



Cloning and Stem Cell Research

The concepts
and misconceptions



with David Prentice, Ph.D.
Family Research Council

Cloning and Stem Cell Research: The concepts and misconceptions

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Lahl: You've been very involved in the whole stem cell/human cloning debate. Have you been surprised with how prominent these issues have become? And if so, why do you think the debate has become so heated?

Prentice: It has been a little surprising that the debate has heated up so, starting during last fall's election campaign and continuing to build momentum. But in a way it is also not so surprising, given the success of embryo research proponents in passing Proposition 71 in California.

Ever since President Bush's decision on federal funding of embryonic stem cell research in August 2001, proponents of destructive embryo research have sought ways to open up funding for more research, both for more embryo destruction for cell lines, and also for cloning human embryos for research. The federal government has no cap on embryonic stem cell research funding, as long as the approved cell lines are used, but this is not enough for some. They want more embryos, and they want to make embryos specifically for research. A crack opened up for them with Prop 71, and now the proponents of embryo research are trying desperately to open that crack wider.

However, there is a great deal of heat but little light. Embryonic stem cell research and human cloning have made few advances even in the animal research. Lacking real results to back up the claims for a need of more funding, and less funding from the private sector, there is more hyperbola regarding the potential of embryo research, promises of imminent cures and imminent wealth for states that will support the research. It really plays on the emotions of desperate patients and their families, and the greed of those who want to do destructive embryo research.

Lahl: What is the latest on the U.N. and the efforts to pass any kind of comprehensive ban on human cloning?

Prentice: Some very good news recently out of the U.N.! After 3 years of debates on banning human cloning and blockage of progress by a few nations that want to clone humans for experiments, the Sixth Committee of the U.N. on Feb. 18 passed a Declaration urging nations "to prohibit all forms of human cloning," noting that human cloning was "incompatible with human dignity and the protection of human life." While the Declaration still must pass the General Assembly, all nations have a vote at the committee level so the indications are that the Declaration will receive final passage. This is a great symbolic statement, that the nations of the world do not condone creating human beings as experiments.

Lahl: Since the passage of proposition 71 in California, it seems that every state is trying to get in the act. Can you give us a snapshot of current legislation around the nation?

Prentice: Many states have jumped onto the "California Gold Rush" bandwagon, trying to pass legislation that would devote precious state taxpayer dollars to more human embryo destruction and human cloning research under the guise of state economic development. At least ten states

have some form of proposal for this being debated, including Maryland, Massachusetts, New Jersey, Connecticut, Illinois, Wisconsin, New York, and Washington.

Several states have proposed legislation designed to ban destructive embryo research and/or all uses of human cloning, including Missouri, Kansas, Texas, Maryland, and Wisconsin.

This is not a complete list; this year almost every state will have some bill debated on one side or the other of the issue, and sometimes more than one bill on both sides (as you may have noticed from the partial list above!)

We will also be seeing bills from both directions in Congress.

Lahl: What would you say are the biggest misconceptions the public has surrounding stem cell research?

Prentice: Most people never differentiate between the different types of stem cells--embryonic vs. adult. They are definitely not the same, either in the source of the cells or the results achieved.

Embryonic stem cells come from destruction of young human life. Despite the theory and hype surrounding them as a panacea for disease, they have a lackluster record after over 20 years of research. Embryonic stem cells have yet to treat a single human patient and have been relatively ineffective even in lab animals, plagued by problems of tumor formation, inefficient tissue production, producing the wrong cell type, or a non-functional cell.

Adult stem cells can be found in virtually every tissue of our bodies, from birth on, as well as in umbilical cord blood and placenta. The public has heard little of their successes, or attributed the reports to embryonic stem cells. But we now know that some adult stem cells can form any tissue of the body, and can effectively regenerate damaged tissue. Their regenerative abilities have been documented in many diseases in animals, and have now helped many human patients for diseases such as heart damage, Parkinson's disease, spinal cord injury, sickle cell anemia, multiple sclerosis, and many other diseases (the latest count is at least 58 for the number of human diseases treatable by adult stem cells.) The real promise is being delivered by adult stem cells.

Readers can find out more about their abilities at:
bioethics.gov (this paper was prepared at the request of the President's Council on Bioethics)
stemcellresearch.org

Lahl: A question we are asked often is, "If adult stem cell research is so successful in treating patients currently suffering with disease, why is the scientific community pushing embryonic stem cell research and not investing whole heartedly in areas that are helpful and don't have any ethical dilemmas? How would you respond to this question?"

Prentice: There are several possible reasons. Some are so fixated on embryonic that they ignore the published science. Some have no ethical qualms about human embryo destruction and simply see it as an interesting line of research they want to pursue. And unfortunately some see embryo research, including cloning, as a potential economic boon for themselves and their laboratories, by patenting the cell lines or even the embryos. Of course, like the rest of us, scientists don't like to be told "no, there are limits", so part of the push is simply against the idea that there should be any limits on science.

Lahl: Do you have any final comments or thoughts for our readers?

Prentice: One key in these debates is education--people must become informed of the real facts and not rely simply on the emotion, or press hype. Once informed, people must be activated to participate in the debate, to tell others, write letters to the editor, call their elected officials, and make their wishes known.

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