Supplementary Materials

1. Appendix A

	Acronym	Cancer Type
1	ACC	Adrenocortical carcinoma
2	BLCA	Bladder urothelial carcinoma
3	BRCA	Breast invasive carcinoma
4	CHOL	Cholangiocarcinoma
5	COAD	Colon adenocarcinoma
6	ESCA	Esophageal carcinoma
7	HNSC	Head and neck squamous cell carcinoma
8	KICH	Kidney chromophobe
9	KIRC	Kidney renal clear cell carcinoma
10	LIHC	Liver hepatocellular carcinoma
11	LUAD	Lung adenocarcinoma
12	LUSC	Lung squamous cell carcinoma
13	OV	Ovarian serous cystadenocarcinoma
14	READ	Rectum adenocarcinoma
15	STAD	Stomach adenocarcinoma
16	UCEC	Uterine corpus endometrial carcinoma
17	UCS	Uterine carcinosarcoma

Table 1. Acronym and corresponding name of included cancers.

2. Appendix B

	Whole Genome Doubling (% of Cancer Type Total)		
	WGDpos	WGDneg	Total
Adrenocortical Carcinoma (ACC)	23 (46.0%)	27 (54.0%)	50 (100.0%)
Bladder Urothelial Carcinoma (BLCA)	132 (38.6%)	210 (61.4%)	342 (100.0%)
Breast Invasive Carcinoma (BRCA)	110 (54.7%)	91 (45.3%)	201 (100.0%)
Cholangiocarcinoma (CHOL)	28 (77.8%)	8 (22.2%)	36 (100.0%)
Colon Adenocarcinoma (COAD)	225 (58.4%)	160 (41.6%)	385 (100.0%)
Esophageal Carcinoma (ESCA)	46 (40.0%)	69 (60.0%)	115 (100.0%)
Head and Neck Squamous Cell Carcinoma (HNSC)	127 (59.3%)	87 (40.7%)	214 (100.0%)
Kidney Chromophobe (KICH)	33 (80.5%)	8 (19.5%)	41 (100.0%)
Kidney Renal Clear Cell Carcinoma (KIRC)	239 (81.0%)	56 (19.0%)	295 (100.0%)
Liver Hepatocellular Carcinoma (LIHC)	231 (67.3%)	112 (32.7%)	343 (100.0%)
Lung Adenocarcinoma (LUAD)	90 (41.1%)	129 (58.9%)	219 (100.0%)
Lung Squamous Cell Carcinoma (LUSC)	101 (45.5%)	121 (54.5%)	222 (100.0%)
Ovarian Serous Cystadenocarcinoma (OV)	29 (30.9%)	65 (69.1%)	94 (100.0%)
Rectum Adenocarcinoma (READ)	69 (50.4%)	68 (49.6%)	137 (100.0%)
Stomach Adenocarcinoma (STAD)	193 (57.4%)	143 (42.6%)	336 (100.0%)
Uterine Corpus Endometrial Carcinoma (UCEC)	315 (80.2%)	78 (19.8%)	393 (100.0%)
Uterine Carcinosarcoma (UCS)	8 (18.2%)	36 (81.8%)	44 (100.0%)
Total	1,999 (57.7%)	1,468 (42.3%)	3,467 (100.0%)

Figure 1. Patient demographics by cancer type and WGD status.

	Tumor Stage (% of Cancer Type Total)					
	Stage I	Stage II	Stage III	Stage IV	NA	Total
Adrenocortical Carcinoma (ACC)	4 (8.0%)	27 (54.0%)	9 (18.0%)	9 (18.0%)	1 (2.0%)	50 (100.0%)
Bladder Urothelial Carcinoma (BLCA)	2 (0.6%)	104 (30.4%)	117 (34.2%)	117 (34.2%)	2 (0.6%)	342 (100.0%)
Breast Invasive Carcinoma (BRCA)	25 (12.4%)	118 (58.7%)	51 (25.4%)	4 (2.0%)	3 (1.5%)	201 (100.0%)
Cholangiocarcinoma (CHOL)	19 (52.8%)	9 (25.0%)	1 (2.8%)	7 (19.4%)	0 (0.0%)	36 (100.0%)
Colon Adenocarcinoma (COAD)	71 (18.4%)	140 (36.4%)	108 (28.1%)	55 (14.3%)	11 (2.9%)	385 (100.0%)
Esophageal Carcinoma (ESCA)	14 (12.2%)	48 (41.7%)	34 (29.6%)	5 (4.3%)	14 (12.2%)	115 (100.0%)
Head and Neck Squamous Cell Carcinoma (HNSC)	13 (6.1%)	34 (15.9%)	24 (11.2%)	116 (54.2%)	27 (12.6%)	214 (100.0%)
Kidney Chromophobe (KICH)	17 (41.5%)	15 (36.6%)	6 (14.6%)	3 (7.3%)	0 (0.0%)	41 (100.0%)
Kidney Renal Clear Cell Carcinoma (KIRC)	136 (46.1%)	38 (12.9%)	68 (23.1%)	51 (17.3%)	2 (0.7%)	295 (100.0%)
Liver Hepatocellular Carcinoma (LIHC)	164 (47.8%)	78 (22.7%)	75 (21.9%)	4 (1.2%)	22 (6.4%)	343 (100.0%)
Lung Adenocarcinoma (LUAD)	122 (55.7%)	51 (23.3%)	30 (13.7%)	12 (5.5%)	4 (1.8%)	219 (100.0%)
Lung Squamous Cell Carcinoma (LUSC)	112 (50.5%)	71 (32.0%)	35 (15.8%)	3 (1.4%)	1 (0.5%)	222 (100.0%)
Ovarian Serous Cystadenocarcinoma (OV)	2 (2.1%)	4 (4.3%)	67 (71.3%)	20 (21.3%)	1 (1.1%)	94 (100.0%)
Rectum Adenocarcinoma (READ)	26 (19.0%)	43 (31.4%)	42 (30.7%)	19 (13.9%)	7 (5.1%)	137 (100.0%)
Stomach Adenocarcinoma (STAD)	43 (12.8%)	104 (31.0%)	147 (43.8%)	34 (10.1%)	8 (2.4%)	336 (100.0%)
Uterine Corpus Endometrial Carcinoma (UCEC)	252 (64.1%)	37 (9.4%)	84 (21.4%)	20 (5.1%)	0 (0.0%)	393 (100.0%)
Uterine Carcinosarcoma (UCS)	19 (43.2%)	3 (6.8%)	17 (38.6%)	5 (11.4%)	0 (0.0%)	44 (100.0%)
Total	1,041 (30.0%)	924 (26.7%)	915 (26.4%)	484 (14.0%)	103 (3.0%)	3,467 (100.0%)

Figure 2. Patient demographics by cancer type and tumor stage.

	Patient Gender (% of Cancer Type Total)			
	Female	Male	NA	Total
Adrenocortical Carcinoma (ACC)	28 (56.0%)	22 (44.0%)	0 (0.0%)	50 (100.0%)
Bladder Urothelial Carcinoma (BLCA)	86 (25.1%)	256 (74.9%)	0 (0.0%)	342 (100.0%)
Breast Invasive Carcinoma (BRCA)	198 (98.5%)	3 (1.5%)	0 (0.0%)	201 (100.0%)
Cholangiocarcinoma (CHOL)	20 (55.6%)	16 (44.4%)	0 (0.0%)	36 (100.0%)
Colon Adenocarcinoma (COAD)	190 (49.4%)	194 (50.4%)	1 (0.3%)	385 (100.0%)
Esophageal Carcinoma (ESCA)	17 (14.8%)	98 (85.2%)	0 (0.0%)	115 (100.0%)
Head and Neck Squamous Cell Carcinoma (HNSC)	52 (24.3%)	162 (75.7%)	0 (0.0%)	214 (100.0%)
Kidney Chromophobe (KICH)	17 (41.5%)	24 (58.5%)	0 (0.0%)	41 (100.0%)
Kidney Renal Clear Cell Carcinoma (KIRC)	107 (36.3%)	188 (63.7%)	0 (0.0%)	295 (100.0%)
Liver Hepatocellular Carcinoma (LIHC)	111 (32.4%)	232 (67.6%)	0 (0.0%)	343 (100.0%)
Lung Adenocarcinoma (LUAD)	112 (51.1%)	107 (48.9%)	0 (0.0%)	219 (100.0%)
Lung Squamous Cell Carcinoma (LUSC)	53 (23.9%)	169 (76.1%)	0 (0.0%)	222 (100.0%)
Ovarian Serous Cystadenocarcinoma (OV)	94 (100.0%)	0 (0.0%)	0 (0.0%)	94 (100.0%)
Rectum Adenocarcinoma (READ)	63 (46.0%)	73 (53.3%)	1 (0.7%)	137 (100.0%)
Stomach Adenocarcinoma (STAD)	113 (33.6%)	223 (66.4%)	0 (0.0%)	336 (100.0%)
Uterine Corpus Endometrial Carcinoma (UCEC)	393 (100.0%)	0 (0.0%)	0 (0.0%)	393 (100.0%)
Uterine Carcinosarcoma (UCS)	44 (100.0%)	0 (0.0%)	0 (0.0%)	44 (100.0%)
Total	1,698 (49.0%)	1,767 (51.0%)	2 (0.1%)	3,467 (100.0%)

Figure 3. Patient demographics by cancer type and gender.

	Patient Age Group at Diagnosis (% of Cancer Type Total)									
	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	NA	Total
Adrenocortical Carcinoma (ACC)	1 (2.0%)	6 (12.0%)	9 (18.0%)	5 (10.0%)	11 (22.0%)	11 (22.0%)	1 (2.0%)	0 (0.0%)	6 (12.0%)	50 (100.0%)
Bladder Urothelial Carcinoma (BLCA)	0 (0.0%)	0 (0.0%)	2 (0.6%)	14 (4.1%)	44 (12.9%)	97 (28.4%)	98 (28.7%)	48 (14.0%)	39 (11.4%)	342 (100.0%)
Breast Invasive Carcinoma (BRCA)	0 (0.0%)	0 (0.0%)	13 (6.5%)	24 (11.9%)	46 (22.9%)	45 (22.4%)	26 (12.9%)	9 (4.5%)	38 (18.9%)	201 (100.0%)
Cholangiocarcinoma (CHOL)	0 (0.0%)	0 (0.0%)	1 (2.8%)	2 (5.6%)	7 (19.4%)	8 (22.2%)	13 (36.1%)	2 (5.6%)	3 (8.3%)	36 (100.0%)
Colon Adenocarcinoma (COAD)	0 (0.0%)	0 (0.0%)	9 (2.3%)	36 (9.4%)	51 (13.2%)	88 (22.9%)	89 (23.1%)	66 (17.1%)	46 (11.9%)	385 (100.0%)
Esophageal Carcinoma (ESCA)	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (10.4%)	38 (33.0%)	25 (21.7%)	21 (18.3%)	8 (7.0%)	11 (9.6%)	115 (100.0%)
Head and Neck Squamous Cell Carcinoma (HNSC)	0 (0.0%)	3 (1.4%)	2 (0.9%)	18 (8.4%)	48 (22.4%)	70 (32.7%)	32 (15.0%)	12 (5.6%)	29 (13.6%)	214 (100.0%)
Kidney Chromophobe (KICH)	1 (2.4%)	1 (2.4%)	6 (14.6%)	14 (34.1%)	7 (17.1%)	4 (9.8%)	3 (7.3%)	1 (2.4%)	4 (9.8%)	41 (100.0%)
Kidney Renal Clear Cell Carcinoma (KIRC)	0 (0.0%)	0 (0.0%)	6 (2.0%)	34 (11.5%)	65 (22.0%)	82 (27.8%)	50 (16.9%)	22 (7.5%)	36 (12.2%)	295 (100.0%)
Liver Hepatocellular Carcinoma (LIHC)	2 (0.6%)	8 (2.3%)	15 (4.4%)	36 (10.5%)	79 (23.0%)	96 (28.0%)	56 (16.3%)	12 (3.5%)	39 (11.4%)	343 (100.0%)
Lung Adenocarcinoma (LUAD)	0 (0.0%)	0 (0.0%)	1 (0.5%)	14 (6.4%)	42 (19.2%)	51 (23.3%)	63 (28.8%)	13 (5.9%)	35 (16.0%)	219 (100.0%)
Lung Squamous Cell Carcinoma (LUSC)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (2.3%)	29 (13.1%)	79 (35.6%)	75 (33.8%)	11 (5.0%)	23 (10.4%)	222 (100.0%)
Ovarian Serous Cystadenocarcinoma (OV)	0 (0.0%)	0 (0.0%)	2 (2.1%)	14 (14.9%)	18 (19.1%)	28 (29.8%)	15 (20.2%)	5 (5.3%)	8 (8.5%)	94 (100.0%)
Rectum Adenocarcinoma (READ)	0 (0.0%)	0 (0.0%)	4 (2.9%)	11 (8.0%)	22 (16.1%)	45 (32.8%)	31 (22.6%)	7 (5.1%)	17 (12.4%)	137 (100.0%)
Stomach Adenocarcinoma (STAD)	0 (0.0%)	0 (0.0%)	6 (1.8%)	18 (5.4%)	63 (18.8%)	90 (26.8%)	96 (28.6%)	15 (4.5%)	50 (14.9%)	336 (100.0%)
Uterine Corpus Endometrial Carcinoma (UCEC)	0 (0.0%)	0 (0.0%)	6 (1.5%)	19 (4.8%)	95 (24.2%)	128 (32.6%)	84 (21.4%)	28 (7.1%)	33 (8.4%)	393 (100.0%)
Uterine Carcinosarcoma (UCS)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (6.8%)	16 (36.4%)	20 (45.5%)	1 (2.3%)	4 (9.1%)	44 (100.0%)
Total	4 (0.1%)	18 (0.5%)	78 (2.2%)	276 (8.0%)	668 (19.3%)	963 (27.8%)	768 (22.2%)	267 (7.7%)	425 (12.3%)	3,467 (100.0%)

Figure 4. Patient demographics by cancer type and age.

	Patient Race (% of Cancer Type Total)						
	White	Black/African American	Asian	American Indian/Alaskan Native	Native Hawaiian/Pacific Islander	NA	Total
Adrenocortical Carcinoma (ACC)	40 (80.0%)	1 (2.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	9 (18.0%)	50 (100.0%)
Bladder Urothelial Carcinoma (BLCA)	278 (81.3%)	15 (4.4%)	36 (10.5%)	0 (0.0%)	0 (0.0%)	13 (3.8%)	342 (100.0%)
Breast Invasive Carcinoma (BRCA)	134 (66.7%)	37 (18.4%)	9 (4.5%)	0 (0.0%)	0 (0.0%)	21 (10.4%)	201 (100.0%)
Cholangiocarcinoma (CHOL)	31 (86.1%)	2 (5.6%)	3 (8.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	36 (100.0%)
Colon Adenocarcinoma (COAD)	176 (45.7%)	57 (14.8%)	10 (2.6%)	1 (0.3%)	0 (0.0%)	141 (36.6%)	385 (100.0%)
Esophageal Carcinoma (ESCA)	67 (58.3%)	5 (4.3%)	27 (23.5%)	0 (0.0%)	0 (0.0%)	16 (13.9%)	115 (100.0%)
Head and Neck Squamous Cell Carcinoma (HNSC)	183 (85.5%)	22 (10.3%)	4 (1.9%)	1 (0.5%)	0 (0.0%)	4 (1.9%)	214 (100.0%)
Kidney Chromophobe (KICH)	37 (90.2%)	2 (4.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (4.9%)	41 (100.0%)
Kidney Renal Clear Cell Carcinoma (KIRC)	238 (80.7%)	48 (16.3%)	2 (0.7%)	0 (0.0%)	0 (0.0%)	7 (2.4%)	295 (100.0%)
Liver Hepatocellular Carcinoma (LIHC)	165 (48.1%)	14 (4.1%)	153 (44.6%)	2 (0.6%)	0 (0.0%)	9 (2.6%)	343 (100.0%)
Lung Adenocarcinoma (LUAD)	162 (74.0%)	24 (11.0%)	2 (0.9%)	1 (0.5%)	0 (0.0%)	30 (13.7%)	219 (100.0%)
Lung Squamous Cell Carcinoma (LUSC)	147 (66.2%)	17 (7.7%)	7 (3.2%)	0 (0.0%)	0 (0.0%)	51 (23.0%)	222 (100.0%)
Ovarian Serous Cystadenocarcinoma (OV)	79 (84.0%)	9 (9.6%)	1 (1.1%)	3 (3.2%)	0 (0.0%)	2 (2.1%)	94 (100.0%)
Rectum Adenocarcinoma (READ)	64 (46.7%)	5 (3.6%)	1 (0.7%)	0 (0.0%)	0 (0.0%)	67 (48.9%)	137 (100.0%)
Stomach Adenocarcinoma (STAD)	213 (63.4%)	10 (3.0%)	71 (21.1%)	0 (0.0%)	1 (0.3%)	41 (12.2%)	336 (100.0%)
Uterine Corpus Endometrial Carcinoma (UCEC)	254 (64.6%)	86 (21.9%)	16 (4.1%)	1 (0.3%)	8 (2.0%)	28 (7.1%)	393 (100.0%)
Uterine Carcinosarcoma (UCS)	33 (75.0%)	7 (15.9%)	3 (6.8%)	0 (0.0%)	0 (0.0%)	1 (2.3%)	44 (100.0%)
Total	2,301 (66.4%)	361 (10.4%)	345 (10.0%)	9 (0.3%)	9 (0.3%)	442 (12.7%)	3,467 (100.0%)

Figure 5. Patient demographics by cancer type and race.