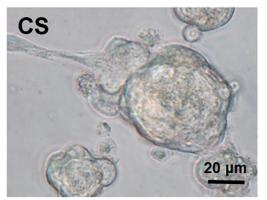
Supplementary materials

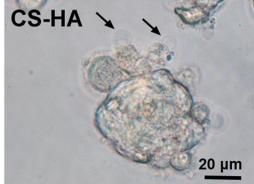
Basic Study

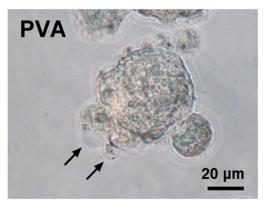
Changes of cell membrane fluidity for mesenchymal stem cell spheroids on biomaterial surfaces

Chui-Wei Wong, Hao-Wei Han, and Shan-hui Hsu

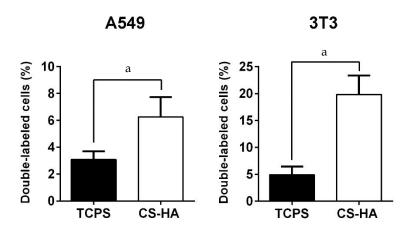
Supplemental figures: 2; Supplementary figure 1 to Supplementary figure 2







Supplementary Figure 1 The morphologies of cellular spheroids and appearance of vesicle-like bubbles on the cell membrane for MSCs cultured on chitosan, chitosan-HA, or polyvinyl alcohol substrates. Representative spheroids from cells cultured on chitosan, chitosan-HA, and polyvinyl alcohol substrates for 15 h are shown. The vesicle-like bubbles are indicated by black arrows. Scale bar, 20  $\mu$ m. CS: Chitosan; CS-HA: Chitosan-HA; PVA: Polyvinyl alcohol.



Supplementary Figure 2 Determination of double-labeled cells for A549 and 3T3 cells collected from tissue culture polystyrene and chitosan-HA substrates after 3 d of incubation.  $^{a}P$  < 0.05, among the indicated groups. TCPS: Tissue culture polystyrene; CS-HA: Chitosan-HA.