

TESTIMONY REGARDING SB 738 (Morrish) and/or HB 370 (Henry)
“Prohibits human cloning and human-animal hybrids” / “Prohibits public funding of human cloning”
Senate Health & Welfare Committee, 5/21/08

Good Morning, Madam Chairman, and Senators of the Committee!

My name is Dr. W. A. Krotoski. I am a physician and currently retired medical scientist, with M.D., Ph.D. and M.P.H. degrees and 34 years of professional experience, 26 of them with the U.S. Public Health Service. I have lived in Louisiana since 1974, and in Baton Rouge since 1982. Although retired from medical practice and bench work, I am President of, and represent *The Hippocratic Resource*, a Louisiana-wide organization of physicians, dentists, nurses and other health professionals who have committed to promoting objective truth in Medicine, and the life-respecting principles of the Hippocratic Oath, the foundation of medical ethics.

There are two very related bills coming before you on this complicated subject of cloning this morning, Senator Morrish’s SB 738, and Representative Henry’s HB 370. In the interest of the Committee’s time, I ask your indulgence to address both at the same time. My prepared remarks will take a total of 9 minutes, but I ask that a slightly more complete version, which I have prepared in written form for the Committee, be entered into the record. I am testifying today in favor of both Senator Morrish’s and Representative Henry’s bills to ban human cloning, animal-human hybrids, and funding thereof in Louisiana, for several reasons:

First ... As a physician and medical scientist, I remain unconvinced that human cloning is anywhere nearly as promising as its proponents claim. And I am not alone in this realistic pessimism. To begin with, the principal, stated purpose of cloning is to provide a source of human embryonic stem cells for further research and eventual clinical application. However, the possibility of active rejection of *any* cloned cellular transplant, by a patient always exists, as clones produced by somatic cell nuclear transfer, or SCNT, are not as identical as science fiction or the media would suggest. It has also been shown that there is a greater propensity for malignancy from stem cell lines, whether of cloned or natural origin. Then there is the issue of simple practicality. Up to millions of oocytes would be needed for meaningful research and to develop medical treatments, and only about 10-20 are obtainable by any intensive procurement procedure. Obtaining enough for practical experimentation would lead to the exploitation of at least tens-, if not hundreds of thousands of women – who would inevitably be mostly poor, whether students or otherwise. Additionally, although there has been a great deal of talk regarding the potential “promise” of human cloning for over a decade, there has not been a single, successful therapeutic modality developed – not even one – and not even in countries which may have lesser, voiced concern for ethics and human rights.

Second ... Medical research and the development of medical therapies are obviously worthwhile in and of themselves; and, in fact, these are goals to which I, personally, devoted most of my medical professional life. However, these goals are capable of being *misused* as a convenient excuse simply to satisfy scientific curiosity, but in an unethical way. Thus, the cloning of human beings was formally banned by the Council of Europe – for moral and ethical reasons – beginning in 2001, as there is no valid biologic distinction between a natural human embryo and a cloned human embryo. This is clearly

evident from successes in animal cloning, beginning with Dolly the sheep, and since performed in a number of different species, including goats, horses, mules, and even pet cats. If left – or placed – into a woman’s womb, both a natural and a clone embryo have all of the DNA necessary to develop and grow into a human baby. This is clear from the successes of *in vitro* fertilization (IVF). In fact, after a quick funding fling with human *embryonic* stem cell research, the European Union is being asked by Germany, Austria, and other nations to institute a funding ban on such research for their newest budget, based on the realization that destruction of even *embryonic* human beings is immoral and unethical.

Third ... Adult stem cell research, which is considered completely moral and ethical, has already yielded numerous clinically applicable therapeutic results, many in areas which have been touted by proponents of human cloning as the certain outcome of their proposals. Among already active clinical applications using adult stem cells are some four score conditions too numerous to detail here. They range from treatments for metastatic renal cancer and relapsed leukemia, to high-risk neuroblastoma in children, repair of severely scarred heart muscle, Crohn’s disease of the bowel, and stroke, and even high-risk, HIV-associated tumors. A partial list is in the written material I provided. The use of placentas and umbilical cords as a source for non-embryonic stem cells, based on their availability and biologic plasticity, has seen particular progress. In fact, even proprietary treatments with such pooled stem cells for, among other diseases, sickle cell anemia and childhood leukemia are currently being tested in New Orleans and Baton Rouge. Also on the horizon is the exciting prospect of *induced* pluripotent stem cells – developed just last year in the U.S. and in Japan from non-embryonic sources – that appear to have as much, if not more promise than those from killed clones or other human embryos. Additionally, in the last year and a half, alone, credible proposals have been produced for virtually everything sought from unproved human cloning; a partial list of these is also included in the material provided.

Fourth ... in the Hippocratic context of ‘do no harm,’ it is medically unethical to expose a subject to an experimental procedure where the risks significantly outweigh the benefits to him or her, or where the subject’s health is significantly compromised. Obtaining oocytes from a woman for cloning research requires much manipulation of her body, including the use of high doses of hormones, followed by harvesting of the released ova under general anesthesia – and without benefit to her own health or well-being. Some of the complications include a severe ovarian hyperstimulation syndrome, which may include blood clots, twisting of an ovary to cut off its blood supply (leading to major surgery), kidney malfunction, fluid accumulation in the chest or abdomen, possible ovarian cancer, possible early infertility, and even death. The risk-ratio to the non-benefiting subject is simply too high, and clearly falls into the category of proscribed action for an ethical physician. [See *Linacre Quarterly*, v. 75(2):135-141, May 2008].

Finally ... We need to be acutely aware that scientists are not always ethical in their approach to their work. In addition to a fair number of ‘earth-shaking’ hoaxes – or attempted hoaxes – perpetrated in almost every scientific field over the last century, evidence for human scientific weakness in the area of human cloning has already been seen in the unethical practices and deliberate deceptions perpetrated

recently by the disgraced Korean scientist, Huang Woo-Suk, who was formally indicted, with 5 members of his team, for overt fraud and bioethics violations. Projecting from natural scientific curiosity, it seems inevitable that an unethical scientist would attempt to take a human clone embryo through further development, including implantation into a woman's womb, and perhaps to the point of birth. Even more bizarre is something recently projected by British scientists, and for which popular approval is being manufactured: the creation of human-animal hybrid clones or chimeras. Can you imagine human-pig or human-cow or human-rat hybrids? Unfortunately, although such is the stuff not of science fiction, but of serious nightmares, the marketing propaganda is already going on toward this end in Britain!

In conclusion, I would suggest that we do not have the funds to compete with California's self-mortgage of three billion dollars of yet-to-be-collected taxpayer funds for human *cloning* and *embryonic* stem cell research, the ethics and morality of which are seriously challenged, if not condemned. As good medical research is still, obviously, a worthwhile goal, I would suggest, instead, spending Louisiana's medical-research-earmarked funds on cleanly ethical, less theoretical, and experientially more promising *adult* and placental/umbilical stem cell research that would attract more ethically motivated doctors and scientists interested in genuine medical progress. In short, ***I urge you to vote in favor of Senator Morrish's and Representative Henry's bills.***

Thank you very much for your attention! I will be pleased to answer questions.

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