

**Testimony of Richard M. Doerflinger
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**on behalf of the
Virginia Catholic Conference**

before the

**Joint Subcommittee Studying
Medical, Ethical, and Scientific Issues Relating to Stem Cell Research
Commonwealth of Virginia**

November 15, 2005

I am Richard M. Doerflinger of the Secretariat for Pro-Life Activities, U.S. Conference of Catholic Bishops. I have been invited by the Virginia Catholic Conference to review for you the Catholic Church's perspective on stem cell research.

The Church does not oppose stem cell research as such – in fact, we are actively engaged in promoting stem cell research that is advancing toward new treatments for debilitating disease (see Attachment 1). But we do oppose stem cell research, or any research, that requires deliberately harming and destroying human life at any stage. Therefore we oppose embryonic stem cell research as currently proposed and practiced, and we strongly oppose any public policy that would force Catholic and other taxpayers to subsidize such destruction.

Efforts against this destructive research are often misunderstood or misrepresented. In a talk at Virginia Wesleyan College on January 18, 2003, for example, Prof. Ronald Green of Dartmouth said these efforts are “unjust and uncivil...They represent an attempt to **impose one group's religiously-supported and widely contested position on when life begins as the legally binding one in our society** and they do so by **risking the lives and health of all citizens.**”

In response, I want to present five points. Each point can be supported by relying on statements by scientists and others who do *not* share our moral position on this issue.

1. The human embryo, at the one-week-old (blastocyst) stage, is a developing human life.

This is a basic biological fact, found in the standard human embryology textbooks:

“Zygote. This cell results from the union of an oocyte and a sperm during fertilization. A zygote is the beginning of a new human being (i.e., an embryo).” – K. Moore and T. Persaud, *The Developing Human: Clinically Oriented Embryology*, 7th edition (2003), p. 2.

“The development of a human begins with fertilization, a process by which the *spermatozoon* from the male and the oocyte from the female unite to give rise to a new organism, the *zygote*.” – T. Sadler, *Langman's Medical Embryology*, 7th edition (1995), p. 3.

“Almost all higher animals start their lives from a single cell, the fertilized ovum (zygote)... The time of fertilization represents the starting point in the life history, or ontogeny, of the individual.” – B. Carlson, *Patten's Foundations of Embryology*, 6th edition (1996), p. 3.

The status of the early human embryo as a human life deserving moral respect is even acknowledged by federal advisory bodies determined to recommend federal funding of destructive human embryo research:

“The preimplantation human embryo warrants serious moral consideration as a developing form of human life.” - National Institutes of Health, *Report of the Human Embryo Research Panel* (Sept. 1994), p. 2.

“[M]ost would agree that human embryos deserve respect as a form of human life.” - President Clinton’s National Bioethics Advisory Commission, *Ethical Issues in Human Stem Cell Research* (September 1999), Vol. I, p. ii.

While some have used the term “pre-embryo” to imply that the embryo younger than 14 days is a lesser being, a disorganized mass of cells, that view is now discredited and is widely recognized as a political ploy, not a serious scientific claim.

“Your world was shaped in the first 24 hours after conception. Where your head and feet would sprout, and which side would form your back and which your belly, were being defined in the minutes and hours after sperm and egg united.... What is clear is that developmental biologists will no longer dismiss early mammalian embryos as featureless bundles of cells...” – H. Pearson, “Your destiny, from day one,” *Nature*, 4 July 2002, pp. 14, 15.

“I’ll let you in on a secret. The term pre-embryo has been embraced wholeheartedly by IVF practitioners for reasons that are political, not scientific. The new term is used to provide the illusion that there is something profoundly different between what we nonmedical biologists still call a six-day-old embryo and what we and everyone else call a sixteen-day-old embryo... The term pre-embryo is useful in the political arena -- where decisions are made about whether to allow early embryo (now called pre-embryo) experimentation...” – L. Silver, *Remaking Eden: Cloning and Beyond in a Brave New World* (1998), p. 46.

2. A moral presumption against taking human life requires us at least to treat stem cell research requiring embryo destruction as a last resort, to be pursued only if medical progress cannot be achieved in other ways.

To be sure, the Catholic moral position is more forthright than this. We hold to an *absolute* moral norm against directly taking any innocent human life, even on the pretext of helping other human lives in the future. We may not “do evil that good may come of it” (Rom. 3:8). On this point we agree with the great modern declarations establishing ethical principles for research involving human beings:

“The protagonists of the practice of human experimentation justify their views on the basis that such experiments yield results for the good of society that are unprocurable by other methods or means of study. All agree, however, that certain basic principles must be observed in order to satisfy moral, ethical and legal concepts.... No experiment should be conducted where there is an a priori reason to believe that death or disabling injury will occur; except, perhaps, in those experiments where the experimental physicians also serve as subjects.” - The Nuremberg Code (1949), from *Trials of War Criminals before the Nuremberg Military Tribunals under Control Council Law No. 10*. Nuremberg, Oct. 1946–Apr. 1949. U.S. G.P.O, 1949–1953.

“In medical research on human subjects, considerations related to the well-being of the human subject should take precedence over the interests of science and society.” - World Medical Association, *Declaration of Helsinki* (first issued 1964; 2000 text cited).

Or as G.B. Shaw put it, more colorfully: “No man is allowed to put his mother into the stove because he desires to know how long an adult woman will survive at a temperature of 500° Fahrenheit, no matter how important or interesting that particular addition to the store of human knowledge may be.” – “Preface on Doctors,” in *The Doctor’s Dilemma: A Tragedy* (1911).

What the numbered proposition represents is a “least common denominator” ethic. Even those who *reject* the principled stand of the Nuremberg Code – those who think research ethics can be conducted in terms of a “cost-benefit” analysis, weighing the direct harm to innocents against the potential benefits to people considered more numerous or more valuable – have conceded that destroying human embryos (even so-called ‘spare’ human embryos) for their stem cells poses a moral problem and is a last resort:

“In our judgment, the derivation of stem cells from embryos remaining following infertility treatments is justifiable only if no less morally problematic alternatives are available for advancing the research.” - National Bioethics Advisory Commission, *Ethical Issues in Human Stem Cell Research* (Sept. 1999), Volume I, p. 53.

NBAC nonetheless concluded that embryonic stem cell research should be funded: “The claim that there are alternatives to using stem cells derived from embryos is not, at the present time, supported scientifically. **We recognize, however that this is a matter that must be revisited continually as science advances.**” – Id.

So let us revisit that question.

3. Adult stem cells and other alternatives are much more promising than once thought, offering many benefits once thought to be achievable only with embryonic cells.

NBAC's assumption that there is no "alternative" to embryonic stem cells had already been called into serious doubt by the time the National Institutes of Health issued its book-length review of stem cell science in 2001:

"Today there is new evidence that stem cells are present in far more tissues and organs than once thought and that these cells are capable of developing into more kinds of cell than previously imagined. Efforts are now underway to harness stem cells and to take advantage of this new found capability, with the goal of devising new and more effective treatments for a host of diseases and disabilities. What lies ahead for the use of adult stem cells is unknown, but it is certain that there are many research questions to be answered and that these answers hold great promise for the future.... Whether embryonic stem cells will provide advantages over stem cells derived from cord blood or adult bone marrow hematopoietic stem cells remains to be determined" - NIH, *Stem Cells: Scientific Progress and Future Research Directions* (June 2001), pp. 23, 63.

Even in 2001, many researchers had begun to realize that the "alternatives" may actually be *better* than embryonic stem cells at a variety of therapeutic tasks:

"The stem cells likely to yield the quickest, least expensive, and largest clinical benefit are readily available and present no ethical dilemma. They are umbilical cord blood stem cells." - J. Chen et. al., "Intravenous Administration of Human Umbilical Cord Blood Reduces Behavioral Deficits after Stroke in Rats," *Stroke* 32 (2001): 2682-88.

Today that judgment can be seen as prophetic. Umbilical cord blood stem cells, obtained harmlessly after live births, have treated dozens of medical conditions, most recently being used to help patients with devastating *neurological* conditions such as Krabbe disease (*N. Engl. J. Med.* 352 (2005):2069-81), Hurler's syndrome (*N. Eng. J. Med.* 350 (2004): 1960-9), and even chronic paralysis from spinal cord injury (*Cytotherapy* 7 (2005): 368-73). These cells can be readily multiplied in culture for treatments, and recent studies suggest they have the same versatility as embryonic stem cells (e.g., *Cell Proliferation* 38 (2005): 245-55).

Versatile stem cells have also been found in a wide array of adult tissues, including nerve, muscle and fat as well as bone marrow and blood. These cells have been used in very promising animal trials, and in some cases to treat human beings, including patients with Parkinson's disease (Annual meeting of American Assoc. of Neurological Surgeons, April 8, 2003), heart damage (*Circulation* 112 (2005): 521-6), Crohn's disease (*Roanoke Times & World News*, 14 June 2005), lupus (*Skin & Allergy News*, 1 May 2005), corneal damage (*Daily Mail*, 3 May 2005 and 15 October 2005), and spinal cord injury (*The Indianapolis Star*, January 16, 2005).

Says Dr. Douglas Losordo, a cardiologist who is using adult bone marrow stem cells to heal heart damage: **"I think embryonic stem cells are going to fade in the rearview mirror of adult stem cells... Nature provided us with these tools to repair organ damage"** (*Washington Post*, Feb. 2, 2005, A3).

4. There are more drawbacks and obstacles to the safe and effective clinical use of embryonic stem cells than once thought.

These cells are now known to pose a variety of very serious problems, leading researchers to conclude that “it could be decades before embryonic stem cells cure anything” (*U.S. News and World Report*, June 6, 2005). Among the problems:

- The cell lines are difficult to maintain, and they spontaneously develop genetic abnormalities over time – abnormalities closely associated with cancer (*Nature Biotechnology* 22 (2004): 53-4; *Nature Genetics* 37 (2005): 1099-1103).
- When placed in animals they form dangerous teratomas (tumors), nullifying their therapeutic goals and often killing the animals. For example, placing cells derived from embryonic stem cells in the injured rat spinal cord “does not improve locomotor recovery and can lead to tumor-like growth of cells, accompanied by increased debilitation, morbidity and mortality” (*Somatosensory and Motor Research* 22 (2005): 37-44); “Embryonic stem cells injected into the mouse knee joint form teratomas and subsequently destroy the joint” (*Rheumatology* 42 (2003): 162-165).
- Efforts to get these cells to differentiate into functioning cells of one type often fail. Claims that embryonic stem cells had produced functioning pancreatic islet cells were debunked last year, when it was found that the cells were only absorbing insulin from their culture medium and releasing it again (*Diabetes* 53 (2004): 2603-9). Another attempt produced cells that release insulin, but randomly and not in response to their environment (*Diabetologia* 47 (2004): 499-508). Yet another attempt failed when the cells derived from embryonic stem cells produced tumors in diabetic mice (*American Journal of Pathology* 166 (2005): 1781-91). Commenting on efforts to use embryonic stem cells to create cells for treating diabetes, Douglas Melton of Harvard says: “We are convinced we can do it. We just don't know how” (*Wall Street Journal*, Aug. 12, 2004).

Stem cell experts are now urging reduced expectations, fearing a public backlash when patients realize embryonic stem cells were hyped and oversold to them:

“In order to persuade the public that we must do this work, we often go rather too far in promising what we might achieve...I am not entirely convinced that embryonic stem cells will, in my lifetime, and possibly anybody's lifetime for that matter, be holding quite the promise that we desperately hope they will” - Prof. Lord Robert Winston, Gresham Special Lecture, June 20, 2005.

“The safety issues are high enough that I suspect it will take a long time to get to the clinics, because you don't want to create a disease that's far worse than what you're trying to cure.” – Dr. James Thomson of U. of Wisconsin, MSNBC interview, June 25, 2005

NIH stem cell expert Ronald McKay, on why many people believe embryonic stem cells will cure Alzheimer's disease despite the scientific consensus that this is extremely unlikely: “To start with, people need a fairy tale.” – *Washington Post*, June 10, 2004, A3.

5. Efforts to solve current problems with embryonic stem cells to develop treatments will require ever broader violations of widely accepted ethical norms.

Supporters cite the RAND Institute's estimate that there are 400,000 "spare" frozen embryos in the U.S., but they ignore the Institute's other conclusions: "Patients have designated only 2.8 percent (about 11,000 embryos) for research. The vast majority of frozen embryos are designated for future attempts at pregnancy... From those embryos designated for research, perhaps as many as 275 stem cell lines (cell cultures suitable for further development) could be created. The actual number is likely to be much lower" (www.rand.org/publications/RB/RB9038/). This is a woefully inadequate number if any human disease is to be treated.

Two prominent researchers say that merely determining the "best options for research" (to say nothing of treatments) would require "perhaps 1,000" stem cell lines -- about four times as many as are available nationwide (*New York Times*, June 12, 2003, A33). Others say that to reflect the genetic and ethnic diversity of the American population, an embryonic stem cell bank geared toward treating any major disease must include cell lines from many embryos **created solely in order to be destroyed for those cells** -- including a disproportionate number of specially created embryos from black couples and other racial minorities, who are underrepresented among fertility clinic clients (*Hastings Center Report*, Nov.-Dec. 2003, pp. 13-27). Yet another stem cell researcher says "millions" of embryos from fertility clinics may be needed to create cell lines of sufficient genetic diversity (*Scientific American*, May 2004, pp. 93-99 at 94).

Some say the problem of genetic matching and tissue rejection can be solved by pursuing **human cloning**, using a technique known as "somatic cell nuclear transfer" (SCNT). But this poses insurmountable moral and practical problems of its own:

- It could require specially creating and then destroying millions of embryos, and exploiting many millions of women for their eggs to create these embryos (see new allegations about exploitation of women by South Korean cloning researchers, Attachment 2).
- It will almost certainly pave the way to "reproductive" cloning (cloning to produce live-born babies), which almost everyone claims to oppose (*Fertility and Sterility* 74 (2000): 873-6).
- Embryonic cells from cloning have the dangers and genetic problems of other embryonic stem cells, *plus* added dangers from *epigenetic* problems (chaotic gene expression from cell nuclei being imperfectly reprogrammed by the procedure)(*Nature Biotechnology* 22 (2004): 25-6).
- To solve *that* problem, all studies conducting such "therapeutic cloning" in animals have had to engage in "**fetus farming**" -- placing the cloned embryos in wombs, developing them to the **fetal** stage and then aborting them for their more developed tissues (see Attachment 3). Such "farming" in humans, a grotesque mistreatment of the fetal human being, will require exploiting women for their **wombs** as well as their eggs; yet newly enacted stem cell legislation in other states explicitly allows this further abuse of human cloning. New Jersey law, for example, allows research cloning and only forbids researchers to develop the cloned embryo "*through the egg, embryo, fetal and newborn stages into a new human individual.*" (NJ Rev. Stat., c. 203; emphasis added). This debate is no longer only about embryos.

Conclusion

Stem cell research that requires destroying human embryos is unethical, and even more obviously unethical because it cannot live up to the groundless and wildly exaggerated claims that have deceived so many into seeing it as a Holy Grail of miracle cures. At this point, pouring more public funds into this morally problematic and speculative venture can only divert resources and attention away from avenues that offer far more promise for suffering patients and their families.

The Commonwealth of Virginia will best serve the interests of patients, as well as the interests of sound ethics in medical research, by pursuing these avenues instead:

- Providing public funds for the pursuit of promising and ethically acceptable research using stem cells from umbilical cord and other non-embryonic sources;
- Promoting a statewide public bank for umbilical cord blood, which could immediately begin healing many more patients with devastating diseases and provide resources for further research into the capabilities of non-embryonic stem cells;
- Amending Virginia's confusing law on human cloning to more clearly forbid the cloning of human embryos for any purpose, including research.

Attachments:

1. Fact sheet, "Catholic Support for Ethically Acceptable Stem Cell Research," www.usccb.org/prolife/issues/bioethic/stemcell/stemcath.htm
2. "Ethics Charges Jeopardize Cloning Program," AP, Nov. 14, 2005, <http://www.sfgate.com/cgi-bin/article.cgi?f=/n/a/2005/11/14/national/a133515S93.DTL>
3. Fact sheet, "Research Cloning and 'Fetus Farming': The Slippery Slope in Action," www.usccb.org/prolife/issues/bioethic/cloning/farmfact31805.htm

Testimony of:

THE NEW YORK STATE CATHOLIC CONFERENCE

Presented by
Richard E. Barnes, Esq.
Executive Director

Public Hearing Regarding:

The Family Health Care Decisions Act

NEW YORK STATE ASSEMBLY

COMMITTEE ON HEALTH

Assembly Hearing Room
250 Broadway, 19th Floor
New York, New York

Thursday, December 8, 2005

Assemblyman Richard Gottfried and honorable members of the New York State Assembly, I am Richard E. Barnes, Executive Director of the New York State Catholic Conference. The Catholic Conference is the official public policy agency of the Roman Catholic Bishops in the eight Catholic dioceses of New York State.

The Catholic Church is the largest private non-profit provider of health care services in the state, with facilities representing 14% of institutional health care statewide, providing more care to the financially indigent than any other private provider. In the Catholic-sponsored 33 acute care hospitals, many of those with multiple sites, 61 nursing homes and 7 hospices in the state, the Church serves the sick, suffering and dying in faithful conformity to our church's ethical and religious directives.

We know from experience that difficult life and death decisions are made at the bedside everyday. We know that decisions for incapacitated individuals will be made on behalf of those individuals by *somebody*, and we believe it is appropriate and necessary for the law to establish a clear mechanism for determining who that individual should be and how that individual should decide. The Catholic Church strongly supports the underlying concept of this legislation – loved ones making medical decisions for the incapacitated in consultation with medical personnel, taking into account the personal values, including religious beliefs, of the patient. We also believe that there must be some established boundaries, over which the concept of unlimited personal autonomy in health care decision-making should not cross. We must take care, for example, to avoid any movement toward assisted suicide and “mercy killing.” We believe that these goals have been accomplished in this legislation.

I am sure that others here today will testify as to the number of years this legislation, in one form or the other, has been scrutinized and debated in both Houses of the New York State Legislature. The Catholic Conference has been involved in these discussions from the beginning. Our Conference first testified on the bill was in 1992 after it had been initially proposed by the Task Force on Life and the Law. Since that time, we have been involved in the many transformations of this legislation and have kept the bill under the careful review of our Bishops, clergy, health care professionals, legal advisors and moral theologians. We have been in collaborative dialogue on the bill with both Houses, the Governor's Office, patients' rights advocates, and all interested parties.

Over the years we have addressed many concerns we had held with previous versions of this legislation.

We find many positive elements in this current bill. For example, the decision-making standards contained in the bill, both those used in accord with the patient's wishes and those ascertaining the patient's best interests, give great deference to the "religious and moral beliefs" of the patient. The bill also requires consideration of "the dignity and uniqueness of every person," a phrase consonant with the fundamental basis of Catholic social teaching.

The bill includes important legislative intent language which affirms existing public policies against "homicide, suicide, assisted suicide and mercy killing." It notes that the law does not intend to "deny the patient personal services that every patient would generally receive, such as appropriate food and water." It offers opportunity for physicians and loved ones to object to decisions regarding life-sustaining treatment and provides various remedies for disputes, including ethics committees and special proceedings in court. With regard to isolated patients, the bill requires a court of competent jurisdiction to render decisions regarding life-sustaining treatment and forbids decisions to be made based on financial interests.

The bill also contains a section recognizing the rights of private hospitals and individual health care providers with conscience objections to potential decisions of a surrogate, allowing individual hospitals and health care workers to adhere to their mission statements and sincerely held religious beliefs. We believe such language is critical.

With regard to pregnant patients, the bill states that the surrogate will consider "the impact of treatment decisions on the fetus and on the course and outcome of the pregnancy." Although we have advocated in the past, and will continue to advocate in the future, for laws that will recognize a new legal status for unborn children, we acknowledge that the language of this bill will not do so. Of course, we think surrogates should take into account the impact of treatment decisions not only on a patient, but also on her unborn child and course and outcome of the pregnancy, and we are glad that there is language in this bill to bring that to the attention of the surrogates. And, I would be

remiss if I did not state firmly that the Catholic Conference will not give up on our duty, in other bills and at other times, to continue to seek a change in the laws of this state.

The Catholic Conference has presented its opposition, in previous sessions of the legislature, on the basis of three ‘threshold’ issues of concern. These issues are such that we could not remove our opposition to the bill until they were addressed. These concerns were:

- Lack of sufficient protection for isolated patients who have outlived all relatives and close friends;
- Lack of language distinguishing nutrition and hydration from other life-sustaining treatments; and
- Lack of consideration for end-of-life decisions involving pregnant patients.

We have worked diligently to ensure that these areas have been addressed. No legislation which is so complex and has weathered the involvement of so many interested parties can end up as ideal to one of those interests. And, to be sure, we do not regard this bill as ideal.

We recognize, for example, that this legislation does not create a legal presumption in favor of continued assisted nutrition and hydration for patients without capacity. We would note that legislation which would create such a legal presumption (with specific exceptions such as contrary written instructions), has been introduced in both Houses, in this House by Assemblyman William Colton (A.7009-A/S.4083-A), which we heartily support.

We also recognize that this bill does not offer the kind of complete protection to unborn children who might be harmed by the removal of life-sustaining treatment from a pregnant patient that is so essential for this state to adopt.

However, because the bill has come so far, and certain language has been included to address the threshold issues, as well as language on decision-making standards which demonstrates a commitment to the personal values which every person holds and ought to be respected, we have indicated to Assemblyman Gottfried, Senate sponsors, and many others, that have removed our opposition to the bill as presently drafted in the form of A.5406-A/S.5807. We would note that the bill enjoys broad

bipartisan support in both Houses, as well as the support of so many in the medical and patient advocacy fields. Of course, if the provisions of this bill continue to be negotiated and amended, the Catholic Conference will continue to assess its position on the matter, and will do its utmost to advocate on behalf of the issues to which it is committed, in order to accomplish the best law possible.

We are grateful to you, Assemblyman Gottfried, for your leadership in this matter in the Assembly. Through countless meetings, conference calls, amendments and negotiations, you have shepherded the bill to the point where it is today, no small accomplishment considering the many complexities, nuances, and interests involved in this critical issue.

Thank you for the opportunity to present this testimony here today.