

**Table S1.A. Summary of integrated feature set datasets.**

Dataset	Histology / subtype	Samples	Median survival - days (deceased)	Median follow up - days (right censored)	Proportion censored (%)
BRCA	Breast invasive carcinoma	524	1053	928.5	90.5
GBMLGG	Glioma	560	480	566	64.1
	IDH wild-type	203	375.5	294	32.0
	IDH mutant / 1p19q co-deleted	145	947.5	651	87.6
	IDH mutant / non co-deleted	209	1262	608.5	79.4
KIPAN	Kidney Carcinoma	641	793	1360.5	72
	Renal cell chromophobe (KICH)	43	855	56	88.4
	Renal clear cell (KIRC)	407	822	1488	64.8
	Renal papillary cell (KIRP)	191	624	761	84.8
OV*	Ovarian serous cystadenocarcinoma	206	1201	1284.5	30
UCEC*	Uterine Corpus Endometrial Carcinoma	194	726	1106	86

**Table S1.B. Summary of transcriptional feature set datasets.**

Dataset	Histology / subtype	Samples	Median survival - days (deceased)	Median follow up - days (right censored)	Proportion censored (%)
BRCA	Breast invasive carcinoma	1092	1272	761	86
GBMLGG	Glioma	692	510	608	62
	IDH wild-type	239	383	415	29
	IDH mutant / 1p19q co-deleted	171	962	682	87
	IDH mutant / non co-deleted	267	1246.5	685	77
KIPAN	Kidney Carcinoma	887	787.5	1213	74
OV*	Ovarian serous cystoadenocarcinoma	306	1082	761	40
UCEC*	Uterine Corpus Endometrial Carcinoma	370	714	1098	84