We have evaluated the neuroprotective effect of antioxidant nanoparticles, which consisted of a novel core-shell type nanoparticle containing 4-amino-4-hydroxy-TEMPO, i.e., redox-active nitrooxide radical-containing nanoparticles (RNP). RNP administration after TBI improved cognitive behavior and reduced contusion volume by improving reactive oxygen species scavenging capacity. In addition, RNP may change the polarity of microglia.

Reference: Takahashi T, Marushima A, Nagasaki Y et. al., J Trauma Acute Care Surg. (in press)
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