Testimony of

The Honorable Orrin Hatch

March 19, 2003

Good morning. Today the Judiciary Committee will explore whether and how it might be possible to draw a line between promoting ethical stem cell research and prohibiting immoral human reproductive cloning.

I am a co-sponsor - with Senators Feinstein, Specter, Kennedy, Harkin and others - of bi-partisan legislation, S. 303, "The Human cloning Ban and Stem Cell Research Protection Act of 2003."

Our bill has two goals:

First, to stop any attempts to facilitate the birth of a cloned baby. Virtually everyone in Congress and among the American public agrees that reproductive cloning should be criminalized so this practice can be stopped before it starts. At a minimum, the 108th Congress should pass legislation that bans reproductive cloning.

Second, our legislation allows a promising form of stem cell research to go forward under strict ethical guidelines. This research utilizes a cloning technique - and keep in mind that in biomedical science the term cloning merely means to make an exact copy of cells, proteins, molecules, viruses, DNA sequences or other such entities.

In the cloning technique of somatic cell nuclear transfer, also called nuclear transplantation, an egg's normal complement of 23 chromosomes is removed and replaced with a full set of 46 chromosomes from a somatic, or body cell, such as the skin. This process does not involve a fertilized egg or any sperm cells.

There are two potential pathways for such engineered, non-fertilized embryonic cells. If introduced into a womb, it is possible that a cloned human being could be born. Let me repeat my opposition to reproductive cloning and stress that our bill would impose severe criminal penalties on that activity.

It is the other pathway - using nuclear transplantation as a source to derive stem cells - that has generated so much excitement in the scientific community and has spawned so much discussion of the ethical dimensions of this type of research.

I am proud to hold a Right to Life philosophy. I believe that human life begins in the womb, not in a petri dish. While I recognize that not everyone agrees with me, I am heartened that so many of people that I meet in Utah and throughout the country, including many fellow Right-to-Lifers, have supported me in my views. I believe that as the public studies and reflects upon these issues, support for the legislation we have drafted will grow.

Deciding where one stands on this matter is not easy. Among the difficult questions that must be carefully considered are:

What does it mean to be human?

When does life begin?

And, in our quest to improve the quality of human life, how can we best establish ethical safeguards to protect against doing harm to mankind?

These are not easy questions. Although some are calling for a moratorium on somatic cell nuclear transfer, I fail to see how a moratorium will help our society fully consider, debate, and attempt to resolve the ethical issues.

The cost of delay is real. Some 100 million Americans might one day benefit from embryonic stem cell research. We must not forget them. There is no way to impose a moratorium on their pain and suffering. We must also understand that this avenue of inquiry is still in the very early stages and we must conduct basic research before any new tests or treatments can be developed.

Some argue, including some of those you will hear today, that adult stem cell research is actually superior to embryonic stem cell research. I support a vigorous program of adult stem cell research.

I just hope that my colleagues will listen carefully to our scientific witnesses today because it appears that the consensus among most scientists is that embryonic stem cell research, including stem cells derived through nuclear transplantation, offers unique, and perhaps revolutionary, opportunities. From my discussions with experts, including Dr. Irv Weissman of Stanford, and University of Utah faculty Dr. Mario Capecchi, a leading mouse stem cell researcher, and Dr. Stephen Prescott, the Director of the Huntsman Cancer Institute, I conclude that this line of research merits further investigation and our support.

At the least, we should all acknowledge that the progress that there has been with adult stem cells has been largely attributable to the 20-year head start in federal funding of this research. I plan to work with Senators Specter and Harkin as they develop legislation to expand the number of cell lines derived from embryos no longer needed in the in vitro fertilization process beyond those lined deemed eligible by the Administration for federal funding.

The issues we face today are difficult but not totally unprecedented. For example, our society successfully addressed the issues attendant to recombinant DNA research and in vitro fertilization.

Our bill, along with criminalizing reproductive cloning, contains a number of strict ethical protections. These include:

C making this private sector research comply with the federal Protection of Human Subjects regulations;

C separating the egg collection site from the nuclear transplantation research laboratory;

C a prohibition on exporting cloned embryos to any foreign country that does not ban human reproductive cloning;

C a prohibition on conducting nuclear transplantation research on fertilized eggs for a requirement that each egg donation be made voluntarily and that there be no profiteering on donated eggs;

C and, a prohibition, similar to the English rule, on research conducted more than 14-days after the nuclear transplantation has occurred.

These are sound rules. If we adopt these ethical requirements, it is likely that other countries will follow our lead.

Unless we act to build an environment that encourages the United States to remain the leader in stem cell research, we will have lost much.

Failure to enact legislation patterned after S. 303 can only undermine our Nation's leadership in biomedical research. Investors and firms will be reluctant to commit the necessary resources to succeed in this costly, new area if there is not a measure of certainty in the legal environment for this activity. Andy Grove, CEO of Intel recently sent me an article that details how China is attempting to take the lead in this field of research.

If this research is stifled, some of our best young scientists may feel compelled to move off shore - and away from American patients. Such an outcome will not be good for the citizens of Utah and our neighbors across the country. Let me close by sharing with you a letter I recently received from Nancy Reagan that I think frames this issue in a helpful way:

Dear Orrin,

As you may know, Ronnie will observe his ninety-second birthday soon. In earlier times, we would have been able to celebrate that day with great joy and wonderful memories of our life together. Now, while I can draw strength from these memories, I do it alone, as Ronnie struggles

in a world unknown to me or the scientists who devote their lives to Alzheimer's research. Because of this, I am determined to do what I can to save other families from this pain.

I'm writing, therefore, to offer my support for stem cell research and to tell you I'm in favor of new legislation to allow the ethical use of therapeutic cloning. Like you, I support a complete ban on reproductive cloning. However, I believe that embryonic stem cell research, under appropriate guidelines, may provide our scientists with many answers that are now beyond our grasp.

Orrin, there are so many diseases that can be cured, or at least helped, that we can't turn our back on this. We've lost so much time already. I can't bear to lose any more.

Sincerely,

Nancy

Thank you.

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