. In the meanwhile, scientists have had increasing success in developing cures that use adult stem-cells, with much less ethical controversy.

Embryonic stem-cell(ESC) research never completely went away; private companies have been laboring away with funding from investors. Government agencies were unable to continue research due to lack of federal funding, but that did not stop private biotech companies from pursuing ESC. Days after President Obama was sworn into office, the FDA gave a go-ahead for the first clinical trial of a drug made with embryonic stem-cells. On January 23, the California biotechnology company Geron was cleared to start a clinical trial to re-grow damaged spinal cord tissue using stem-cells from human embryos. Now that federal funding is available, this type of research promises to take off. The stock in several stem-cell research companies shot up at Obama's announcement on Monday, many jumping between 20 and 48 percent.

In the past absence of federal funding, though, many stem-cell companies began to focus on developing therapies using adult stem-cells. Researchers at Lindner Research Center at Christ Hospital in Cincinnati will start a trial treatment on a diabetic patient using stem-cells from adult bone marrow. Physicians sponsored by Osirus Therapeutics will determine whether the patient's pancreas is healed through use of Prochymal, a medication made of adult mesenchymal stem-cells.

People have been treated overseas with adult stem-cell therapies for years. One Dr. Howard Lindeman had adult stem-cell therapy to repair his heart after a heart attack.

"I had the procedure done and since then, I've just been getting better and better and better. I'm going to be 58-years-old in May and I'm on my way to being 35 again,"

he said at a stem-cell seminar in Naples, Florida.

Embryonic stem-cell research, on the other hand, has some serious problems. A purely practical concern is that embryonic stem-cell therapy can have serious side effects. The potential for tumors with fast-growing embryonic stem-cells is well known. Adult stem-cells may be more difficult to coax into becoming heart or pancreas cells, but they also have a much lower chance of causing tumors in already-ill patients.

"The use of ASC requires a different thinking, but they can be as effective as ESC, if not more,"

argues stem-cell scientist Christian Drapeau.

"ASC do not grow easily in vitro and they are not easy to re-program. But there are ways of using ASC that can be just as effective as methods using ESC, without the risk of tumor formation."

Another problem with embryonic stem-cell therapy is immune rejection. Whereas adult stem-cells can come from a patient's own body, and therefore be accepted easily, embryonic stem-cells are somebody else's body and run the risk of being rejected by the immune system.

The most serious difficulty with ESC research and therapy, however, is that it destroys human embryos for their stem-cells. Even if the treatment could eventually cure terrible diseases, it would always have a serious ethical and moral price-tag attached.

The fact that US taxpayers will now be funding the research has upset a large number of Americans:

"President Obama's executive order to federally fund experimentation on embryonic human lives certainly represents change: For the first time in our nation's history, citizens will now be required to participate in killing embryonic human lives for research,"

said Michael Janocik, assistant director of the Right to Life Educational Foundation of Kentucky.

Criticism also came from the Legislative Branch. Senate Minority Leader Mitch McConnell (R-Kentucky) said in a statement,

"With this announcement, the government is, for the first time, incentivizing the creation and destruction of human embryos at the expense of the U.S. taxpayer."

Many scientists and patients are rejoicing at President Obama's executive order in the name of funding research that might save lives. Yet, funding the treatment of human embryos as a disposable 'therapy' is bad policy, especially when there are available alternatives that do not depend on the destruction of human life.

"Adult stem-cells are showing great promise,"

notes Christian Drapeau.

"This is a very very important area of research right now and people must realize that Embryonic stem-cells are not the only stem-cell phenomenon out there."