

# THE WEST

## Stem cells could lead to cures

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**T**he use of human stem cells to grow new organs for transplant is several years away and may never be practical, a world-renowned researcher said Monday.

Instead, scientists will likely learn more from stem cells in the lab, as part of clinical trials to cure the diseases that make transplants necessary, said James Thomson, an anatomy professor at the University of Wisconsin-Madison

Medical School and the chief pathologist at the Wisconsin Regional Primate Research Center.

"That's going to change medicine more than transplants," said Thompson, the keynote speaker at the American College of Veterinary Pathologists, which is holding its 54th annual convention at the Fairmont Banff Springs Hotel this week.

It's often still too crude a procedure to remove and replace human cells, said Thompson. It's better to learn why the cells are abnormal and correct them in the body.

"The actual transplantation of

cells may not be necessary at some point," he said.

Stem cells are unique "blank slates" that have the ability to transform themselves into any one of the 220 kinds of cells and tissues in the human body. This makes extremely valuable in the fight against several diseases like Parkinson's and diabetes.

Growing entire new organs and tissues for people is seen as a way to get around the body's immune system, which automatically rejects body parts from other organisms.

There are huge ethical concerns

about using human stem cells.

However, the research proceeds apace. Thomson and his associates have already coaxed human embryonic stem cells to change first into primitive blood cells and then into more specific red and white blood cells and platelets.

He has also got stem cells to transform themselves into neural and pancreatic cells. Theoretically, this could lead to cures for brain diseases like Parkinson's disease, blood diseases like leukemia, and for diabetes.

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