

Testimony of
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I was a member of the N.I.H. Human Embryo Research Panel in 1993-94, and the National Bioethics Advisory Commission (NBAC) from 1996-2001. I participated in drafting NBAC's 1997 report on human cloning, but did not participate in drafting its 1999 report on human embryonic stem cells, in order to avoid any appearance of a conflict of interest due to my affiliation with the university where human embryonic stem cells were first isolated and maintained. I also had the privilege of testifying for the National Academy of Sciences (NAS) as it prepared its recent report on cloning, and have since been appointed to the NAS Board on Life Sciences.

I am pleased to testify in support of legislation that protects valuable non-reproductive uses of cloning technology while also guarding against its dangerous use to make a baby.

Such legislation is largely consistent with the recommendations of the National Bioethics Advisory Commission (whose reports recommended a moratorium on reproductive cloning but federal funding for research on stem cells derived from surplus IVF embryos while monitoring on-going private sector research on stem cells derived from cloned embryos) and with the recommendations in the National Academy of Sciences' two reports on stem cell research and reproductive cloning. It is also consistent with the provisions of a bill passed last week by the Wisconsin State Senate, a bill that is supported by the University of Wisconsin - Madison and which is now ready for consideration by our State Assembly.

I am here today to present my own views, however, and do not represent NBAC, the NAS or my own university.

Debates over reproductive cloning, stem cell therapy, and even genetic engineering have become almost hopelessly entangled in the last five years. Each is worthy of policy debate. But each deserves a clear and separate discussion.

Cloning, that is, somatic cell nuclear transplantation, is currently too dangerous for making babies. Medical societies tell their members not to try it. The Food and Drug Administration has intervened to prevent it. It would be malpractice to attempt it, Florida has a bill to hold professionals strictly liable should they do it, and Senate Bill 1758 would criminalize it.

Clearly, there are many ways to stop the small number of publicity-hungry, irresponsible people who want to risk the health of women and children by using reproductive cloning.

But there are bills now before this Congress that would ban not only the irresponsible use of cloning to make babies, but also the responsible use of non-reproductive cloning for research or therapy. Some would even ban importation of proven medical therapies developed abroad, if their origins were entangled with cloning research.

Their proponents fear that once a cloned embryo exists in a laboratory, either the embryo or the so-called "parent" may have constitutional grounds to insist that pregnancy be permitted. But this makes no sense. It requires either that the cloned embryo has its own right to be born (a doctrine rejected both by the Supreme Court and by leading state courts hearing disputes over existing, frozen IVF embryos) or that people have a fundamental right to use these embryos to reproduce through cloning, in which case the entire ban on reproductive cloning is unconstitutional.

Others worry that a cloned embryo sitting in a laboratory will tempt someone to use it illegally to make a baby. But the criminal penalties in Senate Bill 1758 are equally effective, whether a cloned embryo already exists or is merely imagined. The deterrent is clear, and is not strengthened by criminalizing basic research.

But if criminalizing research is not needed to deter reproductive cloning, then these bills must have another purpose. Indeed, their proponents have argued that a research ban is needed to protect embryos, women's health, and the future of humanity.

But if the purpose is to protect embryos, then criminalizing research and therapeutic cloning is an odd place to begin.

We know - indeed, we fully expect - that embryos will be lost by the thousands every year at in vitro fertilization (IVF) clinics. Even if IVF is done perfectly, and even if everyone who wants to "adopt" an embryo is successful, thousands would still be left behind. Criminalizing research cloning cannot alter the scale of embryo loss that occurs each year. And since almost no one thinks IVF could be outlawed, criminalizing a technique that might involve an exceedingly small number of embryos represents at best a symbolic effort at embryo protection.

Such symbolic efforts are both powerful and important. They remind us that life is a gift that should be experienced with awe and gratitude. But a symbol can be badly tarnished if it is adopted at the expense of pain and suffering.

While reproductive cloning at this time is a danger to children, non-reproductive cloning could save their lives. Cloning cells from someone with a genetic disease could produce tissue in which we study how the defective gene malfunctions, and help us develop drug treatments, perhaps reducing the number of human volunteers at risk in later clinical trials. Used to generate stem cells, it might become the fastest route to transplantation without risk of rejection. And perhaps most importantly, studying how cloning reprograms adult cells will help us learn how to reprogram cells directly, without cloning and without the use of embryos, to create tissue for research, transplantation and organ regeneration to alleviate paralysis and extend healthy life.

Yes, there are other promising avenues of research, and they most certainly should be pursued. But that is no argument for criminalizing this research. America is not a country in which basic research or personal choices are illegal until someone has persuaded the government to grant permission. Quite the contrary. We celebrate the freedom to think and to act and to inquire into the secrets of nature, until a compelling case can be made that it must be stopped. Identifying complementary areas of research falls far short of making that case. At best it is an argument for shaping federal funding priorities in a way that affords these alternative avenues every chance of success.

A handful of women's health and environmental organizations, those especially known for great skepticism about medical science and biotechnology, have also testified against research cloning, claiming it is the first step toward a world that is both unnatural and devoid of sentiment.

These, too, are concerns worthy of independent debate. But FDA regulation of cell-based therapies that require women's eggs will address issues of risk to women, and markets in eggs, sperm and other human tissue can be regulated without criminalizing basic science.

But most importantly, research and therapeutic cloning is neither the beginning nor the end of a slippery slope toward eugenics. It is not even the most important landmark.

Our power over human reproduction is as old as ancient contraceptive potions. And the first announcements about IVF were greeted with the same chorus of concerns about genetic engineering, designer babies, and the commodification of life, because it was IVF that first made the embryo amenable to study and manipulation outside the body.

By contrast, therapeutic cloning does not design or engineer the embryo, and precisely because it is not about making babies, it neither designs nor engineers our children. It is not basic research but rather our choices about its applications that will shape the future.

A moratorium on attempting pregnancy with cloned embryos, or perhaps in the future with engineered embryos, is a highly effective speed bump on the slippery slope toward the future some people predict and fear. To ask for more, to halt basic research, is to sacrifice the diabetic children, the paralyzed veterans, the skin-scorched firefighters and the declining elderly of the present for a future that is neither certain nor imminent.

In sum, we should deter those who would use cloning for reproductive ends despite its dangers. But we shouldn't throw the bath water out with the baby. Criminalizing research and therapeutic cloning is not the way to protect embryos or to guard against the future. It merely gambles with the hope held by many people today that they may live to see that future, whatever it holds.

Thank you.