S12 Table. The enrichment analysis of the top 100 genes that have the highest gene average gravitation score between DNA repair genes and non-DNA repair genes.

	Cancer type	Number of DNA repair	Number of non-DNA	Adjusted p-value (q)	Odd ratio	Number of all DNA	Number of all non- DNA
		genes	repair genes			repair genes	repair genes
	BRCA	2	98	1.0	2.7	153	20310
	COAD	1	99	1.0	1.3		
	GBM	3	97	0.32	4.2		
	HNSC	4	94	0.06	5.8		
	KIRC	2	98	1.0	2.7		
	LUAD	2	98	1.0	2.7		
	LUSC	1	99	1.0	1.3		
	ov	2	98	1.0	2.7		
	UCEC	1	99	1.0	1.3		

Note: p-value in **S9-S12 Tables** was calculated using Fisher' exact test, and was corrected as adjusted p-values (q) by Benjamini-Hochberg multiple testing.