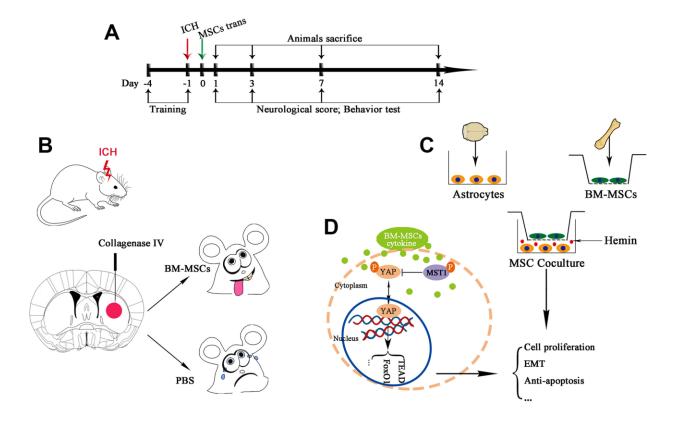


Supplementary Figure 1. BM-MSCs' identification. (A, B) Morphology of MSCs in cell culture. Cultured cells (passage 0 and passage 3) showed typically spindle-shaped morphology under phase-contrast microscopy. Bar =  $50\mu m$ . (C) Flow cytometry analysis of BM-MSCs at passage 3 depicted that cultured cells were negative for CD34 and CD45, and positive for CD29 and CD90 (n = 4). (D) Schematic diagram of BM-MSCs (green) stereotactically injected into the lesion area (red). (E) Red fluorescent (PKH26 dye) cells were located in the lesion area after 3 days of injection. Bar =  $50\mu m$ .



Supplementary Figure 2. Diagram outlining the potential mechanism of BM-MSCs enhancing astrocytes proliferation via MAT1/YAP/Hippo signal pathway. (A) The experimental schematic diagram in vivo. (B) ICH model in vivo and BM-MSCs transplantation. (C) ICH model in vitro. Primary cultured astrocytes were cocultured with or without BM-MSCs via a transwell system. (D) Mechanism of BM MSCs inhibiting phosphorylation of MST1 and promoting YAP nuclear translocation.