Abstract. Approximately 800,000 human embryos are currently in cryostorage in the United States. The Catholic Church holds that in vitro fertilization (IVF) and cryopreservation of human embryos are intrinsically evil. IVF continues to increase at a rate of approximately 9 percent per annum. Many Catholic couples have used IVF as a means to conceive a child. There are typically additional embryos that are cryopreserved for later use. Once a couple has reached the number of children they desire, they are faced with a very difficult moral decision regarding the disposition of their remaining frozen embryos. The biological parents must choose one of four options. Three result in death of their frozen embryos. Only one can possibly result in life. The only moral option is embryo adoption, a life-giving choice that is strongly supported by Sacred Scripture and Sacred Tradition. National Catholic Bioethics Quarterly 14.3 (Autumn 2014): 441–447.

There is an extremely serious and growing problem in the United States and around the world: namely, what to do with hundreds of thousands of “leftover” frozen human embryos that are created using in vitro fertilization and then routinely cryopreserved and stored. IVF and cryopreservation are both intrinsically evil acts. “The number of babies born as a result of assisted reproduction technologies (ART) has reached an estimated total of 5 million since the world’s first, Louise Brown, was born in July 1978. . . . The cumulative total of births was put at 4.6 million last year, and this year

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[2012] has now reached an approximate total of 5 million.”¹ This is an increase of approximately four hundred thousand births or 8.7 percent in one year.

When the Society for Assisted Reproductive Technology (SART) released its 2012 report on assisted reproductive technologies in the United States, it reported the following statistics:

SART’s 379 member clinics performed 165,172 cycles, or procedures involving IVF, in 2012. These procedures resulted in the birth of 61,740 babies, an increase of more than 2,000 infants from 2011. There were an estimated 3.9 million babies born in the US in 2012, thus IVF babies now constitute over 1.5% of all births [in the United States]. This is the largest number of cycles, of babies and percentage of babies born through IVF ever reported.²

The total of 61,740 babies is a very important statistic as there are normally many more embryos created and frozen than the number of births utilizing IVF. As many as twenty oocytes may be harvested, and from these, twenty embryos may be created contemporaneously. Although some of these IVF-conceived human embryos may be discarded as “biological hazardous waste,” most are cryopreserved and stored for future “use.”

In association with SART and the RAND Corporation, David Hoffman, MD, and colleagues reported in 2003 that the estimated number of frozen embryos at IVF clinics in the United States was nearly four hundred thousand.³ And according to E. Christian Brugger, “that number increases annually by approximately 19,000, which puts estimates in 2010 at between 500,000 and 600,000 frozen human embryos.”⁴ Using 8.7 percent as a growth rate in IVF, the estimated number of frozen embryos in storage in the United States in 2013 was approximately 800,000.

Disposition of Abandoned Embryos

One of the most serious immoral consequences of IVF is an ever-increasing number of abandoned cryopreserved embryos. Let us suppose that the genetic parents have twenty embryos created through IVF; they then transfer two embryos into the mother and decide to cryopreserve the other eighteen embryos for potential use at a later time. Suppose that the parents now have a set of twin girls and are faced with a very difficult moral decision of life and death for their stored frozen embryos. They decide they have the number of children they desire and make the immoral decision to abandon their remaining cryopreserved embryos.

One reason for this decision is the continued cost of cryopreservation. The typical storage cost to maintain cryopreserved human embryos is approximately $50 per month. When the frozen embryos are abandoned, the storage company has to make a decision. Four options are possible: (1) keep the embryos frozen, (2) thaw out the embryos and discard them as biological hazardous waste, (3) give them to medical science for experimentation and ultimate destruction, or (4) make them available for adoption. Causing the direct death of a human frozen embryo is intrinsically evil regardless of the method. The solution one might reach through faith and reason is to offer married Catholic couples the cryopreserved embryos for adoption. The only life-giving, moral option is prenatal embryo adoption.

**Church’s Teaching on Life**

The Old and New Testaments and Sacred Tradition teach us that life is precious, a gift from God, and that we are to protect the innocent. It is illicit and immoral to kill an innocent human person regardless of his or her state. The Old Testament proclaims, “Whoever sheds the blood of man, by man shall his blood be shed; for God made man in his own image” (Gen. 9:6). Each of us is made Imago Dei (in the image of God), and the fifth commandment of the Decalogue states unambiguously, “You shall not kill” (Exod. 20:13, Deut. 5:17).

“Man’s life comes from God; it is his gift, his image and imprint, a sharing in his breath of life. God therefore is the sole Lord of this life: man cannot do with it as he wills. . . . Human life and death are thus in the hands of God, in his power. . . . He alone can say: ‘It is I who bring both death and life’ (Deut. 32:39).” 6 “Human life is sacred because from its beginning it involves the creative action of God and it remains forever in a special relationship with the Creator, who is its sole end. God alone is the Lord of life from its beginning to its end: no one can, in any circumstance, claim for himself the right to destroy directly an innocent human being.” 7

As demonstrated above, it is explicit in Sacred Scripture and Sacred Tradition that no man can take the life of another innocent human being. Who is more innocent than an abandoned, voiceless, captive, homeless, and cryopreserved human embryo? The answer is self-evident: nobody.

**Human Embryo Adoption Is Good and Licit**

The morality of human embryo adoption does not change, but science changes rapidly. The following is a good example. In the spring of 2001, Elio Cardinal Sgreccia, the former president of the Pontifical Academy for Life, said “that embryo adoption has ‘an end which is good’ and cannot be dismissed as illicit. But given the high failure rate of implantation and the fact that the process of freezing and

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7 *Catechism of the Catholic Church*, n. 2258, as quoted in John Paul II, *Evangelium vitae*, n. 53.
thawing may cause many embryos to suffer genetic damage, he concludes, ‘Can we really counsel women to do this? It would mean counseling heroism. . . . The issue is one big question mark. The point is, we should never have gone down this road to begin with.’”

Yes, we in the United States should not have gone down the IVF road, and IVF should be banned, but in the United States, banning IVF will be a long time coming, as there are many infertile couples who desire children. The medical technology exists, and IVF demand is increasing, which results in more cryopreserved embryos residing in storage.

The first part of Elio Cardinal Sgreccia’s statement remains correct in that embryo adoption has “an end which is good and cannot be dismissed as illicit.” The portion of the statement concerning rates of implantation and the process of freezing and thawing are now incorrect. Science has advanced at a very rapid rate. In 2001, it was true that in the slow freezing process, up to 50 percent of embryos had intracellular genetic damage, and the live birth rates were about 30 to 40 percent.

Using the vitrification cryopreservation process (now five years old), approximately 97 percent of the embryos frozen are recovered without intracellular genetic damage. Dr. Kuwayama claims a 100 percent freezing and recovery rate using his cryotech technique. In 2003, the success rate of live births per cycle for women under age 35 was 37 percent, compared with approximately 42 percent in 2009. There are many factors that determine the IVF success rate of live births, and the stated success rate of 42 percent is now nearly five years old.

Since 2009, medical procedures have advanced: testing the quality of the oocyte, testing the quality of the sperm, cryopreservation of the embryo, genetic testing of the embryos, grading of embryos, growing the embryo to the blastocyst stage before transfer into the woman, hormonal preparation of the woman, and other methods used in the IVF process to increase success rates.

Some of these procedures are licit and some are illicit. As science continues to advance, the rate of success of IVF live births will increase. The more successful IVF, the more human embryos will be created and cryopreserved. Some will be abandoned and left as orphans.

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Adoption of Orphans Is Not New

When the biological parents make the decision to abandon their frozen embryos, they become orphans in the eyes of God, as they are fatherless and motherless. Sacred Scripture directs us to love, provide for, and protect defenseless orphans. Moses is an excellent example of adoption in a time of danger:

Now the daughter of Pharaoh came down to bathe at the river, and her maidens walked beside the river; she saw the basket among the reeds and sent her maid to fetch it. When she opened it she saw the child; and lo, the babe was crying. She took pity on him and said, “This is one of the Hebrews’ children.” Then his sister said to Pharaoh’s daughter, “Shall I go and call you a nurse from the Hebrew women to nurse the child for you?” And Pharaoh’s daughter said to her, “Go.” So the girl went and called the child’s mother. And Pharaoh’s daughter said to her, “Take this child away, and nurse him for me, and I will give you your wages.” So the woman took the child and nursed him. And the child grew, and she brought him to Pharaoh’s daughter, and he became her son; and she named him Moses, for she said, “Because I drew him out of the water. (Exod. 2:5–10)

Moses (Mosheh, מושה) means “saved from the water.” In the case of a frozen human embryo, they are saved from liquid nitrogen. Moses’s mother gave him up for adoption to the Pharaoh’s daughter; otherwise, he would have been killed. Pharaoh’s daughter adopted Moses to save his life. She was his adoptive mother. Is this any different from an adoptive mother who saves the life of a frozen embryo? Whether you are in a tarred basket floating down the Nile River surrounded by crocodiles or floating in a test tube surrounded by liquid nitrogen, your life is at risk unless someone intervenes. Adoption has a long-standing tradition, as evidenced by the adoption of Moses the prophet, God’s chosen one to lead his people.

The object of the act of adoptive parents is to protect a human life, be it in utero, ex utero (baby or child), a fresh human embryo, or an abandoned frozen one (orphan). The parents’ choice of adoption serves to protect and nurture a human life at various stages of life. The end objective in the case of prenatal adoption is to grow and birth the child, raise the child to maturity, and be the parents till death. A wrong has been done to the orphan; the adoptive parents are doing a good for the orphan whose life is innately good and worthy of protection. The adoptive parents’ only interest is to protect and give life to an abandoned, unborn, and orphaned baby.

There are many passages in the Old and New Testaments where God has proclaimed a special interest in and love for orphans and children. “Give justice to the weak and the fatherless; maintain the right of the afflicted and the destitute” (Ps. 82:3). Who is more weak, afflicted, and destitute than an abandoned cryopreserved human embryo in storage? “Thus says the Lord: Do justice and righteousness, and deliver from the hand of the oppressor him who has been robbed. And do no wrong or violence to the alien, the fatherless, and the widow, nor shed innocent blood in this place” (Jer. 22:3).

Doing violence and shedding the blood of the innocent abandoned human embryo is immoral. “For my father and my mother have forsaken me, but the Lord will take me up” (Ps. 27:10). The Lord will not forsake the orphaned frozen embryo. He will deliver justice to those who harm them. Abandoned by their parents, they become strangers and are oppressed. God hears their cry. We offend God by not
taking action to save them from a cruel death. It is a sin of omission to not help our brothers and sisters who are enslaved in a test tube in liquid nitrogen.

**Health Care for Orphaned Frozen Embryos**

*Donum vitae* says that “one must hold as licit procedures carried out on the human embryo which respect the life and integrity of the embryo and do not involve disproportionate risk to it, but are directed toward its healing, the improvement of its condition of health, or its individual survival.” So those procedures that heal, improve the health, or assist in the individual survival of the frozen embryo are licit. Embryo adoption meets the above moral and health criteria and is therefore licit, moral, and life giving. “Catholic health care ministry witnesses to the sanctity of life from the moment of conception until death.”

The first right of the human person, the right to life, entails “a right to the means for the proper development of life, such as adequate health care.” A frozen embryo is a human person, and his or her life must be defended, as he or she is precious in the eyes of God. They must be given proper health care and be assisted in their development of life. “It is not in conformity with the moral law to deliberately expose to death human embryos obtained ‘in vitro.’” If these frozen embryos are disposed of as biological hazardous waste, or thawed out and left to die on the counter, or given to medical science for experimentation, or simply remain in a frozen state, they are being exposed to death. There are many loving married couples available to adopt these abandoned, forsaken, and abused cryopreserved human embryos.

**Corporal Works of Mercy**

The corporal works of mercy (*Catechism*, n. 2447) apply to the treatment of abandoned frozen human embryos. We are called to perform these works on their behalf:

- Feed the hungry: a mother’s womb is where they receive physical, emotional, and psychological gifts.
- Shelter the homeless (welcome the stranger): a mother’s womb and an adoptive family become their future home.
- Clothe the naked: embryos are naked and cold; they need a mother’s warmth.
- Visit the sick and imprisoned: they are sick, dying, and imprisoned.
- Bury the dead: those who are not transferred into a loving mother face a certain death alone.

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12 Congregation for the Doctrine of the Faith, *Donum vitae* (February 22, 1987), I.3, as quoted in the *Catechism*, n. 2275.
15 CDF, *Donum vitae*, I.5.
Sacred Scripture encourages us to care for the needy, the poor, the sick, and the least among us. “For the poor will never cease out of the land; therefore I command you, You shall open wide your hand to your brother, to the needy and to the poor, in the land” (Deut. 15:11).

The pharaohs today are those that keep these frozen embryos enslaved by not providing them an opportunity to be free and to live. “If a brother or sister is ill-clad and in lack of daily food, and one of you says to them, ‘Go in peace, be warmed and filled,’ without giving them the things needed for the body, what does it profit?” (James 2:15–16). These frozen embryos are in desperate need of a mother’s womb, which provides food, shelter, and clothing. They need release from slavery. They need visitation, mercy, and the care of a loving adoptive family. Currently many of them die, but they are not buried, just forgotten, except by God. God does not forget His children or those who abandon or kill them. When we encourage and act in favor of the adoption of abandoned frozen human embryos, we are performing corporal works of mercy.

“Truly, I say to you, as you did it to one of the least of these my brethren, you did it to me. Then he will say to those at his left hand, Depart from me, you cursed, into the eternal fire prepared for the devil and his angels” (Matt. 25:40–41). We are called by God to care for the least among us, and I would submit to you that the abandoned human embryos are the least among us as they are innocent, destitute, voiceless, homeless, and without hope unless we act to give them an opportunity for life.

The only moral option for an abandoned human embryo is adoption into a loving family. The abandoned embryo is a good human person without actual sin and exists as a person from the moment of conception. What he or she needs is a maternal environment in which to grow until birth and then to live life as a member of a loving family. Killing the unborn human embryo is not a viable option, as it is gravely immoral, contrary to the fifth commandment of the Decalogue, and is offensive to God. Adoption is the only moral option.