

TRANSCRIPT PREPARED BY THE CLERK OF THE LEGISLATURE  
Transcriber's Office  
FLOOR DEBATE

May 5, 2003

LB 602

therapeutic cloning, the idea of repairing patients' tissues by cloning their own body cells, ethically more acceptable to those who object to it. Further, the unfertilized eggs seem capable of developing parthenogenetically, or without the help of sperm, into embryos. The research was by a team from Penn., including Dr. Karin Huebner, Dr. Hans R. Scholer, and researchers elsewhere. They report in today's issue of Science that they developed a way to generate unfertilized eggs, known as oocytes, from mouse embryonic stem cells. They have not tried the same experiment with human embryonic stem cells, but the two species are generally very similar at the stem cell level. If human oocytes could be generated in the same way from human embryonic stem cells, researchers would have a copious new source of oocytes, which are now obtained from patients through an uncomfortable procedure requiring strong drugs and surgery. Human embryonic stem cells are obtained from the discarded human embryos generated in fertility clinics. The embryos, though only a few days past fertilization, are destroyed in the process. As a result, many opponents of abortion rights object to research that involves the cells. In August 2001, as you recall, President Bush allowed federally financed researchers to start working with the human embryonic cell lines already established by that date, though not with any new ones. That research had long been barred by Congress. The cells, which have the capacity to develop in (sic) all the tissues of the human body, are of great interest to researchers and physicians. Scientists have already discovered ways of inducing mouse and human embryonic stem cells to convert in the laboratory into brain, liver, pancreatic and other types of body cell. Dr. Scholer's team has added a new class of cell to this list, the germ line cells, which make the oocytes or sperm. Human oocytes made in the laboratory this way could bring the idea of therapeutic cloning nearer to reality. This is the concept: The physicians could generate new body tissues for a patient by taking a cell from the patient's skin, inserting the cell's nucleus into an oocyte whose own nucleus had been removed, and letting the oocyte develop into an early embryo. Stem cells could be taken from the embryo and introduced to develop heart muscle cells genetically identical to the patient's own. But if the same embryo were put into a woman's womb it might go to term. This is reproductive cloning, the method used to make