"Embryonic Stem-Cell Research"

For those who live in Nebraska, you probably have heard by now that the University Of Nebraska's Board of Regents voted 4-4 today on a resolution which would have limited embryonic stem-cell further than limits now mandated by the government. A tie vote means the resolution did not pass and thus the more stringent restrictions will not be put in place. Earlier this year, President Barack Obama removed the restrictions on creating further embryonic stem-cell lines for research which were put in place under President George W. Bush.

One of the most disconcerting aspects of this entire story is the manipulation of public opinion which has aired and also been put in print on this issue. Prominent Nebraskans with diabetic children and citizens with Parkinson-stricken parents have called for Nebraskans to contact the NU board of Regents and encourage them to vote against the resolution. After all, since we want to find cures for our suffering loved ones, all of us want to have as much research as possible taking place, don't we? So, why would we want to limit research? This is the same kind of misinformation and manipulation which took place in response to the restrictions put in place under President Bush. Let me explain.

First, no one can doubt any more that an embryo (an unborn child) is a human being. Technology has enabled us to know too much to avoid that conclusion. From the time of conception everything that is needed for that embryo to develop and mature is present. Though maturation must take place for viability outside the womb, nothing ever has to be added for that embryo to become more human than what it is at conception. As such, any research which would treat that unborn child as a commodity—an object merely for research—is as unethical as the ghastly Nazi experiments which were conducted on persons in concentration camps over sixty years ago. Consider the insight of Linda K. Bevington of the Center For Bioethics And Human Dignity who explains for us the issue:

> *Fetal stem cell research may ethically resemble either adult or embryonic stem cell research and must be evaluated accordingly. If fetal stem cells are obtained from miscarried or stillborn fetuses, or if it is possible to remove them from fetuses still alive in the womb without harming the fetuses, then no harm is done to the donor and such fetal stem cell research is ethical. However, if the abortion of fetuses is the means by which fetal stem cells are obtained, then an unethical means (the killing of human beings) is involved. Since umbilical cords are detached from infants at birth, umbilical cord blood is an ethical source of stem cells.*[1]

This is why President Bush outlawed federal funding of the creation of further embryonic stem-cell lines for research. The creation of such new lines would require bringing unborn children into existence (and destroying them) simply for research. There is not avoiding the fact that this is simply unethical!

Second, to limit or even to outlaw embryonic stem-cell research is not to outlaw stem-cell research. There are many other sources for stem-cells. Again, Bevington explains:

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[1] Linda K. Bevington, "Stem Cell Research and 'Therapeutic' Cloning: A Christian Analysis," posted April 2005 on www.cbhd.org.

Human embryonic stem cells are the cells from which all 200+ kinds of tissue in the human body originate. Typically, they are derived from human embryos – often those from fertility clinics who are left over from assisted reproduction attempts (e.g., in vitro fertilization). When stem cells are obtained from living human embryos, the harvesting of such cells necessitates destruction of the embryos…. Adult stem cells (also referred to as "non-embryonic" stem cells) are present in adults, children, infants, placentas, umbilical cords, and cadavers. Obtaining stem cells from these sources does not result in certain harm to a human being.[2]

One of the most frustrating aspects of how the media handles the stem-cell debate is the lack of precision in distinguishing between embryonic stem-cells and non-embryonic stem-cells. This lumping together of all stem-cells leads us to conclude that any restriction is an unnecessary restriction on research which could benefit those we love who are suffering.

Of course, many still might respond, "Even though there is a distinction, doesn't it still stand to reason that we should research all kinds of stem-cells for the best results?" The answer is, "Not necessarily." David A. Prentice, Ph.D., who is engaged in stem-cell research, helps us clarify our third point—that embryonic stem-cells have shown far less promise yielding positive therapeutic results primarily since they are more volatile. Even when there has been some positive result, there has also been collateral damage. The scientific research has demonstrated that non-embryonic stem-cells have shown the most promise.[3] Bevington also helpfully explains:

In contrast to research on embryonic stem cells, non-embryonic stem cell research has already resulted in numerous instances of actual clinical benefit to patients. For example, patients suffering from a whole host of afflictions – including (but not limited to) Parkinson's disease, autoimmune diseases, stroke, anemia, cancer, immunodeficiency, corneal damage, blood and liver diseases, heart attack, and diabetes – have experienced improved function following administration of therapies derived from adult or umbilical cord blood stem cells. The long-held belief that non-embryonic stem cells are less able to differentiate into multiple cell types or be sustained in the laboratory over an extended period of time – rendering them less medically-promising than embryonic stem cells – has been repeatedly challenged by experimental results that have suggested otherwise…. Though embryonic stem cells have been purported as holding great medical promise, reports of actual clinical success have been few. Instead, scientists conducting research on embryonic stem cells have encountered significant obstacles – including tumor formation, unstable gene expression, and an inability to stimulate the cells to form the desired type of tissue. It may indeed be telling that some biotechnology companies have chosen not to invest financially in embryonic stem cell research and some scientists have elected to focus their research exclusively on non-embryonic stem cell research.[4]

Fourth and finally, if non-embryonic stem-cells do not destroy life, show far more promise, and contain far less negative effects, doesn't it stand to reason that we should focus on non-embryonic stem-cells and away from embryonic stem cell research? When we understand the facts, we understand that limitations on the latter are not only more ethical, but they also do not require us to shun sound stem-cell research for the purpose of finding cures.

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[2]Ibid.

[3] David A. Prentice, "The Biotech Revolution: Major Issues In The Biosciences," in Charles W. Colson, Nigel M. de S. Cameron, ed's, Human Dignity In The Biotech Century (Downers Grove: IVP, 2004), 40-59.

[4]Bevington, "Stem Cell".

Please share with your family and friends the facts about stem-cell research, fur unless someone visits the web site of the Center For Bioethics And Human Dignity (or some other similar careful source of information), they will not learn the facts from most treatments of the subject in the media.