
Note: Leading embryonic stem cell researcher Dr. Sean Morrison of the University of Michigan has reviewed the research papers issued this week saying researchers have been able to create mice embryonic stem cells using mice adult stem cells. His conclusion is that this development, while “exciting” in his words, does not mean states and the federal government should stop moving toward examining all forms of stem cell research, including embryonic stem cell research using embryos from in vitro clinics that would otherwise be discarded. Here is an excerpt of his views, putting the new developments in perspective:

These are exciting papers that report that pluripotent cell lines can be derived from mouse fibroblasts by forcing the fibroblasts to express four genes associated with embryonic stem cells. This is a remarkable achievement that contributes important new insights to our understanding of pluripotency.

Nonetheless, it would be premature to conclude that this represents a replacement for traditional embryonic stem cell research. First, it is not yet clear that this would work as well with human cells. Second, I worry about the stability of the reprogrammed fibroblast cell lines. One concern is that the forced over-expression of genes in cells increases the risk that these cells could turn into cancer cells ... A second concern is that the induced pluripotent state may be less stable over time when induced by the over-expression of these four genes. Additional work will be required to address this.

For more of his comments, [click here](#).

Detroit Free Press

June 7, 2007

Scientists mimic embryonic cells using ordinary skin from lab mice

BY MALCOLM RITTER
ASSOCIATED PRESS

NEW YORK -- In a leap forward for stem-cell research, three independent teams of scientists reported Wednesday that they have produced the equivalent of embryonic stem cells in mice without the controversial destruction of human embryos.

They got ordinary skin cells to behave like stem cells. If the same could be done with human cells – a big if – the procedure could lead to breakthrough medical treatments without the contentious ethical and political debates surrounding the use of embryos.

Experts were impressed by the achievement. ... In any case, scientists said, the advance does not mean that research that involves getting stem cells from human embryos should now be abandoned. "We simply don't know which approach ... will work the best," said researcher Konrad Hochedlinger of the Harvard Stem Cell Institute, who led one of the three teams.

To read more of the Associated Press story, [click here](#).

June 6, 2007

Biologists Make Skin Cells Work Like Stem Cells

By NICHOLAS WADE

In a surprising advance that could sidestep the ethical debates surrounding stem cell biology, researchers have come much closer to a major goal of regenerative medicine, the conversion of a patient's cells into specialized tissues that might replace those lost to disease.

The advance is an easy-to-use technique for reprogramming a skin cell of a mouse back to the embryonic state. Embryonic cells can be induced in the laboratory to develop into many of the body's major tissues.

If the technique can be adapted to human cells, researchers could use a patient's skin cell to generate new heart, liver or kidney cells that might be transplantable and would not be rejected by the patient's immune system. But scientists say they cannot predict when they can overcome the considerable problems in adapting the method to human cells.

To read more of the New York Times story, [click here](#).