



Coptic Church Perspective:

Human Embryonic and Stem Cell Research

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Lately many questions have arisen within the diocese and on the diocese website regarding stem cell research. **What exactly is a stem cell?** It is a self-regenerating type of cell that can give rise to other cells and body tissues. These cells have the potential to allow for permanent repair of failing human organs by their injection at the failing site, an approach which is termed *regenerative medicine*. More specifically, human embryonic stem cells are cells that originate from the inner cell mass of a blastocyst embryo. The current publicized stem cell theory is simply restoration of lost cellular functioning by replacing the lost cells with the stem cells.

The human embryonic stem cells are the only type of stem cell, which can adapt to all cells and tissues of the body. Most other stem cells (blood, liver, skin, etc) have limited adaptation as they are differentiated. For example, hematopoietic blood stem cells can only replicate blood cells. Embryonic stem cells are not differentiated and therefore are referred to as pluripotent because of their non-differentiated adaptation to all cells and tissues of the body. Pluripotent cells are cells in the earliest stages of embryo development and it is these cells which are capable of generating all cell types in a fetus and in the adult. It is these pluripotent cells that are capable of regeneration. Though pluripotent cells cannot redevelop into an entire organism.

What are the implications for the current stem cell research involving the termination of the life of the human embryo? First, I will begin with basic theological assumptions of the Coptic Orthodox Church. We believe our human bodies belong to the Lord. There is an inherent right of humans to attempt to preserve life and health as bodies, which belong to God. Thus we have as a duty to develop and use scientific therapies that can assist us in taking care of our bodies to our optimal ability.

Second, while we further acknowledge that we are created in the image of God, we must remember that we are not God. In an attempt to improve technological advances in therapies we must not take another's life to advance scientific research. Human embryonic germ cells may

involve obtaining cells from aborted fetuses, with an almost certain percent chance the status of the aborted fetus will be unknown to the recipient. What of the aborted fetus status for unknown or insufficient reason? How will one determine abortions that are spontaneous due to the will of God and those performed due to preserving the life of the mother?

Human embryos must not be created for the purpose of, or destroyed for, human embryo stem research. Any form of human life should not be bought and sold. Respect is due to God's creation. It is not our own or in our hands to manipulate. Elective abortions for the purpose of production of a needed product or purposeful human destruction do not protect human persons of God's creation.

What are the limits to those things humans may do to themselves, to their genes, and to their bodies? Women today are given the ability to conceive beyond the years of child bearing, fertility drugs are resulting in births of seven and eight children at once. These things do in actuality produce life, but stem cell research takes a life. Now with the private funding of stem cell research emerging and the status of the embryo debatable by the government and religious groups, this will most likely lead to a debate for cloning as well, in the future.

The Coalition of Americans for Research Ethics lobbied against government-funded research that destroys human embryos and at present there is no announced and advertised federal funding for this research, although the President could open the door to this publicly at any given time. This is the Coalition's stand:

That some individuals would be destroyed in the name of medical science constitutes a threat to us all. Recent statements claiming that human embryonic stem cell research is too promising to be slowed or prohibited underscore the sort of utopianism and hubris that could blind us to the truth of what we are doing and the harm we could cause to ourselves and others. Human embryos are not mere biological tissues or clusters of cells; they are



the tiniest of human beings. Thus, we have a moral responsibility not to deliberately harm them. The last century and a half has been marred by numerous atrocities against vulnerable human beings in the name of progress and medical benefit. In the 19th century, vulnerable human beings were bought and sold in the town square. In this century, the vulnerable were executed mercilessly and subjected to demeaning experimentation at Dachau and Auschwitz. These experiments were driven by a crass utilitarian ethos which results in the creation of a sub-class of human beings, allowing the rights of the few to be sacrificed for the sake of potential benefit to many (Center for Bioethics, 1999).



The Israelites encountered such an ethical choice. The Hebrew people, a generation following the Exodus or exile, were given the Promised Land. But the Promised Land could be destroyed if they chose anything but goodness. Moses told the Hebrews that the choice for goodness would not always be an easy choice. Goodness and evil were set on the mountains to either side of the Promised Land. After forty years of wandering the goodness of justice was still required from the people within the Promised Land.

See I am setting before you today; blessing and curse. (Deuteronomy 11:26-29)

I call Heaven and earth to witness against you this day: I have put before you life and death, blessing and curse. Choose life if you and your offspring would live by loving the Lord your God, heeding the commandments, and holding close. (Deuteronomy 30:19-20)

You have heard that it was said in days of old, You shall not murder, and whoever murders will be in danger of the

judgment. (Matthew 5:21)

The Lord Jesus Christ, the Son of God, acting with the Father, created human nature and gave the Law of the Old Testament. You shall not murder is the first step in righteous illustration, given by the Lord Jesus Christ's authority (But I say to you in (Matthew 5:22).

If in harvesting stem cells one can definitely rule out direct donation, elective abortion, and at the same time discern that the aborted fetus is a source for healthy cells or tissue (keeping in mind that there is a most certain medical reason for spontaneous abortion with the afore mentioned) only then with these criteria absolutely and confirmatively met, the concern of stem cell research could be further reviewed. ✚