Catholic’s Perspective on Stem Cell Research

Christina Ayar
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Scientific development is rapidly progressing, especially in human genetics. Often, deep tension exists between this scientific development and ethics. Stem cell research has raised many ethical issues within the past decade. The history of research on adult stem cells began over forty years ago. Scientists discovered the stem cells in human bone marrow in the 1960s (Stem Cell Basics). The Catholic Church is against embryonic stem cell research because it unethically destroys human embryos. However, there are many opposing viewpoints against the Catholic Church and its belief on the topic. The Catholic Church in return carries on counterarguments against those who oppose their moral and ethical beliefs. They recognize the importance and the benefit of scientific research and development. However, unlike its stand against embryonic stem cells, the Catholic Church supports and highly values adult stem cell research.

What exactly are stem cells? Stem cells differ from other kinds of cells in the body. All stem cells, regardless of their origin, have three important properties that distinguish them from other cells (Stem Cell Basics). First, these cells are a special type of cell that can easily divide to create new cells (Richert). These stem cells are found in various parts of the body during every stage of development from embryo to adulthood (Stem Cells and). The second general property of all stem cells are that they do not have any specific-tissue structures that allow it to perform special functions. However, they can create new cells of various types into specialized cell types, which may assist in the development of new research for heart muscle cells, nerve cells, and blood cells. This is the third property of all stem cells. The role of the stem cells is to maintain and repair tissues and organs of in humans. Scientists hope to continue to research stem cells in order to treat a variety of diseases such as Parkinson’s disease, strokes, and diabetes (Stem Cells and). Stem cells are believed to potentially regenerate damaged tissues and organs.

Stem cells can either come from embryonic or adult cells. Embryonic stem cells come from human embryos in a process that causes the death of the embryos (Robinson). Adult stem cells are in some ways similar to embryonic cells and have been studied for over two decades. Human embryos must be destroyed, but adult stem cells are easily attainable and are found in places such as fat tissue, dental pulp, bone marrow, umbilical-cord blood and the amniotic fluid that surrounds unborn babies (Delaney). However, adult stem cells are believed to be limited in flexibility (Robinson). Therefore, scientists would appreciate the authority to utilize embryonic stem cells rather than the human stem cells.
At the heart of the embryonic stem cell debate is the one question that is perhaps the most highly debated social issue of our time, “when does human life actually begin?” The Catholic Church believes that life begins at the time of conception for it is “at the very time of conception that the embryo begins to live a distinct individual life” (Knight). The science of ethics and teachings of religious authority declare “the divine law that ‘Thou shall not kill’” (Knight). The embryonic child has a human soul according to the Catholic Church. Therefore, this embryo is human from the time of conception and has equal right to life through its mother. So neither the mother nor any medical practitioner can lawfully take that life away. Catholic leaders believe that embryonic research treats human beings as commodities and degrades procreation to the point that it becomes merely a manufacturing process (Catholic).

Before the 2008 political elections in November, the Michigan Catholic Conference educated over 500,000 Catholic homes and approximately eight hundred parishes on the immortality and failures of embryonic research and successes of adult cells (National). Catholic leaders counseled these Catholics on how to properly determine how medical research should be conducted. Paul A. Long, the Vice President of the Michigan Catholic Conference, explains that people from different faiths and political backgrounds have recognized that cloning and the killing of human embryos for research purposes may not be the best way to develop the use of stem cell research. He lamented on how a great amount of attention has been given to embryonic stem cell research, largely by the dissemination of false information, has caused a dramatic decrease in the funding of adult stem cell research (National). He mentions that this proposal in Michigan amounts to “the creation of a new industry structured around the unregulated destruction of human life” (O’Brien). As a result of the November 4, 2008 election, fifty-two (52) percent of Michigan voters agreed to expand embryonic stem cell research and prohibit “state and local laws that prevent, restrict or discourage” it (O’Brien). After the political campaign of 2008, the Catholic opponents of embryonic stem cell research are facing a new political reality causing many people to feel that they are powerless to stop the development of this unethical behavior and will experience unsettling consequences in the future.

Restrictions on federal money for embryonic stem cell research are expected to be lifted by President-elect Barack Obama (Freking). Furthermore, House Speaker Nancy Pelosi is planning on working with legislation to set up a regulatory framework within the first one hundred days of the new Congress.

Catholic leaders and worshippers are appalled by the passage of proposal 2 in Michigan. Proposal 2 will allow human embryos in Michigan to be destroyed for embryonic stem cell research purposes. This proposal that was passed in the November 2008 election will also prohibit legislature from regulating the destruction of human embryos for research, and no longer will there be a ban on
cloning. Father John from St. Owen’s Catholic Church in Bloomfield Hills explains that Proposal 2 does nothing to advance ethical and proven adult stem cell research, and fails to address the tremendous advances that have taken place in the recent months regarding its development (Father John). The Catholic Church’s leaders as well as its members are greatly discouraged by this passage and retreat to prayer for a miracle to save these human embryos and to help the citizens of this nation think ethically.

Many Christians are also opposed to embryonic stem cell research because of fear that it may lead to human cloning. Father Anthony Zimmerman, a retired professor of Moral Theology at the Divine Word Seminary in Japan, discusses the moral and philosophical considerations on human cloning (Zimmerman). He is a member of the Fellowship of Catholic Scholars, of the Society of Catholic Social Scientists, and of the International Union for the Scientific Study of Population. Father Zimmerman began his discussion explaining how the Catholic Church does not oppose cloning out of fear that the cloned people will overpopulate the earth nor for fear that an overproduction of a certain people will produce a super-race. The reasonings of the Catholic Church are deeper and go beyond these theories. His first argument is since “God crowns every single person with glory and honor, it is His will that every child should be born into a family consisting of a father and mother joined in matrimony” (Zimmerman). He also explains that a child has a right to be procreated in the manner which God has in mind for it. Zimmerman, in accordance with the catechism of the Catholic Church, expressed that cloners are absolutely wrong if they believe that they can create a human being through technological manufacturing because they certainly cannot create a human soul without the intervention of God’s almighty actions of creation. Pope John Paul II also responded to the experimentation with human embryos and fear of cloning, stating that “[t]he embryo has to be recognized as a being subject to the laws of nations, otherwise we are endangering humanity” (Zimmerman). Father Zimmerman sees cloners as technological rapists by irresponsibly manufacturing children who do not have parents. There are also many philosophical and social reasons against cloning such as laws of inheriting properties from parents, an undetermined relationship with siblings, laws against commercial traffic in human beings, and the exploitation of women, evaluating their worth by genes, ova and wombs. The prime and non-negotiable reason against cloning, however, is that this method of bringing people to life is contrary to the dignity and rights of human beings. A person is to exist for himself and not for exploitation by others which is exactly what cloning through the further development of embryonic stem cell research would produce.

Besides the ethical and moral issue pertaining to stem cell research, there seems to be more advantages using a patient’s own adult stem cells over embryonic stem cells. One advantage is that you don’t have to consider rejection by the patient’s body from a patient’s own adult stem cell as opposed to a foreign embryonic cell of another person. Another advantage is that disease
transmission from the embryo to the patient is not a concern. A patient’s own adult stem cells do not contain foreign diseases that can be transmitted. Finally, a patient does not need to be concerned with the overgrowth of cells or tumor formation with adult stem cell use (Delaney). Adult stem cell use is, thus, considered to be safer and more effective for treatment in comparison to embryonic stem cell use.

Many Democrats, the scientific community, and other liberal organizations support embryonic stem cell research. Their main intent is to support the continuation of research and to discover cures for different diseases. A Coalition for the Advancement of Medical Research (CAMR) has been formed to support the funding of stem cell research (Robinson). Members included highly respected groups and even celebrities such as the American Medical Association, Cancer Research Foundation of America, and the Christopher Reeve Paralysis Foundation. In June of 2001, TNS Intersearch of Horsham in Pennsylvania conducted a poll showing “that American adults support stem cell research by a 2:1 margin” (Robinson). This poll shows that about eight years ago, it was evident that a majority of the American people strongly favored embryonic stem cell research and that they wanted legislation for it to progress.

Supporters of stem cell research defend and base their beliefs on a few explanations. The first reason is that people in America should be free to do whatever pleases them. Therefore opponents of this belief, such as the Catholic Church, should not have any say in the rights of the American people. During the past 2008 presidential election, Obama explained his views on embryonic stem cell research to the scientists, physicians, and engineers questioning him during a briefing, “I believe that it is ethical to use these extra embryos for research that could save lives when they are freely donated for that express purpose” (Freking). Obama clearly stated that he would overturn Bush’s ban on federal funding of research on embryonic stem cell lines created after August 9, 2001. He also claims that he will ensure that all research pertaining to this particular subject matter would be conducted ethically and with careful supervision. There seems to be an interest in stem cell research around the world. In fact, an analysis of the performance of sixteen countries involved in embryonic stem cell research in June 2008 was reported in the journal Cell Stem Cell by Aaron Levine, a public policy expert at the Georgia Institute of Technology in Atlanta (Dayton). This study showed that the United States was a major “under-performer” of embryonic stem cell research, while Singapore, China, Israel, the United Kingdom, and Australia were among the top five “over-performing” nations. This helps to explain the fight within the United States to obtain approval and more funding for embryonic stem cell research in order to scientifically combat the other nations of the world.

Another reasoning for the supporters of embryonic stem cell research is that the embryonic stem cells will benefit people all over the world. Cures for diseases are a major motive for these supporters. The advantage of embryonic stem cell research is that these cells are more flexible than the adult stem cells. The
possible uses of this stem cell technology are replaceable tissues and organs, the repair of defective cell types, the delivery of genetic therapies, and the delivery of chemotherapeutic agents. Supporters of stem cell research argue that an advantage of embryonic stem cells over the adult stem cells is that the embryonic stem cells can become all cell types of the body because they are pluripotent (Stem Cell Basics). Pluripotent embryonic stem cells are stem cells that have the potential to form derivatives of all three embryonic germ layers even after prolonged culture. Researchers claim, on the other hand, that the adult stem cells are limited in their differentiation into different cell types from the original tissue they were adapted from. Another advantage scientists claim is that the embryonic stem cells can be relatively easy to grow in cultures, while expanding the number of adult stem cells has not yet been discovered and that they are rare in mature tissues (Stem Cell Basics). Supporters express the importance of this concept since a large number of cells are necessary for stem cell replacement therapy. These thoughts excite the minds of many scientists and challenge them to discovery.

Finally, the supporters of embryonic stem cell research argue against the opponents such as the Catholic Church claiming that an embryo is not a person. Susan Sherwin, a writer on feminine health care ethics states, “Persons...are members of a social community that shapes and values them, and personhood must be defined in terms of interactions and relationships with others” (Deem). Many supporters of this research defend the idea that life does not begin until birth. In the voting of the 2008 ballot, voters in Colorado rejected the proposed amendment which would have defined “any human being from the moment of fertilization as a persona under the state constitution” by seventy-three percent (O’Brien). The Catholic Bishop in Colorado explained that even though this proposed amendment had good intentions, realistically, it would not provide an opportunity for ending or reducing the number of abortions. This amendment would be interpreted under current federal law and could have resulted in the reconfirmation of Roe vs. Wade which legalized abortion in 1973 (O’Brien). Supporters of embryonic stem cells voted against this amendment because they believe that life begins when the newborn baby takes in his or her first breath.

There are several counterarguments the Catholic Church makes against the reasoning of the supporters of embryonic stem cell research. In response to the embryo is not a person statement above, opponents of this research clearly express their disgust in destroying human embryos. They believe that there are issues with the way the supporters define a person. Opponents question if a human non-person exists. They also ask what traits define personhood and who actually makes the definition valid. Another explanation they give for invalidating the supporters’ argument on personhood is that society has in the past excluded certain humans from personhood before such as the African Americans. Is society creating a new list of human non-persons by claiming that embryos are not people? According to the supporters’ beliefs on personhood, the lack of certain personality traits would remove particular living humans from the list of
personhood such as those who are in a coma, the elderly people with a degenerative disease such as Alzheimer’s disease, and the mentally deficient. Is it right to consider these human beings non-persons? It seems that this is what the supporters are claiming if they defend the fact that an embryo is not a person.

Another counterargument against embryonic stem cell is about the invalidity of cloning research. It is unclear if human embryonic stem cells in vitro can give rise to all the different cell types of the adult body (Deem). It is also unknown if those cells cultured in vitro will function and develop as the cells do when they are part of the developing embryo. Additionally, it is unknown if these embryonic stem cell lines will continue to proliferate or experience complications to form genetic mutations which would fail to be of any use. Another challenge to the cloning research is that stem cell development must be controlled once it is placed into the patients. This accounts for a very high possibility of the rejection of the stem cell transplants as a foreign body. Other problems of cloning through the use of embryonic stem cells are contamination by viruses, bacteria, fungi, and possibly mycoplasms.

Catholic Bishops of the United States came together to formulate their beliefs on embryonic stem cell research in 2008. They believe that human cloning is evil and that it shows disrespect for human life in the very act of generating it (A Statement). Congress enacted the Fetus Farming Prohibiting Act of 2006 which acted against the grotesque act of developing cloned embryos in a woman’s womb for a few weeks to obtain useful tissue and organs from these embryos. The Statement of the United States Conference of Catholic Bishops on Embryonic Stem Cell Research cites Pope John Paul II’s response to these immoral acts.

“It now seems undeniable that once we cross the fundamental moral line that prevents us from treating any human being as a mere object of research, there is no stopping point [...] We therefore urge Catholics and all people of good will to join us in reaffirming, precisely in this context of embryonic stem cell research, that “the killing of innocent human creatures, even if carried out to help others, constitutes an absolutely unacceptable act” (Pope John Paul II, *The Gospel of Life [Evangelium Vitae]*, no. 63). These all indicate the moral flaws of the theory of embryonic stem cell discoveries as well the uselessness of this unethical choice.

Opponents of embryonic stem cell researchers along with the Catholic Church explain the advantages of the adult over embryonic stem cell research. A potential advantage is that the patient’s own cells could be duplicated in cultures and then implanted into the same patient. This is beneficial since the use of the patient’s own adult stem cells would mean that the expanded cells within the laboratory culture that was reintroduced to the patient would not be rejected by the immune system. This is a very significant counter argument since embryonic stem cells are highly rejected by the body and can only be overcome by
Immunosuppressive drugs (Stem Cell Basics). Immunosuppressive drugs prevent activity of the immune system which would result in major side-effects and risks towards the patient since they act non-selectively. The body is less able to fight off infections and may cause for the spread of malignant cells. These immunosuppressive drugs would also interact with other medications and affect their metabolism. This is important since patients who would be receiving embryonic stem cells would probably be on several different medications. There is evidence that plasticity of stem cells may exist so that they may allow for an increase in the number of cell types an adult stem cell might become. The Catholic Church also argues that many obstacles must be overcome before the potential use of embryonic stem cell research could ever be realized. For example, scientists must first understand the signals that turn specific genes on and off to influence the differentiation of the stem cell. This is important since some of the most critical and chief medical conditions such as cancer and birth defects are due to the abnormal differentiation of cells. Therefore, scientists will need a better understanding of the genetic and molecular controls before suggesting new strategies for treatment such as embryonic stem cells.

The Catholic Church’s opposition to embryonic stem cell should not be confused with opposition to stem cell research in general. Pope Benedict XVI responded to this ethical dilemma in January 2008 by stating that the Catholic Church “appreciates and encourages the progress of the biomedical sciences which open up unprecedented therapeutic options” (Pope Benedict XVI). The Catholic Church supports many types of stem cell research and views them as morally acceptable and laudable. An example of a morally acceptable form of stem cell research is the use of umbilical cord stem cells. This form is acceptable since the umbilical cord is no longer required once a baby has been delivered (Pacholczyk). Placentally-derived stem cells are also morally acceptable for use since the placenta is no longer required once a baby has been delivered. Also, the post-natally derived adult stem cells which are stem cells from the bone marrow or blood or fat from liposuction are morally acceptable with consent from the adult donor. Two other morally accepted strategies for developmental research that contain pluripotent stem cells are the de-differentiation and the reprogramming strategies. Both of these strategies are morally acceptable as long as these forms do not generate into a human embryo (Pacholczyk). The laws of the Catholic Church support and promote these kinds of stem cell research as opposed to the morally objectionable research which destroys a “young human” or a human embryo. The Catholic Church does not view the use of human embryos as helping the living. They see it as destructively harming life for the benefit of others who are struggling with illness. These other forms mentioned above actually help those who are living without harming the donor or anyone else.

The Catholic Church’s also responds to the supporters of embryonic stem cell research’s idea that if some human embryos will remain in frozen storage and eventually be discarded anyway, why is it wrong to benefit and get some good
out of these embryos? The Catholic Bishops argue against this point because even though all humans will eventually die, this does not give anyone the right to kill. In this case, embryos are destroyed because people are choosing this fate for them instead of implanting them in their mother’s womb. This idea of experimenting on humans because they are going to eventually die anyways may lead to experimentation with convicted prisoners on death-row and to the terminally ill patients (A Statement).

Science and religion is very difficult to attempt to reconcile. However, in terms of embryonic stem cell research, it is easy to reconcile science and religion. Despite all of the attention that embryonic stem cell research has created, not a single therapeutic use has been created and developed through their usage (Richert). Actually, every attempt to use embryonic stem cells has lead to tumor development. Dr. Fazale Rana, one of the world’s leading biochemist experts in the field of origins of life research and Vice President of Science Apologetics at Reasons to Believe in Glendora, California, calls embryonic stem cells a “sloppy science” (Rana). Dr. Rana believes that it is when the scientific community looks for a quick and easy way out of a problem that raises ethical issues in science. It is from her perspective that otherwise, scientific research rarely causes moral or ethical concern. Therefore, the most beneficial development this far has been from the adult stem cells. They are currently being used therapeutically. This is a win-win situation since the sick are benefiting from the therapeutic developments and since there are not any moral objections.

Finally, the embryonic stem cell research can be looked at through a broader ethical perspective. In terms of public policy, should we continue to fund research into this high-tech expensive endeavor that, even if it were to produce any cures, would probably not benefit people that are underinsured, uninsured, or their insurance policies will not cover the experimental treatment (Shannon)? The Catholic Church supports the scientific intervention to cure and save lives of patients. However, is it ethical to provide these scientific developments to only a selected population that are financially capable and wealthy?

In conclusion, the world is at a critical moment in history in the discussion of stem cells and biotechnology. The Catholic Church believes that this country will not be considered a civilized society until it governs itself in more ethically and morally acceptable manner. It is not ethical for adult humans, who have already passed safely beyond our own vulnerable stages, to exploit defenseless embryos and fetuses. Stem cells are one of the most rapidly developing and expanding areas of biology. Human beings should regulate embryonic stem-cell research according to a well-formed conscience that takes into account the sanctity of every stage of human life.


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