

US FEDERAL LEGISLATION

Clinton's cloning ban may threaten genetic research

Russ Hoyle

Only days after the announcement last February that a lamb named Dolly had been cloned in Scotland, US President Bill Clinton called a press conference to announce a voluntary moratorium on human cloning. He declared that his newly formed National Bioethics Advisory Commission would issue a report on the scientific and ethical ramifications of the subject in 90 days.

Human cloning, of course, had nothing to do with the historic event at the Roslin Institute outside Edinburgh. But for the White House, the media-generated worldwide frenzy about human cloning made calling for a definitive commission report as natural an act as breathing. For the neophyte presidential bioethics commission, created by executive order less than a year before, that meant a baptism of fire under the most intense political circumstances imaginable. Thus, the apparent unanimity of the 18-member bioethics commission was all the more remarkable when the group, under the leadership of Princeton University President Harold Shapiro, completed its report in early June.

On balance, the commission received high marks for navigating the murky and treacherous political and ethical waters surrounding human cloning. It judiciously advised the president to press for a temporary legislative ban on all public and private human cloning research, subject to review within five years. To protect legitimate biomedical research, the commission carefully distinguished the cloning of human beings from cloning techniques, such as somatic cell nuclear transfer and other forms of genetic engineering with known or prospective medical benefits.

Moreover, Clinton's public remarks in the White House Rose Garden on June 9 accurately reflected the commission's findings. While vowing to send legislation to Congress prohibiting "anyone... from using these techniques to create a child," the president declared that the proposed legislation "will not prohibit the use of these techniques to clone DNA in cells and it will not ban the cloning of animals."

Indeed, said Clinton, such techniques "hold the promise of revolutionary new medical treatments and life-saving cures to diseases like cystic fibrosis, diabetes, and cancer, to better crops and stronger livestock." Without question, says Carl Feldbaum, president of the Biotechnology Industry Organization (Washington, DC), the commission "laid the foundations and moderated the president's comments by drawing a bright line between research we want to go forward and research on human cloning no one wants right now."

But that may not have been enough. The appearance of consensus on the commission glossed over serious problems with the president's proposed cloning legislation. Conservatives, of course, were unhappy with a bill that allows any research involving human genetic manipulation. Scientists and industry officials worried, with good reason, that the overly broad intent of the bill, however carefully it is written, will render it difficult to enforce and vulnerable to amendment in Congress by the likes of Kit Bond (R, Missouri) and Vernon Ehlers (R, Michigan), who have both proposed cloning bills of their own. The result could conceivably be new curbs on whole areas of biomedical research.

Beyond their concerns about Congress, commission members worried that ideological differences over the president's bill might goad state legislatures into enacting a regulatory tangle of cloning laws. But no subject, according to several observers and participants, presented as hot a potato to the commission as whether or not it should sanction research on human fetal tissue, a subject on which the commission report is deafeningly silent.

It was, however, discussed at length. Some argued that the science of cell differentiation and development in embryos is well established. Others pointed out that embryonic cells are already widely used in brain stem cell research and experimental approaches to Parkinson's disease. Scientists, in particular, felt it would be wrong, even indirectly, to place such basic research at risk. Members of the commission were reportedly sharply divided on the question.

They were also aware that a recent recommendation by a US National Institutes of Health (Bethesda, MD) embryo research panel urging federal support of fetal tissue research had been unceremoniously turned down by the Clinton administration. "The risk that we would ground our ship on that shoal was very much on our minds," says one commission member. "We felt there was nothing we could do to contribute."

Nonetheless, some members felt that the president was simply wrong and that the commission should "courageously say such research should go forward." Commission chairman Howard Shapiro reportedly ended the debate by assuring members that any stand in favor of embryo research would only result in the president dismissing the commission and its work. In the end, the commission decided to leave the question unresolved.

Interestingly enough, some who argued in favor of protecting fetal tissue research in the

cloning bill point out that the use of embryonic cells allows for "normal" biological development and, as such, is not really cloning in the strict sense of copying the fully expressed genetic makeup of a developed adult. Indeed, the commission, as one member points out, never really considered whether cloning is ethical or not. It only decided that the ethical "hinge point" in justifying a ban on human cloning is the current inability of scientists to assure the health and safety of a cloned child. If it took 223 failures, including unformed, deformed or dead lambs, before Dolly was created, how many dead or deformed children are likely to be created before researchers get a human Dolly?

The commission decided, rightly, that the risk was not worth it. Moreover, contrary to their initial assumptions, they decided that legislation was necessary to prevent some half-dozen technologically capable US fertility labs from violating a voluntary cloning research ban. The fact that the ethical issues implicit in cloning humans were never really engaged, much less decided upon, only underscores the awesome difficulty of a task that irreducibly involves making judgments about a new form of human reproduction—one that wags have already pointed out is certainly not as pleasurable or efficient as the original method.

The commission faced a no-win task. One way or another, it was going to get skewered on volatile reproductive rights issues. It was going to be accused of rubber-stamping decisions already made by President Clinton. Right-to-lifers have already taken the commission's failure to mention research on embryos as political sleight of hand. They can be expected to plug the loophole in the president's anti-cloning legislation with Draconian measures of their own at both the state and federal levels that could well threaten legitimate, even unrelated research.

The biotechnology industry is rightly worried about protecting research in human genetic engineering. The real danger now is that the Clinton administration, having decided it could make a few opportunistic political points with a commission study and a shoo-in anti-cloning bill, will prove less than fully committed to this fight over the long haul. That would leave the battle over legitimate human genetic research largely in the hands of the politically inept scientific community, the scientifically inept Congress and an ideologically driven right-to-life movement. "Without presidential or vice-presidential leadership," concurs BIO's Feldbaum, "that would be an unfortunate line-up." ///