



Tim Murphy *Issue*

U.S. Congressman for the 18th District of Pennsylvania

The Stem Cell Debate: Embryonic Stem Cells vs. Scientific Promise

The stem cell debate is one of the most controversial and often misunderstood issues facing Congress and the nation. Stem cells are cells from which all other cells originate. Medical research has indicated that there is great promise that stem cells can lead to cures for many different diseases by developing into health human tissue.

There are many different kinds of stem cells including adult, amniotic, and embryonic stem cells. Unfortunately, the media and public information campaigns often do not differentiate between the different types. While all are similar, they have shown different levels of potential and different levels of risk.

Adult stem cells have already been used to treat humans for 72 different types of conditions, ranging from different types of cancer to Chronic Coronary Artery Disease to Spinal Cord Injuries. They are the most fundamental type of stem cell that can be used to create muscle, bone, and other tissues.

The second type of stem cell is embryonic, which involves the destruction of a living embryo. **No** research has yet shown embryonic stem cell research to be fruitful to curing any disease. In addition, in animal studies, tissues developed from human embryonic stem cells have led to a high level of tumors. Many U.S. companies, universities, and states are engaged in a great deal of embryonic stem cell research already. California is currently spending \$3 billion on stem cell research. The President and the U.S. Congress have supported research with over \$90 million for embryonic stem cell lines derived from embryos that had already been destroyed with more than 700 shipments to researchers since 2001.

Those who support destroying embryos for research have stated that there are embryos that will be discarded. However, many parents would love to adopt these embryos and raise the children as their own. According to the non-partisan RAND Corporation the 'vast majority' or 88 percent of the 400,000 embryos that have been frozen since the late 1970s are not going to be discarded but are held for family building and not for medical research.

A third type of stem cell is the amniotic stem cell. The use of amniotic stem cells does not involve the destruction of human life or tumors as the case with embryonic stem cells and many believe that they can lead to more treatments than adult stem cells. Many believe this is the best of both worlds. Just this week, an amazing scientific breakthrough was announced in which stem cells taken from amniotic fluid have the ability to develop into human tissue. These amniotic stem cells have the potential to develop human brain, muscle, bone, liver, and other cells. The tissues developed from amniotic stem cells cannot be rejected by the human body because they genetically match developing fetuses. The cells can be used to treat birth defects in newborns, frozen for personal use later on in life, placed in a bank for use by the entire population, or used for advancing research. Given the fast pace in which amniotic stem cells have matured, it would not take long to develop a bank large enough to ensure every U.S. citizen had access to

cells that could cure them of countless diseases. According to the scientists involved in the breakthrough, just 100,000 women will need to donate their amniotic cells for this to happen.

Many argue that if we use tax dollars to fund embryonic stem cell research there will not be enough money to fund research the other types of promising stem cells.

###