## **Supplementary Data**



**SUPPLEMENTARY FIG. S1.** Functional characterization of MSCs from BM, UCB, and PL. (A) Appearance under the microscope of morphology of MSCs cells, observed in cultures from the indicated sources. Scale bar 100  $\mu$ m (magnification 10×). (B) Immunophenotype of MSCs cells. Cells were stained with FITC, PE, or APC-conjugated monoclonal antibodies against CD105, CD90, CD73, CD13, HLA-ABC, HLA-DR, CD45, CD34, CD31, CD14, or immunoglobulin isotype control antibodies. Cells were analyzed on a Coulter Epics Altra Flow Cytometer. Representative histograms for the indicated cell markers are shown. (C–N) MSCs from the three sources (BM n = 5, UCB n = 5, and PL n = 5) were cultured in the adipogenic, chondrogenic, and osteogenic induction medium for 14, 21, and 28 days, respectively. (C–E) Adipogenic differentiation was indicated by accumulation of neutral lipid vacuoles that stained with Oil Red O. Scale bar 100  $\mu$ m (magnification 20×). (F–H) Chondrogenic differentiation was indicated by the chondrogenic matrix colored by Alcian blue in cryosections from pelleted micromass. Scale bar 100  $\mu$ m (magnification 20×). (I–N) Osteogenic differentiation was indicated by calcium deposition, which stained with von Kossa dye (I–K) and alkaline phosphatase staining (L–N). Scale bar 100  $\mu$ m (magnification 20×). One representative experiment is showed. BM, bone marrow; MSCs, mesenchymal stromal cells; PL, placenta; UCB, umbilical cord blood; HLA, human leukocyte antigen.