

Supplementary

Table S1 Number of tiles used to develop and validate tissue classification model.

	Tumor cell	Stroma	Red cell	Lymphocyte	Carbon dust
Training set	1,474	582	141	190	93
Validation set	631	250	61	82	40

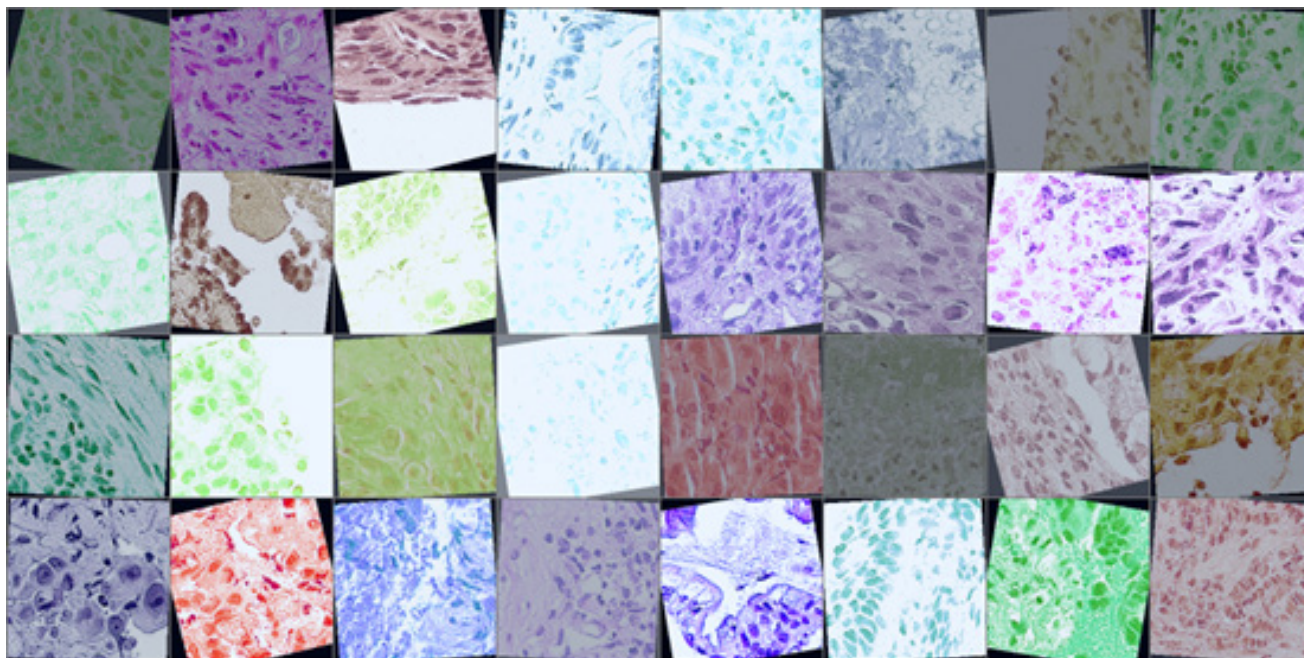


Figure S1 The effect of tiles enhancement.

Table S2 Treatment response of all the patients from the three centers

Center	Center 1	Center 2	Center 3
Response	16PR + 47SD + 7PD	11PR + 18SD + 2PD	1CR + 5PR + 11SD + 2PD

CR, complete remission; PR, partial remission; SD, stable disease; PD, progressive disease.

Table S3 The median of tiles in different organizations of the three centers

	Center 1	Center 2	Center 3
Tumor tiles	107,338 (61.2%)	73,790 (56.9%)	127,273 (73.1%)
Stroma tiles	42,436 (24.2%)	28,387 (25.7%)	23,574 (13.5%)
Red cell tiles	10,303 (5.9%)	12,850 (11.6%)	6,783 (3.8%)
Lymphocyte tiles	8,597 (4.9%)	3,865 (3.5%)	8,960 (5.1%)
Carbon dust tiles	6,783 (3.8%)	2534 (2.3%)	8,031 (4.5%)
Total	175,457	110,426	174,621

Table S4 The data for accuracy calculation

Datasets	Internal validation set	External validation set 1	External validation set 2
Correct prediction	11 (2 CR/PR + 9 SD/PD)	23 (6 CR/PR + 17 SD/PD)	14 (4 CR/PR + 10 SD/PD)
All patients	14 (3 CR/PR + 11 SD/PD)	31 (11 CR/PR + 20 SD/PD)	19 (6 CR/PR + 13 SD/PD)
Accuracy	0.786	0.742	0.737

CR, complete remission; PR, partial remission; SD, stable disease; PD, progressive disease.