

Table S1. Multivariate cox proportional hazards regression model analysis of Disease-free survival of serous ovarian carcinoma patients in the discovery set.

Factor	Coefficient	Hazard Ratio (HR)	95% Confidence Interval (CI)	p- value
High Peritumoural Tumour Budding (PTB)	0.5430	1.205	(0.8726, 2.632)	0.191
Low Tumour-stroma Ratio (TSR)	0.7642	1.637	(0.8716, 1.9227)	0.0962
Mature Stromal Type	- 0.4628	0.389	(0.1645, 0.8760)	<b>0.002</b>

Table S2: Summary of key histopathological Features and their diagnostic and prognostic relevance in Low-Grade and High-Grade Serous Ovarian Carcinoma (LGSOC and HGSOC)

Histopathological Feature	Diagnostic and Prognostic Relevance
<b>LVSI (Lymphovascular Space Invasion)</b>	Indicator of aggressive behaviour and lymph node metastasis. Strongly associated with <b>HGSOC</b> , less commonly observed in <b>LGSOC</b> .
<b>MVD (Microvessel Density)</b>	Linked to tumour aggressiveness and metastatic potential. Higher in <b>HGSOC</b> , while typically lower in <b>LGSOC</b> .
<b>TB (Tumor Budding)</b>	Indicator of metastatic potential and poorer outcomes. Frequently seen in <b>HGSOC</b> but rare or absent in <b>LGSOC</b> .
<b>TILs (Tumor-Infiltrating Lymphocytes)</b>	Predictor of better prognosis and therapy responses. <b>High peritumoral TILs</b> are associated with <b>HGSOC</b> , while <b>low TILs</b> are more typical in <b>LGSOC</b> .
<b>TSR (Tumor-Stroma Ratio)</b>	Prognostic predictor of disease-free survival. <b>Low TSR</b> (more stroma) is linked with <b>HGSOC</b> , while <b>high TSR</b> (less stroma) is often seen in <b>LGSOC</b> .
<b>Stromal Type</b>	Independent prognostic marker for disease-free survival. <b>Immature-intermediate stroma</b> is common in <b>HGSOC</b> , while <b>mature stroma</b> is more frequent in <b>LGSOC</b> .
<b>TLS (Tertiary Lymphoid Structures)</b>	Associated with better overall survival. More commonly found in <b>HGSOC</b> , while rare in <b>LGSOC</b> .