

LifeNOTES

Sacrificed without consent: Taking from the unborn, ending lives

Right to Life of Michigan is opposed to research which destroys a developing human being. When stem cells are removed from human embryos, a unique individual dies. Scientifically, it has been proven that human life begins at conception.

This fact sheet is on stem cell research. It contains information about stem cells and their potential plus the current legal situation regarding embryonic stem cell research and federal funding. This sheet also contains information about alternatives to embryo stem cell research such as research on adult stem cells and blood from the umbilical cord, which provide similar benefits when compared to embryonic stem cells.

What are stem cells and what is their potential?

Stem cells are the cells from which all other cells originate. In a human embryo, a large portion of the embryo's cells are stem cells. As the young child grows in her mother's womb, most of these cells begin to differentiate and become heart, liver, kidneys and all of the 210 kinds of tissue found in a human body.¹ Even though most of these cells become differentiated, all humans retain some stem cells. Stem cells are incredibly versatile cells that can be replicated indefinitely. These cells, with the correct chemical cue, can develop into specialized cells which the body might need. Most of the potential good such research may produce has revolved around the use of stem cells from human embryos, but there is also research being done on adult stem cells and stem cells from blood in the umbilical cord.

Since stem cells are so versatile and there are many diseases that result from the lack of or dysfunction of a single type of cell, there is hope within the medical community that some day cells can be reprogrammed to cure various diseases. Some of the diseases include Parkinson's, diabetes, spinal cord injuries, and heart disease.

Where do stem cells come from?

There are many sources for stem cells. In adults, stem cells can be found in numerous kinds of tissues and organs including bone marrow, blood, fat, skin, the liver, and the brain. Another ethical source of stem cells is the blood found in umbilical cords and placentas after birth. Stem cells removed from these sources don't harm the patient.

Despite the multiple sources of stem cells, most of the media's attention is focused on embryonic stem cells.

These are cells that would eventually become a child's organs and tissues but are removed from a human embryo in the first week of life. When these cells are removed, a human embryo dies.

Advocates of embryonic stem cell research want to use embryos that have been frozen at fertility clinics as the main source of embryonic stem cells. These "leftover" embryos were conceived to bring about an in vitro fertilization pregnancy but they were never implanted into a woman's womb. When a woman gets pregnant with in vitro fertilization and not all of the embryos are implanted, fertility clinics allow couples to destroy them, donate them to another couple or freeze them in case they want to give birth to another child at a later time. Most couples freeze their embryonic children.

Some scientists have gone a step further by creating embryos whose sole purpose is to be used for research while others hope to use cloning to create human embryos that can be killed for their stem cells.

Federal funding?

The National Institutes of Health (NIH) and the Department of Health and Human Services (DHHS) have determined that federal funds can now be legally used to support research on embryonic stem cells. On the surface, this decision appears to contradict the law. Passed in 1996, the "Dickey Amendment" states that federal funds can't be used for "research in which a human embryo or embryos are destroyed, discarded, or knowingly subjected to risk of injury or death."

The NIH has avoided this law by using the DHHS's rationale that stem cells aren't embryos and research using stem cells is separated from the act of obtaining those stem cells by destroying an embryo. Currently, the NIH is stating that federal funds will not be used for the actual removal of the stem cells from the embryo (which kills the embryo). However, once stem cells are removed from the embryo, the NIH will provide federal funds.²

The problem with these NIH Guidelines is that in order to do research on embryonic stem cells, embryos have to be destroyed. There is no way of separating the two. By providing federal funds for research on embryonic stem cells, the NIH is promoting the destruction of innocent lives.

The language of the "Dickey Amendment" is obviously intended to cover more than just research whose only purpose is the destruction of embryos. The language of the law implies that research where an embryo will be destroyed, including cases where this destruction will occur in order for the research to take place, should not receive federal funds.

On August 9, 2001, President George W. Bush announced that he would allow federal funds to be used for research on the stem cell lines created before August 9, 2001. These stem cell lines were created from embryos that were destroyed before the president's decision. Right to Life of Michigan is opposed to any research that requires the intentional destruction of human life. On the positive side, President Bush also announced that our government would allocate \$250 million to research involving stem cells from non-controversial sources and took a strong stand against all forms of human cloning.

Shortly after taking office, President Barack Obama overturned President Bush's policy. On March 9, 2009, President Obama issued an executive order to remove President Bush's funding restrictions and allow the federal government to fund research on embryonic stem cells as long as the cell lines were taken from human embryos created by in vitro fertilization for reproductive purposes and were donated by their parents.

Alternatives to Embryo Stem Cell Research

The argument about stem cell research is over scientists taking stem cells out of an embryo and effectively killing the child. This debate wouldn't exist if scientists would turn their focus from human embryonic stem cells to alternative methods of stem cell research. Adult stem cells and stem cells from umbilical cord blood don't end the life of an innocent human being.

The most promising of these alternative methods is the use of adult stem cells. Initially, adult stem cell research was not extensive because adult stem cells were thought to be less available and versatile, however, recent reports continue to show the usefulness of adult stem cells. The British Medical Journal has stated that research on embryonic stem cells "may soon be eclipsed by the more readily available and less controversial adult stem cells."³ Adult bone marrow stem cells have been shown to form tissues including bone, muscle, fat, liver, and neural cells.⁴ British researchers found that stem cells from bone marrow in mice transformed into kidney cells and may provide a new method to treat kidney disease that could reduce the need for transplants.⁵ Adult stem cells have already been used clinically while the use of embryonic stem cells has yet to produce a clinical success. For a long list of adult stem cell applications check out www.stemcellresearch.org and click on the scoreboard. It is also important to point out that adult stem cells taken from a person's own body don't face the risk of being rejected by the body, unlike embryonic stem cells.

Proponents of embryonic stem cell research have tried to get around this problem by advocating "therapeutic cloning" where the patient is cloned and then stem cells from the cloned embryo are removed and placed in the patient. Besides opening up doors for more ethical arguments, there might also be the possibility of side effects. Dr. Lorraine Young of the Roslin Institute in Scotland, a leading specialist in cloning, said there was a possibility that patients getting transplants of tissue created by embryonic cloning could get cancer. Cancer could develop if the embryonic stem cells don't differentiate like they're supposed to.⁶

Another promising alternative to embryonic stem cell research that doesn't have ethical implications is research on stem cells found in the blood of umbilical cords. The small amount of blood found in umbilical cords after birth is rich in stem cells. There is a company called Viacord that collects and stores blood from umbilical cords for possible future stem cell uses within the family.⁷ The Catholic University of Rome is another group working on storing umbilical cord blood so in the future there will be a large collection of stem cells available at short notice.⁸

Polls on stem cell research

A poll taken by International Communication Research in May of 2005 found that 52% of Americans oppose and 36% of Americans support using federal tax dollars to pay for embryonic stem cell research. The survey also found that 60% of Americans would prefer that their tax dollars be used on stem cell research using adult stem cells or other ways that do no harm human embryos. Unfortunately, many people do not understand many of the facts regarding stem cell research.

How Stem Cells from Adults and Umbilical Cords Have Helped

While some scientists talk about the potential of embryonic stem cells, stem cells from umbilical cords and adults are already helping people. Many of these stories aren't making the front page of newspapers or the evening news but they are important breakthroughs for life-affirming research. Following is a list of breakthroughs in research involving types of stem cells that don't require innocent human life to be sacrificed:

- On February 11, 2009, CNN reported that a team of German scientists used adult stem cells to treat a leukemia patient who was HIV-positive and this treatment appears to have eliminated HIV from his body. The doctors used stem cells from a donor with a gene mutation that is resistant to HIV. Two years after the treatment the patient has no signs of HIV.
- On April 15, 2009, the BBC reported that adult stem cells have been used to successfully treat patients with type 1 diabetes. Twenty of twenty-three patients were insulin-free for a period of months or years after receiving a treatment of their own adult stem cells.
- On October 18, 2009, WWJ Newsradio reported that a study directed by a Wayne State University researcher has shown that adult stem cells taken from patients' noses can treat spinal cord injuries. Thirteen of the twenty paralyzed patients in the study showed some improvement.
- On December 9, 2009, Reuters reported that National Institutes of Health researchers cured sickle cell disease in 9 out of 10 patients using adult stem cells in the bone marrow of the patients' siblings.
- On December 14, 2009, ABC News in Australia reported a man named Ben Leahy is now able to walk again after his multiple sclerosis was treated with his own bone marrow stem cells. The treatment involves destroying a patient's immune system and then replenishing it with their bone marrow stem cells.

Killing Embryos for Research Legal in Michigan

In 2008, Michigan voters passed Proposal 2 by a margin of 53% to 47%. Proposal 2 was a ballot initiative which amended the Michigan Constitution to allow research on and the killing of human embryos who were created for fertility treatments. The language in Proposal 2 also deters legislation which would "prevent, restrict, obstruct, or discourage" or "create disincentives" for individuals who want to perform research on human embryos. Proposal 2 was supported by embryonic stem cell researchers in Michigan because, prior to Proposal 2, a 1978 law outlawed research on human embryos if that research wasn't designed to benefit the subject of the research (the embryo).

While some researchers in Michigan desire to kill human embryos for research, others have been analyzing non-destructive forms of stem cell research. A group of Michigan-based companies are working with adult stem cells in hopes of finding ways to cure some of today's deadliest diseases. The Associated Press reported that Aastrom Biosciences, located in Ann Arbor, has developed a system that lets researchers remove stem cells from bone marrow in order to grow more stem cells outside the body. Researchers are also using these bone marrow stem cells to grow bone cells to stop osteoporosis, working with stem cells from umbilical cord blood that could treat cancerous tumors through an immune system cell therapy, and a program has been developed so hospitals and other research centers can grow stem cells on their own.

The Option of Embryo Adoption

One of the main arguments behind embryonic stem cell research is that all of the embryos will be destroyed

anyway. Why not use them to help cure diseases? Fortunately, these unique individuals don't need to die. A California-based adoption agency whose program, Snowflakes Embryo Adoption Program, allows infertile couples to adopt "leftover" embryos. Parents of children who were adopted as embryos held a press conference in Washington, D.C., on March 9, 2009, to show President Obama and members of Congress that "leftover" embryos can grow if given the chance. As of March 2010, there were 223 children born who were adopted via the Snowflakes Embryo Adoption Program in addition to 14 families expecting 19 other children. Snowflakes is one of several programs which facilitates embryo adoption. Bethany Christian Services, headquartered in Grand Rapids, Michigan, also facilitates embryo adoptions.

Some believe that stem cells from embryos are human enough for research, but not human enough to join the human family. This logic defies the reality that life begins at conception, a truth some researchers and politicians would like to ignore.

Ethical Issue

One of the most important issues in the debate over stem cell research is the ethics involved. Taking the life of a human being at any stage in development for research is ethically wrong. The embryos that are being destroyed are more than just tissue. These unborn children already have the genetic blueprint that they will have for the rest of their lives. The stem cells that are taken from them would have eventually developed into, among other things, their heart, brain, liver, and kidneys.

Even though this research could be helpful, it is still never ethically correct to sacrifice the life of one human to save another without their consent. This kind of utilitarian thinking was the same kind of rationale used by Nazi scientists and during syphilis experiments on African-Americans in Tuskegee, Alabama. Medical advancement should continue but not through the taking of human life. No human being should be forced to be made the subject of research without their permission, especially if that research leads directly to their destruction. Even death row inmates cannot be experimented on or have their organs removed without their consent.

Proponents of embryonic stem cell research often cite all of the potentials of the research but usually fail to mention that a human life is destroyed every time stem cells are removed from an embryo. The goals of this research are noble, but that doesn't mean that we should abandon our respect for human life to attain these goals. Embryonic stem cell research is a case where the end doesn't justify the means. The possibilities for stem cell research are enormous; however, we should focus on the options that protect and acknowledge all human life, not just some of it.

For further information on stem cell research, check out these web sites:

www.stemcellresearchcures.com - Stem Cell Research Cures - Right to Life of Michigan Educational Fund web site devoted to stem cell research

www.nrlc.org/Killing_Embryos/Index.html - National Right to Life

www.stemcellresearch.org/ - Do No Harm - The Coalition of Americans for Research Ethics

References

1 Prentice, D., No Fountain of Youth, Regeneration Online.

2 NIH Guidelines

3 Jofeson, D., Adult Stem Cells May be Redefinable, British Medical Journal, January 30, 1999; 318, p.282.

4 Prentice, D., No Fountain of Youth, Regeneration Online.

5 The Journal of Pathology at www3.interscience.wiley.com/cgi_bin/abstract/85006606/START

6 Patrick Goodenough, CNSnews.com, 8/4/2000

7 At www.viacord.com

8 Independent Catholic News, at www.indcatholicnews.com/vatcell.html