**Supplementary Figures**

**Supplementary Figure 1.** Morris water maze test for LLE mice. (A) Swimming speeds averaged from all trials. (B) The number of crossings to platform on the probe trial. (C) Percent time spent in target quadrant. (D) Latency to reach hidden platform on training days. For each day of training, data were averaged across four daily trials. n=10. Data are presented as mean ± SEM. *, P< 0.05.

**Supplementary Figure 2.** Gene Set Enrichment Analysis for the differential genes in LLE mice. (A) The up-regulated gene set of LLE mice not enriched in metastatic hepatocellular carcinoma (HCC). (B) The down-regulated gene set of LLE mice enriched in metastatic hepatocellular carcinoma (HCC).