

SENATE JUDICIARY B COMMITTEE
TESTIMONY FOR HB 492 (Morrish. Beard et al)
To Ban Human Cloning

June 7, 2005

Mr. Chairman, Honorable Committee Members:

My name is Dr. W. A. Krotoski; I have lived in Baton Rouge for the past 22 years, and in Louisiana for 30. I would like to address this Committee in support of HB 492 by Morrish and Beard, to impose a genuine and comprehensive ban on human cloning. I am aware that opponents of human cloning have been characterized as "antiscience militants" or simply backward, but will let my professional career speak to that point of view. My credentials include both M.D. and Ph.D. degrees; a professional lifetime of 33 years in medical research and clinical medicine; service on medical and graduate faculties at both L.S.U. and Tulane Schools of Medicine; authorship or co-authorship of some 54 research articles plus a medical text, and contributor of chapters for several others; also, a 1989 nomination for the Nobel Prize in physiology and medicine; and service on research and research ethics review committees, both locally and nationally, during a 30-year span. Currently I am retired; I am co-founder of *The Hippocratic Resource* – a Louisiana organization of health professionals who subscribe actively to the life-and-death restrictions of the Hippocratic Oath – and I serve on the research ethics review committee of one of Baton Rouge's major hospitals.

At the outset, let me be very clear: like all other ethical medical scientists and physicians, I am very much in favor of research with stem cells obtained from licit sources, such as from adult tissues, placentas and umbilical cord blood. However, I am strongly opposed to research which involves the unethical taking of even very early human life, whether naturally begun, or artificially, as in human cloning. This is even more the case, when it is unnecessary, or may pose ethically unacceptable risks to anyone being treated thereby.

Surely, we all agree that legal actions must be based on truth and reality – not the other way around. We cannot suspend the law of gravity by passing a law. And you cannot logically deny the truth of what is being promoted by human cloning, i.e. the manufacture of what are, biologically and rationally, early human beings. Were they not human, the promoters would not be interested in going to all the trouble involved. For what they *think* their research will do, they need human life. The trouble is that in order to do what they *think* they need to do, they must destroy that life, once formed, in order to get what they want. I am distressed at their apparent lack of awareness of fundamental human embryology and of ethical principles! Surely, we need more respect for human life in our increasingly dehumanized society, not less! By supporting a genuine, comprehensive ban on human cloning, we will be furthering a very necessary, honest and well-founded respect for all human life at ALL its stages.

Now, the biomedical basis for our opposition. Any discussion on human cloning *must* begin with an analogy to normal human development. Once a complete, human gene complement (DNA) is attained by the reproducing cell – whether by normal fertilization, or by artificial means as in the cloning process – the one-celled embryos, natural or cloned, differentiate and develop along identical paths. Medically and biologically speaking, therefore, a human embryo, whether natural or cloned, is human, based on his or her human origins and unique DNA.

There are those who believe that life doesn't begin before the womb. Well, at one time, people believed that there was a tiny man – a *homunculus* – in the sperm head, and that the

ovum (or egg) had no contribution other than as a carrier for that little man. But, today, thanks to excellent microscopy, careful observation, developments in genetics and embryology, *in vitro* fertilization, and DNA technology, we know with complete certainty that human life naturally begins with the fertilization of the *ovum* by a sperm, and that both the mother's and father's genes contribute to every, unique human being. (Actually, this has been common sense knowledge for several centuries!!). If that were not the case, IVF or *in vitro* fertilization would not be possible, and human uniqueness – as well as relationships – could not be affirmed by DNA analysis. Life, then, can begin outside the womb, even in a petri dish, and, nowadays, does with some frequency. If properly nurtured there for several days, the embryo develops and grows to the hollow ball of cells we call the *blastocyst*. Then, when returned to his or her natural environment, the womb, this life simply continues. All this has been clearly proved by the now-living, adult young men and women who were the earliest "test-tube babies" a quarter century ago. **Each and every human being alive now, and all who have ever lived – including the members of this illustrious committee and every single person in this room – was once an embryo him or herself. And their development after that early stage followed exactly the same path as would every human clone embryo – whether formed by nuclear transfer or any other method – once development is stimulated to begin by electric current or chemicals. Let me repeat, exactly the same path as every human clone embryo – even if defective, as often happens in cloning. Were that not so, Dolly the cloned sheep would never have existed, nor would cloned horses, cloned pet cats, or other cloned species.**

Furthermore, although proponents of cloning tout supposed benefits for their intended research on stem cells obtained from clones, **there are very good arguments to suggest insuperable problems with any potential clinical use of those cells. These include unreliable or unrestrained growth, predisposition to cancer, or tissue rejection** (to mention but a few). Additionally, there have been absolutely no therapeutic benefits attributable to biologically equivalent human embryonic stem cell research or cloning: not in humans, certainly, and, I believe, not even in animals, where all such research ethically first belongs *before* any application to human beings. In contrast, there have been 60 or 70 beneficial clinical applications from research using stem cells obtained from adult tissues, placentas or cord blood. Therefore, it is simply not necessary to do human cloning. Adult stem cell results include treatments for brain cancer, ovarian cancer, testicular cancer, lymphoma, multiple sclerosis, sickle cell anemia, Parkinson's disease and spinal cord injury, thus far. Adult stem cells can be ethically obtained from any of the human body's many tissue types. They have been obtained from tissues as varied as fat, liver, bone marrow, and even dental pulp. And scientists in Australia have just shown that olfactory cells from the upper nasal passages can also differentiate into any kind of stem cells. Since this is the key theoretical attraction of stem cells from human clones or embryos for the proponents of such research, any putative need to kill these tiny human beings for clinical purposes simply evaporates. Again, it is not necessary to use human cloning for such clinical applications.

As a one-time reviewer of clinical research proposals put before the U.S. Public Health Service nationwide, including for the National Institutes of Health, I can firmly state that negative results, such as in the history of cloning or embryonic stem cell research, are not a sound basis for expending tax dollars for funding grants, nor even for encouragement for such totally theoretical and controversial work. Funding and/or encouragement go to research which has shown promise. Sixty or so successes to zero – as is the ratio of adult/placental to embryonic stem cell or cloning successes – would definitely promote the adult- or cord blood stem cell approach over the other two.

And then there is the matter of ethics in clinical research. Presidential commissions, composed of knowledgeable bioethicists, embryologists, physicians, medical scientists and

distinguished jurists, have been unequivocally *negative* in their assessment of human cloning. In 2001, the President's Council on Bioethics stated clearly that "Cloning threatens the very dignity of human life ..." In its 2002 report, entitled *Human Cloning and Human Dignity*, the Council reaffirmed that "Scientific evidence ... supports the argument that from conception there is an unbroken continuity in the differentiation and organization of the emerging individual," and that "Cloning-for-biomedical-research ... raises new questions about the manipulation of some human beings for the benefit of others, ... and the respect and protection owed to nascent human life." Council President, Dr. Leon R. Kass, M.D., Ph.D. of the American Enterprise Institute, appearing on National Public Radio in the past month, reaffirmed these fundamental points. Finally, even the United Nations has gone on record as being against all forms of human cloning [U.S.-backed resolution, 84 to 34 (37 abstentions)], while Germany, Norway, Canada, Australia, Switzerland, and France have already enacted comprehensive bans within their borders.

In conclusion, therefore, I urge this Judiciary B Committee to join the side of ethical action, and to report favorably on HB 492, thus genuinely banning all human cloning, which would otherwise unequivocally destroy new human lives – and is also not even *necessary* for true clinical progress.

Thank you very much for your attention!

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