

Figure S1. Co-localization analysis of SPN-curc-Cy5 and lysosomal-endosomal markers in MSCs. (A) On the left panel, representative image of the ROIs examined for the analysis of the co-localization between caveolin1 (FITC) and SPN-curc (Cy5) signals, and on the right panel, the five z-steps of 0.225 μm that were considered for the analysis (scale bar 2 μm); (B) On the left panel, representative image of the ROIs examined for the analysis of the co-localization between the CD63/LAMP3 (FITC) and SPN (Cy5) signals, and on the right panel, the five z-steps of 0.225 μm that were considered for the analysis (scale bar 2 μm).

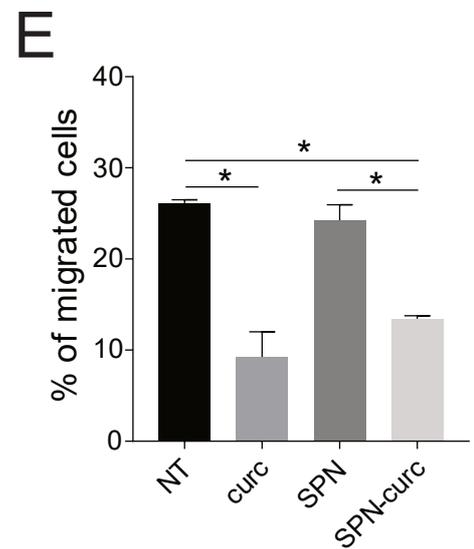
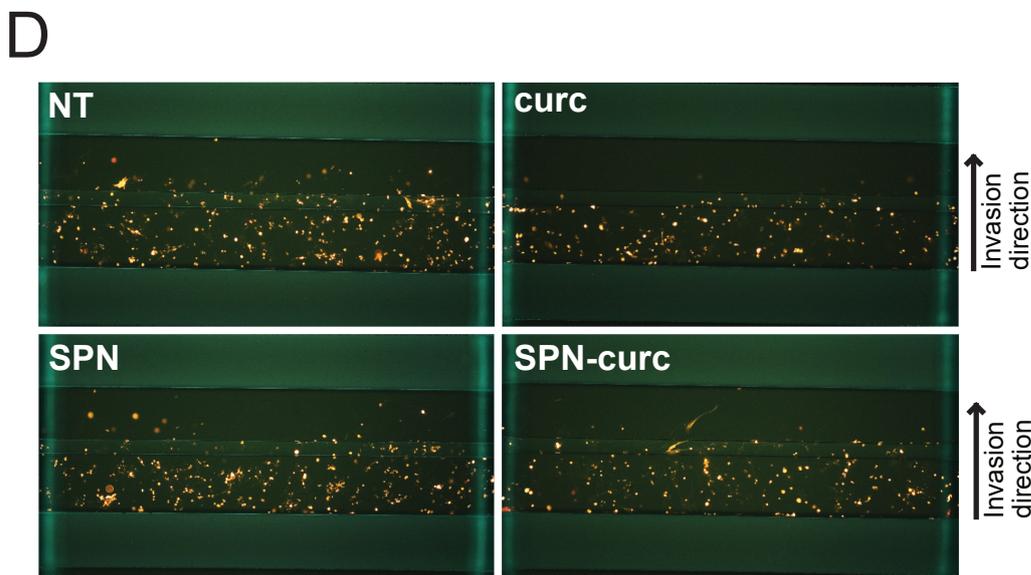
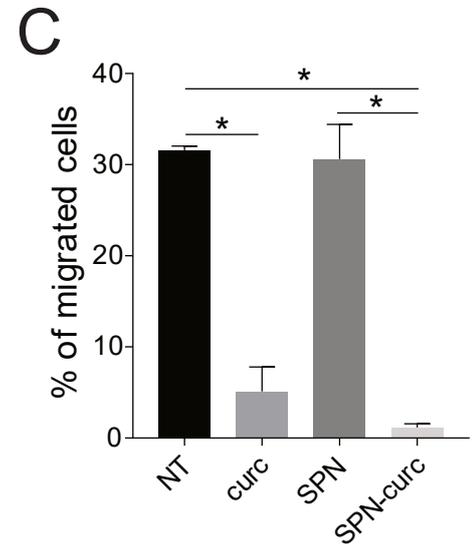
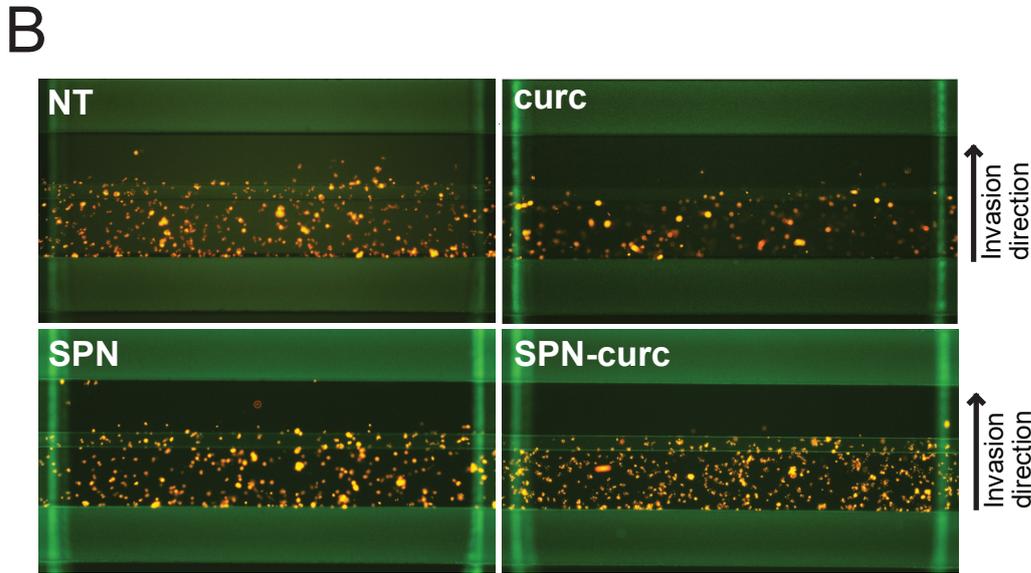
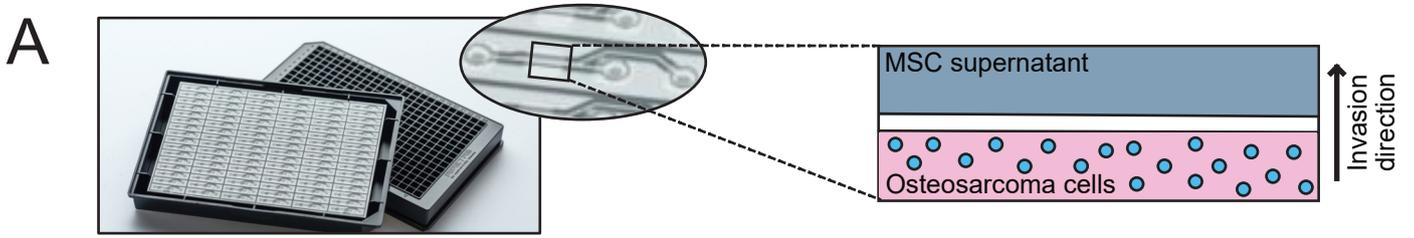


Figure S2. SPN-curc impaired the pro-tumorigenic activity of MSCs induced by acidosis. (A) Schematic representation of the microfluidic device that was used to evaluate cell invasion. Matrigel-embedded osteosarcoma cells were seeded in one of the two channels of the chip and exposed to the supernatant of MSCs treated or not with curcumin, SPN-curc, or empty SPN; Percentage of migrated and invaded 143b cells (B) and Saos-2 cells (C), expressed as the ratio between the number of cells that were migrated to the upper lane and the total number of cells within the microfluidic device $\times 100$. Mean \pm SE ($n = 3$, $*P < 0.05$).