

Patient ID	Diagnosis	Initial Treatment	Clinical Response	BRCA (Self Reported)	Initial Percent Tumor	Number of Cycles on Initial Treatment	Number of Cycles Following Cross-Over	Status	ALKBH2
1004	High grade serous ovarian	ABT+CP	Other	Mut	95	3	n/a	1	0.20111799
1006	Fallopian tube cancer	ABT+CP	SD	Unknown	80	6	n/a	1	0.66986036
1007	BRCA+ ovarian	CP	PR/CR	Mut	60	12	3	1	0.61762667
1010	BRCA+ ovarian	ABT+CP	Other	Mut	60	3	n/a	1	-0.17853308
1011	BRCA+ ovarian	CP	Other	Mut	80	3	6	1	-0.008432865
1012	BRCA+ ovarian	ABT+CP	SD	Mut	90	6	n/a	1	-0.030582905
1013	High grade serous peritoneal	CP	Other	Mut	80	3	6	1	-0.042904377
1016	BRCA+ ovarian	CP	Other	Mut	80	3	as	1	0.11202192
1024	High grade serous ovarian	CP	Other	Unknown	50	2	6	1	0.6980386
1025	BRCA+ ovarian	ABT+CP	SD	Mut	90	18	n/a	1	0.13583517
1026	BRCA+ ovarian	CP	Other	Mut	90	3	3	1	-0.045287132
1028	BRCA+ ovarian	CP	PR/CR	Mut	70	10	4	1	-0.29079533
1031	BRCA+ ovarian	ABT+CP	Other	Mut	60	3	n/a	1	0.058653355
1032	BRCA+ ovarian	CP	Other	Mut	60	3	6	1	0.8048272
1033	Fallopian tube cancer	ABT+CP	Other	Mut	95	3	n/a	1	-3.24E-04
1034	BRCA+ ovarian	ABT+CP	Other	Mut	70	3	n/a	1	0
1035	BRCA+ ovarian	CP	PR/CR	Mut	60	9	4	1	0.45366144
1036	High grade serous peritoneal	ABT+CP	Other	Unknown	75	1	n/a	1	0.36564827
1037	High grade serous ovarian	ABT+CP	Other	Unknown	70	3	n/a	1	-0.007596016
1038	High grade serous ovarian	CP	SD	Unknown	30	5	3	1	0.010466576
1039	High grade serous ovarian	CP	Other	Unknown	90	3	as	1	0.13295698
1042	BRCA+ ovarian	ABT+CP	SD	Mut	40	9	n/a	1	0.103104115
1044	High grade serous ovarian	CP	Other	Unknown	25	2	as	1	-0.07220173
1045	BRCA+ ovarian	CP	SD	Mut	50	2	5	1	-0.10824442
1047	BRCA+ ovarian	ABT+CP	SD	Mut	70	8	n/a	1	0.06439924
1049	High grade serous ovarian	CP	PR/CR	Unknown	30	12	2	1	0.029666424
1050	High grade serous ovarian	CP	SD	WT	80	12	5	1	-0.055309772
1051	BRCA+ ovarian	CP	SD	Mut	75	15	9	1	-0.085515976
1052	High grade serous ovarian	ABT+CP	Other	Unknown	80	2	n/a	1	-0.21604061
1056	High grade serous ovarian	CP	SD	Unknown	85	32	41	0	-0.19144344
1057	High grade serous ovarian	ABT+CP	Other	Unknown	60	3	n/a	1	-0.1717124
1058	Fallopian tube cancer	CP	Other	Unknown	30	2	as	1	0.17575455
1059	BRCA+ ovarian	ABT+CP	SD	Mut	50	6	n/a	1	0.16822004
1060	High grade serous ovarian	ABT+CP	Other	Unknown	90	3	n/a	1	-0.117632866
1061	BRCA+ ovarian	CP	Other	Mut	90	3	3	1	-0.012696743
1062	High grade serous ovarian	CP	SD	Unknown	60	5	as	1	-0.023149014
1063	High grade serous ovarian	ABT+CP	Other	Unknown	30	3	n/a	1	0.41472673
1064	BRCA+ ovarian	ABT+CP	Other	Mut	85	3	n/a	1	0.1708641
1065	High grade serous ovarian	ABT+CP	Other	Unknown	85	3	n/a	1	-0.40686274
1069	High grade serous ovarian	ABT+CP	SD	Unknown	50	21	n/a	1	0.18038654
1070	High grade serous peritoneal	CP	SD	Unknown	90	9	as	1	0.13879871
1073	High grade serous ovarian	ABT+CP	Other	Unknown	50	2	n/a	1	0.13467312
1074	High grade serous ovarian	ABT+CP	Other	Unknown	70	3	n/a	1	0.06991482
1079	High grade serous ovarian	CP	Other	Unknown	25	3	3	1	0.6853709
1081	High grade serous ovarian	ABT+CP	SD	Unknown	70	24	n/a	1	-0.03293562
1082	High grade serous ovarian	CP	PR/CR	Unknown	90	12	3	1	-0.23718596
1086	BRCA+ ovarian	ABT+CP	PR/CR	Mut	30	17	n/a	1	0.028306007
1087	BRCA+ ovarian	CP	Other	Mut	90	3	32	0	-0.01392746
1088	High grade serous ovarian	ABT+CP	PR/CR	Unknown	80	25	n/a	1	-0.2841239
1090	High grade serous ovarian	ABT+CP	Other	Unknown	70	3	n/a	1	-0.004553318
1091	High grade serous ovarian	CP	SD	Unknown	80	1	4	1	-0.6465697
1096	BRCA+ ovarian	ABT+CP	Other	Mut	?	3	n/a	1	-0.26567316
1097	High grade serous ovarian	CP	Other	Unknown	60	2	as	1	0.7221894
1053*	High grade serous ovarian	CP	Other	Mut	40	1	as	1	-0.24753284
1098*	High grade serous ovarian	ABT+CP	Other	Unknown	70	1	n/a	1	0.1210804

\*Patient was not evaluable for response due to insufficient time on study, but was included in the genetic and expression analyses.

Key:

ABT: veliparib

CP: cyclophosphamide



<i>BAP1</i>	<i>BLM</i>	<i>BRCA1</i>	<i>BRCA2</i>	<i>BRIP1</i>	<i>BUB1</i>	<i>BUB1B</i>	<i>C19orf40</i>	<i>C1orf86</i>	<i>CCNE1</i>
-0.163067337	-0.14448023	0.30686497	0	0	0.114720345	0.15298891	0.28503418	0.5781188	0.400267605
-0.221876662	0.30421877	-0.154797795	0	0	-0.882885	-0.1297245	-0.24625826	-0.25975275	-0.402217625
0.39872145	-0.27393675	-0.21664667	0	0	-0.15213251	0.034017086	-0.13338852	-0.22470999	-0.275607345
-5.46E-04	-0.110890865	0.14333701	0	0	0.46411514	-0.36122274	-0.31138325	-0.2576871	-0.21601652
0.385988475	0.69668245	0.18691945	0	0	0.017207146	-0.12417555	0	-0.21697044	0.09472203
-0.44721437	0.75993156	1.1089027	0	0	1.0527687	1.212801	-0.111356735	0.015334129	0.32488941
-0.346267225	-0.8842454	-0.31533146	0	0	-0.7040925	-0.15090895	0.2331953	-0.10709429	0.067088128
-0.23856688	-0.3775897	0.17510581	0	0	0.23810911	0.42370367	0.019792557	0.26199913	0.211840155
0.250110145	-0.21447802	0.120438097	0	0	0.014146805	0.27674103	0.2632103	0.049622536	1.066487575
0.054312228	0.56559277	0.076581715	0	0	0.11525822	0	0.19248581	0	0.66042042
-0.079215767	0.48895836	0.548476935	0	0	-0.19736814	1.0463448	0.048729897	0.020692825	0.702775027
-0.272981165	0.2757144	-0.154598238	0	0	0.11722517	0.07539034	-0.30492592	-0.12542248	-0.028283358
-0.181227208	0.9801054	-0.153944254	0	0	0.03335619	0.15265703	0.03913021	0.015263081	6.18E-04
0.213260172	0.22028637	-0.028891325	0	0	0.39466953	0.96942997	0.095944405	-0.3298974	0.36508988
-0.15908599	-0.029345036	0.322162635	0	0	0.1253004	0.094984055	0.039370537	0.20821428	-0.1216712
-0.068849563	-0.7674756	-0.014010906	0	0	-0.40076637	-0.4105153	-0.121982574	0.08235741	0.062904356
0.17333913	0.600019	-0.199755907	0	0	0.22435665	0.57970953	0.086455345	-0.10140228	0.16164565
0.191236018	0.35865164	-0.456450225	0	0	0.007474423	-0.14392328	0	-0.016587734	0.178960089
-0.522741545	0.44816685	-0.02485561	0	0	0.13762426	-0.17827892	0.044015884	0.047352314	0.38075542
0.313208815	-0.107914925	-0.42619204	0	0	-0.19350815	-0.85360193	0.08400631	0.021905899	0.149087665
0.13307643	-0.31091547	0.062915564	0	0	0.45558548	0.12955523	0.10499859	0	0.351996662
-0.208299874	0.23779249	0.22448682	0	0	-0.37847567	-0.19904995	0.19154167	0.14660215	-0.209863905
-0.050319908	-0.80813503	0.159099343	0	0	-0.5970144	-0.33265877	0.15555859	-0.08446026	0.13380838
0.26670337	-0.9563031	-0.42659068	0	0	-0.96915054	-0.89618826	0.029249191	-0.04207182	-0.10798383
-0.167030336	0.615787	0.682106985	0	0	0.18137836	0.38038635	-0.016181946	-0.14072561	-0.120586875
-0.02775693	-0.13584423	-0.078126195	0	0	-0.97753143	-0.09790325	-0.21537638	-0.1493249	-0.481070042
-0.264139655	-0.2773142	-0.06246257	0	0	-0.46424007	-0.4361205	-0.025003433	0.13053322	-0.495205152
0.27231598	0.1949687	0.135862825	0	0	0.17134619	0.3162961	-0.07502842	0.18350792	0.16029692
0.056824445	-0.38427877	0.34982848	0	0	-0.34055948	-0.03986454	-0.3491516	-0.057367325	-0.25913215
-0.065155506	-0.38492775	-0.045175553	0	0	-0.7538805	-0.6570487	-0.026098251	0.07799244	-0.21306778
-0.095665933	0.32347202	-0.461383105	0	0	0.6045613	-0.1769743	0.071988106	-0.03435898	-0.05748224
0.42557335	0.47485256	-0.05378127	0	0	0.21693134	0.5894494	-0.044570923	-0.0574708	0.34283924
-0.33696246	-0.08633566	0.48165488	0	0	0.12010527	1.1142836	0.00609684	0.021806717	-0.068271635
0.17272687	-0.7158909	-0.4334743	0	0	0.28396702	0.6053133	0.0415411	0.15791512	-0.13874531
-0.269253975	0.015113354	0.4553535	0	0	0.035348892	-0.15838575	0.099944115	0.114087105	0.262967585
-0.001842499	0.67858934	0.017840625	0	0	0.43823624	0.042823315	-0.016550064	-0.049442768	0.321963074
-0.295919895	-0.5975652	-0.054760935	0	0	-1.1093016	-0.35447073	0.26744652	0.28374624	-0.23143745
-0.00858712	-0.49264336	0.11046648	0	0	-0.34345245	0.29721832	0.03154564	0.19305086	-0.344956865
0.476636185	-0.6144142	0.062649486	0	0	-0.031214714	0.08550835	0.048639297	0.28392267	-0.11744213
0.24083399	-0.92758465	-0.4894259	0	0	-0.5667882	-0.9807153	-0.08249283	-0.09101248	-0.223276378
0.15812254	0	0.63799595	0	0	-0.10649538	-0.0836792	0.04526615	0.12670326	0.090845584
0.41136337	0.04688835	0.40401768	0	0	0.0346241	0.21233082	-0.066295624	-0.12880039	0.52114294
-0.011437655	-0.507524	0.116231205	0	0	-0.11181021	0.3661747	-0.13348484	-0.0803318	-0.69602537
0.36342049	0.8651514	0.35511876	0	0	0.006356239	0.12585068	-0.28715563	-0.345973	0.22000503
0.041866303	0.27078533	0.198810338	0	0	0.004695892	-0.27043724	0.09661102	0.050424576	0.48837401
-0.073577405	0.41979933	-0.84503697	0	0	0.20965958	0.014752388	-0.2653551	-0.32534504	-0.231638433
-0.47440911	-0.4903264	-0.522535325	0	0	-0.59231806	-0.7498927	-0.001717567	0.07513666	-0.069584607
-0.079740765	0.09590578	-0.166376115	0	0	0	-0.18218851	-0.048062325	-0.09622574	-0.115935321
0.049918175	0.72933054	0.183136707	0	0	0.043862343	0.4499097	-0.02563095	-0.00141716	0.002573015
-0.21370196	-1.241415	-0.51697206	0	0	-0.7683182	-0.6390724	-0.12281418	0	-0.398707392
-0.49464203	0.051781178	-0.145999195	0	0	-0.115151405	0.44075203	0.34081078	0.28761292	-0.14261674
0.23001337	0.78427124	0.04623723	0	0	0.34974575	0.04142189	-0.15903473	0.11728287	-0.001056909
0.055384637	-0.34169292	-0.215057375	0	0	-0.5553622	-0.5194721	-0.19334316	-0.35653448	-0.441673765
0.105407717	0.37020302	0.029346705	0	0	-0.09677696	-0.17685795	-0.072078705	-0.1159544	-0.400735855
-0.10464454	-0.20577097	-0.073238135	0	0	-0.99441934	-0.39756393	0.0397377	0.08874273	-0.011201615















MLH1	MLH3	MMS19	MNAT1	MPG	MPLKIP	MRE11A	MSH2	MSH3	MSH4
-1.0578737	-0.22184086	-0.9899545	-0.49935818	0.19037533	-0.7408633	0.25518227	-0.40825558	-0.53367472	0
-0.23147106	-0.09024	0.2886572	-0.42559338	-0.5153289	0.60100365	0.025439262	0.24310493	0.637747785	0
0.15544891	-0.53132534	0.5300951	-0.45297432	0.35114956	0.24819183	-0.27932024	-0.07347679	0.503656145	0
-0.119930744	0.48307562	-0.005145073	0.35426617	-0.27175617	0.4975834	0.33876467	0.050323486	0.16104698	0
0.20246935	0.54622173	0.1540308	-0.001125813	-0.16700935	0.3232622	-0.17989254	0.22463417	0.023088695	0
-0.31631374	0.09817219	-0.51905155	-0.14079666	0.17028427	0.4555378	0.38584232	0.16691208	-0.008651258	0
-0.12557697	0.011497021	-0.6187434	-0.3161292	-0.034879684	0.4838314	-0.022466183	-0.20657301	0.058000325	0
-0.5967369	-0.09350586	-0.17807484	0.47572327	-0.018717766	-0.6240001	-0.019640446	0.010474205	-0.166425231	0
-0.21000957	3.05E-04	0.2854662	0.35842562	-0.013194084	-0.07737923	0.34697056	-0.061914444	0.105645895	0
-0.17417288	0.20984602	-0.22166443	0.5252857	0.42864037	-0.13216782	0.60516214	0.6838341	-0.12203312	0
0.2909479	-0.21391344	0.056833267	-0.26258755	0.003710747	0.3520713	-0.36609888	0.49865055	0.552637815	0
0.021809101	-0.10246515	-0.12389755	0.00137043	0.036841393	0.35949755	-0.06828213	0.22840023	0.068570135	0
-0.044312	0.5133252	-0.03375721	-0.2781124	-0.015011787	0.17249775	-0.10885811	0.5964985	-0.074123385	0
0.09517908	0.26954317	0.025511742	0.10622549	0.35253048	1.1138563	0.104073524	-0.0750103	0.23257971	0
-0.093832016	0.1128602	-0.021672249	-0.073636055	-0.07319164	-0.42118406	-0.1939745	0.4436884	-0.125607255	0
0.021431446	-0.41079283	-0.29981136	-0.5996704	-0.001321793	-0.4771905	0.10575962	-0.8214302	-0.200638295	0
-0.05647707	0.33510542	0.58845806	-0.34770727	0.43750477	0.46084452	0.29630613	-0.09096527	0.28014493	0
-0.15844488	0.21912956	-0.049419403	0.18590736	7.82E-04	-0.5316663	0.15756702	-0.035770416	0.264805792	0
0.11579704	0.13690472	0.2960987	-0.056028843	0.07960701	0.20058393	-0.039050102	0.17379284	-0.167569865	0
-0.17396593	-0.28693485	-0.07452679	0.11875725	0	-0.5578022	-0.31726408	0.075888634	-0.196460955	0
-0.054523945	-0.10328627	0.16595173	0	-0.058060646	-0.26326275	0.26213455	0.053676605	0.13349128	0
-0.40280533	0.16289377	-0.011571884	0.29073572	-0.020463943	-0.43352985	-0.10493183	-0.35041237	-0.36848044	0
0.115138054	-0.2628603	0.08801937	-0.4142127	-0.1422863	0.066447735	-0.11067438	-0.6778374	0.51028753	0
0.09395075	-0.06609249	-0.33462334	-0.25680542	-0.08344364	0.23275661	-0.05563402	-1.0180984	-0.06745696	0
0.20943975	0.14813232	0.34222412	-0.004676819	-0.04682064	0.3156438	-0.2333827	0.56807613	-0.07791543	0
0.007734776	0.042231083	0.013208389	-0.08848715	0.1680851	-0.42392826	-0.033458233	-0.42251825	-0.189522745	0
-5.66E-04	0.24106073	0.15615177	0.02393961	0.001926422	-0.25754833	-0.2509308	0.31193542	0.155622245	0
0.08094025	-0.14159536	-0.84848547	0.046422005	-0.1115284	0.002887726	0.114161015	-0.25766182	-0.30728173	0
0.34706783	0.12064648	-0.15115356	0.15272236	-0.12353134	-0.43399048	-0.18149805	0.5073395	0.231251955	0
0.22465134	0.05491686	-0.16515827	-0.22696447	0.09226036	-0.67294407	-0.06492329	-0.8706932	-0.111461162	0
-0.30023623	0.28846264	-0.115849495	-0.25378275	0.23673058	0.84310627	0.4316802	-0.1587429	0.09343362	0
-0.06986284	-0.065907955	0.6173258	-0.15925932	0.17694378	-0.078196526	-0.2536583	0.22010231	0.450717445	0
-0.292871	-0.41012573	0.05094719	0.18058777	-0.25235844	0.34149265	0.038194656	0.7546787	-0.097882033	0
0.023939133	-0.10705328	0.18287754	0.11490965	-0.11811733	0.21684933	-0.025096416	-0.07526207	-0.16668105	0
-0.3574586	-0.009178162	-0.2750883	-0.30459452	0.023878098	-0.22148561	0.09900999	0.37005615	-0.069991588	0
-0.019627571	0.053041458	-0.15014076	0.12365198	-0.31256008	-0.16732454	0.075683594	-0.16994	0.163333177	0
-0.032553196	0.021800041	0.14390469	-0.013326168	0.2614603	-0.20540047	0.026497364	-1.1693611	0.32215762	0
0.06272268	0.37674952	0.27863216	-0.16205025	0.15638638	0.0760088	0.72904444	0.326972	-0.121360779	0
0.34361506	-0.03726101	0.19505405	0.5395622	-0.006467819	-0.20164776	0.16515827	-0.30870724	-0.032880785	0
0.15580225	-0.18935871	0	0.04211855	-0.00769043	-0.21807623	0.13348293	-0.19499302	0.43489075	0
0.12194157	0.008956432	-0.121115685	0.06162548	-0.1443739	-0.15919256	0.04286766	0.073946	-0.137610197	0
0.2926159	-0.1511774	-0.9908905	0.051454544	-0.047976494	-0.02743721	-0.024206638	0.405591	-0.018061638	0
0.11075306	0.06124115	-0.15007877	0.47235966	-0.08797741	0.15759802	0.001160622	-0.26087618	0.10417843	0
0.2932992	-0.023528576	0.46866417	0.5204201	4.56E-04	0.6398325	-0.21243477	-0.0721302	-0.1533916	0
0.16512299	0.1100111	0.08533859	-0.29248285	0.14815617	-0.6386905	-0.16379166	0	-0.289818525	0
-0.10062599	-0.01712513	-0.46452332	0.06521034	-0.40599346	-0.059962273	0.06103182	1.0968838	-0.042108775	0
-0.44053984	0	-0.7723522	-0.036551952	0.17044449	-0.14460039	-0.2952881	-0.9409847	-0.16461539	0
-0.6209841	0	-0.17551422	0.13073778	-0.017353058	0	-0.041225433	-0.321002	-0.244548563	0
-0.5112152	-0.26943827	-0.45587397	-0.31530333	0.10287285	0.033363342	0.011211872	0.26311588	-0.33371234	0
0.05512905	-0.119550705	0.09442234	-0.1986165	0.024443626	-0.49026012	-0.22671556	-0.71866083	0.060547828	0
-0.44495535	0.33996105	0.008811951	0.41124249	0.11784935	0.003285408	-0.04825163	0.12754631	0.14840841	0
0.049562454	-0.002518177	0.05067253	0.10435295	0.069950104	0.25208187	-0.13565588	0.002626419	-0.358999245	0
0	0.1751051	0.9979992	0.08235741	-0.24972153	0.23293829	-0.41512728	0.081339836	0.34045862	0
0.046058655	-0.3053255	0.08583164	0.17399931	0.17634392	0.046933174	-0.17233324	-0.62676716	0.231768608	0
0.14089918	-0.5537343	0.06167507	-0.26841545	0.20732594	-0.949419	-0.09581566	-0.65343714	-0.005096675	0







POLE	POLE2	POLE3	POLG	POLH	POLI	POLK	POLL	POLM	POLN
-0.033039093	0.22602272	-0.60384226	0.2168808	0.046462058	-1.0414157	-0.8215327	0.27637768	0.14777565	0.608475685
-0.15316105	-0.10949564	0.06556988	0.15864658	0.046027182	0.1791606	0.8121128	-0.4999733	0.28421402	-0.436574225
0.13711452	0.64842415	0.34371996	-0.06353474	0.41055751	0.12459564	0.068175316	0.22422504	0.2770443	-0.132026432
-0.18350506	0.2301507	-0.36083508	-0.063827515	-0.11328268	1.1976562	0.15851307	-0.37277794	0.095666885	-0.241506815
0.014769554	0.3623128	0.12528515	-0.17350674	0.1130464	0.30608273	-0.16146326	-0.26538658	0.63569355	0.456079975
0.006911278	0.4139843	1.3356013	-0.07203007	0.32332897	-0.003495693	0.012275219	-0.20684719	-0.095666885	-0.16229534
-0.45594501	-0.5901308	-0.31415272	-0.045277596	0.23942042	0.27063513	-0.47169447	-0.0782032	0.4354248	0.043881893
0.200593	0.44909525	-0.6194992	0.037843704	-0.017360449	-0.45134878	-0.2846961	0.11108589	-0.09876156	0.114607095
0.12422657	0	-0.8878279	0.04239559	0.043853045	0.14478731	-0.08036661	-0.040805817	0.23741913	0.287869693
0.05878067	0.4414239	0.23652887	-0.24462605	-0.13921213	0.50945854	0.54617214	-0.041151047	-0.008495331	0.124668838
0.13898468	0.09774208	0.95207596	0	0.091073515	0.42744398	0.8733988	-0.09283161	-0.13480759	-0.144428255
0.18976116	0.104607105	0.7879982	-0.17028427	0.075698375	-0.056061745	0.69966507	-0.29576874	0.13591957	-0.25132585
-0.06348419	0.8048668	-0.5959635	0.20906115	-0.331831455	0.69817257	0.17089653	-0.22711468	-0.02607441	-0.087328672
-0.026910782	0.3934536	-0.33073282	-0.2624035	-0.07052231	-0.16302443	0.9219699	-0.05185032	1.2295122	-0.28526449
-0.012923241	0.5281081	0.12245369	0.090405464	0.28536845	0.05099821	-0.046390057	0.04800129	-0.17256737	0.09082675
0.05751896	-1.5053763	-0.027495384	-0.11863136	-0.021549225	-0.45297718	-0.29731417	-0.26716423	0.08542156	0.216860293
-0.029073715	-0.4934616	0.8112397	-0.07141209	-0.272381785	-0.36628294	0.39688206	-0.101246834	-0.14740944	-0.23113084
-0.19961834	0.042555332	-0.17870283	0.06284046	-0.050653934	0.34715796	0.15369463	-0.05313778	0	-0.043954849
-0.18193054	-0.30340624	-0.5066128	-0.21906853	9.87E-04	0.28040648	-0.2547555	0.20916748	0.33658886	0.37190628
-0.23493862	-0.42159367	0.04266548	0.30632973	0.113378765	-0.28493834	-0.39043188	0.083667755	-0.485631	0.031437874
0.08401871	-0.031121254	0.04359579	-0.29167366	-0.36395216	-0.5998516	0.13039064	-0.13885212	0.001708984	-0.135422942
0.14622784	0.1299777	-0.73582935	0.12678146	-0.27054715	0.060117245	-0.43990326	0.00685215	-0.011526108	0.01495409
-0.26449013	-0.5403733	0.054858685	-0.25696945	-0.264223095	0.5284457	0.3130765	0.15449905	-0.06894112	-0.123931175
-0.44022322	-0.4012556	-0.016250134	-0.029273033	-0.020919085	0.17137861	0.23022223	-0.12961006	-0.07169914	-0.03327155
0.0845747	0.022202969	0.64581823	0.020693302	0.030401706	0.38244343	0.019411564	-0.1386137	-0.14772081	-0.221357585
-0.03746128	-0.766932	-0.527277	0.13065147	-0.059916735	0.061264038	-0.12461519	0.003551483	0.059505463	0.060475112
-0.1019907	-0.33409405	-0.027495384	-4.35E-04	-0.00998497	0.6160269	0.359087	0.08591175	0.15316486	0.090190888
-0.21649265	-0.030647755	-0.6345043	0.068707466	0.035481453	-0.06407595	-0.1838088	-0.11514759	-0.41884756	-0.034292935
0.12275505	0.9783635	-0.027495384	-0.16407585	0.274104835	-0.54284334	0.8574543	-0.18490887	-0.030891418	-0.25155592
-0.11136246	-0.83087206	-0.42461395	0	-0.230229615	0.07081032	0.18789482	-0.006407738	0.31066895	0.01973343
-0.2873602	0.3480463	0.32932377	0.010712624	0.038977625	-1.37114	0.13811207	-0.10354519	0.8523674	0.118280409
0	-0.39163876	0.83290195	0.027551651	-0.034635305	-0.14264822	0.2420125	0.060147285	-0.17610836	-0.287471535
0.50654316	1.101748	-0.8179107	-2.37E-04	1.1913893	0	-0.4835987	0.11024284	-0.21253729	0.084577323
0.29670143	0.29553938	0.22015762	-0.036597252	0.20835209	1.1236362	-0.40158367	0.08207798	0.29855156	-0.11081147
-0.002698898	-0.6550846	0.02519846	-0.14768791	-0.02856636	0.19480324	-0.34412622	0.1391716	-0.123606205	0.045133112
0.055327415	0.10517454	0.42663383	0.04326725	0.275606155	-0.91083574	-0.17583275	0.08066845	-0.6135874	0.037709237
-0.043322563	-0.596375	-0.7416749	0.06229973	-0.11268425	-0.30509806	-0.27109003	0.38215542	0.09275627	0.32097459
0.3178873	-0.030647755	0.119711876	0.14847088	0.4400809	0.8316846	-5.03E-04	0.18196392	0.11139488	0.099087715
-0.1128273	0.07879019	-0.4029956	-0.032811165	-0.22474027	-0.34480524	-0.37569666	0.29759598	-0.12861729	0.20470357
-0.30373573	-0.5603428	0.4213519	-0.23398876	0.038757802	-0.09409428	0.49161625	-0.2276516	0.2166071	-0.17585206
0.28514004	-0.038650036	0.37375402	0.02945137	-0.50294305	-0.8422208	-0.80136967	0.27889824	0.0673933	0.168501615
0.069000244	0.7595806	0.047422886	-0.19468975	-0.02096653	0.5537119	-0.20841551	-0.25164318	-0.10655022	-0.2198143
0.08571243	-0.26335955	0.6382508	-0.05460739	0.055039643	-0.025583744	-0.11910725	-0.049797058	0.107647896	-0.141534567
0.021866798	0.21820354	0.71421766	0.15696716	-0.09835911	-0.506166	-0.20961332	0.021867752	0.13111973	-0.222165825
0.24152279	-0.35445452	-0.5696373	-0.047938347	-0.04403472	-0.032435894	-0.23100138	0.20454216	0.17523098	0.169066195
0.18123627	1.9356894	0.101878166	0.010327339	0.46661425	1.000895	0	-0.17908382	-0.51026726	-0.158817767
-0.33083248	-0.36961842	-0.84013844	-0.013055325	-0.268419745	-0.4825678	0	0.05442238	-0.07023239	0.2445066
-0.27653885	-0.79809475	0	0.26910973	0.002876997	-0.4122424	0.04548168	0.22823524	-0.13460255	0.11884308
0.3070221	1.0442657	0.8749995	0.2731161	0.022445917	-0.115983486	-0.27991867	-0.1325779	-0.050263405	-0.089203356
-0.20729256	-0.38985586	-0.59087276	-0.076360226	-0.4115622	0.9370985	0.96400166	0	-0.061361313	-0.068678141
0.104473114	-0.31366682	-0.9025636	0.3816824	-0.0716393	0.17649794	0.010061741	0.1691742	0.003717423	0.37631321
0.08120632	0.548357	-0.4182272	-8.15E-04	0.3250885	-0.31520128	0.11917353	0.15289211	0.022007942	0.05207658
-0.2055502	-0.4795332	-0.85837793	0.028485775	-0.061117172	0.094583035	0.64572716	0.016435623	0.8034706	-0.250390525
-0.11040783	0.45655584	0.29102898	-0.066802025	-0.065956593	-0.16589403	-0.331295	-0.008934021	-0.060596466	-0.094688653
0.22543526	-0.67057514	-0.24869204	0.29978466	-0.078444006	-0.8439622	-0.8130312	0.14947796	-0.31617022	0.23451209











SHPRH	SLX1B	SLX4	SMUG1	SPO11	SPRTN	TDG	TDP1	TDP2	TOP1
0.010585785	0.025121689	0.27928376	0.3100314	0	0	-0.62908363	0.071044445	-1.5161119	-0.8468883
1.1396761	-0.02726841	-0.70933867	-0.20728588	0	0	0.18542862	0.09010458	0.76601315	0.095848795
-0.122400284	0.28608704	-0.08046079	-0.52835035	0	0	0.019535065	0.07537651	0.1854701	0.444538608
0.07932854	-0.011623383	-0.45368385	-0.02916193	0	0	0.75040245	-0.29897547	0.102956295	0.25065898
0.35353422	0.19377041	-0.196910619	0.050498486	0	0	0.12834024	-0.29065514	0.62344456	0.02801037
0.78488827	0.07741356	0.047255993	0.06952095	0	0	0.4054575	0.07471275	0.027215958	-0.13638043
-0.2483654	0.008778572	-9.22E-04	-0.21075058	0	0	0.10437107	-0.0669837	0.14922667	-0.211602925
0.17962265	0.31367588	0.17602348	0.1489191	0	0	-0.0906744	0.061489582	0.08760834	-0.040779829
-0.18731594	0.09875965	0.347638128	-0.13434458	0	0	-0.2099433	0.056765556	-0.30360365	-0.010757208
0.11583805	-0.01669693	0.022485495	0.049124718	0	0	-0.054968834	0.5354295	0.55972195	0.17143035
0.5960846	-0.16178226	0.121202705	0	0	0	0.5049734	-0.05162859	0.8164635	0.224925281
-0.23652554	-0.030966759	-0.240875005	0.09014988	0	0	0.1745696	-0.200346	1.3246689	0.50399374
0.027414322	0.07381725	-0.26569843	0	0	0	0.33249712	-0.27838135	0.04368353	0.464381935
-0.65620804	0.51562023	-0.24900079	-0.12386608	0	0	0.2164259	0.5161748	0.68139267	0.8256309
0.09640694	-0.23016739	0.02923131	-0.016834736	0	0	-0.26219034	0.10043383	-0.5200701	-0.459335088
0.14824867	-0.44591427	0.164364815	-0.27960634	0	0	-0.14410686	0.113808155	-0.31866217	-0.416285035
-0.12540388	-0.056773186	-0.124087094	0.002551556	0	0	0	-0.23907328	0.73878574	-0.29450631
-0.041107178	0.37634373	-0.166136982	0.120253086	0	0	-0.11946249	-0.15365362	-0.30488253	-0.125297308
0.4224758	-0.25024033	0.122296335	0.23814821	0	0	-0.1780076	0.14715576	-0.45200968	0.030324221
-0.40750027	0.05312729	0.14401531	-0.3469019	0	0	0.17080688	-0.12711763	-0.850997	0.143708945
0	-0.53767014	0.04233837	0.08423185	0	0	0.6272726	0	-0.47579002	0.378491163
0.18831062	-0.19959927	0.09567833	-0.20035505	0	0	0.16985798	0.2697258	-0.5366969	-0.35248017
0.38219833	-0.5759554	-0.12150979	-0.058509827	0	0	-0.13815022	-0.42642307	0.3031745	-0.076933622
-0.048004627	0.14162445	0.069365263	-0.09332037	0	0	-0.44321823	0.004840374	0.058911324	-0.013952971
-0.001670837	0.21056747	-0.235080245	0.08127689	0	0	0.14411354	-0.12096357	0.5834341	0.40949082
-0.384696	-0.30834198	0.109954118	-0.24463558	0	0	-0.30217457	-0.27642155	-0.80865574	-0.226979025
-0.46041918	0.031331062	0.126526835	0.12763405	0	0	0.010452747	-0.06949139	0.36663914	-0.156958103
-0.057393074	0.293725	-0.02785945	0.30289555	0	0	-0.6283083	0.23658323	0.71662235	-0.052814485
0.4178114	-0.010016441	0.25561906	-0.2954116	0	0	-0.03143692	-0.20820141	-0.015428543	-0.01870584
0.10502815	-0.3841381	0.16367054	-0.36442757	0	0	-0.2129612	-0.02232933	-0.36182976	-0.110772845
-0.39643764	0.42510414	-0.174478055	0	0	0	0.05580759	0.106208324	-0.17338562	0.411980399
-0.17832088	0.57626534	0.05031633	0.18539143	0	0	-0.019133091	-0.1541605	0.001847744	0.29354763
0.008869171	-0.16351414	-0.17123437	-0.110134125	0	0	0.25081348	-0.03859234	0.4736395	0.068588497
0.5639024	0	-0.366509208	-0.17260933	0	0	0.30806875	0.26550865	-0.13032866	0.198261975
0.4987688	0.14323044	0.086354255	0.14842272	0	0	-0.21610928	-0.20835543	0	-0.05936861
0.22790432	-0.05476761	-0.271170377	0.042054176	0	0	0.017611027	0.37412405	-0.16466713	0.01072669
-0.054512978	-0.16616726	-0.06281757	0.04849243	0	0	-0.00838995	0.24739742	-0.95133734	-0.660780665
0.21449757	0.10848141	-0.05694437	-0.33910084	0	0	-0.16260862	0.34987068	-0.24338818	-0.098159555
0.38664246	-0.039803505	0.072670938	0.11505842	0	0	0.096961975	0	-0.4114976	-0.035490752
-0.18994999	-0.16375828	0.09796095	-0.44193316	0	0	-0.4749422	-0.04464388	-2.24E-04	0.132463694
-0.1208477	-0.47641277	0.200215344	0.08652067	0	0	0.04317856	0.3617921	-0.6780677	0.337629555
-0.16441488	-0.31450462	0.190137615	-0.27820444	0	0	0.002986908	0.041864872	-1.1149068	0.6735499
0.5896611	-0.47732258	-0.192597865	0.17630672	0	0	0.6594162	0.058902264	-0.044777393	0.398566975
-0.115091324	-0.19195652	-0.00840878	0.15430975	0	0	0.3804283	0.23993349	0.14052391	0.388087035
-0.10845375	-0.06388092	0.21644092	-0.25827694	0	0	-0.19387197	0.066043854	-0.5568361	-0.040829181
0.6407099	0.5075598	-0.3064599	0.28351307	0	0	-0.29733944	-0.46549797	1.0607901	-0.21225691
-0.62537956	-0.045643806	-0.211925747	0.028149128	0	0	-0.3979473	0.09366751	-0.7831292	-0.21051264
-0.24921036	-0.3357458	-0.070634841	-0.24656773	0	0	0.085392475	-0.14426947	0.31135225	0.109167337
-0.42024708	0.051927567	0.0239532	0.07478857	0	0	-0.38487482	-0.05027485	-0.34214497	-0.084181071
0.63562346	-0.33606243	-0.144571305	-0.21101618	0	0	-0.21208906	-0.038078308	-0.38888597	-0.213997603
0.06593895	-0.007098198	0.033223391	0.46857023	0	0	-0.04275751	0.26366854	0.06981468	-0.491908785
-0.44174862	0.3151722	0.1438694	0.25841808	0	0	-0.06675577	0.15753555	0.5846453	0.001401663
0.2705698	0.021735191	-0.051374915	-0.04173851	0	0	0.26017046	-0.17454195	0.5448122	0.474633932
-0.17303753	0.23376656	0.034981965	-0.05230713	0	0	0.23424244	-0.27637625	0.42760372	-0.03238034
-0.3813138	0.007436752	0.26735115	-0.30363846	0	0	-0.05031109	0.24091911	-0.44296646	-0.61910892





