## Catholic Teaching on the Human Embryo as an Object of Research

John B. Shea, M.D.

Many Catholic leaders in the pro-life movement who oppose laws which would permit research on human embryos fail to realize that there is a fundamental need to outlaw in vitro fertilization in all its forms if such opposition is to be effective. They refer only to cloning research or to cloning on the in vitro embryo, but do not oppose the actual creation of the in vitro embryo itself. Canadian Bill C-6 [2004], for example, which purported to prohibit various specified types of genetic engineering or cloning techniques, will not in fact do so. Why not? It will not do so because this bill does not prohibit in vitro human embryo formation. Artificial human procreation achieved by *any* means must be prohibited. In vitro fertilization is the first step in all embryo research projects. It provides the biological substance necessary for further experimentation.

## Why Are In Vitro Fertilization and Human Cloning Forbidden?

Pope John XXIII taught that since the "transmission of human life is entrusted by nature to a personal conscious act, and, as such, is subject to the all-holy laws of God," in assisted human procreation "one cannot use means and follow methods that could be licit in the transmission of the life of plants and animals." The Church has condemned in vitro fertilization between husband and wife (homologous in vitro fertilization) because it is in itself illicit and in opposition to the dignity of procreation and of the conjugal union. It has also condemned in vitro fertilization in which sperm

<sup>&</sup>lt;sup>1</sup>John XXIII, Mater et Magistra (May 15, 1961), III, n. 193, in Acta Apostolicae Sedis 53 (1961): 447.

or ovum of a third person is used (heterologous in vitro fertilization) because, in addition, it violates the reciprocal commitment of the spouses and shows a grave lack of regard for that essential property of marriage which is unity. Furthermore, it deprives the child of her or his filial relationship with parental origins, can hinder the maturing of personal identity, can damage personal relationships within the family, and has repercussions on civil society.<sup>2</sup>

In vitro fertilization is neither in fact achieved nor positively willed as an expression and fruit of a specific act of conjugal union. The human embryo is treated as a product of technology and not as a gift of God. In its use and in the use of many other techniques of genetic engineering, a human person is objectively deprived of his or her proper perfection. Such fertilization establishes the domination of technology over the origin or destiny of the person. This domination is contrary to the dignity and equality that must be common to parents and children.<sup>3</sup> Therefore, in vitro fertilization is morally unacceptable.

The Catholic Church has the authority to act as the authentic interpreter of all the moral law, that is, not only the law of the Gospel, but also the natural law, which is an expression of the will of God.<sup>4</sup> St. Thomas Aquinas described the natural law as "the rational creature's participation in the eternal law."<sup>5</sup> The Church also teaches that "there is an inseparable connection willed by God, and unable to be broken by man, between the two meanings of the conjugal act: the unitive meaning and the procreative meaning."<sup>6</sup>

## The Political Problem

In the light of this teaching, it is appropriate to review the political approach currently being used by some Catholics to the use of assisted human reproduction as a source of embryos in scientific research. Throughout the world, many governments are passing laws which allow research on embryos, produced in infertility clinics, by the fertilization of an ovum by a sperm. Most of these embryos are not implanted in the mother's uterus, and so are either "left over," put in a freezer, or allowed eventually to die. Many of these are used for research purposes, which results in their being killed. These embryos are produced by in vitro fertilization.

However, there are many other techniques used to produce embryos for research purposes. These include somatic cell nuclear transfer, pronuclear transfer, mitochondrial transfer, germ cell nuclear transfer, blastocyst splitting, and artificial recombinant gene transfer. Even human-animal chimeras, which are composed of a

<sup>&</sup>lt;sup>2</sup>Congregation for the Doctrine of the Faith, *Donum vitae* (February 22, 1987), II, nn. 1–6.

<sup>&</sup>lt;sup>3</sup> Ibid., n. 5.

<sup>&</sup>lt;sup>4</sup>Paul VI, *Humanae vitae* (July 25, 1968), I, n. 4, in *Acta Apostolicae Sedis* 60 (1968): 481–503.

<sup>&</sup>lt;sup>5</sup> Thomas Aquinas, *Summa Theologica*, trans. Fathers of the English Dominican Province (Westminster, MD: Christian Classics, 1981), I-II, Q. 91.2.

<sup>&</sup>lt;sup>6</sup> Paul VI, Humanae vitae, I, n. 12.

combination of human and animal genetic materials, are being created. Most of these procedures are carried out in research laboratories. For example, a team of researchers at Cambridge University in the United Kingdom has recently fused frog's eggs and the nuclei of human cells. As a result, they have produced creatures that are part frog and part human in their genetic origins.

The above facts present us with the following question: What kind of law can truly prevent these morally illicit acts from occurring? In vitro fertilization is, in itself, morally illicit. All human beings must begin their existence in the form of a single-cell organism, the single-cell embryo. Since the existence of that single-cell embryo is, in the first place, the sine qua non for most of these illicit procedures, it is only logical that the law should prohibit the creation of any single-cell human organism by any technique. The formation of human-animal chimeras should also be banned. These prohibitions should be mandatory and perpetual, regardless of the purported motives for the use of the technology, whether it be biological research or for therapeutic purposes.

Up to the present, laws have failed to prevent research on the human embryo for various reasons. These include the rapid change in technology and science, the fact that in many cases the law does not apply to private industry, and the numerous loopholes resulting from inconsistency, obfuscation, or actual deception in the use of technical terms on the part of those who draft the laws. The following are some examples of semantic loopholes occurring in so-called "authoritative" sources, which may subsequently be reflected in legislation. In the scientific literature of human embryology, the words "human embryo" mean a human organism which starts as one cell at fertilization or cloning, and which at maturity consists of billions of cells. Yet in 1979, Dr. Clifford Grobstein and Richard McCormick, S.J., began using the term "pre-embryo" for the product of fertilization before implantation in the uterus.<sup>7</sup>

As soon as the nonscientific neologism "pre-embryo" was introduced, the word "embryo," with its moral and emotional overtones, began to fade from the scene. More recently, research workers have stated that an embryo is merely "a fertilized oocyte." Researchers like Irving Weissman and Michael West have labeled the product of fertilization or of somatic cell nuclear transfer cloning as just "a cell," and an embryo at five to seven days as "a ball of cells." The *product* of this research was incorrectly defined. At the same time, they try to justify the use of the technique of somatic cell nuclear transfer cloning as "therapeutic stem cell research." Here, the *technique* was incorrectly defined. The word "cloning" with its pejorative overtones has disappeared. "Therapeutic stem cell research" has been substituted. The aim is to get rid of words like "cloning" and "embryo," which make people "uncomfortable."

<sup>&</sup>lt;sup>7</sup>See Dianne N. Irving, "When Do Human Beings Begin? Scientific Myths and Scientific Facts," *International Journal of Sociology and Social Policy* 19.3–4 (February 1999): 22–46.

<sup>&</sup>lt;sup>8</sup>Irving Weissman with Amy Adams, "Understanding the Institute for Cancer/Stem Cell Biology and Medicine," *Stanford Report* (January 22, 2003), http://news-service.stanford.edu/news/2003/january22/weissman.html; Michael West, interview by Wolf Blitzer, *Late Edition with Wolf Blitzer* transcript, CNN News, November 25, 2001, http://archives.cnn.com/2001/TECH/science/11/25/cloning.west.cnna.

The whole truth is that the immediate product of fertilization or cloning is a cell, but it is also a single-cell organism, a human being, and a human person. In short, in order to prevent research on human embryos from occurring, in vitro fertilization by all methods must be generically prohibited in both public and private domains by law. It is not enough simply to oppose abortion and research on human embryos. If we are ever to succeed in outlawing those two crimes against humanity, we must lay the axe to the root of the tree. We must vigorously and persistently oppose contraception (both surgical and chemical) and all forms of in vitro formation of human embryos, both by fertilization and by all cloning techniques.