

Skin stem cells found transplantable

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Canadian scientists say they've determined stem cells from adult skin can be transplanted and remain functional.

The researchers say such stem cells create neural cell types that function in mouse models of disease.

Scientists at Toronto's Hospital for Sick Children, the University of Calgary, and the University of Toronto previously discovered what type of cells can be made from skin-derived precursors, or SKPs. In addition to generating the peripheral nervous system, neural crest stem cells generate other tissues, such as bone, cartilage, and even part of the heart.

The research team found SKPs can efficiently generate a type of glial cell -- called Schwann cells -- that can myelinate demyelinated axons and have been shown to provide a good growth environment for injured central nervous system axons that do not regenerate.

"Our finding ... raises the possibility that we could treat humans with Schwann cells derived from human skin stem cells, and perhaps even use the patient's own skin to generate Schwann cells for treatment," said Dr. Freda Miller, the study's principal investigator.

The research is reported in *The Journal of Neuroscience*.

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