



UM taps private cash for stem cell research

Marisa Schultz / The Detroit News



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In a room too small to be called a lab, researchers at the University of Michigan will soon begin cutting-edge research on embryonic stem cell lines that are not approved by the federal government.

The research isn't so much an act of rebellion as it is a necessity, U-M stem cell leaders say.

Embryonic stem cells are extremely valuable to researchers because they can become brain cells, liver cells or any one of the roughly 200 cells in the human body. And if embryonic stem cells are going to change the future of science and medicine -- as many predict -- U-M needs to study them if it's serious about curing diseases, said Sean Morrison, director of U-M Center for Stem Cell Biology.

The move, similar to those taken by other high-profile universities, raises the stakes in the debate over embryonic stem cell research, controversial because it destroys embryos.

"There's enough studying that can be done on adult stem cells without playing God. People who understand the facts about this know we're talking about a life here," said Tom McMillin, a U-M alumnus and anti-abortion activist who's currently seeking election to the state Board of Education. "It's a state university, and its liberalism is undeniable, so to a degree it's not surprising but it's certainly disappointing. They're experimenting in a dangerous area."

In 2001, President Bush banned federally funded research on any but the 64 stem cell lines that existed at the time. Even fewer of those stem cell lines were proven viable, limiting researchers further.

With the help of lawyers and about \$330,000 in private donations, U-M researchers found a temporary solution in a previously unused room at U-M's Life Sciences Institute. That tiny space, about the size of a walk-in closet and completely segregated from other labs, will be funded solely with private dollars.

By the end of the year, scientists from around the campus will be able to bypass federal limits and study non-federally funded approved lines, which may offer insight to diseases such as Parkinson's and juvenile diabetes.

State laws, however, have proven tougher to follow.

Michigan is one of the most restrictive states for research of stem cells. Its 1978 law prohibits the destruction of a human embryo for research. The law, however, doesn't prohibit the destruction of embryos not used in research. That mean researchers cannot create new stem cell lines using embryos that would have otherwise been discarded.

So across campus, about a mile from the stem cell room, human embryos are discarded regularly at the U-M Medical Center. It's a common occurrence at fertility clinics where the embryos are left over from in-vitro fertilization, the process where an egg is fertilized outside the womb and then transferred to a patient's uterus in hopes of a successful pregnancy.

Patients can decide to throw away their extra embryos, freeze them for a future pregnancy, give them to an embryo donation center or donate them for research, said Dr. L. April Gago, medical director of assisted reproductive technologies at U-M. Major research institutions around the country, such as Harvard, Stanford, University of California and the University of Wisconsin, have established their own private research labs for stem cells lines created after 2001, Morrison said. Others states like California and New Jersey allot state funds for stem cell research.

U-M wants to remain competitive in this field. But the private lab is only now opening because state laws have made its creation difficult. Privately funded research can only be conducted if the stem cell lines come from other states.

"We remain dependent on people outside the state and their willingness to share those lines with us," Morrison said. "We are trying to do the important research as best we can given the restrictions in the state of Michigan."

U-M researchers don't know yet where they will get the stem cell lines. One Harvard scientist has said he'll distribute his lines for free. Other researchers are more territorial, Morrison said.

The legal climate in Michigan has deterred stem cell research in the private sector, said James Eliason, chief scientific officer at Asterand, a Detroit company that specializes in human tissue research. Asterand would only undertake the process overseas, Eliason said.

Private donors have put their faith in the science and in U-M, the only spot in the state where research on human embryonic stems cell lines created after 2001 will take place, Eliason said.

"I think research with embryonic stem cells is by all odds the most promising form of this technology, which can cure so many terrible diseases," said Phil Power, founder and president for the Center for Michigan and longtime newspaper publisher. "Both my father and my mother had Parkinson's disease. The effect on them in the latter part of their lives was horrifying."

Now the university hopes to raise about \$1 million to keep the room operational for four years.

After that, researchers hope the federal and state laws will change to make the insulated lab no longer necessary.

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