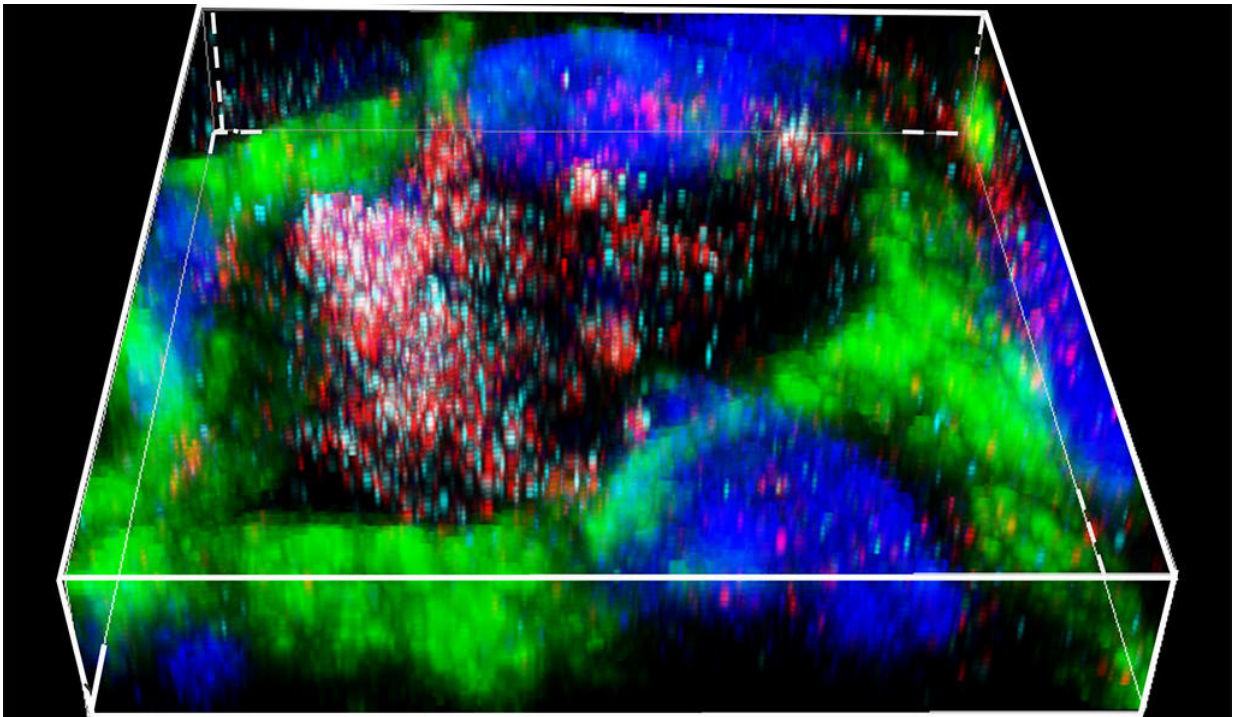


# Cellular hitchhikers aid recovery from spinal cord injury

January 8 2018, by Bill Hathaway

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Credit: Yale University

The healing effects of stem cells in spinal cord injury can be aided by their ability to hitch intercellular rides to specific anti-inflammatory cells called M2 macrophages, Yale researchers report.

Yale University researchers had previously shown that [mesenchymal](#)

[stem cells](#) harvested from bone marrow helped repair spinal cord injury in rats; however, many of the cells did not reach their target injury site.

The study by the Yale team, headed by neuroscientists Jeffery Kocsis and Karen Lankford, shows how properties from [stem cells](#) can be carried to the macrophages by intercellular cargo vesicles called exosomes. There, the stem cell-derived exosomes may aid macrophages to repair ruptures in the blood-brain barrier that can wreak havoc with the central nervous system.

The report appears Jan. 5 in the journal *PLOS ONE*.

**More information:** Karen L. Lankford et al. Intravenously delivered mesenchymal stem cell-derived exosomes target M2-type macrophages in the injured spinal cord, *PLOS ONE* (2018). [DOI: 10.1371/journal.pone.0190358](#)

Provided by Yale University

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