



**Supplementary Figure S2: Identification of immune-related subtypes of CaCx patients based on the global immune gene expression with respect to stage.** Unsupervised hierarchical clustering of (a) early-staged CaCx patients (n=9) and (b) late-staged CaCx patients (n=34) based on the expression (TPM) of the immune pathway genes showing distinct subtypes. The blue and red colour in the heatmap indicates low and high expression of the immune genes, respectively.