

## Stem Cells are Vital to Cures -- November 2007

As Diabetes Awareness Month draws to a close, we are reminded of the important role both education and research play in our quality of life. Medical advancements like the glucose monitor and insulin pump are helping more and more individuals with diabetes to practice easier and less intrusive ways of managing their disease. Medical research is the best way to fight the diseases of today and prevent the suffering of tomorrow. Many of the world's leading scientists believe that stem cell research holds the key to combating diseases like diabetes and others such as Alzheimers, Parkinson's, heart disease and cancer.

I believe strongly in advancing all forms of ethical medical research and have authored legislation in Congress to ensure scientists have access to the highest quality stem cell lines in the hope of finding cures to some of our most devastating diseases. Many of these lines are off limits due to an outdated policy that hasn't been updated as science has advanced. These stem cells come from excess frozen embryos created for the purposes of in vitro fertilization that will never be implanted in a woman and would otherwise be discarded as medical waste. At this stage, the blastocyst is the size of a pinhead, but the stem cells carried inside have the ability to transform into virtually any mature human cell, such as a heart, muscle, nerve and liver cell. The legislation I authored has passed both houses of Congress twice and vetoed by President Bush twice.

Just recently, scientists reported that ordinary human skin cells may be able to be reprogrammed to become "pluripotent" -- the ability to become any of the 220 types of cells in the human body, similar to embryonic stem cells. The research conducted by leading scientists at the University of Wisconsin, Harvard University and Kyoto University in Japan have shown a risk of tumor growth, but all agree that this exciting breakthrough may serve as a model in order to truly test this new avenue of research. They also believe that while this is a positive scientific development, such research is not yet a replacement for embryonic stem cell research. In fact, pursuing both areas of research has never been more important.

Research holds the key to more effective treatments that improves quality of life and overall life expectancy. We only limit our capabilities of advancement when we stifle research. Access to federal funding can enable American scientists to lead the world in medical advances as we do in so many other areas. Short of efforts by many in Congress to increase funding for all medical research at the National Institutes of Health, Congressional appropriations have not kept pace with medical inflation costs. Private research on embryonic stem cell research exists on a much greater scale than permitted with use of federal dollars. Science would benefit greatly from expanding federal oversight and regulation to all forms of stem cell research.

My judgement and my great hope is that embryonic stem cell research will move forward with full force under the next administration. In the meantime we should pursue any and all avenues for research that hold such great promise for improving the lives of so many who are suffering without existing treatment or cures.

My passion for advancing and expanding research on stem cells comes from years of meeting with those who are suffering from diabetes, Alzheimer's, Parkinson's and the family and friends who care for them. There is no greater promise for better treatments and potentially cures than there is with a strong federal investment in all ethical forms of medical research of all kinds.