

**Additional file 14. Univariate and multivariate Cox proportional hazards analysis of risk factors associated with overall survival in multiple cancers.**

	Univariate		Multivariate	
	Hazard Ratio (95% CI)	P-value	Hazard Ratio (95% CI)	P-value
<b>Head and neck</b>				
8-gene signature (high vs. low risk)	1.64 (1.166 - 2.308)	<b>4.70E-03</b>	1.658 (1.178 - 2.322)	<b>3.74E-03</b>
TNM staging (II & III vs. I)	1.466 (1.188 - 1.808)	<b>3.53E-04</b>	1.475 (1.194 - 1.820)	<b>3.05E-04</b>
<i>TP63</i> mutation (Yes vs. No)	1.046 (0.658 - 1.663)	0.85		
<i>CDKN2A</i> mutation (Yes vs. No)	1.318 (0.892 - 1.947)	0.17		
<i>PIK3CA</i> mutation (Yes vs. No)	1.261 (0.785 - 2.026)	0.34		
<b>Renal papillary cell</b>				
8-gene signature (high vs. low risk)	2.311 (1.097 - 5.484)	<b>0.0475</b>	1.190 (0.4771 - 2.970)	0.709
TNM staging (II & III vs. I)	2.71 (1.893 - 3.878)	<b>5.30E-08</b>	2.647 (1.815 - 3.861)	<b>4.35E-07</b>
<b>Lung</b>				
8-gene signature (high vs. low risk)	1.453 (1.036 - 2.038)	<b>0.0304</b>	1.458 (1.041 - 2.043)	<b>0.0281</b>
TNM staging (II & III vs. I)	1.597 (1.364 - 1.87)	<b>6.11E-09</b>	1.598 (1.362 - 1.873)	<b>8.04E-09</b>
<i>TP53</i> mutation (Yes vs. No)	1.316 (0.863 - 2.006)	0.203		
<i>KRAS</i> mutation (Yes vs. No)	0.764 (0.401 - 1.455)	0.412		
<i>CDKN2A</i> mutation (Yes vs. No)	1.759 (1.057 - 2.927)	<b>0.030</b>	1.533 (0.920 - 2.554)	0.101
<b>Pancreas</b>				
8-gene signature (high vs. low risk)	1.961 (1.212 - 3.174)	<b>0.00609</b>	1.906 (1.177 - 3.089)	<b>0.00878</b>
TNM staging (II & III vs. I)	1.339 (0.897 - 1.998)	0.153	1.282 (0.835 - 1.967)	0.255
<b>Endometrium</b>				
8-gene signature (high vs. low risk)	2.33 (1.341 - 4.05)	<b>0.0027</b>	1.986 (1.136 - 3.472)	<b>0.016</b>
TNM staging (II & III vs. I)	1.802 (1.431 - 2.269)	<b>5.60E-07</b>	1.722 (1.365 - 2.172)	<b>4.56E-06</b>