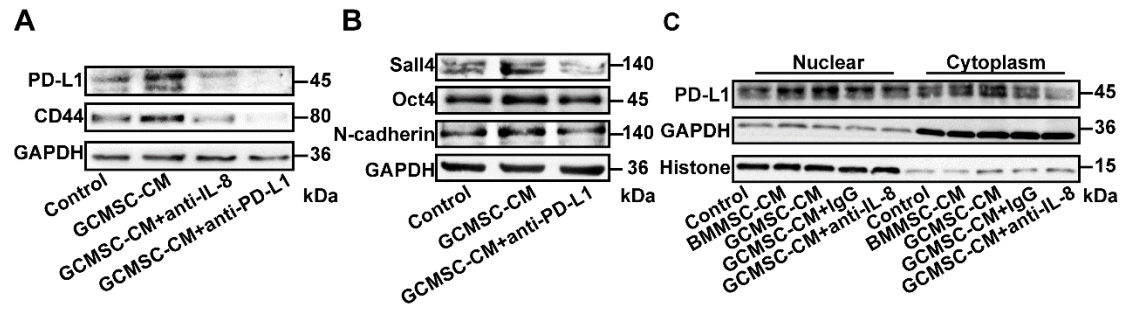
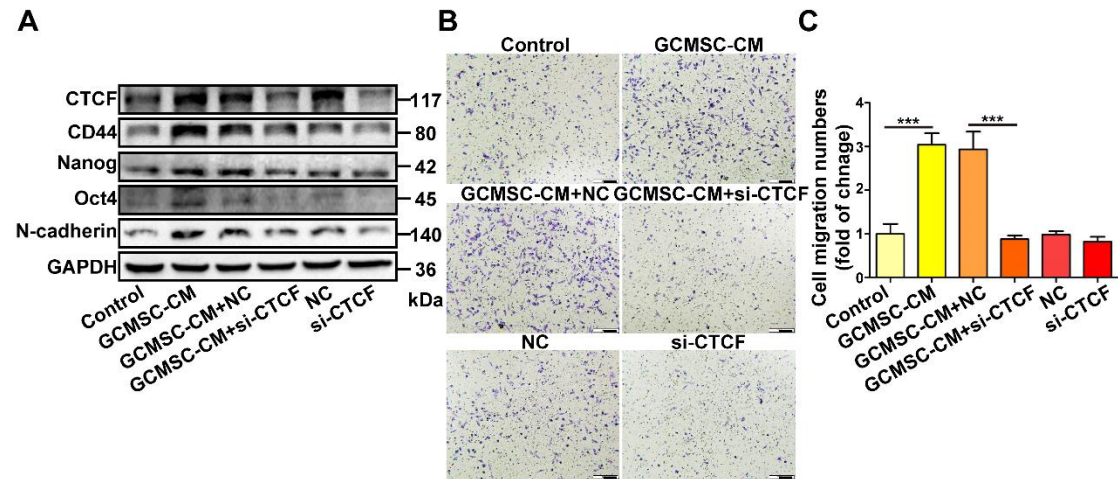


**Figure S1. Relationship between IL-8 and PD-L1 levels in GC patients.** (A) IHC scores of IL-8 in PD-L1<sup>Negative</sup> and PD-L1<sup>Positive</sup> tumor tissues of 20 GC patients. \*,  $P<0.05$ . (B) Correlations between IL-8 and sPD-L1 serum levels of GC patients (n=40).  $R=0.406$ , \*\*,  $P<0.01$ . (C) Correlations between IL-8 and PD-L1 in GC tissues from 415 patients in TCGA data set. \*\*\*,  $P<0.001$ .



**Figure S2. IL-8 secreted by GCMSCs increases the stemness of GC cells through PD-L1.** (A) The expression of PD-L1 and CD44 in SGC-7901 treated with GCMSC-CM (with or without IL-8 depletion or PD-L1 blockade) was detected by western blot. (B) The expression of stemness markers in SGC-7901 treated with GCMSC-CM (with or without PD-L1 blockade) was detected by western blot. (C) PD-L1 levels in nuclear and cytoplasm was examined by western blot. BMMSC-CM, Bone marrow MSCs conditioned medium.



**Figure S3. PD-L1 regulates the stemness of GC cells through the association with CTCF.** (A) The expression of CD44, Nanog, Oct4, and N-cadherin in siRNA CTCF-knockdown HGC-27 following GCMSC-CM treatment for 24 h were detected by western blot. (B) Transwell migration assays (scale bar, 100  $\mu$ m) were performed in siRNA CTCF-knockdown HGC-27 following GCMSC-CM treatment for 24 h. (C) Quantification of the cell migration numbers. Data in C represents the mean  $\pm$  SD of three repeated experiments (n=3). GCMSCs were isolated from three different GC patients. \*\*\*,  $P < 0.001$ .