

		HCT116	MDA-MB-231	T98	A375	A549	MCF7
HCT116							
	% NON-OVERLAP	45					
	% OVERLAP		26.8	11.6	2	39.1	5.60
	% OVERLAP NORMALIZED/1000 DEGS		15.1	15.5	8.7	10	13.8
		HCT116	MDA-MB-231	T98	A375	A549	MCF7
MDA-MB-231							
	% NON-OVERLAP		47.2				
	% OVERLAP	4.5		9.4	2.3	44.9	3.7
	% OVERLAP NORMALIZED/1000 DEGS	14.9		12.6	10	11.5	9.3
		HCT116	MDA-MB-231	T98	A375	A549	MCF7
T98G							
	% NON-OVERLAP			48.4			
	% OVERLAP	4.7	22.3		2.9	34	7.1
	% OVERLAP NORMALIZED/1000 DEGS	15.6	12.6		12.7	8.7	17.8
		HCT116	MDA-MB-231	T98	A375	A549	MCF7
A375							
	% NON-OVERLAP				54.1		
	% OVERLAP	2.6	17.9	9.6		31.4	12.7
	% OVERLAP NORMALIZED/1000 DEGS	8.6	10.1	12.9		8	31.8
		HCT116	MDA-MB-231	T98	A375	A549	MCF7
A549							
	% NON-OVERLAP					62.7	
	% OVERLAP	3	20.4	6.5	1.8		2
	% OVERLAP NORMALIZED/1000 DEGS	9.9	11.5	8.7	8		5
		HCT116	MDA-MB-231	T98	A375	A549	MCF7
MCF7							
	% NON-OVERLAP						51.3
	% OVERLAP	4.3	16.5	13.3	7.3	19.8	
	% OVERLAP NORMALIZED/1000 DEGS	14.2	9.3	17.8	31.7	5.04	

Figure S1. Dpep-responsive DEGs show both unique and overlapping patterns of expression in 6 cancer cell lines. Percentages of unique (highlighted in green) and overlapping (highlighted in yellow) Dpep-regulated DEGs among 6 different cancer lines are shown. Overlap comparisons are given based on absolute number and as normalized per 1000 DEGs to take into account the differing numbers of total DEGs observed in each line. Values highlighted in yellow designate the normalized percentages for A375 and MCF7 cells which are substantially higher than those for other cell line pairs.

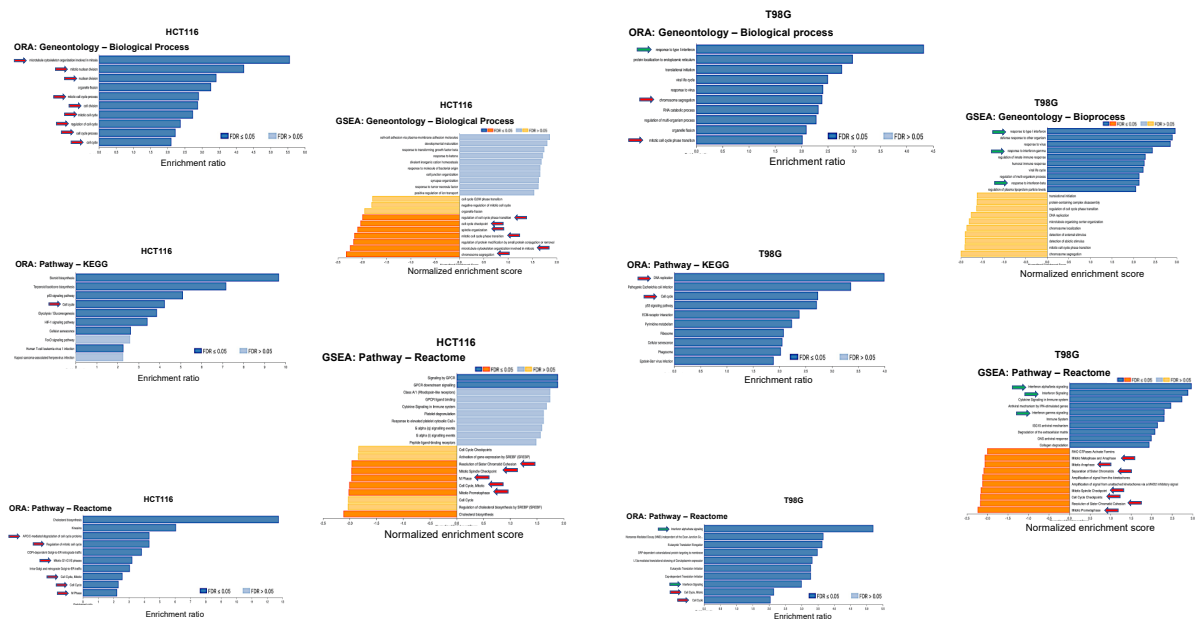


Figure S2. ORA and GSEA geneontology and pathway analyses of total DEGs for HCT116 and T98G cells shows significant enrichment of DEGs related to various cell cycle events. Red arrows indicate categories relevant to various phases of the cell cycle. Green arrows indicate categories relevant to response to interferons.

DEGs ASSOCIATED WITH DNA REPAIR

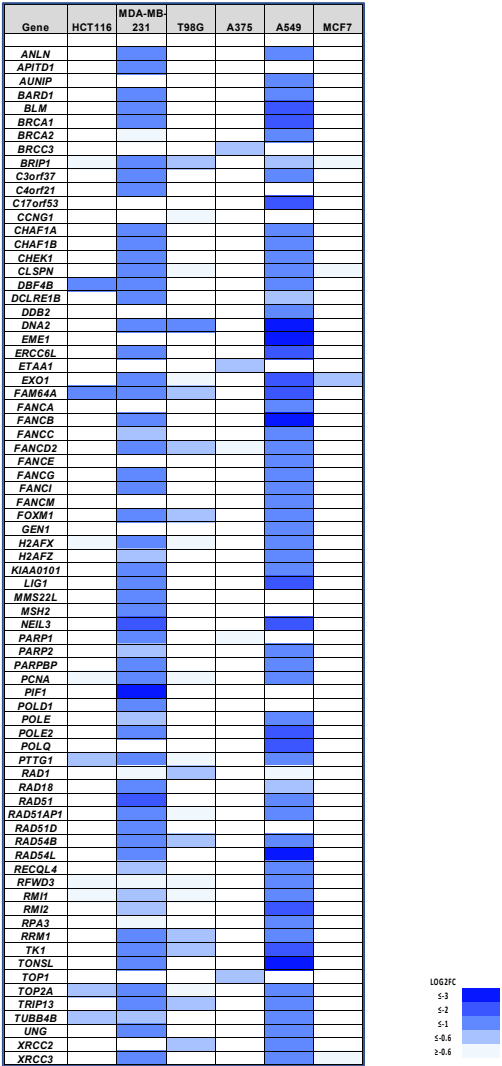


Figure S3. Dpep downregulates genes associated with DNA repair.

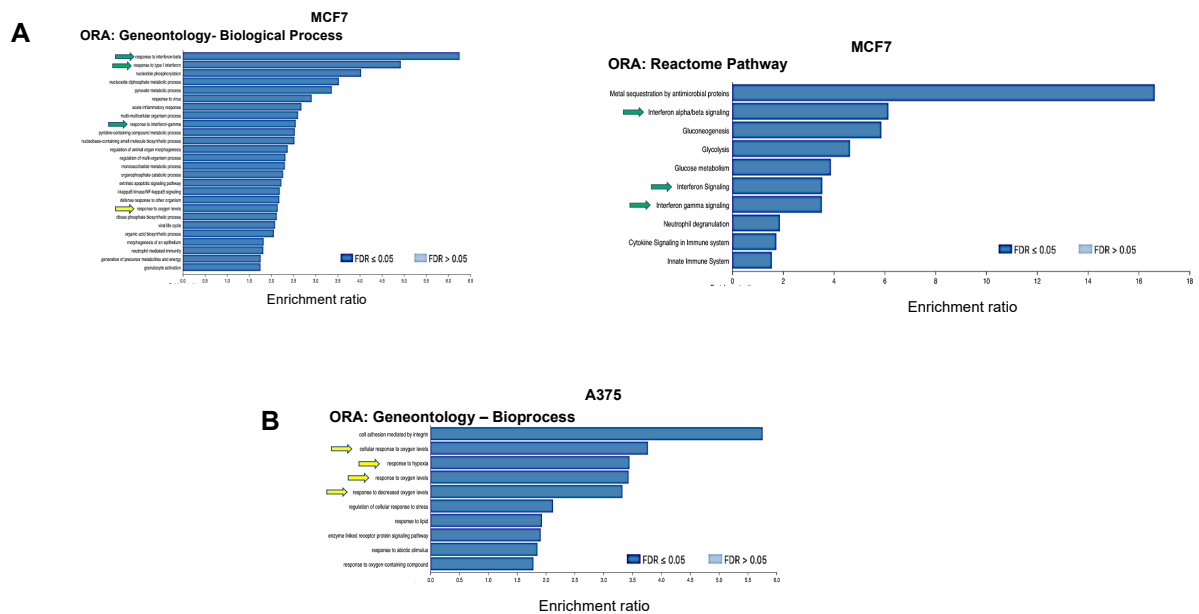
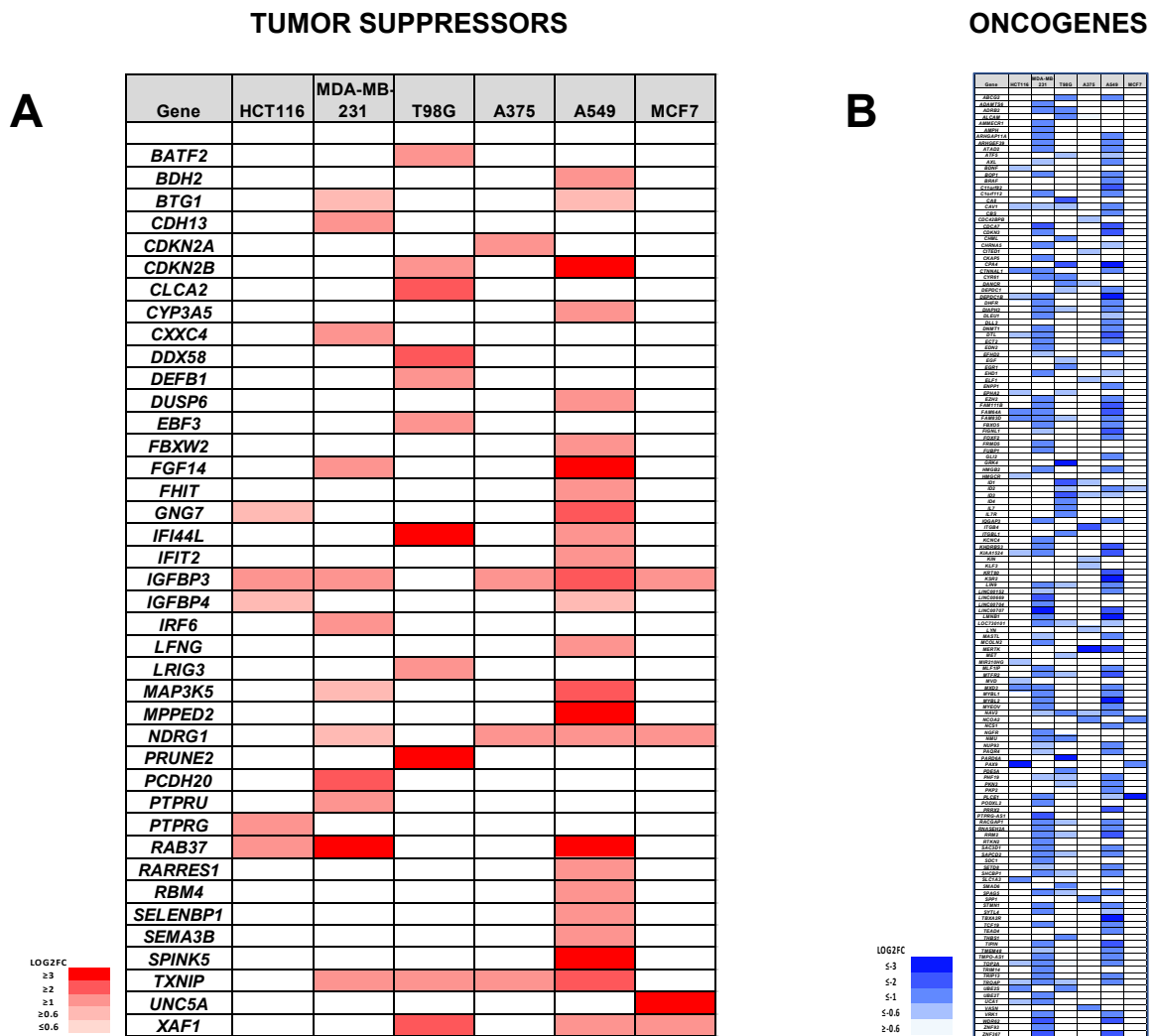


Figure S4. Dep regulates genes associated with interferon responses and hypoxia in a subset of cell lines. A. ORA geneontology and reactome analysis of MCF7 cell total DEGs reveals enrichment of genes associated with responses to interferons (green arrows) and hypoxia (yellow arrows). B. ORA geneontology analysis of A375 total DEGS reveals enrichment of genes associated with hypoxia (yellow arrows).



MEAN RANK					TOP RANK				
Rank	TF	Score	# Lines		Rank	TF	Score	# Lines	
1	CEBPB	7.5	5		1	ATF5	6.14E-04	4	
2	BATF2	15.33	4		2	BATF2	6.14E-04	4	
3	IRF5	15.75	5		3	IRF5	7.12E-04	3	
4	STAT1	24.85	5		4	STAT1	0.001205	5	
5	IRF1	24.85	5		5	ABHL1	0.001245	5	
6	STAT1	14.8	4		6	IRF5A	0.001425	2	
7	SP119	41	2		7	TRAF2	0.001543	3	
8	STAT3	61	5		8	ASCL2	0.001987	2	
9	BHLHE40	48	6		9	ZNF384A	0.002137	2	
10	IRF5A	57.33	2		10	IRF5	0.002407	2	
11	PLSCR1	53.5	6		11	ZBED1	0.002469	3	
12	NR1H2	68.5	6		12	NR3C1	0.003071	3	
13	STAT3	67.33	2		13	CEBP	0.003111	5	
14	KLIF1	89.75	3		14	MNT	0.003387	3	
15	GRB1	73.33	2		15	ZNF703	0.003391	3	
16	KLIF1	74	3		16	STAT2	0.003889	4	
17	CEBPB	72.5	5		17	ZC2C2	0.003724	3	
18	CR1	104	2		18	IRF3	0.004274	2	
19	CEBPB	77.87	2		19	ZNF584	0.004274	2	
20	IRF5A	81.55	2		20	ETV6	0.004308	3	
21	IRF5A	81.87	3		21	AEBP1	0.004974	2	
22	FOXP1	98.4	3		22	NR1H2	0.005075	3	
23	IRF5A	106.5	3		23	FOXP1	0.004986	3	
24	IRF5A	106.5	3		24	ZNF2	0.0056	3	
25	SOX4	104	2		25	SOX4	0.004993	3	
26	IRF5A	107	2		26	CEBPB	0.00523	3	
27	ATF6B	107	2		27	IRF1	0.005724	4	
28	CEBPB	107.3	3		28	BHLHE40	0.005725	3	
29	IRF7	107.7	4		29	PRDM2	0.005845	3	
30	IRF5A	108	3		30	IRF5A	0.005923	3	
31	IRF2B	108.5	3		31	PRKX2	0.007171	3	
32	ZNF356	116.7	3		32	TNRC2	0.007467	3	
33	ZNF356	116.5	3		33	SOX9	0.007535	3	
34	SOX4	116.6	3		34	GLI3	0.007785	3	
35	SOX4	117	3		35	SNAP1	0.00785	3	
36	ZBED1	126.3	3		36	JUN	0.008478	4	
37	IRF5	126.5	3		37	IRF5	0.008478	4	
38	ZNF282	122	3		38	NR1H2	0.008772	3	
39	IRF5A	124.5	5		39	NR1H2	0.008772	3	
40	IRF5	124.5	5		40	STAT3	0.009334	3	
41	IRF5	127.5	3		41	ASCL2	0.009353	3	
42	ZNF356	130.5	2		42	IRF5A	0.009356	5	
43	STAT3	132.5	3		43	CEBPB	0.009372	5	
44	IRF5	134.5	3		44	IRF5A	0.009372	5	
45	HNF1B	135.5	3		45	ZNF14	0.01059	3	
46	IRF5	136.5	3		46	IRF5	0.01059	3	
47	IRF5	142.5	5		47	NR1H2	0.01108	4	
48	IRF5	145.5	2		48	KLIF1	0.01119	4	
49	IRF5	145.5	2		49	KLIF1	0.01119	4	
50	BATF1	149	3		50	IRF5	0.01211	3	
51	CEBPB	150.5	3		51	ATF5	0.01211	3	
52	CEBPB	150.5	3		52	CEBPB	0.01211	3	
53	CEBPB	150.5	3		53	CEBPB	0.01211	3	
54	CEBPB	150.5	3		54	CEBPB	0.01211	3	
55	CEBPB	150.5	3		55	CEBPB	0.01211	3	
56	CEBPB	150.5	3		56	CEBPB	0.01211	3	
57	CEBPB	150.5	3		57	CEBPB	0.01211	3	
58	CEBPB	150.5	3		58	CEBPB	0.01211	3	
59	CEBPB	150.5	3		59	CEBPB	0.01211	3	
60	CEBPB	150.5	3		60	CEBPB	0.01211	3	
61	CEBPB	150.5	3		61	CEBPB	0.01211	3	
62	CEBPB	150.5	3		62	CEBPB	0.01211	3	
63	CEBPB	150.5	3		63	CEBPB	0.01211	3	
64	CEBPB	150.5	3		64	CEBPB	0.01211	3	
65	CEBPB	150.5	3		65	CEBPB	0.01211	3	
66	CEBPB	150.5	3		66	CEBPB	0.01211	3	
67	CEBPB	150.5	3		67	CEBPB	0.01211	3	
68	CEBPB	150.5	3		68	CEBPB	0.01211	3	
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70	CEBPB	150.5	3		70	CEBPB	0.01211	3	
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72	CEBPB	150.5	3		72	CEBPB	0.01211	3	
73	CEBPB	150.5	3		73	CEBPB	0.01211	3	
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83	CEBPB	150.5	3		83	CEBPB	0.01211	3	
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92	CEBPB	150.5	3		92	CEBPB	0.01211	3	
93	CEBPB	150.5	3		93	CEBPB	0.01211	3	
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95	CEBPB	150.5	3		95	CEBPB	0.01211	3	
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97	CEBPB	150.5	3		97	CEBPB	0.01211	3	
98	CEBPB	150.5	3		98	CEBPB	0.01211	3	
99	CEBPB	150.5	3		99	CEBPB	0.01211	3	
100	CEBPB	150.5	3		100	CEBPB	0.01211	3	

MEAN RANK				TOP RANK			
Rank	TF	Score	#Lines	Rank	TF	Score	#Lines
1	ATF5	5.5	2	1	ATF5	6.14E-04	4
2	ZNF173	15.33	4	2	ZNF356	0.001205	3
3	MYC1A1	17.33	2	3	ZNF356	7.12E-04	4
4	CEBPB	22.87	5	4	STAT1	0.001205	5
5	FOXP2	22.87	5	5	PRDM18	0.001245	5
6	STAT1	24.85	5	6	IRF5	0.001425	2
7	GLIS2	24.87	4	7	MYC1	0.001563	4
8	CEBPB	25.33	3	8	ZNF43	0.001587	2
9	STAT1	27.8	2	9	ANAPC1	0.001537	3
10	FOXP2	31	1	10	BHLHE40	0.002407	2
11	CEBPB	31	2	11	STAT1	0.002469	3
12	HP1A	38.8	3	12	ZEB1	0.003071	2
13	CEBPB	40.33	3	13	CEBPB	0.003111	5
14	CEBPB	40.33	2	14	ZBTB7A	0.003387	3
15	ZNF356	45	4	15	MAF	0.003391	2
16	CEBPB	45	4	16	CEBPB	0.003889	4
17	MYC1	50.87	4	17	NFKB1	0.004274	3
18	CEBPB	51.33	3	18	CEBPB	0.004274	3
19	STAT1	52.25	2	19	FOXP2	0.004308	3
20	PRDM1	55.87	2	20	CEBPB	0.004974	2
21	CEBPB	55.33	3	21	STAT1	0.005075	3
22	ATF1	68.33	3	22	TEAD3	0.005923	3
23	CEBPB	72.87	4	23	ZNF683	0.005923	3
24	STAT1	88	3	24	TPST1	0.00696	3
25	CEBPB	88.33	2	25	CEBPB	0.006969	3
26	BHLHE40	119.8	8	26	HP1A	0.008009	3
27	MYC1	91	2	27	DIRT3	0.008143	3
28	STAT1	88.33	3	28	FOXP2	0.008923	2
29	STAT1	88.33	3	29	GLIS2	0.009161	8
30	CEBPB	88.67	6	30	STAT1	0.009254	3
31	MEIS3	88	3	31	ZNF385	0.009712	3
32	CEBPB	88.33	3	32	FOXP2	0.009712	3
33	STAT1	88.8	3	33	MYC1	0.009767	3
34	MECP1	97.3	3	34	STAT1	0.009793	3
35	CEBPB	97.33	3	35	TALE1	0.009793	3
36	CEBPB	109.3	3	36	NC1	0.00989	3
37	STAT1	111.7	3	37	STAT1	0.009875	3
38	MYC1	110	3	38	EGFR	0.009847	2
39	CEBPB	110	2	39	NC1	0.0098	3
40	MYC1	110	3	40	ZNF385	0.009834	3
41	PLCB1	115.8	6	41	CEBPB	0.009923	2
42	STAT1	115.8	3	42	STAT1	0.009856	3
43	PRDM18	119.2	3	43	MAZ	0.0091	2
44	CEBPB	119.33	3	44	FOXP2	0.009866	3
45	CEBPB	119.33	3	45	CEBPB	0.009866	3
46	NFIB2	119.4	4	46	JUN	0.0108	4
47	CEBPB	121.2	3	47	CEBPB	0.0108	3
48	CEBPB	121.67	3	48	FOXP2	0.0114	3
49	ZNF897	126.3	3	49	BNCT1	0.00787	2
50	STAT1	127	3	50	STAT1	0.01193	3
51	MYC1	129	2	51	STAT1	0.009211	2
253	ATF1	155	3	66	ATF1	0.0155	3
254	CEBPB	160	3	66	CEBPB	0.0155	3
71	CEBPB	160	3	66	CEBPB	0.0155	3