



[Home](#) [Topics](#) [News](#) [Departments](#) [Bible](#) [Catechism](#) [Readings](#) [Movies](#) [Bookstore](#) [Bishops](#)

[Dioceses](#)

## Pro-Life Activities

Search



### **Stem Cells: What Future for Therapy?**

**International Congress organized by  
World Federation of Catholic Medical Associations and Pontifical Academy  
for Life**

**Augustinianum Institute  
Rome  
14<sup>th</sup> – 16<sup>th</sup> September 2006**

### **The Problem of Deception in Stem Cell Research**

Richard M. Doerflinger  
Interim Executive Director, Secretariat for Pro-Life Activities  
U.S. Conference of Catholic Bishops  
Washington, DC  
USA

Friday, 15 September 2006

In August 2006, Dr. Robert Lanza of Advanced Cell Technology (ACT), a biotechnology company in Worcester, Massachusetts, announced in the journal *Nature* that he had resolved the ethical dispute over embryonic stem cell research, by creating stem cell lines using single cells obtained from 8- to 10-celled human embryos without harming them. Soon, however, his claim was proved false. Lanza had actually destroyed 16 embryos, obtaining 4-7 cells from each in order to culture those cells closely together without touching each other. This technique allowed the cells to mimic the cell-to-cell signaling that promotes healthy development and differentiation in the living, intact embryo. Even so, he produced only two cell lines from 91 cells. This was something he may not have been able to do with a single isolated cell from each embryo. In fact a study from Singapore, published at about the same time in the journal *Reproductive Biomedicine Online*, showed complete failure in trying to create stem cell lines even when two cells (“paired blastomeres”) were obtained from each human embryo.

All that Lanza showed was that he could kill embryos at an earlier stage than usual, and then sometimes trick the resulting cells into developing to a slightly later stage to produce a cell line. Even if he ultimately were to find a way to get one cell from each embryo to create a cell line, he would still be relying on an “embryo biopsy” procedure that sometimes harms the embryo and also has an unknown risk of harming any children later born alive. So he solved no ethical problem regarding the safety of the embryo. But he did highlight another ethical problem: deception in the field of embryonic stem cell research.

This is the latest in a series of deceptions. The human cloning hoax of Dr. Woo-Suk Hwang in South Korea damaged the credibility of another major journal, *Science*, which had published his studies in 2004 and 2005 claiming to show the successful cloning of human embryos for their stem cells. The researchers had also said they obtained women’s eggs for this experiment from voluntary donors, using a careful informed consent process. By January 2006, however, these claims were proved false. Dr. Hwang’s team had solicited over a hundred women (often with cash incentives) and even pressured female researchers to provide eggs for cloning experiments, at serious risk to the women’s health; the team had failed to produce even one stem cell line, despite hundreds of cloning attempts using over two thousand eggs; and it covered up this failure by falsifying data and photographs in its articles.

Even more recently, another misrepresentation was admitted to by another prestigious journal. *The New England Journal of Medicine*, in a July 2005 article announcing “progress in human somatic-cell nuclear transfer,” cited two studies in other journals that, according to the article, had used stem cells from “nuclear transfer” (cloned) human embryos. The journal wanted to emphasize that embryonic stem cells from human cloning had shown therapeutic benefits when transplanted into animals, so it could attack the Bush administration for its refusal to support so-called “therapeutic cloning.” But in its July 27, 2006 issue, the journal finally had to admit that it had misrepresented these studies. The studies actually used stem cells from fertilized embryos – in fact, they used cell lines created before August 9, 2001 that were eligible for federal funds under President Bush’s policy, and were funded by grants from the National Institutes of Health during his Administration. The journal had been alerted to this error by a reader in February 2006 – but waited until late July (when Congress’s major votes on stem cell research were completed for the year) before admitting its mistake.

Some past misrepresentations have involved the same company that we began with, Advanced Cell Technology. In 2004, Robert Lanza of ACT announced in the journal *Circulation Research* that he had repaired heart damage in mice using “stem cells from cloned embryos,” describing his study as “an important new paradigm” for human therapies. But the Online Data Supplement to his journal article revealed that this “new paradigm” actually required placing these cloned mouse embryos in a mouse’s womb, growing them to a fairly late *fetal* stage, and then aborting them for their fetal stem cells. What Lanza really showed was that so-called “therapeutic cloning” may require “reproductive cloning,” which almost everyone condemns. Once American lawmakers finally realized that some cloning studies required such “fetus farming,” Congress unanimously voted to forbid such studies in humans.

Examples of exaggeration and misrepresentation on behalf of “miracle cures” from embryonic stem cells in the political debate are also numerous. Many speeches, news stories,

and advertisements, for example, have declared that these cells offer a cure for Alzheimer's disease – despite the nearly universal scientific consensus that they do not. One expert at the National Institutes of Health explained this discrepancy between political message and scientific fact by commenting: “To start with, people need a fairy tale.”

In fact, we do not need a fairy tale. We need the truth. But a fairy tale is what we are sometimes getting – not only from politicians and entrepreneurs but from respected scientific journals. This must change, or science itself will lose credibility.

Why is this problem so serious in the embryonic stem cell field in particular? Part of the answer lies in the way this field came to public prominence. To overcome the moral objections many people have to destroying human embryos, researchers justified their work by promising “cures.” As these exaggerated promises have failed to produce results, the researchers have felt obliged to exaggerate and deceive more and more to maintain public trust and financial investment in their efforts – in the hope that they will ultimately solve the practical problems, and produce the cures that will make everyone forget their past ethical lapses.

The deeper problem lies in the utilitarian ethic itself, the ethic of “the end justifies the means.” Researchers had to invoke this ethical approach to defend embryo destruction, claiming that killing “non-persons” is justified if it will serve the needs of born persons in the future. But if we can justify a little killing to save the lives of those we really care about, can we not justify a little lying to advance the great truth of medical progress? In the end, however, this ethic undermines science, because science is nothing without an absolute commitment to the objective truth.

The authentic path to progress lies in a sober and realistic account of the promise and problems of stem cell research, and in a commitment to morally sound ways to realize that promise. Many avenues toward the treatment of devastating disease, for example, are showing great promise using non-embryonic stem cells, obtained without harming anyone. These are not miracle cures, but they offer realistic reasons for hope – a hope that respects the human person and the demands of the truth.