

Supplemental Table S1. Summary of tumor (baseline) and cfDNA (baseline and progression) mutations detected by WES for a patient who responded to Olaparib. New events in *TP53* and *TSC2* were detected at progression.

GENE	MUTATION	TUMOR BIOPSY (30% tumor content)	BASELINE cfDNA (10% tumor fraction)	PROGRESSION cfDNA (50% tumor fraction)
TP53	P60fs	0	0	0.47
TSC2	L1578Q	0	0	0.13
CTNNB1	T41A	0.19	0.07	0.25
MRPL11	F167fs	0	0.07	0.27
PAX7	S30T	0	0.02	0.3
LRFN5	Q418K	0.18	0.09	0.25
NEB	D1195N	0.15	0.11	0.3
RSG1	R188W	0.23	0.08	0.28
PLEC	R179H	0.17	0.03	0.24
GMCL1	S443F	0.15	0.07	0.28
MRPL9	H88Y	0.16	0.02	0.24
GRP162	A227V	0.16	0.06	0.28
PRDM9	T18A	0.18	0.08	0.32
PRDM8	R635H	0.16	0.05	0.3
MYO18A	A2054T	0.16	0.06	0.31
NES	R766Q	0.22	0.13	0.38
CAGE1	N219D	0.2	0.06	0.31
KMO	F313Lfs*5	0.18	0.06	0.32
SPRYD7	S122R	0.21	0.07	0.33
CCDC50	R50fs*18	0.14	0.07	0.35
GIT2	D572V	0.18	0.04	0.33
OTOP1	A315T	0.14	0.06	0.36
AHNAK2	R656C	0.15	0.07	0.38
SMCR8	F626Sfs*3	0.18	0.07	0.39
ANKRD34C	R444*	0.16	0.08	0.41
BRAT1	A163V	0.2	0.05	0.41
ENPP1	L82M	0.17	0.21	0.58
GOLGA4	N1145T	0.2	0.03	0.43
HDAC2	L371S	0.17	0.01	0
FOXA1	Y259C	0.07	0	0
TNIK	R637H	0.16	0	0
HCAR3	T119M	0.19	0	0