

NY researchers in stem cell breakthrough [Gale Scott](#)

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New York-based researchers have played a key part in a stem cell research breakthrough that could lead to treatments for amyotrophic lateral sclerosis, commonly known as Lou Gehrig's disease.

In findings described in Thursday's online edition of *Science*, a team led by Kevin Eggan of Harvard University and the New York Stem Cell Foundation and Christopher Henderson of Columbia University Medical Center have been able to adapt cells from ALS patients and create an unlimited supply for lab study. The foundation funded Dr. Eggan's part of the research.

"This is a path-breaking discovery, one that will bring us closer to the answers we seek about the most devastating diseases of our time," said Susan Solomon, chief executive officer of the foundation.

What's unique about the latest development is that researchers were able to take donor human embryonic cells, replace their nuclei with those taken from the skin cells of two ALS patients, then turn the resulting cells into ones that are pluripotent—meaning the cells have the ability to turn into nerve cells known as neurons.

Since those modified nerve cells also carry the same genetic information as those of the ALS patients, the scientists hope they will learn what happens in ALS, a disease whose workings remain a mystery. ALS is fatal and results in the degeneration of the nerves that run from the spinal cord to the muscles. Eventually patients cannot breath on their own.

"Obviously, we can't take neurons out of an ALS patient, so now we will be able to see how these cells behave and try to understand the mechanism of this disease," said Dr. Henderson.

The technique could also hold promise for treating other degenerative neurological diseases, including Alzheimer's and Parkinson's, the researchers said. ◆