

### **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: Clinical characteristics of patients.

File Name: Supplementary Data 2

Description: Quality metrics scRNA & parameters of in silico selection, visualization & clustering.

File Name: Supplementary Data 3

Description: EC clusters: putative function, tabulation of top-ranking marker genes and gene sets.

File Name: Supplementary Data 4

Description: Putative function, tabulation of top-ranking marker genes in major stromal cell clusters.

File Name: Supplementary Data 5

Description: Tabulation of predicted RLI interactions between immune cells and angiogenic/venous ECs.

File Name: Supplementary Data 6

Description: Patient demographics, clinical characteristics, survival, and multivariate Cox regression analysis by study group.