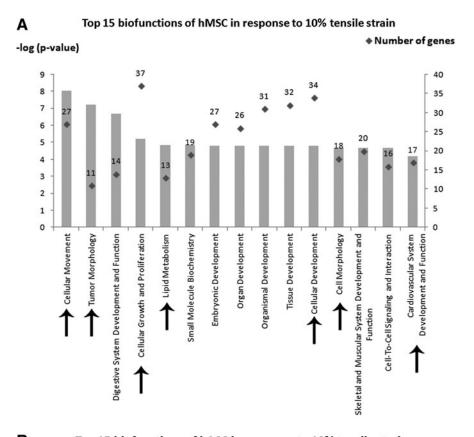
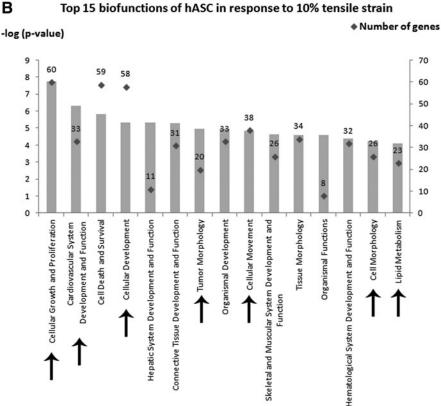
## **Supplementary Data**





**SUPPLEMENTARY FIG. S1.** Comparative function analysis indicates 10% uniaxial cyclic tensile strain induces expression of genes associated with cellular movement, growth, and proliferation in both hMSC from osteoporotic donors as shown **(A)**; and human adipose-derived stem cells (hASC) from our previous study<sup>19</sup> **(B)**. Seven of the top 15 biofunctions overlap between the two cell types (marked with arrow). Left Y-axis is  $-\log(p$ -value) shown as bar chart. Right Y-axis is number of genes associated with functions shown as diamond ( $\spadesuit$ ) with number.