

## Supplementary Information 2:

List of top 100 ranking lethal pairs along with the type of Cancer associated with them identified for Human Cancer Protein Interaction Network

SNO	CANCER	LETHAL PAIRS	FREQUENCY
1.	BREAST	EP3,00-TP53, RB1-TP53, BRCA1-TP53, BCL2-TP53, EGFR-TP53, PTK2-TP53, SRC-TP53, HDAC1-TP53, CASP3-TP53, ESR1-TP53, AKT1-TP53, STAT3-TP53, SMURF2-TP53, TP53-VIM, RAD51-TP53, MAGI1-TP53, TP53-YWHAZ, HMGB1-TP53, RAC1-TP53, IGF1-TP53, ERBB2-TP53, DYNLL1-TP53, HRAS-TP53, DACH1-TP53, TP53-XRCC6, TP53-YWHAB, MMP9-TP53, PRKCZ-TP53, PARP1-TP53, BTRC-TP53, SOCS1-TP53, HSPA1A-TP53, ETS1-TP53,	32
2.	PROSTATE	SMAD3-TP53, AR-TP53, SRC-TP53, HDAC1-TP53, CDK1-TP53, FLNA-TP53, CAV1-TP53, HIF1A-TP53, HSP90AA1-TP53, PTEN-TP53, EEF1A1-TP53, FN1-TP53, RELA-TP53, CEACAM1-TP53, CDKN1A-TP53, INS-TP53, PARP1-TP53, NDRG1-TP53, HSPA1A-TP53,	19
3.	COLORECTAL CANCER	SMAD4-TP53, CNOT7-TP53, TGFBR1-TP53, PCNA-TP53, MAPK3-TP53, APP-TP53, SP1-TP53, PRNP-TP53, MET-TP53, GSK3B-TP53, NFKB1-TP53, MAPK14-TP53, BTRC-TP53, CTNNB1-EP300	14
4.	LUNG	TP53-YWHAG, CREBBP-TP53, EGFR-TP53, PRKCD-TP53, PPP2R1B-TP53, HRAS-TP53, TP53-YWHAB, MET-TP53, MMP9-TP53, SMARCA4-TP53	10
5.	COLON	PTK2-TP53, HDAC1-TP53, CDK1-TP53, AKT1-TP53, PPP2R1B-TP53, IGF1R-TP53, SP1-TP53, AURKA-TP53, PARP1-TP53, TLR2-TP53	10
6.	LEUKEMIA	BCL2-TP53, ABL1-TP53, TP53-ZBTB16, CREBBP-EP300, CREBBP-CTNNB1, TP53-TRAF6, PTPN6-TP53	7
7.	OVARIAN	TP53-UBE2I, AKT1-TP53, STAT3-TP53, ERBB2-TP53, EEF1A1-TP53, DACH1-TP53, PARP1-TP53	7
8.	MEDULLOBLASTOMA	CTNNB1-TP53, CSNK2A1-TP53, PTCH1-TP53, TP53-UBB	4
9.	BLADDER	PPCA-TP53, CDKN2A-TP53, ACTB-TP53,	3
10.	HEAD AND NECK CANCER	FYN-TP53, DAPK1-TP53, PTEN-TP53	3