## Cloning and Embryonic Stem Cell Research: Will a Ban Prevent Medical Breakthroughs?

This week's column continues a series on the controversial issue of human cloning and stem cell research. Over the last month we have discussed several of the main questions involved in this debate -- questions that are sure to be front and center during the 2005 legislative session that began last week. In previous columns I have addressed whether cloning really creates a human being and whether a cloning ban would hinder Missouri's biotech industry.

If you've tuned in to the mainstream media or listened to certain politicians recently you might be under the impression that if human cloning were to be banned (thus taking away the ability of scientists to extract stem cells from these cloned embryos) that all medical advances in this promising field would come to a screeching halt. Nothing could be further from the truth.

Stem cells come from a variety of sources including human fat and the cord blood of newborn infants. Stem cells from these sources are known as "adult stem cells" and their use raises no moral objections; unlike stem cells that are extracted from a growing human embryo which is then destroyed. These cells are known as "embryonic stem cells."

Imagine with me a large scoreboard. On the one side we will list the treatments that have come from research using non-controversial adult stem cells. On the other side of our scoreboard we will tally the medical treatments we currently use that have been developed because of controversial embryonic stem cell research.

So what is the score? At last count it was 52 to 0 in favor of adult stem cell research. That's right. There are currently over fifty recognized treatments developed from research using non-controversial adult stem cells and none that have come from controversial embryonic research. It is interesting to note that there is no federal ban on embryonic stem cell research (only limitations on federal funding) and in the vast majority of the states such research is perfectly legal so there's no use claiming that "narrow-minded" politicians imposing research bans are responsible for the lopsided score.

Some of the breakthroughs developed using adult stem cell research include treatments for cancer, leukemia, multiple sclerosis, sickle cell anemia, spinal cord injuries and arthritis. Mark it down as a rule of thumb, if you've read a story recently about some amazingly successful treatment using stem cells, it was almost certainly the non-controversial adult stem cell research I heartily support, not the controversial embryonic stem cell research that destroys a human life at its earliest stage of development.

I have been accused by opponents of standing in the way of advances in science. This is ironic since I only propose to ban research that has not yet been proved to supply any medical cures but that clearly destroys a nascent human life. In fact, just the opposite is true. This session I will be proposing a program to encourage adult stem cell research.

The overwhelming majority of medical successes are to be found in this field and it only makes sense that our state should actively promote it.

If you have comments or questions about this week's column or any other matter involving state government, please do not hesitate to contact me. You can reach my office by e-mail at <a href="matt\_bartle@senate.state.mo.us">matt\_bartle@senate.state.mo.us</a> or by phone at (888) 711-9278.