

Additional File 3

A) Best models with a varying number of covariates to fit the observed survival data. B) Multivariate analysis of the best model with the minimum number of covariates. The presented model is the only one where all covariates are significant in multivariate analysis.

A

# covariates	Covariate 1	Covariate 2	Covariate 3	Covariate 4	Covariate 5	Covariate 6	Covariate 7	- 2loglikelihood	AIC
7	Grade	ER	TP53	ABCB1_2	FOXC1_3	GSTP1_2	Stage	84.6349	100.6349
6	Grade	ER	TP53	FOXC1_3	GSTP1_2	Stage		93.4613	107.4613
5	Grade	ER	FOXC1_3	GSTP1_2	Stage			94.5062	106.5062
4	Grade	ER	GSTP1	Stage				110.4242	120.4242
3	Grade	ER	GSTP1					112.8838	120.8838

B

Parameter	Multivariate			
	Coefficient(b <sub>i</sub> )	HR(exp(b <sub>i</sub> ))	95,0% CI for Exp(B)	p-value
ER	2.540893249	12.69100213	(3.51-45.91)	0.00010738
GSTP1_MSP2	1.666497664	5.293595346	(1.81-15.48)	0.00233268
Grade (vs Grade 1)	3.137068713	23.03624196	(2.40-220.43)	0.00648169
Grade (vs Grade 2)	4.644355632	103.9963323	(8.76-1235.20)	0.00023468