Reagan's Death Renews Stem-Cell Call

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NEW YORK — Former President Ronald Reagan's death from complications due to Alzheimer's disease has spurred a new wave of support for human stem-cell research in an effort to find a cure for debilitating diseases.

Alzheimer's disease is a brain disorder among older people that seriously affects a person's ability to carry out daily activities. The disease causes a loss of nerve cells in areas of the brain that are vital to memory and other mental abilities. Levels of chemicals in the brain that carry complex messages back and forth between nerve cells also drop.

Experts say limiting federal funding for advanced embryonic stem-cell research will throw up roadblocks to inroads that could be made in Alzheimer's and could slow progress in that area.

"Not to proceed with the research is like going forward with one arm tied behind our backs," said Bernard Siegel, executive director of the Genetics Policy Institute. "Every day that this is delayed, someone is going to suffer a day longer with Alzheimer's or a day longer [where] someone with a broken back will sit in a wheelchair … we can't go back to the dark ages where every medical advance is stymied."

Experts acknowledge that the relationship between stem cells and Alzheimer's is vague, and other diseases such as Parkinson's and spinal-cord injury are likely to benefit first from such research.

"I think the application of stem cells to treat Alzheimer's disease is not clear at this point," said Bradley Wise, program director of the National Institute on Aging'sneuroscience program. But, he added, "I think we should keep the door open to any kind of research that may help us understand Alzheimer's or may lead to potential therapy to Alzheimer's disease."

Because day-old embryos are destroyed when stem cells are extracted, the process is opposed by some lawmakers who link it to abortion. President Bush signed an executive order in August 2001 that limited federal aid to financing stem-cell research only on 78 embryonic stem cell lines then in existence.

Right before Reagan's death, 58 legislators, including Democratic presumptive presidential nominee Sen. John Kerry of Massachusetts, asked Bush to reconsider his policy. White House spokesman Scott McClellan responded that the policy won't change.

"The president came up with a policy that will allow us to explore the promise of stem-cell research, and do so in a way that doesn't cross a certain moral threshold that he set," McClellan told reporters this week. "We are still at a phase where we are conducting the basic research so that we can better understand the promise of stem-cell research. There's a lot we don't know at this point."

A survey released Wednesday shows that most Americans now support former First Lady Nancy Reagan's call for the White House to lift federal stem-cell research limits to make it easier to find cures for diseases such as the one that plagued her husband for 10 years.

"When roughly three out of four Americans think Nancy Reagan is right … [and] nearly an equal proportion are likely to support stem-cell research after President Reagan, what you have is a fundamental shift in the way average Americans feel about this issue," said Pam Solo, president of the Civil Society Institute, which released the survey.

Some scientists say that the problem with having limited use of embryonic stem cells is that by the time adult brains are donated for research, they've already been ravaged by Alzheimer's and other afflictions.

"Alzheimer's is a disease that we don't understand very well and one of the reason's we don't understand very well is that it's actually hard to work on human brains while they're still healthy," said Larry Goldstein, a well-known stem-cell scientist at the University of California San Diego who's studying Alzheimer's.

"I don't think the best leads will be found in the adult stem cells but in embryonic … if I thought adult stem cells would work better, I would switch in a heartbeat," Goldstein said.

Alzheimer's research on embryonic cells has been limited to versions of the disease that can be induced in animals, which don't always develop all the symptoms humans do, Goldstein said.

The most valuable use of human stem-cell technology, Goldstein said, will be to develop a good understanding of how this disease develops, what its causes are, and how new drugs to treat it might be created. One potentially important use of human embryonic cells to treat the disease focuses on the possible use of these cells to make brain cells to replace those lost in disease.

"If we can use the cells to discover conventional types of therapy … I think it's an enormous advantage," Goldstein said.

Pro-lifers argue, however, that although embryonic stem cells could basically patch up injured organs, creating them in a petri dish is the same as creating life — and then killing it. Scientists call this a misconception and say it only adds fuel to the fire of a debate that's hampering research in the United States, discouraging scientists from going into the field and causing American experts to go overseas to countries such as the United Kingdom, where human embryonic stem-cell research is encouraged.

"It's a potential medical breakthrough and Chicken Littles are running around trying to scare the public about it," Siegel said. "I've talked to young scientists and young stem-cell scientists and they question whether this field is the right field for them because of the political controversy involved."

While the scientific community is optimistic about stem-cell research and how it could be applied to finding a cure for deadly illnesses, that optimism is tempered with trepidation over what lies in the future politically.

"We saw a lot of great progress in the past year on adult and embryonic stem cells but progress in the embryonic is not moving as fast as we'd like because of these inappropriate federal funding limits," Goldstein said. "It is hampering the rate of progress."