

Supplementary Table 14 – Variable Importance for predicting BCLM Collagen+ using primary tumor clusters. Larger values imply higher variable importance. Clusters used in the optimal model are marked with “X.”

Cluster in Primary	Included In Optimal Model	Variable Importance
MMP9+	X	47.340
CD163+MMP9+	X	38.648
PD-L1+	X	25.608
CD14+		12.889
CD8a+PD1+		7.033
$\alpha$ SMA+		5.544
CD68+		0.000
CD68+MMP9+		0.000
CD163+		0.000
CD68+CD163+CD206+		0.000
CD206+		0.000
CD56+		0.000
CD4+PD1+		0.000
CD8a+PD1-		0.000
Ki-67+		0.000
pERK+		0.000
HIF1 $\alpha$ +		0.000
E-cad+		0.000
Collagen+		0.000
CD31+		0.000