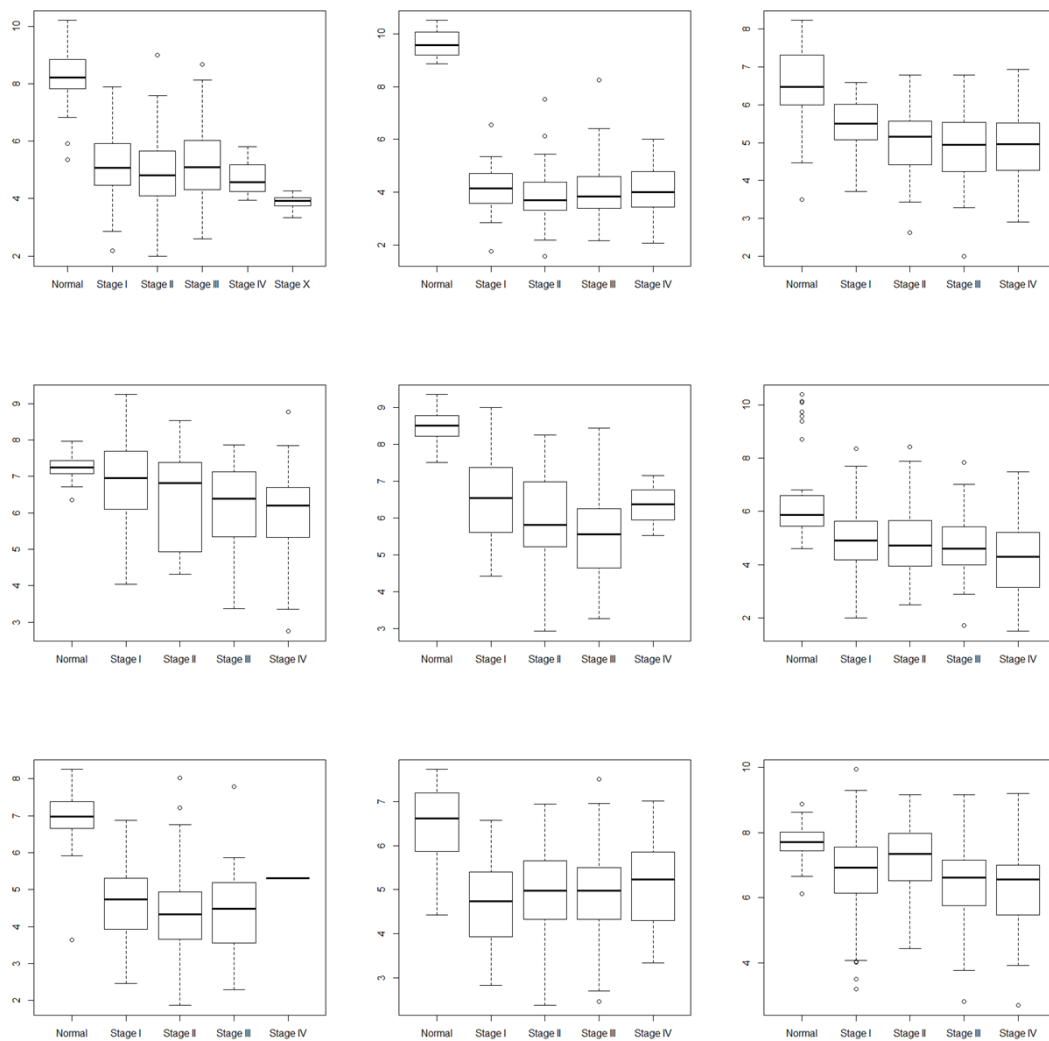


**Figure S1.** Dual luciferase assay experiments in HEK293 for the conserved miR-139 binding site in ETS1 3'-UTR. The p-values of the two-sided t-test were shown above the bar plot.



**Figure S2.** The miR-139 expressions in cancer. The miR-139 expressions were extracted from TCGA miRNA HiSeq data (log<sub>2</sub>-transformed normalized counts) and the pathologic stages of patients were extracted from TCGA clinical tables. The TCGA cancer codes and the corresponding ANOVA p-values from left to right: BRCA (p-value < 2.2e-16), COAD (p-value < 2.2e-16), HNSC (p-value < 2.2e-16), KIRC (p-value = 1.603e-10), LIHC (p-value < 2.2e-16), LUAD (p-value = 1.79e-14), LUSC (p-value < 2.2e-16), STAD (p-value < 2.2e-16) and THCA (p-value = 2.309e-15).