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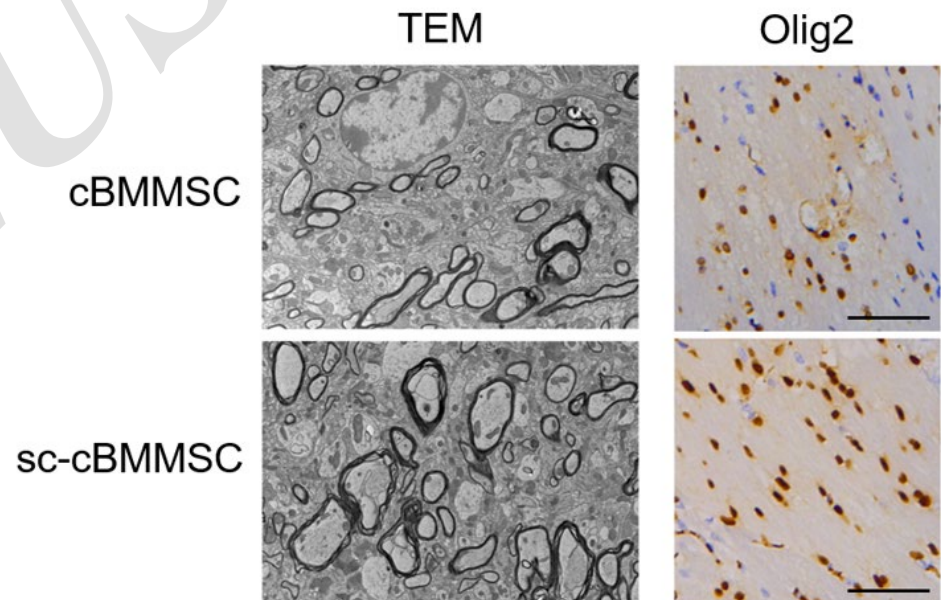
# **Olig2<sup>+</sup> single-colony-derived cranial bone-marrow mesenchymal stem cells achieve improved regeneration in a cuprizone-induced demyelination mouse model**

**Key words:** Cranial bone marrow; single colony; mesenchymal stem cells; oligodendrocytes; demyelination

# Research Summary

This correspondence mainly focused on the effects of cranial bone-marrow mesenchymal stem cells (cBMMSC) and Olig2<sup>+</sup> single colony-derived cBMMSC (sc-cBMMSC) in a central nervous system demyelination mouse model :

It was found that cBMMSC and Olig2<sup>+</sup> sc-cBMMSC transplantation could achieved improved promotion of behavioral improvement, myelin repair, and nerve-cell regeneration in CPZ animals.



# ***Innovation points***

1. Transplantation of cBMMSC and Olig2<sup>+</sup> sc-cBMMSC promote the repair and formation of myelin sheaths.
2. Olig2<sup>+</sup> sc-cBMMSC achieved improved promotion of behavioral improvement, myelin repair, and nerve-cell regeneration in CPZ animals compared to cBMMSC.
3. The effect of cranial bone-marrow-derived stem cells in demyelination may be ascribed to the excellent immune regulation and protection of oligodendrocytes.