**The basics**

**WHAT’S A STEM CELL?**
A stem cell is a master cell that can create the more specialized cells in an animal or human. Stem cells from human embryos have the potential to create any type of human cell. Stem cells from mature humans (often called “adult stem cells”) can create only a subset of cell types. For example, blood-forming stem cells can make blood cells but not brain or liver cells.

**WHAT’S A CELL LINE?**
A cell line is a population of identical cells that all originated from a single cell. Because cell lines multiply, scientists can grow the cells for their own research and to share with colleagues.

**WHAT’S AT STAKE?**
Government funding restrictions set in 2001 thwart attempts to use stem cells to develop cures and to learn more about how humans develop. A bill supported by President Bush and passed twice by the House of Representatives would criminalize the creation or use of new stem cell lines with a $1-million fine and 10 years in jail.

**WHAT’S THE CONTROVERSY?**
The stem cells that many scientists consider especially promising for research and medicine come from early stage embryos called blastocysts. However, the harvesting process destroys the blastocyst, leading some people to liken the procedure to the taking of a life.

**WHAT DOES STEM CELL RESEARCH HAVE TO DO WITH CLONING?**
The only connection is that creating a new line of stem cells and attempting to clone an animal have the same first steps: replacing the nucleus of an egg cell with the nucleus of a mature human cell and stimulating that egg to form a blastocyst.