

Adult Stem Cells & Umbilical Cord Blood

The Texas Catholic Conference *supports funding for adult stem cell research and for the expansion of the Texas Cord Blood Bank.*

Human life must be respected and protected absolutely from the moment of conception. From the first moment of his existence, a human being must be recognized as having the rights of a person - among which is the inviolable right of every innocent being to life. Since it must be treated from conception as a person, the embryo must be defended in its integrity, cared for, and healed, as far as possible, like any other human being. (*Catechism of the Catholic Church, 2270, 2274*)

A Texas Bishop Speaks:

"The Catholic Church fully supports ethically responsible adult stem cell research which has resulted in treatments that have already saved thousands of lives. The Texas Cord Blood Bank is a key partner in these live-saving treatments and we are fortunate to have this public cord blood bank based in San Antonio."



-Bishop Oscar Cantú, Archdiocese of San Antonio

Church Teaching

- ★ Umbilical cord blood stem cells have successfully treated thousands of patients with dozens of diseases. They also exhibit properties once associated chiefly with embryonic stem cells: They grow rapidly in culture, producing enough cells to be clinically useful in both children and adults; they can treat patients who are not an exact genetic match, without being rejected as foreign tissue; and they seem able to produce a wide array of different cell types. (*Cardinal William Keeler, Chairman, Committee for Pro-Life Activities, U.S. Conference of Catholic Bishops*)
- ★ Respect of the dignity of the human being excludes all experimental manipulation or exploitation of the human embryo. (*Pontifical Council for the Family, Charter of the Rights of the Family*)
- ★ Embryonic stem cell research raises grave moral objections because it requires the destruction of human life, and its possible use in future treatments remains a speculation. By contrast, [an] area of stem cell research and treatment that is indisputably acceptable on moral grounds and remarkably promising in terms of clinical benefits [is] the use of umbilical cord blood retrieved immediately after live births. (*Cardinal William Keeler, Chairman, Committee for Pro-Life Activities, U.S. Conference of Catholic Bishops*)
- ★ Let us be clear—we are not opposed to stem cell research, only that stem cell research that kills human embryos. We fully support adult stem cell research since it does not take the life of the donor and we ask our legislature to help these morally acceptable efforts. (*Texas Catholic Conference, Statement on Human Embryos and Human Cloning, May 23, 2005*)

Resources

- ★ **Stem Cell Resource page** - US Conference of Catholic Bishops (www.USCCB.org/prolife/issues/bioethic)
- ★ **Texas Cord Blood Bank** (www.BloodnTissue.org)
- ★ **National Catholic Bioethics Center** The NCBC conducts research, consultation, publishing and education to promote human dignity in health care and the life sciences, and derives its message directly from the teachings of the Catholic Church (www.NCBCenter.org)
- ★ **Stem cell Research Facts** (www.StemCellResearchFacts.org)

The Texas Catholic Conference (TCC) is the association of the 15 Roman Catholic dioceses of the State of Texas, and is the Official Public Policy Voice of the Catholic Bishops of Texas.

Andrew Rivas, Executive Director • Jennifer Carr Allmon, Associate Director • Margaret McGettrick, Education Director

1600 N. Congress Ave. Suite B • Austin, TX 78701 • PO Box 13285 • Austin, TX 78711 • (512) 339-9882 • FAX (512) 339-8670 • www.TXcatholic.org

Umbilical Cord Blood

"Embryonic stem cells' tendency to proliferate into many cell types, once seen as an advantage, has become an enormous safety problem, as these cells produce cancerous growths when placed in animals. Umbilical cord blood stem cells, by contrast, show great versatility without exhibiting dangerous uncontrollable growth. Recently the New England Journal of Medicine reported on successful use of umbilical cord blood to treat two devastating neurological diseases in children: Hurler's syndrome (May 6, 2004) and infantile Krabbe's Disease (May 19, 2005). What is preventing far broader use of umbilical cord blood stem cells is not an ethical concern, or any lack of evidence of clinical benefits, but simply a lack of funding and access." - Cardinal William Keeler, Chairman, Committee for Pro-Life Activities, U.S. Conference of Catholic Bishops

What is [Umbilical] cord blood?ⁱ Cord blood is the blood that remains in the placenta after a baby is born. Cord blood has been found to be a rich source of stem cells and is currently being used as an alternative to bone marrow in treating a number of life-threatening diseases.

Benefits of cord blood:

- There is no risk to the donor.
- Since cord blood immune cells are less mature, they are more easily accepted by the patient when used in transplantation. As a result, patients with a less than perfect immune match can now be treated.
- There are fewer immune complications after transplantation.
- Since cord blood is banked and ready to use, it is immediately available when a patient needs it.

Catholic Church supports most stem cell research, which uses cells obtained from adult tissue, **umbilical cord blood**, and other sources that pose no moral problem. Useful stem cells have been found in bone marrow, blood, muscle, fat, nerves, and even in the pulp of baby teeth. Some of these cells are already being used to treat people with a wide variety of diseases.ⁱⁱ

Can stem cells be stored in a bank? Yes, like donated blood or bone marrow, they can be frozen and banked. In 2003, for example, Congress approved funds to help create a nationwide **umbilical cord blood stem cell bank**, in light of the many clinical benefits being discovered from these cells now usually discarded after live births. Many of the embryonic stem cell samples eligible for federally funded research under the current policy also remain frozen in banks, to be thawed and turned into stem cell lines when needed.

What are the advantages of harvesting donor cells from the intended recipient of the stem cell therapy? Because these cells come from the patient, they are an exact match and will not be rejected by the body as foreign tissue. Also, because no foreign substance is placed in the body, there are fewer regulatory barriers to their medical use.

Who is funding stem cell research? What role is federal funding playing in determining research priorities? Many private foundations and for-profit biotechnology companies fund stem cell research, but the federal government (especially through the National Institutes of Health) remains the largest source of funds. The government's funding priorities have a large influence on the direction that medical research takes.

In 2001 the Texas Legislature created The Texas Cord Blood Bank to establish a statewide cord blood bank. The Bank is a division of the South Texas Blood & Tissue Center in San Antonio.

(Last updated July 26, 2010, 82nd Legislative Session)

ⁱ "Texas Cord Blood Bank." South Texas Blood & Tissue Center. <bloodtissue.org/texascordbloodbank.asp>.

ⁱⁱ "Stem Research and Human Cloning: Questions and Answers." Pro-Life Activities. U.S. Conference of Catholic Bishops. <www.usccb.org/prolife/issues/bioethic>.