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FACTBOX: Embryonic stem cells, the ultimate master cell

(Reuters) - U.S. Senators Tom Harkin and Arlen Specter reintroduced legislation on Thursday that would encourage federal funding of human embryonic stem cell research -- a bill vetoed by former President George W. Bush.

President Barack Obama, who took office five weeks ago, says he supports the research.

Following are some facts about stem cells and the politics surrounding their use:

- * Stem cells are the body's master cells, the source of all cells and tissue, like brain, blood, heart, bones and muscles.
- * Embryonic stem cells come from days-old embryos and can produce any type of cell in the body.
- * Scientists generally harvest embryonic stem cells from embryos left over after in vitro fertilization attempts at fertility clinics. They can also be produced using cloning technology.
- * Researchers have discovered how to make embryonic-like cells from ordinary cells, called induced pluripotent stem cells.
- * Scientists hope to harness the transformational qualities of stem cells to treat a variety of diseases, including brain cells for Parkinson's disease, pancreatic cells for diabetes and nerve cells for spinal-cord injuries.
- * The issue is controversial because some people believe the destruction of any embryo is wrong.
- * U.S. legislation called the Dickey Amendment forbids the use of federal funds for the creation or destruction of human embryos for research.
- * In 1998, soon after human embryonic stem cells were discovered, the Department of Health and Human Services determined that the Dickey Amendment did not apply to researchers working with stem cells, so long as they did not get the cells themselves from human embryos.
- * In August 2001, President George W. Bush declared otherwise and limited the use of federal funds to stem cell lines, or batches, that existed as of that moment -- not by executive order, as widely reported. He vetoed congressional attempts to override this decision.

* The issue does not fall clearly along party lines and strongly conservative Republicans who oppose abortion such as Utah Senator Orrin Hatch have backed broader federal funding of embryonic stem-cell research for years.

* Britain, Belgium, Sweden, Canada and New Zealand actively encourage embryonic stem-cell research. Austria, Lithuania and Poland have laws banning research into human embryonic stem-cell research.