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SFA



BILL ANALYSIS

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Senate Bill 864 (as enrolled)
Sponsor: Senator Loren Bennett
Senate Committee: Health Policy and Senior Citizens
House Committee: Health Policy

PUBLIC ACT 108 of 1998

Date Completed: 7-22-98

RATIONALE

Scientists have been doing research on cloning in plants and animals for several decades. While the dictionary defines "clone" as a group of genetically identical cells descended from a single common ancestor, the term has come to mean the making of identical copies of molecules, cells, tissues, and entire animals. It has been widely reported that cloning research at the molecular and cellular levels has uncovered insights into fundamental biological processes, and holds great promise for developments beneficial to the human race, including the regeneration and repair of human tissues, the production of new or improved pharmaceuticals, and improved livestock and plant production. The recent cloning of a sheep, however, produced questions that are troubling to many.

In February 1997, Scottish scientists introduced to the world Dolly, a sheep born in July 1996, which contained the genetic material of only one parent. While this was not the first time that a living organism had been cloned, it was the first successful cloning of an adult mammal to reproduce a genetic twin. This event caused many people to consider that the cloning of human beings was no longer science fiction, but a distinct possibility. President Clinton responded soon after the announcement by stating that a discovery that touches upon human creation was a matter not only of scientific inquiry, but of morality and spirituality as well. The President ordered a ban on all Federal funding for research into human cloning, and asked the National Bioethics Advisory Commission (NBAC) to review the issues surrounding human cloning. The NBAC report, "Cloning Human Beings" (June, 1997) contained recommendations that included a continuation of the current moratorium on the use of Federal funds in creating a child by somatic cell nuclear transfer, a request to both private and public sector

researchers and clinicians to comply with the intent of the moratorium on human cloning, and a proposal that Federal legislation be enacted to prohibit anyone from attempting to create a child through somatic cell nuclear transfer cloning. Though many scientists say that the possibility of cloning a human remains many years away, there are numerous people who feel that the possibility of attempting human cloning should be preempted. It was suggested that attempts to clone humans should be statutorily prohibited.

CONTENT

The bill amended the Public Health Code to prohibit a health profession licensee or registrant from engaging in or attempting to engage in "human cloning"; prohibit a health facility or agency from allowing a person to do so; establish penalties for a violation; and specify that the prohibitions do not prohibit scientific research or cell-based therapies not specifically prohibited by the bill.

Under the bill, "human cloning" is the use of "human somatic cell nuclear transfer" technology to produce a "human embryo". A "human embryo" is a human egg cell with a full genetic composition capable of differentiating and maturing into a complete human being. A "human somatic cell" is a cell of a developing or fully developed human being that is not and will not become a sperm or egg cell. "Human somatic cell nuclear transfer" means the transferring of the nucleus of a human somatic cell into an egg cell from which the nucleus has been removed or rendered inert.

A licensee or registrant who violates the prohibition against engaging in human cloning is subject to a civil penalty of \$10 million, and license revocation for at least five years.

The bill also prohibits a health facility or agency from allowing a licensed or registered health professional, or any other individual, to engage in or attempt to engage in human cloning in a facility owned or operated by the facility or agency. If the Department of Consumer and Industry Services determines that a health facility or agency has violated this prohibition, the Department must impose an administrative fine of \$5 million. The Department also may deny, limit, suspend, or revoke the facility's or agency's license or license application. The bill provides that these provisions do not create a private right of action.

Under the Code, the Department may deny, limit, suspend, or revoke a health facility's or agency's license or registration, if the Department finds that the facility or agency has violated certain provisions listed in the Code. The bill further allows the Department to impose an administrative fine for violation of the provisions.

The bill was tie-barred to House Bill 4846 (Public Act 109 of 1998), House Bill 4962 (Public Act 110 of 1998), and House Bill 5475 (Public Act 111 of 1998). House Bill 4846 amended the Public Health Code to prohibit a health profession licensee or registrant, or other individual, from engaging in or attempting to engage in human cloning. An individual, licensee, or registrant who violates the prohibition is subject to a civil fine of \$10 million. House Bill 4962 amended the Michigan Penal Code to prohibit an individual from intentionally engaging in or attempting to engage in human cloning. An individual who violates this provision is guilty of a felony, punishable by imprisonment for up to 10 years or a fine of up to \$10 million or both. House Bill 5475 created the Human Cloning Funding Prohibition Act to prohibit a person from using State funds to engage in or attempt to engage in human cloning. A person who violates this provision is subject to a civil fine of \$10 million.

MCL 333.16274 et al.

ARGUMENTS

(Please note: The arguments contained in this analysis originate from sources outside the Senate Fiscal Agency. The Senate Fiscal Agency neither supports nor opposes legislation.)

Supporting Argument

The announcement of the successful cloning of an adult sheep immediately aroused public concern about the possibility of the technology's use to clone humans. The idea of human cloning raises overwhelming moral and ethical, as well as

practical, questions involving science, religion, personal freedoms, health, and safety. Many people strongly object to human cloning, believing that it would be unethical and akin to playing God with one's own children, especially if cloning could be used to "design" desirable traits. Others feel that it represents a further departure from having children within the context of marriage and family, placing it more in the hands of scientists to "manufacture" children in laboratories. To some it may violate religious beliefs, while for others it leads to concerns that parents of cloned children would think of the children as property. Other objections to cloning humans appear to revolve around the inherent uniqueness of the individual, and the psychological harm that could result in a child who learned that he or she was not unique, but more of a time-delayed twin who may be expected to think and behave like his or her genetic predecessor. Further, issues of identity are extremely important to the mental health of an individual. The NBAC report questions whether there is a moral right to a unique identity, and if so, whether cloning would violate that right of either the person cloned or the clone of the person.

Similar questions are raised in regard to legal issues of ownership and privacy. For example, it is not clear whether the parent or the child would retain the rights regarding an individual's genetic information, or whether the kinship relationship to the genetic precursor would be younger twin sibling or progeny. Other legal and ethical questions arise, including whether cloning technology could usher in a new wave of eugenics (the selection of advantageous inherited characteristics). Though there are many questions that should be answered before human cloning is permitted, there were no definitive State or Federal laws to prohibit human cloning or cloning research, other than a Federal ban on using Federal funds to create embryos for research or to clone humans. There was little or nothing to prevent those in the private sector from attempting to clone humans. The bill and its companion measures, provide a strong deterrent for those who want to conduct such research in Michigan.

Supporting Argument

The severe penalties in the bill send a clear message that human cloning in the State will not be tolerated, and there are good reasons to prevent such activity. Simply put, human cloning with today's technology would be dangerous and highly irresponsible. After all, the technique of cloning mammals, let alone humans, has hardly been perfected. It has been reported that there

were 276 unsuccessful cloning attempts on sheep before the researchers managed to produce Dolly. When working with human embryos such statistics would be entirely unacceptable; in fact, many would view this use of human embryos as destroying human life, rather than creating it. Further, there are many concerns about the well-being of a human clone, if in fact one were ever produced. The cloning of an adult animal requires the use of cells that have gone through many divisions since conception. Reportedly, recent scientific work hypothesizes that structures found at the end of chromosomes become shortened with successive cell divisions, and this shortening has been said to limit the number of viable cell divisions that can be achieved. In other words, some have argued that "old" chromosomes are used as a starting point for the genetic material for a clone. Much study is needed on mammal cloning to determine the effect this may have on the health and longevity of the clone.

Opposing Argument

The scientific community has stated that cloning research holds great promise for the development of techniques to regenerate human tissue, and possibly organs, and for many other medical purposes. The bill may have a chilling effect on scientific research into cloning, and this could hinder the ability of scientists to help improve human health.

Response: While prohibiting human cloning, the bill also states that research or cell-based therapies not specifically prohibited will be allowed.

Legislative Analyst: G. Towne

FISCAL IMPACT

This bill will allow the Department of Consumer and Industry Services to impose administrative fines on both an individual licensee and a licensed health facility or agency that engaged in or attempted to engage in human cloning. Additionally, this bill will allow the Department to impose an indeterminate administrative fine on licensed agencies or facilities found to be in violation of existing standards. It is not possible to determine what the fiscal impact of this bill will be on the Department without being able to predict the number of cloning violations, or the extent to which the DCIS would choose to impose a fine instead of alternative punitive measures.

Fiscal Analyst: M. Tyszkiewicz

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This analysis was prepared by nonpartisan Senate staff for use by the Senate in its deliberations and does not constitute an official statement of legislative intent.