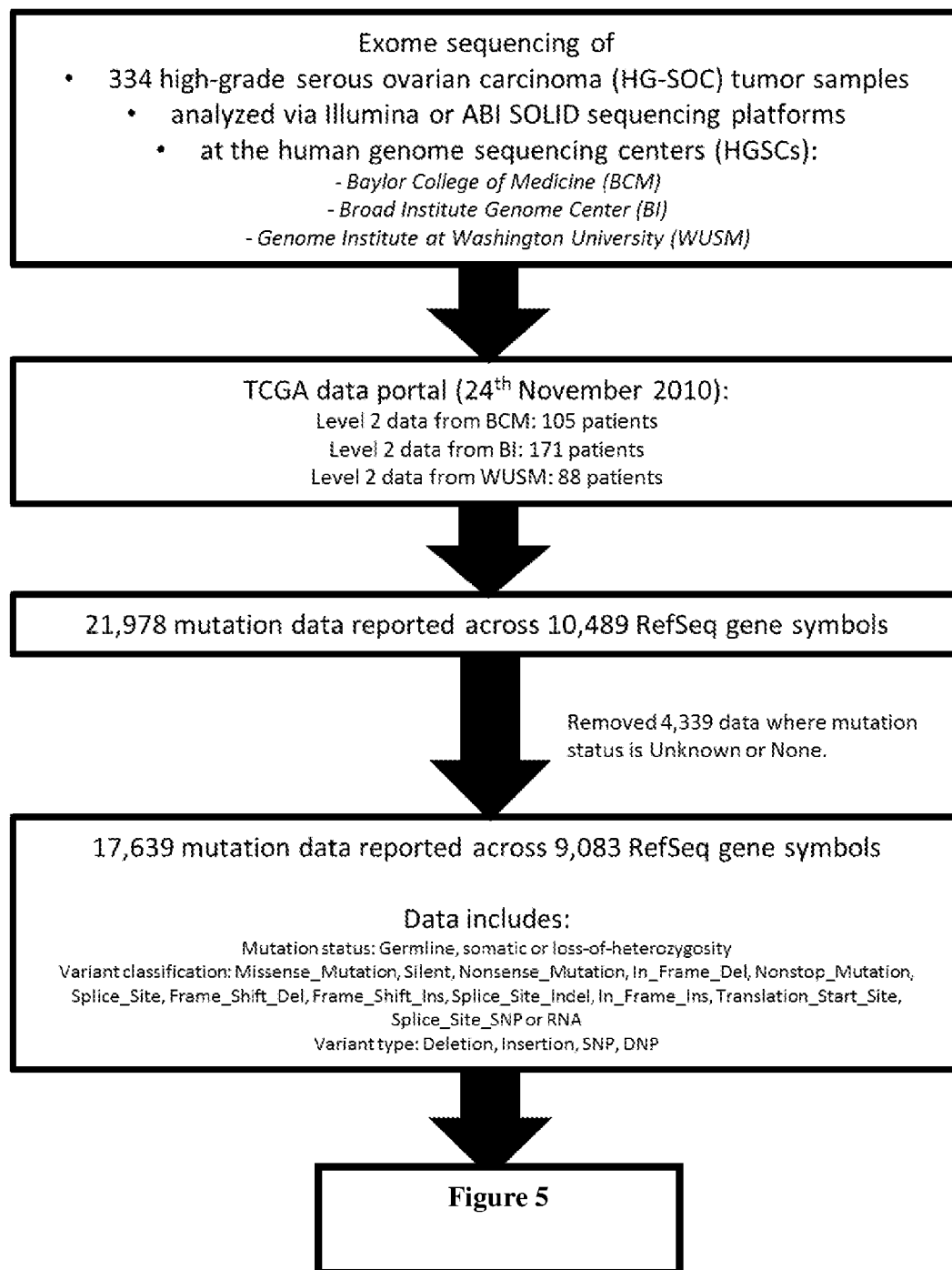
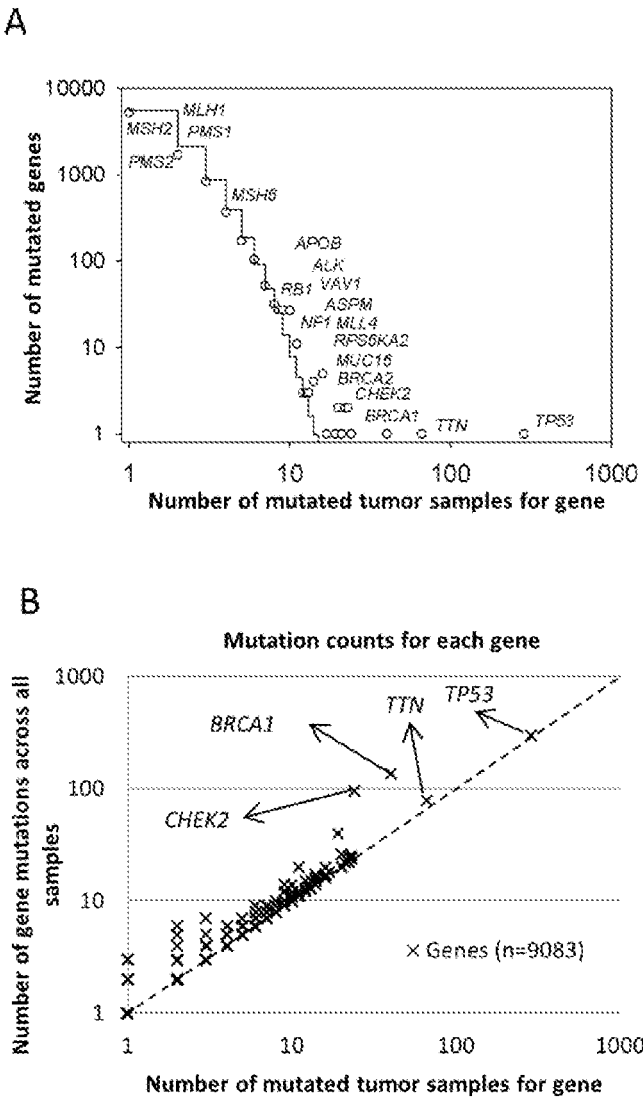


1/57

Figure 1

2/57
Figure 2



3/57

Figure 3

		BRCA1 mutations		
CHEK2 mutations	CHEK2\BRCA1	non-silent mutation	silent or no mutation	Total
	non-silent mutation	4	18	22
	silent or no mutation	36	276	312
	Total	40	294	334
Kappa		0.3536		
p-value (one-sided, right-tailed)		0.262		

		BRCA2 mutations		
CHEK2 mutations	CHEK2\BRCA2	non-silent mutation	silent or no mutation	Total
	non-silent mutation	4	18	22
	silent or no mutation	19	293	312
	Total	23	311	334
Kappa		0.1164		
p-value (one-sided, right-tailed)		0.05431		

		BRCA1 or BRCA2 mutations		
CHEK2 mutations	CHEK2\BRCA1 or BRCA2	non-silent mutation	silent or no mutation	Total
	non-silent mutation	6	16	22
	silent or no mutation	51	261	312
	Total	57	277	334
Kappa		0.06282		
p-value (one-sided, right-tailed)		0.1525		

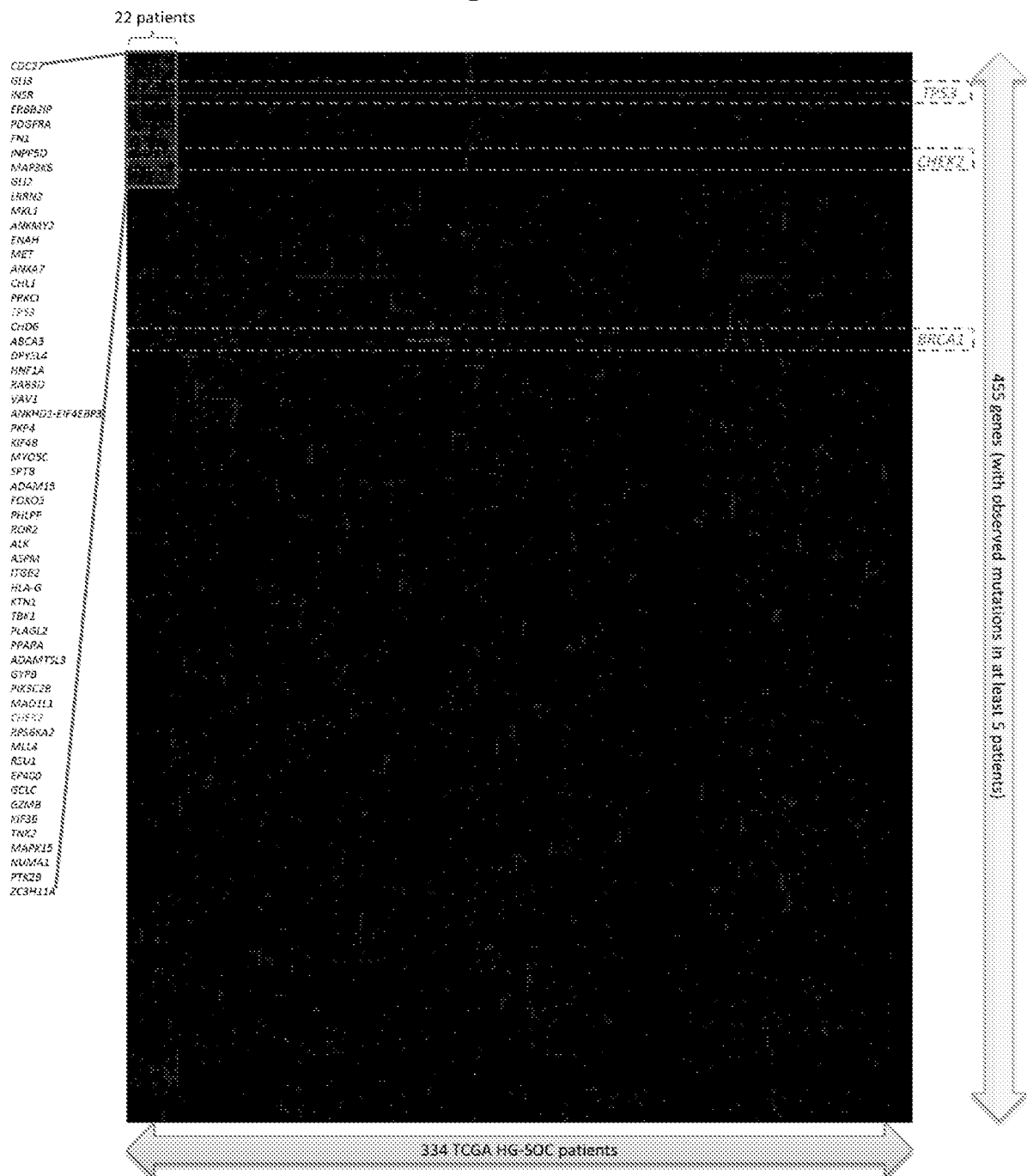
		RP56KA2 mutations		
CHEK2 mutations	CHEK2\RP56KA2	non-silent mutation	silent or no mutation	Total
	non-silent mutation	21	1	22
	silent or no mutation	2	310	312
	Total	23	311	334
Kappa		0.9285		
p-value (one-sided, right-tailed)		5.39E-30		

		MLL4 mutations		
CHEK2 mutations	CHEK2\MLL4	non-silent mutation	silent or no mutation	Total
	non-silent mutation	17	5	22
	silent or no mutation	3	309	312
	Total	20	314	334
Kappa		0.7968		
p-value (one-sided, right-tailed)		1.93E-21		

		TP53 mutations		
CHEK2 mutations	CHEK2\TP53	non-silent mutation	silent or no mutation	Total
	non-silent mutation	21	1	22
	silent or no mutation	262	50	312
	Total	283	51	334
Kappa		0.01763		
p-value (one-sided, right-tailed)		0.121		

4/57

Figure 4



5/57

Figure 5

A

Mutation sites on TP53	Inclusive of silent mutations		Exclusive of silent mutations	
	#Samples with mutation at this site	Samples with mutation at this site	#Samples with mutation at this site	Samples with mutation at this site
chr17:7514707-7514707(+)	1	TCGA-13-0727	1	TCGA-13-0727
chr17:7514708-7514708(+)	1	TCGA-13-0727	1	TCGA-13-0727
chr17:7514709-7514710(+)	1	TCGA-13-0751	1	TCGA-13-0751
chr17:7514720-7514720(+)	1	TCGA-24-1434	1	TCGA-24-1434
chr17:7514728-7514728(+)	3	TCGA-13-0884, TCGA-13-1489 and TCGA-61-2097	3	TCGA-13-0884, TCGA-13-1489 and TCGA-61-2097
chr17:7514743-7514743(+)	1	TCGA-36-1571	1	TCGA-36-1571
chr17:7514755-7514755(+)	1	TCGA-13-1497	1	TCGA-13-1497
chr17:7514759-7514759(+)	1	TCGA-13-1498	1	TCGA-13-1498
chr17:7517576-7517576(+)	1	TCGA-13-0725	1	TCGA-13-0725
chr17:7517577-7517577(+)	5	TCGA-09-1669, TCGA-10-0938, TCGA-23-2072, TCGA-24-1436 and TCGA-59-2355	5	TCGA-09-1669, TCGA-10-0938, TCGA-23-2072, TCGA-24-1436 and TCGA-59-2355
chr17:7517583-7517583(+)	1	TCGA-13-1509	1	TCGA-13-1509
chr17:7517610-7517610(+)	1	TCGA-24-2271	1	TCGA-24-2271
chr17:7517623-7517623(+)	1	TCGA-13-0899	1	TCGA-13-0899
chr17:7517625-7517626(+)	1	TCGA-24-1603	1	TCGA-24-1603
chr17:7517652-7517652(+)	2	TCGA-24-1556 and TCGA-24-1604	2	TCGA-24-1556 and TCGA-24-1604
chr17:7517743-7517743(+)	1	TCGA-24-1103	1	TCGA-24-1103
chr17:7517747-7517747(+)	4	TCGA-04-1331, TCGA-13-0758, TCGA-13-1483 and TCGA-13-1488	4	TCGA-04-1331, TCGA-13-0758, TCGA-13-1483 and TCGA-13-1488
chr17:7517783-7517783(+)	1	TCGA-09-1659	1	TCGA-09-1659
chr17:7517807-7517807(+)	1	TCGA-25-1326	1	TCGA-25-1326
chr17:7517813-7517813(+)	1	TCGA-24-2267	1	TCGA-24-2267
chr17:7517818-7517818(+)	1	TCGA-04-1525	1	TCGA-04-1525
chr17:7517818-7517819(+)	1	TCGA-04-1525	1	TCGA-04-1525
chr17:7517819-7517819(+)	5	TCGA-10-0937, TCGA-13-0726, TCGA-24-1416, TCGA-24-1567 and TCGA-25-1623	5	TCGA-10-0937, TCGA-13-0726, TCGA-24-1416, TCGA-24-1567 and TCGA-25-1623
chr17:7517821-7517821(+)	1	TCGA-23-1023	1	TCGA-23-1023
chr17:7517822-7517822(+)	1	TCGA-13-0764	1	TCGA-13-0764
chr17:7517824-7517824(+)	1	TCGA-13-1482	1	TCGA-13-1482
chr17:7517827-7517827(+)	1	TCGA-13-0904	1	TCGA-13-0904
chr17:7517830-7517830(+)	2	TCGA-13-0913 and TCGA-24-1552	2	TCGA-13-0913 and TCGA-24-1552
chr17:7517831-7517831(+)	1	TCGA-13-0757	1	TCGA-13-0757
chr17:7517833-7517833(+)	1	TCGA-13-1411	1	TCGA-13-1411
chr17:7517837-7517837(+)	1	TCGA-13-0807	1	TCGA-13-0807
chr17:7517839-7517839(+)	2	TCGA-13-0910 and TCGA-13-1491	2	TCGA-13-0910 and TCGA-13-1491
chr17:7517842-7517842(+)	2	TCGA-24-1463 and TCGA-24-2390	2	TCGA-24-1463 and TCGA-24-2390
chr17:7517845-7517845(+)	13	TCGA-04-1530, TCGA-04-1542, TCGA-10-0934, TCGA-13-0761, TCGA-13-0791, TCGA-13-0804, TCGA-13-0900, TCGA-13-0905, TCGA-13-1512, TCGA-24-1558, TCGA-25-1315, TCGA-36-1575 and TCGA-36-1578	13	TCGA-04-1530, TCGA-04-1542, TCGA-10-0934, TCGA-13-0761, TCGA-13-0791, TCGA-13-0804, TCGA-13-0900, TCGA-13-0905, TCGA-13-1512, TCGA-24-1558, TCGA-25-1315, TCGA-36-1575 and TCGA-36-1578
chr17:7517846-7517846(+)	7	TCGA-13-0889, TCGA-13-1499, TCGA-24-1426, TCGA-25-1321, TCGA-25-2392, TCGA-36-1580 and TCGA-59-2348	7	TCGA-13-0889, TCGA-13-1499, TCGA-24-1426, TCGA-25-1321, TCGA-25-2392, TCGA-36-1580 and TCGA-59-2348
chr17:7517849-7517849(+)	3	TCGA-13-0886, TCGA-24-1427 and TCGA-24-2024	3	TCGA-13-0886, TCGA-24-1427 and TCGA-24-2024
chr17:7517852-7517852(+)	1	TCGA-24-1471	1	TCGA-24-1471
chr17:7517853-7517853(+)	1	TCGA-13-0924	1	TCGA-13-0924
chr17:7517866-7517866(+)	2	TCGA-59-2352 and TCGA-61-2113	2	TCGA-59-2352 and TCGA-61-2113
chr17:7517867-7517867(+)	2	TCGA-04-1348 and TCGA-61-2102	2	TCGA-04-1348 and TCGA-61-2102
chr17:7517869-7517869(+)	1	TCGA-13-0760	1	TCGA-13-0760
chr17:7517871-7517871(+)	1	TCGA-13-0765	1	TCGA-13-0765

6/57

Figure 5 cont.

chr17:7517871-7517881(+)	1	TCGA-23-1116	1	TCGA-23-1116
chr17:7517878-7517878(+)	1	TCGA-23-2081	1	TCGA-23-2081
chr17:7518223-7518223(+)	2	TCGA-13-0912 and TCGA-13-1409	2	TCGA-13-0912 and TCGA-13-1409
chr17:7518236-7518236(+)	1	TCGA-24-1470	1	TCGA-24-1470
chr17:7518231-7518231(+)	2	TCGA-09-1665 and TCGA-25-1635	2	TCGA-09-1665 and TCGA-25-1635
chr17:7518236-7518236(+)	1	TCGA-09-2050	1	TCGA-09-2050
chr17:7518239-7518241(+)	1	TCGA-23-2078	1	TCGA-23-2078
chr17:7518239-7518247(+)	1	TCGA-23-1031	1	TCGA-23-1031
chr17:7518254-7518254(+)	1	TCGA-13-1504	1	TCGA-13-1504
chr17:7518257-7518257(+)	2	TCGA-23-1028 and TCGA-24-2288	2	TCGA-23-1028 and TCGA-24-2288
chr17:7518261-7518261(+)	1	TCGA-24-1466	1	TCGA-24-1466
chr17:7518263-7518263(+)	9	TCGA-04-1364, TCGA-10-0934, TCGA-13-1496, TCGA-13-1499, TCGA-23-1032, TCGA-24-0979, TCGA-24-1419, TCGA-24-2260 and TCGA-57-1993	9	TCGA-04-1364, TCGA-10-0934, TCGA-13-1496, TCGA-13-1499, TCGA-23-1032, TCGA-24-0979, TCGA-24-1419, TCGA-24-2260 and TCGA-57-1993
chr17:7518263-7518264(+)	1	TCGA-36-1570	1	TCGA-36-1570
chr17:7518264-7518264(+)	7	TCGA-04-1336, TCGA-13-0766, TCGA-24-0982, TCGA-24-1422, TCGA-24-1551, TCGA-25-1632 and TCGA-25-2409	7	TCGA-04-1336, TCGA-13-0766, TCGA-24-0982, TCGA-24-1422, TCGA-24-1551, TCGA-25-1632 and TCGA-25-2409
chr17:7518272-7518272(+)	4	TCGA-13-0883, TCGA-24-0966, TCGA-25-1626 and TCGA-30-1853	4	TCGA-13-0883, TCGA-24-0966, TCGA-25-1626 and TCGA-30-1853
chr17:7518273-7518273(+)	5	TCGA-04-1336, TCGA-09-2049, TCGA-25-1317, TCGA-36-1568 and TCGA-61-1736	5	TCGA-04-1336, TCGA-09-2049, TCGA-25-1317, TCGA-36-1568 and TCGA-61-1736
chr17:7518275-7518275(+)	1	TCGA-29-2427	1	TCGA-29-2427
chr17:7518276-7518276(+)	2	TCGA-24-1560 and TCGA-61-2111	2	TCGA-24-1560 and TCGA-61-2111
chr17:7518284-7518284(+)	5	TCGA-04-1348, TCGA-04-1367, TCGA-20-0991, TCGA-24-1545 and TCGA-24-2254	5	TCGA-04-1348, TCGA-04-1367, TCGA-20-0991, TCGA-24-1545 and TCGA-24-2254
chr17:7518290-7518290(+)	1	TCGA-24-1464	1	TCGA-24-1464
chr17:7518291-7518292(+)	2	TCGA-13-0782 and TCGA-13-0883	2	TCGA-13-0782 and TCGA-13-0883
chr17:7518293-7518293(+)	1	TCGA-61-1995	1	TCGA-61-1995
chr17:7518295-7518295(+)	1	TCGA-13-1412	1	TCGA-13-1412
chr17:7518296-7518296(+)	1	TCGA-13-1487	1	TCGA-13-1487
chr17:7518299-7518299(+)	2	TCGA-24-1416 and TCGA-57-1582	2	TCGA-24-1416 and TCGA-57-1582
chr17:7518305-7518305(+)	2	TCGA-04-1361 and TCGA-24-1425	2	TCGA-04-1361 and TCGA-24-1425
chr17:7518306-7518306(+)	1	TCGA-13-1484	1	TCGA-13-1484
chr17:7518310-7518311(+)	1	TCGA-09-0364	1	TCGA-09-0364
chr17:7518311-7518311(+)	1	TCGA-24-2019	1	TCGA-24-2019
chr17:7518319-7518320(+)	1	TCGA-57-1583	1	TCGA-57-1583
chr17:7518324-7518325(+)	1	TCGA-24-1418	1	TCGA-24-1418
chr17:7518334-7518334(+)	1	TCGA-04-1362	1	TCGA-04-1362
chr17:7518901-7518901(+)	2	TCGA-25-2400 and TCGA-36-1577	2	TCGA-25-2400 and TCGA-36-1577
chr17:7518962-7518962(+)	1	TCGA-25-2042	0	
chr17:7518964-7518964(+)	1	TCGA-04-1357	1	TCGA-04-1357
chr17:7518969-7518969(+)	1	TCGA-10-0928	1	TCGA-10-0928
chr17:7518915-7518915(+)	8	TCGA-13-0881, TCGA-24-1548, TCGA-24-1553, TCGA-25-1318, TCGA-25-1627, TCGA-59-2350, TCGA-59-2363 and TCGA-61-1728	8	TCGA-13-0881, TCGA-24-1548, TCGA-24-1553, TCGA-25-1318, TCGA-25-1627, TCGA-59-2350, TCGA-59-2363 and TCGA-61-1728
chr17:7518927-7518927(+)	1	TCGA-04-1364	1	TCGA-04-1364
chr17:7518928-7518928(+)	2	TCGA-24-1435 and TCGA-25-1625	2	TCGA-24-1435 and TCGA-25-1625
chr17:7518929-7518929(+)	2	TCGA-04-1347 and TCGA-61-1908	2	TCGA-04-1347 and TCGA-61-1908
chr17:7518933-7518933(+)	1	TCGA-25-2404	1	TCGA-25-2404
chr17:7518937-7518937(+)	1	TCGA-13-0887	1	TCGA-13-0887
chr17:7518945-7518946(+)	1	TCGA-04-1343	1	TCGA-04-1343
chr17:7518951-7518951(+)	1	TCGA-61-2092	1	TCGA-61-2092
chr17:7518960-7518960(+)	2	TCGA-13-0903 and TCGA-25-1322	2	TCGA-13-0903 and TCGA-25-1322
chr17:7518964-7518964(+)	2	TCGA-61-2092 and TCGA-61-2016	2	TCGA-61-2092 and TCGA-61-2016
chr17:7518982-7518982(+)	1	TCGA-24-1413	1	TCGA-24-1413
chr17:7518988-7518988(+)	5	TCGA-13-0916, TCGA-13-1405 and TCGA-24-2289	5	TCGA-13-0916, TCGA-13-1405 and TCGA-24-2289

7/57

Figure 5 cont.

chr17:7518990-7518990(+)	9	TCGA-09-0365, TCGA-24-1304, TCGA-24-1424, TCGA-24-1428, TCGA-24-1468, TCGA-24-1563, TCGA-25-1325, TCGA-25-2306 and TCGA-31-1950	9	TCGA-09-0365, TCGA-24-1104, TCGA-24-1424, TCGA-24-1428, TCGA-24-1468, TCGA-24-1563, TCGA-25-1325, TCGA-25-2306 and TCGA-31-1950
chr17:7518991-7518991(+)	1	TCGA-13-1495	1	TCGA-13-1495
chr17:7518991-7519013(+)	1	TCGA-09-2044	1	TCGA-09-2044
chr17:7518993-7518993(+)	1	TCGA-25-2401	1	TCGA-25-2401
chr17:7518996-7518996(+)	3	TCGA-09-0369, TCGA-13-0762 and TCGA-24-0868	3	TCGA-09-0369, TCGA-13-0762 and TCGA-24-0868
chr17:7518997-7518997(+)	1	TCGA-13-0894	1	TCGA-13-0894
chr17:7519000-7519000(+)	1	TCGA-24-1474	1	TCGA-24-1474
chr17:7519000-7519002(+)	1	TCGA-24-1423	1	TCGA-24-1423
chr17:7519015-7519015(+)	3	TCGA-09-1861, TCGA-10-0935 and TCGA-24-0970	3	TCGA-09-1861, TCGA-10-0935 and TCGA-24-0970
chr17:7519064-7519064(+)	1	TCGA-13-0923	1	TCGA-13-0923
chr17:7519095-7519095(+)	3	TCGA-13-1492, TCGA-24-1564 and TCGA-24-2030	3	TCGA-13-1492, TCGA-24-1564 and TCGA-24-2030
chr17:7519113-7519113(+)	1	TCGA-04-1332	1	TCGA-04-1332
chr17:7519118-7519118(+)	1	TCGA-24-1555	1	TCGA-24-1555
chr17:7519119-7519119(+)	5	TCGA-04-1346, TCGA-04-1350, TCGA-09-2045, TCGA-13-2080 and TCGA-25-1119	5	TCGA-04-1346, TCGA-04-1350, TCGA-09-2045, TCGA-13-2080 and TCGA-25-1119
chr17:7519123-7519123(+)	1	TCGA-13-0730	1	TCGA-13-0730
chr17:7519125-7519125(+)	1	TCGA-13-1481	1	TCGA-13-1481
chr17:7519128-7519128(+)	6	TCGA-09-1862, TCGA-13-1404, TCGA-23-1110, TCGA-23-1123, TCGA-24-1544 and TCGA-57-1584	6	TCGA-09-1862, TCGA-13-1404, TCGA-23-1110, TCGA-23-1123, TCGA-24-1544 and TCGA-57-1584
chr17:7519131-7519131(+)	8	TCGA-23-1030, TCGA-23-1122, TCGA-23-2077, TCGA-24-2281, TCGA-25-1318, TCGA-25-1633, TCGA-25-2399 and TCGA-61-2003	8	TCGA-23-1030, TCGA-23-1122, TCGA-23-2077, TCGA-24-2281, TCGA-25-1318, TCGA-25-1633, TCGA-25-2399 and TCGA-61-2003
chr17:7519138-7519138(+)	2	TCGA-13-0802 and TCGA-25-1630	2	TCGA-13-0802 and TCGA-25-1630
chr17:7519155-7519155(+)	1	TCGA-24-0980	1	TCGA-24-0980
chr17:7519165-7519165(+)	1	TCGA-23-1032	1	TCGA-23-1032
chr17:7519167-7519167(+)	2	TCGA-10-0926 and TCGA-24-2261	2	TCGA-10-0926 and TCGA-24-2261
chr17:7519168-7519168(+)	2	TCGA-09-2053 and TCGA-61-2104	2	TCGA-09-2053 and TCGA-61-2104
chr17:7519179-7519179(+)	2	TCGA-13-0720 and TCGA-23-1021	2	TCGA-13-0720 and TCGA-23-1021
chr17:7519186-7519186(+)	5	TCGA-13-0724, TCGA-13-0919, TCGA-24-1105, TCGA-24-1614 and TCGA-61-2009	5	TCGA-13-0724, TCGA-13-0919, TCGA-24-1105, TCGA-24-1614 and TCGA-61-2009
chr17:7519188-7519188(+)	1	TCGA-23-1124	1	TCGA-23-1124
chr17:7519192-7519192(+)	1	TCGA-25-1630	1	TCGA-25-1630
chr17:7519195-7519207(+)	1	TCGA-13-0723	1	TCGA-13-0723
chr17:7519195-7519225(+)	1	TCGA-23-1117	1	TCGA-23-1117
chr17:7519200-7519200(+)	1	TCGA-24-2293	1	TCGA-24-2293
chr17:7519204-7519204(+)	1	TCGA-23-1118	1	TCGA-23-1118
chr17:7519217-7519217(+)	1	TCGA-13-0885	1	TCGA-13-0885
chr17:7519221-7519221(+)	2	TCGA-13-1501 and TCGA-25-1313	2	TCGA-13-1501 and TCGA-25-1313
chr17:7519225-7519225(+)	1	TCGA-20-0990	1	TCGA-20-0990
chr17:7519230-7519230(+)	1	TCGA-13-1507	1	TCGA-13-1507
chr17:7519235-7519235(+)	1	TCGA-59-2351	1	TCGA-59-2351
chr17:7519240-7519240(+)	1	TCGA-10-0931	1	TCGA-10-0931
chr17:7519251-7519251(+)	1	TCGA-13-0795	1	TCGA-13-0795
chr17:7519252-7519252(+)	1	TCGA-04-1337	1	TCGA-04-1337
chr17:7519255-7519255(+)	1	TCGA-13-0908	1	TCGA-13-0908
chr17:7519259-7519259(+)	2	TCGA-09-0366 and TCGA-24-2282	2	TCGA-09-0366 and TCGA-24-2282
chr17:7519260-7519260(+)	2	TCGA-13-0800 and TCGA-23-1026	2	TCGA-13-0800 and TCGA-23-1026
chr17:7519261-7519261(+)	1	TCGA-61-2000	1	TCGA-61-2000
chr17:7519266-7519267(+)	1	TCGA-13-1410	1	TCGA-13-1410
chr17:7519267-7519267(+)	1	TCGA-61-2094	1	TCGA-61-2094
chr17:7519275-7519275(+)	3	TCGA-09-0367, TCGA-13-0714 and TCGA-61-2110	3	TCGA-09-0367, TCGA-13-0714 and TCGA-61-2110

8/57

Figure 5 cont.

chr17:7519280-7519280(+)	4	TCGA-04-1365, TCGA-09-1666, TCGA-13-0890 and TCGA-15-1324	4	TCGA-04-1365, TCGA-09-1666, TCGA-13-0890 and TCGA-15-1324
chr17:7519281-7519281(+)	2	TCGA-04-1514 and TCGA-24-1557	2	TCGA-04-1514 and TCGA-24-1557
chr17:7520036-7520036(+)	3	TCGA-13-1403, TCGA-23-1107 and TCGA-25-1631	3	TCGA-13-1403, TCGA-23-1107 and TCGA-25-1631
chr17:7520037-7520037(+)	1	TCGA-13-0755	0	
chr17:7520040-7520040(+)	1	TCGA-25-1320	1	TCGA-25-1320
chr17:7520042-7520042(+)	1	TCGA-13-0793	1	TCGA-13-0793
chr17:7520060-7520060(+)	1	TCGA-61-2008	1	TCGA-61-2008
chr17:7520086-7520086(+)	1	TCGA-13-1407	1	TCGA-13-1407
chr17:7520087-7520088(+)	1	TCGA-23-1024	1	TCGA-23-1024
chr17:7520099-7520099(+)	3	TCGA-10-0928, TCGA-13-1484 and TCGA-20-0987	3	TCGA-10-0928, TCGA-13-1484 and TCGA-20-0987
chr17:7520114-7520114(+)	1	TCGA-13-0920	1	TCGA-13-0920
chr17:7520148-7520157(+)	1	TCGA-61-2101	1	TCGA-61-2101
chr17:7520187-7520187(+)	1	TCGA-13-1505	1	TCGA-13-1505
chr17:7520197-7520197(+)	7	TCGA-08-0354, TCGA-13-0717, TCGA-13-0720, TCGA-13-0727, TCGA-13-0730, TCGA-13-0761 and TCGA-13-0762	7	TCGA-08-0354, TCGA-13-0717, TCGA-13-0720, TCGA-13-0727, TCGA-13-0730, TCGA-13-0761 and TCGA-13-0762
chr17:7520219-7520219(+)	1	TCGA-04-1517	1	TCGA-04-1517
chr17:7520254-7520254(+)	1	TCGA-38-1589	1	TCGA-38-1589
chr17:7520261-7520261(+)	1	TCGA-25-1628	1	TCGA-25-1628
chr17:7520272-7520273(+)	1	TCGA-25-1329	1	TCGA-25-1329
chr17:7520281-7520285(+)	1	TCGA-13-0911	1	TCGA-13-0911
chr17:7520317-7520317(+)	1	TCGA-24-1562	1	TCGA-24-1562

B

Symbol	Coordinates	Mutations (Ref->TumorAllele1/TumorAllele2)
ERN2	chr16:23614081-23614081(+)	(C->C/A)
ERN2	chr16:23619433-23619433(+)	(C->C/T)
ERN2	chr16:23619788-23619788(+)	(A->A/G)
ERN2	chr16:23623881-23623881(+)	(G->A/A)
ERN2	chr16:23621340-23621340(+)	(G->G/T)
ERN2	chr16:23611111-23611111(+)	(A->A/T)
CHEK2	chr22:27421808-27421808(+)	(G->A/G)
CHEK2	chr22:27413962-27413962(+)	(G->C/C)
CHEK2	chr22:27413913-27413913(+)	(C->T/T)
CHEK2	chr22:27422947-27422947(+)	(C->T/T)
CHEK2	chr22:27413951-27413951(+)	(G->A/A)
CHEK2	chr22:27413961-27413961(+)	(C->T/T)
CHEK2	chr22:27413962-27413962(+)	(G->C/G)
CHEK2	chr22:27413961-27413961(+)	(C->C/T)
CHEK2	chr22:27413951-27413951(+)	(G->A/G)
CHEK2	chr22:27413913-27413913(+)	(C->C/T)
CHEK2	chr22:27413910-27413910(+)	(G->A/G)
CHEK2	chr22:27421740-27421741(-)	(-->-/T)
RPS6KA2	chr6:167191701-167191701(+)	(T->C/T)
RPS6KA2	chr6:167191701-167191701(+)	(T->C/C)
RPS6KA2	chr6:166960453-166960453(+)	(A->A/G)

9/57

	Figure 5 cont.	
RPS6KA2	chr6:166747294-166747294(+)	(C->C/A)
MLL4	chr19:40906473-40906474(+)	(G->G/GG)
MLL4	chr19:40903215-40903215(+)	(A->A/C)
MLL4	chr19:40903215-40903217(+)	(AAG->AAG/-)
MLL4	chr19:40915587-40915587(+)	(A->A/G)
MLL4	chr19:40904188-40904188(+)	(A->A/G)
MLL4	chr19:40903582-40903582(+)	(C->C/A)
MLL4	chr19:40902736-40902736(+)	(C->A/C)
MLL4	chr19:40903085-40903085(+)	(T->T/C)
MLL4	chr19:40906472-40906473(+)	(-->-/T)
MLL4	chr19:40915587-40915587(+)	(A->G/G)
MLL4	chr19:40915407-40915407(+)	(G->G/T)
MLL4	chr19:40910339-40910339(+)	(G->G/A)
ADAMTSL3	chr15:82442881-82442881(+)	(A->A/T)
ADAMTSL3	chr15:82442256-82442256(+)	(C->C/T)
ADAMTSL3	chr15:82485191-82485191(+)	(G->G/A)
ADAMTSL3	chr15:82442061-82442061(+)	(G->G/A)
ADAMTSL3	chr15:82402809-82402809(+)	(C->C/T)
ADAMTSL3	chr15:82383776-82383776(+)	(C->C/A)
ADAMTSL3	chr15:82442196-82442196(+)	(C->C/G)
ADAMTSL3	chr15:82279788-82279788(+)	(C->C/G)
ADAMTSL3	chr15:82442585-82442585(+)	(A->A/T)
ADAMTSL3	chr15:82442246-82442246(+)	(G->G/G)
ATR	chr3:143651080-143651080(+)	(G->A/A)
ATR	chr3:143694811-143694811(+)	(T->C/C)
ATR	chr3:143694811-143694811(+)	(T->C/T)
ATR	chr3:143686726-143686726(+)	(T->T/A)
ATR	chr3:143764043-143764043(+)	(C->C/G)
ATR	chr3:143651080-143651080(+)	(G->A/G)
ATR	chr3:143764597-143764598(-)	(-->-/G)
ATR	chr3:143757460-143757460(+)	(T->C/C)
ATR	chr3:143663531-143663531(+)	(T->T/A)
ENAH	chr1:223768935-223768935(+)	(T->T/G)
ENAH	chr1:223773696-223773713(+)	(AGGCGTTCCTGCCGCTCC->AGGCGTTCCTGCCGCTCC/-----)
GLI2	chr2:121458777-121458777(+)	(C->T/T)
GLI2	chr2:121442765-121442765(+)	(C->C/G)
GLI2	chr2:121462478-121462478(+)	(C->C/T)
GLI2	chr2:121463541-121463541(+)	(G->G/A)
GLI2	chr2:121401446-121401446(+)	(C->C/T)
GLI2	chr2:121429332-121429332(+)	(C->C/T)

10/57

	Figure 5 cont.	
GLI2	chr2:121458760-121458760(+)	(G->G/A)
GLI2	chr2:121449093-121449094(+)	(GA->GA/-)
GLI2	chr2:121464655-121464655(+)	(C->C/T)
GLI2	chr2:121425309-121425309(+)	(G->G/A)
GLI2	chr2:121464403-121464403(+)	(C->C/G)
GLI2	chr2:121464516-121464516(+)	(G->G/A)
GLI2	chr2:121452516-121452516(+)	(G->G/C)
GLI2	chr2:121464405-121464405(+)	(G->G/T)
GLI2	chr2:121449096-121449096(+)	(A->A/C)
GLI2	chr2:121444566-121444566(+)	(G->G/T)
GLI2	chr2:121460554-121460554(+)	(C->C/A)
GYPB	chr4:145138162-145138162(+)	(C->G/G)
GYPB	chr4:145141859-145141859(+)	(G->C/C)
GYPB	chr4:145138162-145138162(+)	(C->C/G)
KIAA1324L	chr7:86379340-86379340(+)	(C->C/T)
KIAA1324L	chr7:86382045-86382045(+)	(G->G/T)
KIAA1324L	chr7:86394128-86394128(+)	(C->C/T)
KIAA1324L	chr7:86380315-86380315(+)	(G->G/A)
KIAA1324L	chr7:86394166-86394166(+)	(T->T/G)
KIAA1324L	chr7:86394155-86394155(+)	(T->T/C)
LRRN2	chr1:202855467-202855467(+)	(C->C/A)
LRRN2	chr1:202855291-202855291(+)	(G->A/G)
LRRN2	chr1:202855291-202855291(+)	(G->A/A)
LRRN2	chr1:202855611-202855611(+)	(A->A/C)
MAP3K6	chr1:27557522-27557522(+)	(G->A/A)
MAP3K6	chr1:27562063-27562063(+)	(A->A/C)
MAP3K6	chr1:27555173-27555174(-)	(-->-/T)
MAP3K6	chr1:27556523-27556524(-)	(-->-/T)
MAP3K6	chr1:27560053-27560053(+)	(G->G/T)
MAP3K6	chr1:27558970-27558970(+)	(A->A/T)
MAP3K6	chr1:27560053-27560053(+)	(G->T/T)
MAPK15	chr8:144873291-144873291(+)	(G->A/G)
MAPK15	chr8:144873581-144873581(+)	(C->A/C)
MAPK15	chr8:144875438-144875438(+)	(C->C/T)
MAPK15	chr8:144875506-144875506(+)	(A->A/C)
MAPK15	chr8:144873581-144873581(+)	(C->A/A)
MAPK15	chr8:144875482-144875482(+)	(G->C/G)
MAPK15	chr8:144875773-144875773(+)	(T->C/T)
MAPK15	chr8:144875519-144875519(+)	(G->A/A)
MAPK15	chr8:144872408-144872408(+)	(C->C/T)

11/57

	Figure 5 cont.	
MAPK15	chr8:144875519-144875519(+)	(G->A/G)
MET	chr7:116223379-116223379(+)	(G->A/G)
MET	chr7:116127036-116127036(+)	(A->A/G)
MET	chr7:116182714-116182714(+)	(C->C/T)
MET	chr7:116182714-116182714(+)	(C->T/T)
MET	chr7:116223379-116223379(+)	(G->G/A)
MET	chr7:116127172-116127172(+)	(G->G/C)
MET	chr7:116209369-116209369(+)	(T->T/T)
MET	chr7:116197011-116197012(+)	(TT->TT/TTT)
MET	chr7:116127088-116127088(+)	(A->A/T)
MET	chr7:116209369-116209369(+)	(T->G/G)
NIPBL	chr5:37055186-37055186(+)	(A->A/G)
NIPBL	chr5:37062130-37062130(+)	(A->A/G)
NIPBL	chr5:37056376-37056376(+)	(A->A/G)
NIPBL	chr5:37021621-37021621(+)	(C->C/A)
NIPBL	chr5:37011811-37011811(+)	(A->A/G)
PCDH15	chr10:55286974-55286974(+)	(G->G/T)
PCDH15	chr10:55236635-55236635(+)	(G->G/C)
PCDH15	chr10:55747164-55747164(+)	(G->G/T)
PCDH15	chr10:55252095-55252095(+)	(G->G/A)
PCDH15	chr10:55238564-55238564(+)	(G->G/A)
PCDH15	chr10:55238468-55238468(+)	(G->G/C)
PCDH15	chr10:55625469-55625469(+)	(G->G/A)
PCDH15	chr10:55625533-55625533(+)	(A->A/G)
PPP1CC	chr12:109644664-109644665(-)	(GGG->GGG/GGGG)
PPP1CC	chr12:109644808-109644809(-)	(G->G/GG)
PPP1CC	chr12:109644662-109644663(-)	(A->A/AA)
PPP1CC	chr12:109644829-109644829(-)	(G->G/-)
PPP1CC	chr12:109644827-109644827(-)	(C->C/-)
PTCH1	chr9:97249427-97249428(+)	(-->-/C)
PTCH1	chr9:97318809-97318809(+)	(C->G/C)
PTCH1	chr9:97279733-97279733(+)	(C->C/T)
PTCH1	chr9:97258384-97258384(+)	(C->C/A)
PTCH1	chr9:97279757-97279757(+)	(G->G/C)
PTCH1	chr9:97249263-97249263(+)	(G->G/T)
PTCH1	chr9:97260321-97260321(+)	(A->A/T)
PTCH1	chr9:97270905-97270905(+)	(T->T/C)
PTCH1	chr9:97258487-97258487(+)	(C->C/T)
PTK2B	chr8:27349753-27349753(+)	(G->G/C)
PTK2B	chr8:27359323-27359323(+)	(G->G/T)

12/57

	Figure 5 cont.	
PTK2B	chr8:27349782-27349782(+)	(C->T/T)
PTK2B	chr8:27357642-27357642(+)	(C->C/G)
PTK2B	chr8:27357642-27357642(+)	(C->G/G)
PTK2B	chr8:27349782-27349782(+)	(C->C/T)
PTK2B	chr8:27346956-27346956(+)	(C->G/G)
RSU1	chr10:16777162-16777163(-)	(GGGGGGGGGG->GGGGGGGGGG/GGGGGGGGGGG)
RSU1	chr10:16777160-16777161(-)	(-->-/T)
RSU1	chr10:16777162-16777163(-)	(GGGGGGGGGG->GGGGGGGGGG/GGGGGGGGGGG)
TNC	chr9:116875720-116875720(+)	(C->T/T)
TNC	chr9:116883940-116883940(+)	(T->T/A)
TNC	chr9:116865917-116865917(+)	(G->G/T)
TNC	chr9:116833727-116833727(+)	(G->A/A)
TNC	chr9:116880155-116880155(+)	(G->A/G)
TNC	chr9:116865917-116865917(+)	(G->T/T)
ABCA3	chr16:2279473-2279473(+)	(A->A/G)
ABCA3	chr16:2269010-2269010(+)	(G->G/A)
ABCA3	chr16:2287485-2287485(+)	(G->G/C)
ABCA3	chr16:2298452-2298452(+)	(C->C/T)
ABCA3	chr16:2276769-2276769(+)	(G->G/A)
ADAM15	chr1:153290491-153290491(+)	(G->G/C)
ADAM15	chr1:153296343-153296343(+)	(C->C/T)
ADAM15	chr1:153300542-153300542(+)	(C->C/T)
ADAM15	chr1:153297148-153297148(+)	(A->A/G)
ALK	chr2:29270052-29270052(+)	(G->A/G)
ALK	chr2:29460150-29460150(+)	(G->A/G)
ALK	chr2:29270119-29270119(+)	(G->A/A)
ALK	chr2:29996838-29996838(+)	(G->G/T)
ALK	chr2:29794060-29794060(+)	(G->G/T)
ALK	chr2:29298929-29298929(+)	(G->A/G)
ALK	chr2:29270119-29270119(+)	(G->A/G)
ALK	chr2:29299735-29299735(+)	(C->C/T)
ALK	chr2:29316137-29316137(+)	(G->A/G)
ALK	chr2:29270274-29270274(+)	(T->T/A)
ANKHD1-EIF4EBP3	chr5:139908732-139908732(+)	(C->C/T)
ANKHD1-EIF4EBP3	chr5:139883903-139883903(+)	(G->G/A)
ANKHD1-EIF4EBP3	chr5:139818393-139818393(+)	(G->G/T)
ANKHD1-EIF4EBP3	chr5:139897277-139897277(+)	(G->G/A)

13/57

	Figure 5 cont.	
ANKHD1-EIF4EBP3	chr5:139795972-139795972(+)	(C->C/T)
ANKMY2	chr7:16621912-16621912(+)	(C->C/T)
ANKMY2	chr7:16606979-16606979(+)	(G->G/A)
ANXA7	chr10:74809934-74809935(-)	(GG->GG/GGG)
ANXA7	chr10:74805932-74805932(-)	(G->G/-)
ANXA7	chr10:74809898-74809899(-)	(G->G/GG)
ANXA7	chr10:74808687-74808687(+)	(G->G/A)
ANXA7	chr10:74809907-74809907(+)	(C->C/T)
ANXA7	chr10:74805935-74805935(-)	(TT->TT/T)
ANXA7	chr10:74809675-74809676(-)	(AAAA->AAAA/AAAAA)
ANXA7	chr10:74809891-74809892(-)	(CC->CC/CCC)
ANXA7	chr10:74826311-74826311(+)	(G->G/C)
ANXA7	chr10:74805906-74805906(-)	(T->T/-)
ANXA7	chr10:74805952-74805953(-)	(AA->AA/AAA)
ASPM	chr1:195327709-195327709(+)	(A->A/C)
ASPM	chr1:195379359-195379359(+)	(C->C/T)
ASPM	chr1:195337700-195337700(+)	(A->A/G)
ASPM	chr1:195379329-195379329(+)	(G->A/A)
ASPM	chr1:195337330-195337330(+)	(G->A/G)
ASPM	chr1:195378288-195378288(+)	(G->A/G)
ASPM	chr1:195339043-195339043(+)	(T->C/C)
ASPM	chr1:195337279-195337279(+)	(C->C/T)
ASPM	chr1:195339043-195339043(+)	(T->C/T)
ASPM	chr1:195338672-195338672(+)	(C->C/T)
ASPM	chr1:195336494-195336494(+)	(T->C/C)
ASPM	chr1:195379329-195379329(+)	(G->A/G)
ASPM	chr1:195325777-195325777(+)	(G->G/T)
ASPM	chr1:195381893-195381893(+)	(C->C/A)
ASPM	chr1:195337330-195337330(+)	(G->A/A)
CDC27	chr17:42602388-42602388(+)	(T->T/-)
CDC27	chr17:42569518-42569518(+)	(A->A/G)
CDC27	chr17:42576246-42576246(+)	(A->A/G)
CDC27	chr17:42571161-42571161(+)	(A->C/C)
CDC27	chr17:42569557-42569557(+)	(G->G/A)
CDC27	chr17:42571159-42571159(+)	(A->A/C)
CHD6	chr20:39467333-39467333(+)	(G->G/A)
CHD6	chr20:39553869-39553869(+)	(C->C/T)
CHD6	chr20:39507731-39507731(+)	(C->C/T)
CHD6	chr20:39518018-39518018(+)	(T->T/C)
CHD6	chr20:39545470-39545470(+)	(C->C/T)

14/57

	Figure 5 cont.	
CHD6	chr20:39475435-39475435(+)	(C->C/G)
CHD6	chr20:39514845-39514845(+)	(C->C/T)
CHD6	chr20:39483980-39483980(+)	(T->T/C)
CHL1	chr3:405968-405968(+)	(C->C/T)
CHL1	chr3:411384-411384(+)	(A->A/T)
CHL1	chr3:418318-418318(+)	(A->A/T)
CHL1	chr3:407717-407717(+)	(A->A/G)
CHL1	chr3:422263-422263(+)	(G->A/G)
CHL1	chr3:336493-336493(+)	(G->A/G)
CHL1	chr3:378459-378459(+)	(G->A/A)
CHL1	chr3:361304-361305(+)	(C->C/CC)
DPYSL4	chr10:133863896-133863896(+)	(C->C/T)
DPYSL4	chr10:133863896-133863896(+)	(C->T/T)
DPYSL4	chr10:133858397-133858398(+)	(GG->GG/AA)
EP400	chr12:131068798-131068798(+)	(C->C/T)
EP400	chr12:131128079-131128079(+)	(G->A/A)
EP400	chr12:131082509-131082509(+)	(A->A/C)
EP400	chr12:131063515-131063515(+)	(C->C/T)
EP400	chr12:131011628-131011628(+)	(G->G/A)
EP400	chr12:131115246-131115246(+)	(G->G/A)
EP400	chr12:131127940-131127940(+)	(C->C/T)
EP400	chr12:131128079-131128079(+)	(G->G/A)
EP400	chr12:131112628-131112628(+)	(C->C/T)
EP400	chr12:131094677-131094677(+)	(C->C/T)
EP400	chr12:131076295-131076295(+)	(C->C/A)
EP400	chr12:131113172-131113172(+)	(G->G/A)
ERBB2IP	chr5:65378114-65378114(+)	(G->G/A)
ERBB2IP	chr5:65345187-65345187(+)	(T->T/A)
ERBB2IP	chr5:65357122-65357122(+)	(A->A/G)
ERBB2IP	chr5:65352971-65352971(+)	(T->T/A)
ERBB2IP	chr5:65385839-65385839(+)	(C->C/G)
ERBB2IP	chr5:65374782-65374782(+)	(G->G/A)
FN1	chr2:215937916-215937916(+)	(G->A/G)
FN1	chr2:216004847-216004847(-)	(A->A/-)
FN1	chr2:216004831-216004832(-)	(A->A/AA)
FN1	chr2:216008717-216008717(+)	(C->G/G)
FN1	chr2:216004835-216004836(-)	(CC->CC/CCC)
FN1	chr2:215967561-215967561(+)	(T->C/T)
FN1	chr2:215943354-215943354(+)	(G->G/C)
FN1	chr2:215957024-215957024(+)	(C->C/T)

15/57

	Figure 5 cont.	
FOXO3	chr6:109091890-109091890(+)	(G->G/T)
FOXO3	chr6:108989263-108989263(+)	(C->T/T)
FOXO3	chr6:108989263-108989263(+)	(C->C/T)
FOXO3	chr6:109092241-109092242(+)	(-->C/-)
FOXO3	chr6:108989523-108989523(+)	(C->T/T)
FOXO3	chr6:108989523-108989523(+)	(C->C/T)
GCLC	chr6:53481376-53481376(+)	(T->T/C)
GCLC	chr6:53471703-53471703(+)	(C->C/T)
GLI3	chr7:41973726-41973726(+)	(T->T/C)
GLI3	chr7:41973971-41973971(+)	(C->C/T)
GLI3	chr7:41972113-41972113(+)	(C->C/A)
GLI3	chr7:41978556-41978556(+)	(G->G/C)
GLI3	chr7:42031491-42031491(+)	(G->G/A)
GLI3	chr7:41971176-41971176(+)	(G->G/A)
GLI3	chr7:41972112-41972112(+)	(G->G/A)
GZMB	chr14:24171388-24171388(+)	(G->A/G)
GZMB	chr14:24171388-24171388(+)	(G->A/A)
HLA-G	chr6:29903892-29903892(+)	(A->A/T)
HLA-G	chr6:29903628-29903628(+)	(T->C/C)
HLA-G	chr6:29903652-29903652(+)	(A->G/G)
HLA-G	chr6:29905345-29905345(+)	(C->C/T)
HLA-G	chr6:29905688-29905688(+)	(G->G/T)
HLA-G	chr6:29903894-29903894(+)	(G->T/T)
HLA-G	chr6:29905190-29905190(+)	(C->T/T)
HLA-G	chr6:29905190-29905190(+)	(C->C/T)
HLA-G	chr6:29903661-29903661(+)	(G->C/C)
HLA-G	chr6:29905575-29905575(+)	(A->A/C)
HLA-G	chr6:29903892-29903892(+)	(A->T/T)
HNF1A	chr12:119921497-119921497(+)	(G->A/G)
HNF1A	chr12:119916500-119916500(+)	(G->C/C)
HNF1A	chr12:119916508-119916509(+)	(CCCCCCCC->CCCCCCCC/CCCCCCCC)
HNF1A	chr12:119916500-119916500(+)	(G->C/G)
HNF1A	chr12:119921766-119921766(+)	(G->G/A)
HNF1A	chr12:119921497-119921497(+)	(G->A/A)
HNF1A	chr12:119901247-119901247(+)	(C->C/T)
HNF1A	chr12:119921783-119921784(+)	(-->-/G)
INPP5D	chr2:233698786-233698786(+)	(C->C/G)
INPP5D	chr2:233698838-233698838(+)	(A->A/G)
INPP5D	chr2:233695067-233695067(+)	(G->G/A)
INPP5D	chr2:233633530-233633530(+)	(G->G/C)

16/57

	Figure 5 cont.	
INPP5D	chr2:233777662-233777662(+)	(C->C/A)
INPP5D	chr2:233737039-233737039(+)	(G->G/T)
INSR	chr19:7068339-7068339(+)	(C->C/A)
INSR	chr19:7073978-7073978(+)	(G->G/T)
INSR	chr19:7076412-7076412(+)	(T->T/A)
INSR	chr19:7101532-7101532(+)	(G->G/A)
INSR	chr19:7077638-7077638(+)	(C->C/T)
INSR	chr19:7218483-7218483(+)	(G->G/T)
INSR	chr19:7103753-7103753(+)	(C->C/G)
INSR	chr19:7094008-7094008(+)	(G->G/A)
INSR	chr19:7068323-7068323(+)	(A->A/G)
INSR	chr19:7125637-7125637(+)	(G->G/A)
INSR	chr19:7244848-7244848(+)	(C->T/T)
ITGB2	chr21:45155102-45155102(+)	(C->A/C)
ITGB2	chr21:45143505-45143505(+)	(C->C/G)
ITGB2	chr21:45134408-45134408(+)	(C->C/T)
ITGB2	chr21:45134343-45134343(+)	(G->A/G)
ITGB2	chr21:45151408-45151408(+)	(T->T/G)
ITGB2	chr21:45137799-45137799(+)	(G->A/G)
ITGB2	chr21:45155095-45155095(+)	(G->A/A)
ITGB2	chr21:45155102-45155102(+)	(C->A/A)
ITGB2	chr21:45155095-45155095(+)	(G->A/G)
ITGB2	chr21:45136247-45136247(+)	(C->C/T)
KIF3B	chr20:30368004-30368004(+)	(G->G/C)
KIF3B	chr20:30362544-30362544(+)	(G->G/A)
KIF3B	chr20:30361951-30361951(+)	(G->G/A)
KIF3B	chr20:30378311-30378311(+)	(G->G/T)
KIF3B	chr20:30379122-30379122(+)	(T->T/C)
KIF4B	chr5:154374310-154374310(+)	(G->G/A)
KIF4B	chr5:154375750-154375750(+)	(G->G/T)
KIF4B	chr5:154375434-154375434(+)	(C->C/G)
KIF4B	chr5:154375363-154375363(+)	(C->C/A)
KIF4B	chr5:154374459-154374459(+)	(G->G/T)
KTN1	chr14:55173781-55173781(+)	(G->G/A)
KTN1	chr14:55148792-55148792(+)	(A->A/T)
KTN1	chr14:55208111-55208111(+)	(C->C/T)
KTN1	chr14:55173793-55173793(+)	(G->G/-)
KTN1	chr14:55189516-55189516(+)	(A->A/G)
KTN1	chr14:55173824-55173825(+)	(AAA->AAA/AAAA)
MAD1L1	chr7:1942958-1942958(+)	(C->C/T)

17/57

	Figure 5 cont.	
MAD1L1	chr7:2222320-2222320(+)	(C->C/A)
MAD1L1	chr7:1942951-1942951(+)	(C->C/T)
MAD1L1	chr7:1904527-1904527(+)	(G->G/A)
MAD1L1	chr7:2224138-2224138(+)	(G->G/A)
MKL1	chr22:39146900-39146900(+)	(C->C/-)
MKL1	chr22:39155704-39155704(+)	(C->C/T)
MKL1	chr22:39144836-39144836(+)	(G->G/C)
MKL1	chr22:39144689-39144689(+)	(C->C/T)
MKL1	chr22:39155710-39155710(+)	(C->C/T)
MKL1	chr22:39147040-39147040(+)	(G->G/A)
MKL1	chr22:39144540-39144540(+)	(C->C/T)
MKL1	chr22:39157379-39157379(+)	(G->G/C)
MKL1	chr22:39144323-39144323(+)	(C->C/T)
MYO5C	chr15:50352071-50352071(+)	(G->G/T)
MYO5C	chr15:50359104-50359104(+)	(G->G/A)
MYO5C	chr15:50340571-50340571(+)	(C->C/G)
MYO5C	chr15:50359100-50359100(+)	(C->C/T)
MYO5C	chr15:50324876-50324876(+)	(C->C/A)
MYO5C	chr15:50304578-50304578(+)	(T->T/G)
MYO5C	chr15:50359091-50359091(+)	(C->C/T)
NUMA1	chr11:71404767-71404767(+)	(T->C/C)
NUMA1	chr11:71404767-71404767(+)	(T->C/T)
NUMA1	chr11:71402374-71402374(+)	(C->C/T)
NUMA1	chr11:71403282-71403282(+)	(C->C/T)
NUMA1	chr11:71403242-71403242(+)	(C->C/A)
NUMA1	chr11:71395963-71395963(+)	(C->T/T)
NUMA1	chr11:71403445-71403445(+)	(G->A/G)
NUMA1	chr11:71404046-71404047(-)	(-->-/A)
NUMA1	chr11:71402737-71402737(+)	(G->A/G)
NUMA1	chr11:71403282-71403282(+)	(C->T/T)
NUMA1	chr11:71404873-71404873(+)	(C->C/T)
NUMA1	chr11:71404009-71404023(+)	(CCAGGGCATCTGCAG->CCAGGGCATCTGCAG/-)
NUMA1	chr11:71404395-71404395(+)	(G->G/A)
PDGFRA	chr4:54841365-54841365(+)	(T->T/G)
PDGFRA	chr4:54835527-54835527(+)	(T->C/T)
PDGFRA	chr4:54822245-54822245(+)	(G->G/A)
PDGFRA	chr4:54838334-54838334(+)	(G->A/A)
PDGFRA	chr4:54833372-54833372(+)	(A->A/G)
PDGFRA	chr4:54841365-54841365(+)	(T->G/T)
PDGFRA	chr4:54839404-54839404(+)	(C->C/A)

18/57

	Figure 5 cont.	
PDGFRA	chr4:54835527-54835527(+)	(T->T/C)
PDGFRA	chr4:54822245-54822245(+)	(G->A/G)
PDGFRA	chr4:54824777-54824777(+)	(G->G/A)
PDGFRA	chr4:54825926-54825926(+)	(T->T/C)
PDGFRA	chr4:54824726-54824727(+)	(T->T/TT)
PDGFRA	chr4:54822144-54822144(+)	(T->T/A)
PHLPP	chr18:58796798-58796798(+)	(C->C/T)
PHLPP	chr18:58714205-58714205(+)	(A->A/G)
PHLPP	chr18:58796489-58796489(+)	(C->C/T)
PHLPP	chr18:58796798-58796798(+)	(C->T/T)
PHLPP	chr18:58796489-58796489(+)	(C->T/T)
PIK3C2B	chr1:202692806-202692806(+)	(C->A/C)
PIK3C2B	chr1:202676026-202676026(+)	(C->C/T)
PIK3C2B	chr1:202665687-202665687(+)	(G->A/G)
PIK3C2B	chr1:202684987-202684987(+)	(G->A/A)
PIK3C2B	chr1:202678311-202678311(+)	(C->G/G)
PIK3C2B	chr1:202665684-202665684(+)	(A->A/G)
PIK3C2B	chr1:202665687-202665687(+)	(G->A/A)
PIK3C2B	chr1:202669116-202669116(+)	(C->C/T)
PIK3C2B	chr1:202670323-202670323(+)	(A->A/G)
PIK3C2B	chr1:202663951-202663951(+)	(G->G/C)
PIK3C2B	chr1:202704859-202704859(+)	(T->C/T)
PKP4	chr2:159196682-159196682(+)	(T->T/C)
PKP4	chr2:159190040-159190040(+)	(G->G/A)
PKP4	chr2:159227670-159227670(+)	(G->G/A)
PKP4	chr2:159226104-159226104(+)	(G->G/A)
PKP4	chr2:159186089-159186089(+)	(G->G/C)
PKP4	chr2:159227811-159227811(+)	(A->A/T)
PLAGL2	chr20:30248315-30248315(+)	(C->C/T)
PLAGL2	chr20:30248287-30248287(+)	(A->A/C)
PLAGL2	chr20:30248646-30248647(+)	(--->--/CC)
PLAGL2	chr20:30253404-30253404(+)	(G->G/A)
PPARA	chr22:44973117-44973117(+)	(G->G/C)
PPARA	chr22:45006675-45006675(+)	(A->A/G)
PRKCI	chr3:171496413-171496413(+)	(C->C/T)
PRKCI	chr3:171460464-171460464(+)	(A->A/G)
PRKCI	chr3:171482391-171482391(+)	(T->T/G)
PRKCI	chr3:171470980-171470980(+)	(C->C/T)
RAB3D	chr19:11307127-11307127(+)	(G->G/A)
RAB3D	chr19:11308929-11308929(+)	(G->G/A)

19/57

	Figure 5 cont.	
RAB3D	chr19:11297141-11297141(+)	(C->C/T)
RAB3D	chr19:11297221-11297221(+)	(A->A/G)
ROR2	chr9:93527032-93527032(+)	(C->C/T)
ROR2	chr9:93526887-93526887(+)	(C->C/T)
ROR2	chr9:93526859-93526859(+)	(C->C/A)
ROR2	chr9:93526927-93526927(+)	(G->G/A)
ROR2	chr9:93526081-93526081(+)	(G->G/A)
ROR2	chr9:93526888-93526888(+)	(G->G/A)
ROR2	chr9:93527050-93527050(+)	(G->G/A)
ROR2	chr9:93526268-93526268(+)	(G->G/A)
SPTB	chr14:64332020-64332020(+)	(C->C/G)
SPTB	chr14:64329952-64329952(+)	(G->G/C)
SPTB	chr14:64330975-64330975(+)	(G->G/C)
SPTB	chr14:64322388-64322388(+)	(G->G/C)
SPTB	chr14:64333093-64333093(+)	(G->G/T)
SPTB	chr14:64329966-64329966(+)	(G->G/A)
SPTB	chr14:64309076-64309076(+)	(C->C/T)
SPTB	chr14:64333106-64333106(+)	(C->C/A)
SPTB	chr14:64331923-64331925(+)	(CAT->CAT/-)
TBK1	chr12:63168584-63168584(+)	(T->C/T)
TBK1	chr12:63144378-63144379(+)	(C->C/CC)
TBK1	chr12:63154436-63154437(+)	(--> /C)
TBK1	chr12:63175583-63175583(+)	(A->A/T)
TBK1	chr12:63154307-63154308(+)	(AA->AA/AAA)
TNK2	chr3:197079665-197079665(+)	(G->G/A)
TNK2	chr3:197081411-197081411(+)	(C->C/T)
TNK2	chr3:197079910-197079910(+)	(C->T/T)
TNK2	chr3:197079802-197079802(+)	(G->A/G)
TNK2	chr3:197096239-197096239(+)	(C->C/T)
TNK2	chr3:197079347-197079347(+)	(G->A/G)
TNK2	chr3:197079910-197079910(+)	(C->C/T)
TNK2	chr3:197079347-197079347(+)	(G->A/A)
TP53	chr17:7519000-7519000(+)	(G->G/A)
TP53	chr17:7519168-7519168(+)	(A->A/G)
TP53	chr17:7517852-7517852(+)	(C->C/A)
TP53	chr17:7517577-7517577(+)	(C->C/T)
TP53	chr17:7520099-7520099(+)	(C->T/T)
TP53	chr17:7517869-7517869(+)	(A->G/G)
TP53	chr17:7517849-7517849(+)	(C->C/-)
TP53	chr17:7519186-7519186(+)	(C->A/A)

20/57

	Figure 5 cont.	
TP53	chr17:7517747-7517747(+)	(G->A/A)
TP53	chr17:7520037-7520037(+)	(C->C/A)
TP53	chr17:7520087-7520088(+)	(-->-/ACCGT)
TP53	chr17:7518324-7518325(+)	(-->-/A)
TP53	chr17:7517867-7517867(+)	(C->C/T)
TP53	chr17:7519156-7519157(+)	(-->-/T)
TP53	chr17:7520197-7520197(+)	(G->C/C)
TP53	chr17:7518299-7518299(+)	(T->T/C)
TP53	chr17:7518929-7518929(+)	(A->A/C)
TP53	chr17:7518239-7518247(+)	(GTGATGATG->GTGATGATG/-)
TP53	chr17:7520261-7520261(+)	(C->C/A)
TP53	chr17:7520260-7520261(+)	(-->C/-)
TP53	chr17:7517839-7517839(+)	(C->T/T)
TP53	chr17:7518231-7518231(+)	(C->C/A)
TP53	chr17:7518263-7518263(+)	(C->T/T)
TP53	chr17:7518990-7518990(+)	(A->T/T)
TP53	chr17:7519186-7519186(+)	(C->C/A)
TP53	chr17:7517822-7517822(+)	(C->G/G)
TP53	chr17:7519095-7519095(+)	(C->C/A)
TP53	chr17:7518311-7518311(+)	(A->A/T)
TP53	chr17:7519267-7519267(+)	(G->G/C)
TP53	chr17:7517583-7517583(+)	(G->G/-)
TP53	chr17:7519275-7519275(+)	(G->G/T)
TP53	chr17:7519261-7519261(+)	(T->T/C)
TP53	chr17:7520272-7520272(+)	(G->G/-)
TP53	chr17:7518293-7518293(+)	(C->C/A)
TP53	chr17:7517625-7517626(+)	(-->A/A)
TP53	chr17:7519118-7519118(+)	(A->A/C)
TP53	chr17:7518960-7518960(+)	(T->C/C)
TP53	chr17:7517837-7517837(+)	(C->C/G)
TP53	chr17:7519138-7519138(+)	(C->C/A)
TP53	chr17:7520281-7520285(+)	(ATCAA->-/ATCAA)
TP53	chr17:7518996-7518996(+)	(T->C/C)
TP53	chr17:7518991-7519015(+)	(TAAGATGCTGAGGAGGGGCCAGACC->- /TAAGATGCTGAGGAGGGGCCAGACC)
TP53	chr17:7517869-7517869(+)	(A->A/G)
TP53	chr17:7517783-7517783(+)	(C->C/A)
TP53	chr17:7517827-7517827(+)	(C->C/T)
TP53	chr17:7517813-7517813(+)	(T->-/T)
TP53	chr17:7519123-7519123(+)	(G->G/T)
TP53	chr17:7514728-7514728(+)	(G->G/A)

21/57

	Figure 5 cont.	
TP53	chr17:7519125-7519125(+)	(G->G/C)
TP53	chr17:7517743-7517743(+)	(C->T/T)
TP53	chr17:7517866-7517866(+)	(C->C/A)
TP53	chr17:7520099-7520099(+)	(C->C/G)
TP53	chr17:7519165-7519165(+)	(T->C/C)
TP53	chr17:7517610-7517610(+)	(T->T/A)
TP53	chr17:7517821-7517821(+)	(T->T/C)
TP53	chr17:7518291-7518292(+)	(-->-/A)
TP53	chr17:7518319-7518320(+)	(AC->AC/-)
TP53	chr17:7520317-7520317(+)	(T->T/A)
TP53	chr17:7520148-7520157(+)	(GGCTGGTGCA->-/-)
TP53	chr17:7518239-7518241(+)	(GTG->-/GTG)
TP53	chr17:7519179-7519179(+)	(G->A/A)
TP53	chr17:7518960-7518960(+)	(T->T/C)
TP53	chr17:7519128-7519128(+)	(C->C/T)
TP53	chr17:7519000-7519002(+)	(GAG->GAG/-)
TP53	chr17:7518223-7518223(+)	(C->T/T)
TP53	chr17:7517747-7517747(+)	(G->A/G)
TP53	chr17:7519123-7519123(+)	(G->G/-)
TP53	chr17:7518273-7518273(+)	(C->C/A)
TP53	chr17:7514728-7514728(+)	(G->A/A)
TP53	chr17:7519217-7519217(+)	(C->C/T)
TP53	chr17:7517853-7517853(+)	(A->A/C)
TP53	chr17:7518996-7518996(+)	(T->T/C)
TP53	chr17:7518929-7518929(+)	(A->T/T)
TP53	chr17:7519280-7519280(+)	(C->C/A)
TP53	chr17:7519095-7519095(+)	(C->C/T)
TP53	chr17:7519119-7519119(+)	(T->C/C)
TP53	chr17:7518915-7518915(+)	(T->T/C)
TP53	chr17:7519230-7519236(+)	(GGGCAGG->GGGCAGG/-)
TP53	chr17:7518264-7518264(+)	(G->C/C)
TP53	chr17:7518901-7518901(+)	(C->C/A)
TP53	chr17:7519266-7519267(+)	(-->-/GG)
TP53	chr17:7517744-7517745(+)	(CT->-/CT)
TP53	chr17:7519244-7519244(+)	(C->C/A)
TP53	chr17:7519015-7519015(+)	(C->C/T)
TP53	chr17:7517818-7517818(+)	(C->C/G)
TP53	chr17:7518997-7518997(+)	(G->G/A)
TP53	chr17:7518909-7518909(+)	(G->A/A)
TP53	chr17:7517831-7517831(+)	(G->G/A)

22/57

	Figure 5 cont.	
TP53	chr17:7518272-7518272(+)	(C->C/A)
TP53	chr17:7518264-7518264(+)	(G->A/A)
TP53	chr17:7518907-7518908(+)	(GC->-/GC)
TP53	chr17:7518276-7518276(+)	(C->C/A)
TP53	chr17:7519192-7519192(+)	(T->T/C)
TP53	chr17:7517830-7517830(+)	(G->G/T)
TP53	chr17:7520036-7520036(+)	(C->C/A)
TP53	chr17:7519204-7519204(+)	(G->G/A)
TP53	chr17:7517830-7517830(+)	(G->G/C)
TP53	chr17:7519119-7519119(+)	(T->T/C)
TP53	chr17:7514707-7514707(+)	(C->A/A)
TP53	chr17:7518937-7518937(+)	(G->G/A)
TP53	chr17:7517819-7517819(+)	(G->G/A)
TP53	chr17:7514759-7514759(+)	(C->C/T)
TP53	chr17:7518964-7518964(+)	(C->C/A)
TP53	chr17:7517845-7517845(+)	(C->C/T)
TP53	chr17:7519188-7519188(+)	(C->G/G)
TP53	chr17:7520099-7520099(+)	(C->C/A)
TP53	chr17:7518226-7518226(+)	(G->G/-)
TP53	chr17:7519113-7519113(+)	(C->C/G)
TP53	chr17:7517833-7517833(+)	(C->C/A)
TP53	chr17:7519131-7519131(+)	(C->C/T)
TP53	chr17:7518264-7518264(+)	(G->G/A)
TP53	chr17:7517871-7517881(+)	(TAGATTACCAC->TAGATTACCAC/-)
TP53	chr17:7518310-7518321(+)	(GATGGTGGTACA->GATGGTGGTACA/-)
TP53	chr17:7517842-7517842(+)	(A->A/C)
TP53	chr17:7518988-7518988(+)	(G->G/A)
TP53	chr17:7518951-7518951(+)	(T->T/A)
TP53	chr17:7517846-7517846(+)	(G->G/A)
TP53	chr17:7520060-7520061(+)	(-->C/-)
TP53	chr17:7518284-7518284(+)	(G->G/T)
TP53	chr17:7518305-7518305(+)	(T->T/C)
TP53	chr17:7519275-7519275(+)	(G->A/G)
TP53	chr17:7517849-7517849(+)	(C->C/T)
TP53	chr17:7514720-7514720(+)	(C->C/-)
TP53	chr17:7518902-7518902(+)	(C->C/T)
TP53	chr17:7519275-7519275(+)	(G->G/A)
TP53	chr17:7520040-7520040(+)	(G->-/G)
TP53	chr17:7518293-7518293(+)	(C->C/T)
TP53	chr17:7518990-7518990(+)	(A->G/G)

23/57

	Figure 5 cont.	
TP53	chr17:7519138-7519138(+)	(C->T/T)
TP53	chr17:7518273-7518273(+)	(C->C/G)
TP53	chr17:7518291-7518292(+)	(-->A/-)
TP53	chr17:7519259-7519259(+)	(C->A/A)
TP53	chr17:7518254-7518254(+)	(A->A/C)
TP53	chr17:7518284-7518284(+)	(G->A/A)
TP53	chr17:7518933-7518933(+)	(T->T/C)
TP53	chr17:7518273-7518273(+)	(C->C/T)
TP53	chr17:7517845-7517845(+)	(C->A/A)
TP53	chr17:7517878-7517878(+)	(C->C/A)
TP53	chr17:7519221-7519221(+)	(A->A/T)
TP53	chr17:7520254-7520254(+)	(C->C/T)
TP53	chr17:7514709-7514710(+)	(-->/AGGCCTT)
TP53	chr17:7519221-7519221(+)	(A->A/C)
TP53	chr17:7519252-7519252(+)	(A->A/G)
TP53	chr17:7518261-7518261(+)	(T->T/C)
TP53	chr17:7517845-7517845(+)	(C->T/T)
TP53	chr17:7519281-7519281(+)	(T->T/C)
TP53	chr17:7517839-7517839(+)	(C->C/T)
TP53	chr17:7519235-7519235(+)	(G->-/G)
TP53	chr17:7518272-7518272(+)	(C->C/T)
TP53	chr17:7518299-7518299(+)	(T->C/C)
TP53	chr17:7517747-7517747(+)	(G->G/A)
TP53	chr17:7517842-7517842(+)	(A->A/T)
TP53	chr17:7518334-7518334(+)	(C->T/T)
TP53	chr17:7518295-7518295(+)	(C->C/A)
TP53	chr17:7517818-7517819(+)	(-->-/G)
TP53	chr17:7517577-7517577(+)	(C->C/A)
TP53	chr17:7517652-7517652(+)	(C->C/T)
TP53	chr17:7519168-7519168(+)	(A->A/T)
TP53	chr17:7519195-7519207(+)	(CGGGCGGGGGTGT->CGGGCGGGGGTGT/- -----)
TP53	chr17:7520187-7520187(+)	(A->-/-)
TP53	chr17:7519280-7519280(+)	(C->C/T)
TP53	chr17:7518306-7518306(+)	(A->A/T)
TP53	chr17:7518928-7518928(+)	(C->C/T)
TP53	chr17:7517845-7517845(+)	(C->C/G)
TP53	chr17:7518257-7518257(+)	(G->G/A)
TP53	chr17:7518982-7518982(+)	(C->A/A)
TP53	chr17:7520042-7520042(+)	(A->A/-)
TP53	chr17:7518284-7518284(+)	(G->G/A)

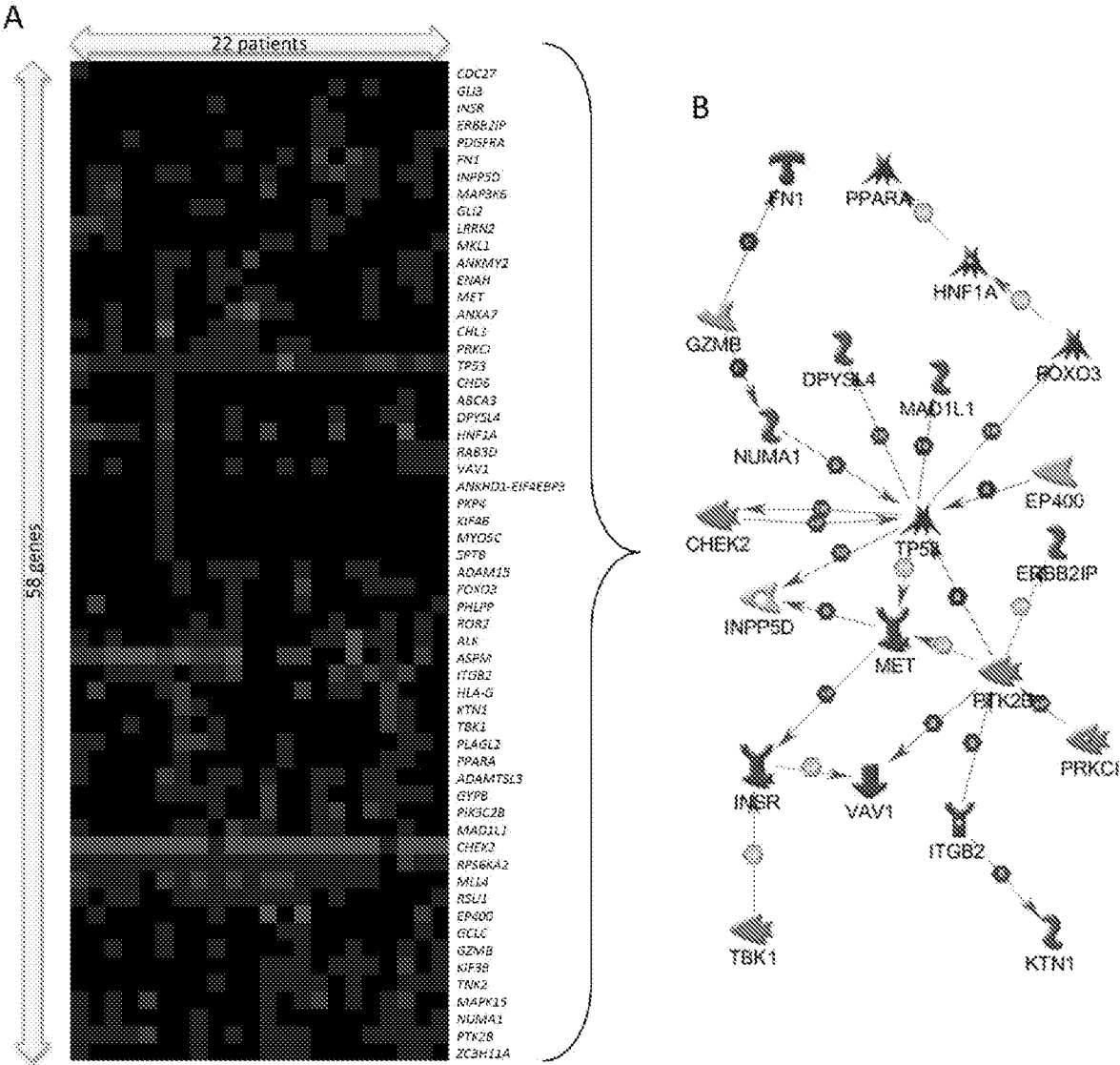
24/57

	Figure 5 cont.	
TP53	chr17:7518296-7518296(+)	(A->A/T)
TP53	chr17:7519015-7519015(+)	(C->G/G)
TP53	chr17:7518901-7518901(+)	(C->C/T)
TP53	chr17:7518991-7518991(+)	(T->T/A)
TP53	chr17:7519195-7519225(+)	(CGGGCGGGGGTGTGGAATCAACCCACAG CTG- >CGGGCGGGGGTGTGGAATCAACCCACA GCTG/-)
TP53	chr17:7519249-7519249(+)	(G->G/A)
TP53	chr17:7520086-7520086(+)	(A->A/C)
TP53	chr17:7519167-7519167(+)	(T->T/C)
TP53	chr17:7519260-7519260(+)	(T->T/C)
TP53	chr17:7519225-7519225(+)	(G->G/A)
TP53	chr17:7519094-7519094(+)	(A->A/C)
TP53	chr17:7518993-7518993(+)	(A->A/C)
TP53	chr17:7514755-7514755(+)	(G->G/-)
TP53	chr17:7517577-7517577(+)	(C->C/G)
TP53	chr17:7517807-7517807(+)	(C->C/T)
TP53	chr17:7519255-7519255(+)	(A->A/C)
TP53	chr17:7519281-7519281(+)	(T->C/C)
TP53	chr17:7520219-7520219(+)	(T->T/A)
TP53	chr17:7520114-7520114(+)	(G->A/A)
TP53	chr17:7519251-7519251(+)	(C->C/T)
TP53	chr17:7519200-7519200(+)	(G->-/G)
TP53	chr17:7517819-7517819(+)	(G->A/A)
TP53	chr17:7517831-7517831(+)	(G->A/G)
TP53	chr17:7519260-7519260(+)	(T->A/A)
TP53	chr17:7519179-7519179(+)	(G->G/A)
TP53	chr17:7517576-7517576(+)	(A->A/G)
TP53	chr17:7517622-7517622(+)	(G->G/A)
TP53	chr17:7520087-7520121(+)	(AACCGTAGCTGCCCTGGTAGGTTTTCTGG GAAGGG->- /AACCGTAGCTGCCCTGGTAGGTTTTCTGG GAAGGG)
TP53	chr17:7518990-7518990(+)	(A->A/G)
TP53	chr17:7518290-7518290(+)	(T->T/C)
TP53	chr17:7518927-7518927(+)	(A->A/C)
TP53	chr17:7517824-7517824(+)	(C->C/A)
TP53	chr17:7514743-7514743(+)	(G->G/A)
TP53	chr17:7517871-7517872(+)	(-->/AGATTACCACTACTC)
TP53	chr17:7517846-7517846(+)	(G->A/A)
TP53	chr17:7518945-7518949(+)	(TTTCT->TTTCT/-)

25/57

	Figure 5 cont.	
TP53	chr17:7518264-7518264(+)	(G->A/G)
TP53	chr17:7518236-7518236(+)	(A->A/T)
TP53	chr17:7518904-7518905(+)	(CA->CA/-)
TP53	chr17:7518223-7518223(+)	(C->C/A)
TP53	chr17:7518263-7518264(+)	(-->-/G)
TP53	chr17:7518288-7518296(+)	(TGTTACACA->TGTTACACA/-)
TP53	chr17:7514708-7514708(+)	(C->A/A)
TP53	chr17:7517845-7517845(+)	(C->C/A)
TP53	chr17:7519259-7519259(+)	(C->C/A)
TP53	chr17:7518275-7518275(+)	(C->C/T)
TP53	chr17:7519275-7519275(+)	(G->A/A)
TP53	chr17:7518263-7518263(+)	(C->C/T)
TP53	chr17:7519128-7519128(+)	(C->A/A)
TP53	chr17:7520036-7520036(+)	(C->A/A)
VAV1	chr19:6783147-6783147(+)	(T->T/C)
VAV1	chr19:6779827-6779827(+)	(A->A/G)
VAV1	chr19:6779900-6779900(+)	(C->C/G)
VAV1	chr19:6780836-6780836(+)	(G->G/T)
VAV1	chr19:6723872-6723872(+)	(G->G/C)
ZC3H11A	chr1:202087937-202087937(+)	(G->G/A)

26/57
Figure 6



27/57
Figure 7

SEQ ID No.	Gene Symbol	Approved Name	EntrezID	#Patients with TCGA mutation (including silent)	#Patients with TCGA mutation (excluding silent)
64	<i>TP53</i>	tumor protein p53	7157	285	283
1	<i>CHEK2</i>	checkpoint kinase 2	11200	24	22
3	<i>RPS6KA2</i>	ribosomal protein S6 kinase, 90kDa, polypeptide 2	6196	23	23
4	<i>MLL4</i>	lysine (K)-specific methyltransferase 2B	9757	20	20
28	<i>ASPM</i>	asp (abnormal spindle) homolog, microcephaly associated (Drosophila)	259266	19	10
19	<i>PTK2B</i>	protein tyrosine kinase 2 beta	2185	17	11
5	<i>ADAMTSL3</i>	ADAMTS-like 3	57188	16	12
44	<i>ITGB2</i>	integrin, beta 2 (complement component 3 receptor 3 and 4 subunit)	3689	16	4
8	<i>GLI2</i>	GLI family zinc finger 2	2736	14	12
42	<i>INPP5D</i>	inositol polyphosphate-5-phosphatase, 145kDa	3635	14	3
24	<i>ALK</i>	anaplastic lymphoma receptor tyrosine kinase	238	13	4
20	<i>RSU1</i>	Ras suppressor protein 1	6251	13	13
65	<i>VAV1</i>	vav 1 guanine nucleotide exchange factor	7409	13	3
41	<i>HNF1A</i>	HNF1 homeobox A	6927	11	6
58	<i>PRKCI</i>	protein kinase C, iota	5584	11	1
9	<i>GYPB</i>	glycophorin B (MNS blood group)	2994	10	10
40	<i>HLA-G</i>	major histocompatibility complex, class I, G	3135	10	7
43	<i>INSR</i>	insulin receptor	3643	10	7
52	<i>PDGFRA</i>	platelet-derived growth factor receptor, alpha polypeptide	5156	10	7
56	<i>PLAGL2</i>	pleiomorphic adenoma gene-like 2	5326	10	9
23	<i>ADAM15</i>	ADAM metalloproteinase domain 15	8751	9	8
27	<i>ANXA7</i>	annexin A7	310	9	8
33	<i>EP400</i>	E1A binding protein p400	57634	9	6
45	<i>KIF3B</i>	kinesin family member 3B	9371	9	4
48	<i>MAD1L1</i>	MAD1 mitotic arrest deficient-like 1 (yeast)	8379	9	1
13	<i>MAPK15</i>	mitogen-activated protein kinase 15	225689	9	8
14	<i>MET</i>	met proto-oncogene	4233	9	9

28/57

49	<i>MKL1</i>	megakaryoblastic leukemia (translocation) 1	57591	9	6
51	<i>NUMA1</i>	nuclear mitotic apparatus protein 1	4926	9	9
60	<i>ROR2</i>	receptor tyrosine kinase-like orphan receptor 2	4920	9	8
63	<i>TNK2</i>	tyrosine kinase, non-receptor, 2	10188	9	4
30	<i>CHD6</i>	chromodomain helicase DNA binding protein 6	84181	8	6
31	<i>CHL1</i>	cell adhesion molecule L1-like	10752	8	7
7	<i>ENAH</i>	enabled homolog (Drosophila)	55740	8	7
61	<i>SPTB</i>	spectrin, beta, erythrocytic	6710	8	7
26	<i>ANKMY2</i>	ankyrin repeat and MYND domain containing 2	57037	7	3
32	<i>DPYSL4</i>	dihydropyrimidinase-like 4	10570	7	0
39	<i>GZMB</i>	granzyme B (granzyme 2, cytotoxic T-lymphocyte-associated serine esterase 1)	3002	7	0
47	<i>KTN1</i>	kinectin 1 (kinesin receptor)	3895	7	6
50	<i>MYO5C</i>	myosin VC	55930	7	6
66	<i>ZC3H11A</i>	zinc finger CCCH-type containing 11A	9877	7	0
29	<i>CDC27</i>	cell division cycle 27	996	6	6
34	<i>ERBB2IP</i>	erbb2 interacting protein	55914	6	4
35	<i>FN1</i>	fibronectin 1	2335	6	5
36	<i>FOXO3</i>	forkhead box O3	2309	6	3
38	<i>GLI3</i>	GLI family zinc finger 3	2737	6	5
12	<i>MAP3K6</i>	mitogen-activated protein kinase kinase kinase 6	9064	6	5
54	<i>PIK3C2B</i>	phosphatidylinositol-4-phosphate 3-kinase, catalytic subunit type 2 beta	5287	6	3
57	<i>PPARA</i>	peroxisome proliferator-activated receptor alpha	5465	6	6
59	<i>RAB3D</i>	RAB3D, member RAS oncogene family	9545	6	1
62	<i>TBK1</i>	TANK-binding kinase 1	29110	6	6
22	<i>ABCA3</i>	ATP-binding cassette, sub-family A (ABC1), member 3	21	5	4
25	<i>ANKHD1-EIF4EBP3</i>	ANKHD1-EIF4EBP3 readthrough	404734	5	4
37	<i>GCLC</i>	glutamate-cysteine ligase, catalytic subunit	2729	5	4
46	<i>KIF4B</i>	kinesin family member 4B	285643	5	5
11	<i>LRRN2</i>	leucine rich repeat neuronal 2	10446	5	5
53	<i>PHLPP</i>	PH domain and leucine rich repeat protein phosphatase 1	23239	5	1
55	<i>PKP4</i>	plakophilin 4	8502	5	4

A

[illegible]

Figure 8 cont.

[illegible]

31/57
Figure 8 cont.

B

#	Pathway/feature	Protein	p-value	log2 FC	Genes
1	Immune response, IFN γ signaling in cells	472	1.58E-05		4 <i>IRF1</i> , <i>IRF2</i> , <i>IRF3</i> , <i>IRF4</i>
2	Development, IFN γ signaling in cells	473	4.67E-05		4 <i>IRF1</i> , <i>IRF2</i> , <i>IRF3</i> , <i>IRF4</i>
3	Development, IFN γ signaling in cells	473	5.21E-05		4 <i>IRF1</i> , <i>IRF2</i> , <i>IRF3</i> , <i>IRF4</i>
4	Development, IFN γ signaling in cells	473	5.21E-05		4 <i>IRF1</i> , <i>IRF2</i> , <i>IRF3</i> , <i>IRF4</i>
5	Development, IFN γ signaling in cells	473	5.21E-05		4 <i>IRF1</i> , <i>IRF2</i> , <i>IRF3</i> , <i>IRF4</i>
6	Development, IFN γ signaling in cells	473	5.21E-05		4 <i>IRF1</i> , <i>IRF2</i> , <i>IRF3</i> , <i>IRF4</i>
7	Development, IFN γ signaling in cells	473	5.21E-05		4 <i>IRF1</i> , <i>IRF2</i> , <i>IRF3</i> , <i>IRF4</i>
8	Development, IFN γ signaling in cells	473	5.21E-05		4 <i>IRF1</i> , <i>IRF2</i> , <i>IRF3</i> , <i>IRF4</i>
9	Development, IFN γ signaling in cells	473	5.21E-05		4 <i>IRF1</i> , <i>IRF2</i> , <i>IRF3</i> , <i>IRF4</i>
10	DNA damage, DNA damage-induced	473	5.21E-05		4 <i>IRF1</i> , <i>IRF2</i> , <i>IRF3</i> , <i>IRF4</i>

C

Biological Processes					Molecular Functions				
#	Network	Total	p-value	In Data	#	Network	Total	p-value	In Data
1	Apoptosis, Anti-apoptosis mediated by	723	3.22E-05	4	Protein, TSP1, TNF1, TNF2, TNF3	723	3.22E-05	4	Protein, TSP1, TNF1, TNF2, TNF3
2	Apoptosis, Anti-apoptosis mediated by	723	3.22E-05	4	Protein, TSP1, TNF1, TNF2, TNF3	723	3.22E-05	4	Protein, TSP1, TNF1, TNF2, TNF3
3	Cell adhesion, Adhesion and regulation	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3
4	Cell adhesion, Adhesion and regulation	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3
5	Cell adhesion, Adhesion and regulation	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3
6	Cell adhesion, Adhesion and regulation	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3
7	Cell adhesion, Adhesion and regulation	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3
8	Cell adhesion, Adhesion and regulation	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3
9	Cell adhesion, Adhesion and regulation	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3
10	Cell adhesion, Adhesion and regulation	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3	175	3.22E-05	3	Protein, TSP1, TNF1, TNF2, TNF3

D

Appendix: Ideas (are from <i>Genetica</i> , etc. (accessed on 2/20/2009 2:15:46)					
R	Species	Total	p-value	Sex Ratio	Species
					CP400, HLA-G, KIF20, PRKCI, TNF1, ACPN6, CHN6, ROR2, NUSKAL, PDGFRA, RTN1, TP53, PDL, ARXAP7, HSPF55, FOSD3, SPKAKA2, ARCA3, ROR2, RAL1, HNF5C, ITGB2, GLI2, PPARA, OPYSL4, PIK3P, MAP2K6, NR7, ADAM10, CHL1, RAL1, ADAMTSL3, IC3H15A, ARXAP72, ALX, CHN2, RORC26, GLI2, TNF2, LBRN2, RAL23
2	Glomerulonephritis	2724	5.40E-28		41
					CP400, HLA-G, KIF20, PRKCI, TNF1, ACPN6, CHN6, ROR2, NUSKAL, PDGFRA, RTN1, TP53, PDL, ARXAP7, HSPF55, FOSD3, SPKAKA2, ARCA3, ROR2, RAL1, HNF5C, ITGB2, GLI2, PPARA, OPYSL4, PIK3P, MAP2K6, NR7, ADAM10, CHL1, RAL1, ADAMTSL3, IC3H15A, ARXAP72, ALX, CHN2, RORC26, GLI2, TNF2, LBRN2, RAL23
2	Glomerulonephritis	2773	1.20E-27		41
					CP400, HLA-G, KIF20, PRKCI, RAL1, TNF1, ACPN6, CHN6, ROR2, NUSKAL, PDGFRA, RTN1, TP53, PDL, ARXAP7, HSPF55, FOSD3, SPKAKA2, ARCA3, ROR2, RAL1, HNF5C, ITGB2, GLI2, PPARA, OPYSL4, PIK3P, MAP2K6, NR7, ADAM10, CHL1, RAL1, ADAMTSL3, IC3H15A, ARXAP72, RAL23, CHN2, ALX, CHN2, RORC26, GLI2, TNF2, LBRN2, RAL23
2	Glomerulonephritis	2724	5.40E-28		40
					CP400, HLA-G, KIF20, PRKCI, RAL1, TNF1, ACPN6, CHN6, ROR2, NUSKAL, PDGFRA, RTN1, TP53, PDL, ARXAP7, HSPF55, FOSD3, SPKAKA2, ARCA3, ROR2, RAL1, HNF5C, ITGB2, GLI2, PPARA, OPYSL4, PIK3P, MAP2K6, NR7, ADAM10, CHL1, RAL1, ADAMTSL3, IC3H15A, ARXAP72, RAL23, CHN2, ALX, CHN2, RORC26, GLI2, TNF2, LBRN2, RAL23
2	Neoplasms, Neuroendocrine	5449	3.20E-22		40
					CP400, HLA-G, KIF20, PRKCI, RAL1, TNF1, ACPN6, CHN6, ROR2, NUSKAL, PDGFRA, RTN1, TP53, PDL, ARXAP7, HSPF55, FOSD3, SPKAKA2, ARCA3, ROR2, RAL1, HNF5C, ITGB2, GLI2, PPARA, OPYSL4, PIK3P, MAP2K6, NR7, ADAM10, CHL1, RAL1, ADAMTSL3, IC3H15A, ARXAP72, RAL23, CHN2, ALX, CHN2, RORC26, GLI2, TNF2, LBRN2, RAL23
2	Neoplasms, Glendular and Epithelial	6127	1.20E-26		50
					CP400, HLA-G, KIF20, PRKCI, RAL1, TNF1, ACPN6, CHN6, ROR2, NUSKAL, PDGFRA, RTN1, TP53, PDL, ARXAP7, HSPF55, FOSD3, SPKAKA2, ARCA3, ROR2, RAL1, HNF5C, ITGB2, GLI2, PPARA, OPYSL4, PIK3P, MAP2K6, NR7, ADAM10, CHL1, RAL1, ADAMTSL3, IC3H15A, ARXAP72, RAL23, CHN2, ALX, CHN2, RORC26, GLI2, TNF2, LBRN2, RAL23

Figure 8 cont.

[illegible]

Figure 10

Project ID	Project Name	Project Manager	Project Status	Project Budget	Project Start Date	Project End Date	Project Duration	Project Risk	Project Complexity	Project Scope	Project Deliverables	Project Milestones	Project Key Dates	Project Notes
001	Project Alpha	John Doe	Completed	\$1,200,000	2023-01-01	2023-06-30	180	Low	Medium	Develop new software	Software development	Software development	2023-01-01, 2023-03-15, 2023-06-30	Project Alpha completed successfully.
002	Project Beta	Jane Smith	In Progress	\$800,000	2023-02-01	2023-08-31	180	Medium	High	Upgrade existing system	System upgrade	System upgrade	2023-02-01, 2023-04-15, 2023-08-31	Project Beta is currently in progress.
003	Project Gamma	Mike Johnson	On Hold	\$500,000	2023-03-01	2023-09-30	180	High	Low	Research new technology	Research and development	Research and development	2023-03-01, 2023-05-15, 2023-09-30	Project Gamma is currently on hold.
004	Project Delta	Sarah Lee	Completed	\$300,000	2023-04-01	2023-07-31	120	Low	Medium	Implement new process	Process implementation	Process implementation	2023-04-01, 2023-06-15, 2023-07-31	Project Delta completed successfully.
005	Project Epsilon	David Kim	In Progress	\$700,000	2023-05-01	2023-10-31	180	Medium	High	Develop new hardware	Hardware development	Hardware development	2023-05-01, 2023-07-15, 2023-10-31	Project Epsilon is currently in progress.
006	Project Zeta	Emily White	On Hold	\$400,000	2023-06-01	2023-11-30	180	High	Low	Test new technology	Testing and validation	Testing and validation	2023-06-01, 2023-08-15, 2023-11-30	Project Zeta is currently on hold.
007	Project Eta	Chris Brown	Completed	\$200,000	2023-07-01	2023-08-31	60	Low	Medium	Implement new feature	Feature implementation	Feature implementation	2023-07-01, 2023-07-15, 2023-08-31	Project Eta completed successfully.
008	Project Theta	Alex Green	In Progress	\$600,000	2023-08-01	2023-12-31	180	Medium	High	Develop new software	Software development	Software development	2023-08-01, 2023-10-15, 2023-12-31	Project Theta is currently in progress.
009	Project Iota	Olivia Black	On Hold	\$350,000	2023-09-01	2024-01-31	150	High	Low	Research new technology	Research and development	Research and development	2023-09-01, 2023-11-15, 2024-01-31	Project Iota is currently on hold.
010	Project Kappa	Noah Gray	Completed	\$150,000	2023-10-01	2023-10-31	30	Low	Medium	Implement new feature	Feature implementation	Feature implementation	2023-10-01, 2023-10-15, 2023-10-31	Project Kappa completed successfully.
011	Project Lambda	Isabella Blue	In Progress	\$550,000	2023-11-01	2024-02-28	120	Medium	High	Develop new hardware	Hardware development	Hardware development	2023-11-01, 2023-12-15, 2024-02-28	Project Lambda is currently in progress.
012	Project Mu	Liam Red	On Hold	\$450,000	2023-12-01	2024-03-31	150	High	Low	Test new technology	Testing and validation	Testing and validation	2023-12-01, 2024-01-15, 2024-03-31	Project Mu is currently on hold.
013	Project Nu	Mia Yellow	Completed	\$250,000	2024-01-01	2024-01-31	30	Low	Medium	Implement new feature	Feature implementation	Feature implementation	2024-01-01, 2024-01-15, 2024-01-31	Project Nu completed successfully.
014	Project Xi	Benjamin Purple	In Progress	\$650,000	2024-02-01	2024-04-30	90	Medium	High	Develop new software	Software development	Software development	2024-02-01, 2024-03-15, 2024-04-30	Project Xi is currently in progress.
015	Project Omicron	Charlotte Orange	On Hold	\$380,000	2024-03-01	2024-05-31	120	High	Low	Research new technology	Research and development	Research and development	2024-03-01, 2024-04-15, 2024-05-31	Project Omicron is currently on hold.
016	Project Pi	Ethan Silver	Completed	\$180,000	2024-04-01	2024-04-30	30	Low	Medium	Implement new feature	Feature implementation	Feature implementation	2024-04-01, 2024-04-15, 2024-04-30	Project Pi completed successfully.
017	Project Rho	Ava Gold	In Progress	\$580,000	2024-05-01	2024-06-30	60	Medium	High	Develop new hardware	Hardware development	Hardware development	2024-05-01, 2024-05-15, 2024-06-30	Project Rho is currently in progress.
018	Project Sigma	Lucas Bronze	On Hold	\$420,000	2024-06-01	2024-07-31	60	High	Low	Test new technology	Testing and validation	Testing and validation	2024-06-01, 2024-06-15, 2024-07-31	Project Sigma is currently on hold.
019	Project Tau	Sophia Platinum	Completed	\$220,000	2024-07-01	2024-07-31	30	Low	Medium	Implement new feature	Feature implementation	Feature implementation	2024-07-01, 2024-07-15, 2024-07-31	Project Tau completed successfully.
020	Project Upsilon	Matthew Diamond	In Progress	\$620,000	2024-08-01	2024-09-30	60	Medium	High	Develop new software	Software development	Software development	2024-08-01, 2024-08-15, 2024-09-30	Project Upsilon is currently in progress.
021	Project Phi	Madison Ruby	On Hold	\$360,000	2024-09-01	2024-10-31	60	High	Low	Research new technology	Research and development	Research and development	2024-09-01, 2024-09-15, 2024-10-31	Project Phi is currently on hold.
022	Project Chi	William Sapphire	Completed	\$160,000	2024-10-01	2024-10-31	30	Low	Medium	Implement new feature	Feature implementation	Feature implementation	2024-10-01, 2024-10-15, 2024-10-31	Project Chi completed successfully.
023	Project Psi	Olivia Emerald	In Progress	\$560,000	2024-11-01	2024-11-30	30	Medium	High	Develop new hardware	Hardware development	Hardware development	2024-11-01, 2024-11-15, 2024-11-30	Project Psi is currently in progress.
024	Project Omega	James Topaz	On Hold	\$400,000	2024-12-01	2025-01-31	60	High	Low	Test new technology	Testing and validation	Testing and validation	2024-12-01, 2024-12-15, 2025-01-31	Project Omega is currently on hold.

Year	Project Name	Location	Start Date	End Date	Status	Budget (USD)	Actual Cost (USD)	Progress (%)	Key Milestones	Challenges	Recommendations
2020	Project A	Region X	2020-01-01	2020-03-31	Completed	1000000	980000	100	Phase 1 completed, Phase 2 started	Minor delays in procurement	Improve procurement process
2021	Project B	Region Y	2021-01-01	2021-06-30	In Progress	1500000	1200000	80	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2022	Project C	Region Z	2022-01-01	2022-12-31	On Hold	2000000	500000	25	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2023	Project D	Region A	2023-01-01	2023-09-30	Completed	800000	780000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2024	Project E	Region B	2024-01-01	2024-06-30	In Progress	1200000	900000	75	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2025	Project F	Region C	2025-01-01	2025-12-31	On Hold	1800000	400000	20	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2026	Project G	Region D	2026-01-01	2026-09-30	Completed	900000	880000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2027	Project H	Region E	2027-01-01	2027-06-30	In Progress	1100000	850000	78	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2028	Project I	Region F	2028-01-01	2028-12-31	On Hold	1600000	350000	22	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2029	Project J	Region G	2029-01-01	2029-09-30	Completed	750000	730000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2030	Project K	Region H	2030-01-01	2030-06-30	In Progress	1300000	1000000	77	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2031	Project L	Region I	2031-01-01	2031-12-31	On Hold	1900000	450000	24	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2032	Project M	Region J	2032-01-01	2032-09-30	Completed	850000	830000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2033	Project N	Region K	2033-01-01	2033-06-30	In Progress	1400000	1100000	79	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2034	Project O	Region L	2034-01-01	2034-12-31	On Hold	1700000	380000	23	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2035	Project P	Region M	2035-01-01	2035-09-30	Completed	700000	680000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2036	Project Q	Region N	2036-01-01	2036-06-30	In Progress	1500000	1200000	80	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2037	Project R	Region O	2037-01-01	2037-12-31	On Hold	2100000	550000	26	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2038	Project S	Region P	2038-01-01	2038-09-30	Completed	950000	930000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2039	Project T	Region Q	2039-01-01	2039-06-30	In Progress	1600000	1300000	81	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2040	Project U	Region R	2040-01-01	2040-12-31	On Hold	2200000	600000	27	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2041	Project V	Region S	2041-01-01	2041-09-30	Completed	800000	780000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2042	Project W	Region T	2042-01-01	2042-06-30	In Progress	1700000	1400000	82	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2043	Project X	Region U	2043-01-01	2043-12-31	On Hold	2300000	650000	28	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2044	Project Y	Region V	2044-01-01	2044-09-30	Completed	850000	830000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2045	Project Z	Region W	2045-01-01	2045-06-30	In Progress	1800000	1500000	83	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2046	Project AA	Region X	2046-01-01	2046-12-31	On Hold	2400000	700000	29	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2047	Project AB	Region Y	2047-01-01	2047-09-30	Completed	900000	880000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2048	Project AC	Region Z	2048-01-01	2048-06-30	In Progress	1900000	1600000	84	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2049	Project AD	Region A	2049-01-01	2049-12-31	On Hold	2500000	750000	30	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2050	Project AE	Region B	2050-01-01	2050-09-30	Completed	950000	930000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2051	Project AF	Region C	2051-01-01	2051-06-30	In Progress	2000000	1700000	85	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2052	Project AG	Region D	2052-01-01	2052-12-31	On Hold	2600000	800000	31	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2053	Project AH	Region E	2053-01-01	2053-09-30	Completed	1000000	980000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2054	Project AI	Region F	2054-01-01	2054-06-30	In Progress	2100000	1800000	86	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2055	Project AJ	Region G	2055-01-01	2055-12-31	On Hold	2700000	850000	32	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2056	Project AK	Region H	2056-01-01	2056-09-30	Completed	1100000	1080000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2057	Project AL	Region I	2057-01-01	2057-06-30	In Progress	2200000	1900000	87	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2058	Project AM	Region J	2058-01-01	2058-12-31	On Hold	2800000	900000	33	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2059	Project AN	Region K	2059-01-01	2059-09-30	Completed	1200000	1180000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2060	Project AO	Region L	2060-01-01	2060-06-30	In Progress	2300000	2000000	88	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2061	Project AP	Region M	2061-01-01	2061-12-31	On Hold	2900000	950000	34	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2062	Project AQ	Region N	2062-01-01	2062-09-30	Completed	1300000	1280000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2063	Project AR	Region O	2063-01-01	2063-06-30	In Progress	2400000	2100000	89	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2064	Project AS	Region P	2064-01-01	2064-12-31	On Hold	3000000	1000000	35	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2065	Project AT	Region Q	2065-01-01	2065-09-30	Completed	1400000	1380000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2066	Project AU	Region R	2066-01-01	2066-06-30	In Progress	2500000	2200000	90	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2067	Project AV	Region S	2067-01-01	2067-12-31	On Hold	3100000	1050000	36	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2068	Project AW	Region T	2068-01-01	2068-09-30	Completed	1500000	1480000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2069	Project AX	Region U	2069-01-01	2069-06-30	In Progress	2600000	2300000	91	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2070	Project AY	Region V	2070-01-01	2070-12-31	On Hold	3200000	1100000	37	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2071	Project AZ	Region W	2071-01-01	2071-09-30	Completed	1600000	1580000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2072	Project BA	Region X	2072-01-01	2072-06-30	In Progress	2700000	2400000	92	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2073	Project BB	Region Y	2073-01-01	2073-12-31	On Hold	3300000	1150000	38	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2074	Project BC	Region Z	2074-01-01	2074-09-30	Completed	1700000	1680000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2075	Project BD	Region A	2075-01-01	2075-06-30	In Progress	2800000	2500000	93	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2076	Project BE	Region B	2076-01-01	2076-12-31	On Hold	3400000	1200000	39	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2077	Project BF	Region C	2077-01-01	2077-09-30	Completed	1800000	1780000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2078	Project BG	Region D	2078-01-01	2078-06-30	In Progress	2900000	2600000	94	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2079	Project BH	Region E	2079-01-01	2079-12-31	On Hold	3500000	1250000	40	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2080	Project BI	Region F	2080-01-01	2080-09-30	Completed	1900000	1880000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2081	Project BJ	Region G	2081-01-01	2081-06-30	In Progress	3000000	2700000	95	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2082	Project BK	Region H	2082-01-01	2082-12-31	On Hold	3600000	1300000	41	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2083	Project BL	Region I	2083-01-01	2083-09-30	Completed	2000000	1980000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2084	Project BM	Region J	2084-01-01	2084-06-30	In Progress	3100000	2800000	96	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2085	Project BN	Region K	2085-01-01	2085-12-31	On Hold	3700000	1350000	42	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2086	Project BO	Region L	2086-01-01	2086-09-30	Completed	2100000	2080000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2087	Project BP	Region M	2087-01-01	2087-06-30	In Progress	3200000	2900000	97	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2088	Project BQ	Region N	2088-01-01	2088-12-31	On Hold	3800000	1400000	43	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2089	Project BR	Region O	2089-01-01	2089-09-30	Completed	2200000	2180000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2090	Project BS	Region P	2090-01-01	2090-06-30	In Progress	3300000	3000000	98	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2091	Project BT	Region Q	2091-01-01	2091-12-31	On Hold	3900000	1450000	44	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2092	Project BU	Region R	2092-01-01	2092-09-30	Completed	2300000	2280000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2093	Project BV	Region S	2093-01-01	2093-06-30	In Progress	3400000	3100000	99	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2094	Project BW	Region T	2094-01-01	2094-12-31	On Hold	4000000	1500000	45	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2095	Project BX	Region U	2095-01-01	2095-09-30	Completed	2400000	2380000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2096	Project BY	Region V	2096-01-01	2096-06-30	In Progress	3500000	3200000	100	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2097	Project BZ	Region W	2097-01-01	2097-12-31	On Hold	4100000	1550000	46	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability
2098	Project CA	Region X	2098-01-01	2098-09-30	Completed	2500000	2480000	100	Phase 1 completed, Phase 2 completed	Minor delays in procurement	Improve procurement process
2099	Project CB	Region Y	2099-01-01	2099-06-30	In Progress	3600000	3300000	100	Phase 1 completed, Phase 2 in progress	Significant delays in construction	Accelerate construction schedule
2100	Project CC	Region Z	2100-01-01	2100-12-31	On Hold	4200000	1600000	47	Phase 1 completed, Phase 2 on hold	Financial constraints	Re-evaluate project viability

Figure 10 cont.

Task ID	Task Name	Task Description	Task Category	Task Status	Task Priority	Task Assignee	Task Due Date	Task Start Date	Task End Date	Task Progress (%)	Task Comments
1	Task 1	Task 1 Description	Task 1 Category	Task 1 Status	Task 1 Priority	Task 1 Assignee	Task 1 Due Date	Task 1 Start Date	Task 1 End Date	Task 1 Progress (%)	Task 1 Comments
2	Task 2	Task 2 Description	Task 2 Category	Task 2 Status	Task 2 Priority	Task 2 Assignee	Task 2 Due Date	Task 2 Start Date	Task 2 End Date	Task 2 Progress (%)	Task 2 Comments
3	Task 3	Task 3 Description	Task 3 Category	Task 3 Status	Task 3 Priority	Task 3 Assignee	Task 3 Due Date	Task 3 Start Date	Task 3 End Date	Task 3 Progress (%)	Task 3 Comments
4	Task 4	Task 4 Description	Task 4 Category	Task 4 Status	Task 4 Priority	Task 4 Assignee	Task 4 Due Date	Task 4 Start Date	Task 4 End Date	Task 4 Progress (%)	Task 4 Comments
5	Task 5	Task 5 Description	Task 5 Category	Task 5 Status	Task 5 Priority	Task 5 Assignee	Task 5 Due Date	Task 5 Start Date	Task 5 End Date	Task 5 Progress (%)	Task 5 Comments
6	Task 6	Task 6 Description	Task 6 Category	Task 6 Status	Task 6 Priority	Task 6 Assignee	Task 6 Due Date	Task 6 Start Date	Task 6 End Date	Task 6 Progress (%)	Task 6 Comments
7	Task 7	Task 7 Description	Task 7 Category	Task 7 Status	Task 7 Priority	Task 7 Assignee	Task 7 Due Date	Task 7 Start Date	Task 7 End Date	Task 7 Progress (%)	Task 7 Comments
8	Task 8	Task 8 Description	Task 8 Category	Task 8 Status	Task 8 Priority	Task 8 Assignee	Task 8 Due Date	Task 8 Start Date	Task 8 End Date	Task 8 Progress (%)	Task 8 Comments
9	Task 9	Task 9 Description	Task 9 Category	Task 9 Status	Task 9 Priority	Task 9 Assignee	Task 9 Due Date	Task 9 Start Date	Task 9 End Date	Task 9 Progress (%)	Task 9 Comments
10	Task 10	Task 10 Description	Task 10 Category	Task 10 Status	Task 10 Priority	Task 10 Assignee	Task 10 Due Date	Task 10 Start Date	Task 10 End Date	Task 10 Progress (%)	Task 10 Comments
11	Task 11	Task 11 Description	Task 11 Category	Task 11 Status	Task 11 Priority	Task 11 Assignee	Task 11 Due Date	Task 11 Start Date	Task 11 End Date	Task 11 Progress (%)	Task 11 Comments
12	Task 12	Task 12 Description	Task 12 Category	Task 12 Status	Task 12 Priority	Task 12 Assignee	Task 12 Due Date	Task 12 Start Date	Task 12 End Date	Task 12 Progress (%)	Task 12 Comments
13	Task 13	Task 13 Description	Task 13 Category	Task 13 Status	Task 13 Priority	Task 13 Assignee	Task 13 Due Date	Task 13 Start Date	Task 13 End Date	Task 13 Progress (%)	Task 13 Comments
14	Task 14	Task 14 Description	Task 14 Category	Task 14 Status	Task 14 Priority	Task 14 Assignee	Task 14 Due Date	Task 14 Start Date	Task 14 End Date	Task 14 Progress (%)	Task 14 Comments
15	Task 15	Task 15 Description	Task 15 Category	Task 15 Status	Task 15 Priority	Task 15 Assignee	Task 15 Due Date	Task 15 Start Date	Task 15 End Date	Task 15 Progress (%)	Task 15 Comments
16	Task 16	Task 16 Description	Task 16 Category	Task 16 Status	Task 16 Priority	Task 16 Assignee	Task 16 Due Date	Task 16 Start Date	Task 16 End Date	Task 16 Progress (%)	Task 16 Comments
17	Task 17	Task 17 Description	Task 17 Category	Task 17 Status	Task 17 Priority	Task 17 Assignee	Task 17 Due Date	Task 17 Start Date	Task 17 End Date	Task 17 Progress (%)	Task 17 Comments
18	Task 18	Task 18 Description	Task 18 Category	Task 18 Status	Task 18 Priority	Task 18 Assignee	Task 18 Due Date	Task 18 Start Date	Task 18 End Date	Task 18 Progress (%)	Task 18 Comments
19	Task 19	Task 19 Description	Task 19 Category	Task 19 Status	Task 19 Priority	Task 19 Assignee	Task 19 Due Date	Task 19 Start Date	Task 19 End Date	Task 19 Progress (%)	Task 19 Comments
20	Task 20	Task 20 Description	Task 20 Category	Task 20 Status	Task 20 Priority	Task 20 Assignee	Task 20 Due Date	Task 20 Start Date	Task 20 End Date	Task 20 Progress (%)	Task 20 Comments
21	Task 21	Task 21 Description	Task 21 Category	Task 21 Status	Task 21 Priority	Task 21 Assignee	Task 21 Due Date	Task 21 Start Date	Task 21 End Date	Task 21 Progress (%)	Task 21 Comments
22	Task 22	Task 22 Description	Task 22 Category	Task 22 Status	Task 22 Priority	Task 22 Assignee	Task 22 Due Date	Task 22 Start Date	Task 22 End Date	Task 22 Progress (%)	Task 22 Comments
23	Task 23	Task 23 Description	Task 23 Category	Task 23 Status	Task 23 Priority	Task 23 Assignee	Task 23 Due Date	Task 23 Start Date	Task 23 End Date	Task 23 Progress (%)	Task 23 Comments
24	Task 24	Task 24 Description	Task 24 Category	Task 24 Status	Task 24 Priority	Task 24 Assignee	Task 24 Due Date	Task 24 Start Date	Task 24 End Date	Task 24 Progress (%)	Task 24 Comments
25	Task 25	Task 25 Description	Task 25 Category	Task 25 Status	Task 25 Priority	Task 25 Assignee	Task 25 Due Date	Task 25 Start Date	Task 25 End Date	Task 25 Progress (%)	Task 25 Comments
26	Task 26	Task 26 Description	Task 26 Category	Task 26 Status	Task 26 Priority	Task 26 Assignee	Task 26 Due Date	Task 26 Start Date	Task 26 End Date	Task 26 Progress (%)	Task 26 Comments
27	Task 27	Task 27 Description	Task 27 Category	Task 27 Status	Task 27 Priority	Task 27 Assignee	Task 27 Due Date	Task 27 Start Date	Task 27 End Date	Task 27 Progress (%)	Task 27 Comments
28	Task 28	Task 28 Description	Task 28 Category	Task 28 Status	Task 28 Priority	Task 28 Assignee	Task 28 Due Date	Task 28 Start Date	Task 28 End Date	Task 28 Progress (%)	Task 28 Comments
29	Task 29	Task 29 Description	Task 29 Category	Task 29 Status	Task 29 Priority	Task 29 Assignee	Task 29 Due Date	Task 29 Start Date	Task 29 End Date	Task 29 Progress (%)	Task 29 Comments
30	Task 30	Task 30 Description	Task 30 Category	Task 30 Status	Task 30 Priority	Task 30 Assignee	Task 30 Due Date	Task 30 Start Date	Task 30 End Date	Task 30 Progress (%)	Task 30 Comments
31	Task 31	Task 31 Description	Task 31 Category	Task 31 Status	Task 31 Priority	Task 31 Assignee	Task 31 Due Date	Task 31 Start Date	Task 31 End Date	Task 31 Progress (%)	Task 31 Comments
32	Task 32	Task 32 Description	Task 32 Category	Task 32 Status	Task 32 Priority	Task 32 Assignee	Task 32 Due Date	Task 32 Start Date	Task 32 End Date	Task 32 Progress (%)	Task 32 Comments
33	Task 33	Task 33 Description	Task 33 Category	Task 33 Status	Task 33 Priority	Task 33 Assignee	Task 33 Due Date	Task 33 Start Date	Task 33 End Date	Task 33 Progress (%)	Task 33 Comments
34	Task 34	Task 34 Description	Task 34 Category	Task 34 Status	Task 34 Priority	Task 34 Assignee	Task 34 Due Date	Task 34 Start Date	Task 34 End Date	Task 34 Progress (%)	Task 34 Comments
35	Task 35	Task 35 Description	Task 35 Category	Task 35 Status	Task 35 Priority	Task 35 Assignee	Task 35 Due Date	Task 35 Start Date	Task 35 End Date	Task 35 Progress (%)	Task 35 Comments
36	Task 36	Task 36 Description	Task 36 Category	Task 36 Status	Task 36 Priority	Task 36 Assignee	Task 36 Due Date	Task 36 Start Date	Task 36 End Date	Task 36 Progress (%)	Task 36 Comments
37	Task 37	Task 37 Description	Task 37 Category	Task 37 Status	Task 37 Priority	Task 37 Assignee	Task 37 Due Date	Task 37 Start Date	Task 37 End Date	Task 37 Progress (%)	Task 37 Comments
38	Task 38	Task 38 Description	Task 38 Category	Task 38 Status	Task 38 Priority	Task 38 Assignee	Task 38 Due Date	Task 38 Start Date	Task 38 End Date	Task 38 Progress (%)	Task 38 Comments
39	Task 39	Task 39 Description	Task 39 Category	Task 39 Status	Task 39 Priority	Task 39 Assignee	Task 39 Due Date	Task 39 Start Date	Task 39 End Date	Task 39 Progress (%)	Task 39 Comments
40	Task 40	Task 40 Description	Task 40 Category	Task 40 Status	Task 40 Priority	Task 40 Assignee	Task 40 Due Date	Task 40 Start Date	Task 40 End Date	Task 40 Progress (%)	Task 40 Comments
41	Task 41	Task 41 Description	Task 41 Category	Task 41 Status	Task 41 Priority	Task 41 Assignee	Task 41 Due Date	Task 41 Start Date	Task 41 End Date	Task 41 Progress (%)	Task 41 Comments
42	Task 42	Task 42 Description	Task 42 Category	Task 42 Status	Task 42 Priority	Task 42 Assignee	Task 42 Due Date	Task 42 Start Date	Task 42 End Date	Task 42 Progress (%)	Task 42 Comments
43	Task 43	Task 43 Description	Task 43 Category	Task 43 Status	Task 43 Priority	Task 43 Assignee	Task 43 Due Date	Task 43 Start Date	Task 43 End Date	Task 43 Progress (%)	Task 43 Comments
44	Task 44	Task 44 Description	Task 44 Category	Task 44 Status	Task 44 Priority	Task 44 Assignee	Task 44 Due Date	Task 44 Start Date	Task 44 End Date	Task 44 Progress (%)	Task 44 Comments
45	Task 45	Task 45 Description	Task 45 Category	Task 45 Status	Task 45 Priority	Task 45 Assignee	Task 45 Due Date	Task 45 Start Date	Task 45 End Date	Task 45 Progress (%)	Task 45 Comments
46	Task 46	Task 46 Description	Task 46 Category	Task 46 Status	Task 46 Priority	Task 46 Assignee	Task 46 Due Date	Task 46 Start Date	Task 46 End Date	Task 46 Progress (%)	Task 46 Comments
47	Task 47	Task 47 Description	Task 47 Category	Task 47 Status	Task 47 Priority	Task 47 Assignee	Task 47 Due Date	Task 47 Start Date	Task 47 End Date	Task 47 Progress (%)	Task 47 Comments
48	Task 48	Task 48 Description	Task 48 Category	Task 48 Status	Task 48 Priority	Task 48 Assignee	Task 48 Due Date	Task 48 Start Date	Task 48 End Date	Task 48 Progress (%)	Task 48 Comments
49	Task 49	Task 49 Description	Task 49 Category	Task 49 Status	Task 49 Priority	Task 49 Assignee	Task 49 Due Date	Task 49 Start Date	Task 49 End Date	Task 49 Progress (%)	Task 49 Comments
50	Task 50	Task 50 Description	Task 50 Category	Task 50 Status	Task 50 Priority	Task 50 Assignee	Task 50 Due Date	Task 50 Start Date	Task 50 End Date	Task 50 Progress (%)	Task 50 Comments
51	Task 51	Task 51 Description	Task 51 Category	Task 51 Status	Task 51 Priority	Task 51 Assignee	Task 51 Due Date	Task 51 Start Date	Task 51 End Date	Task 51 Progress (%)	Task 51 Comments
52	Task 52	Task 52 Description	Task 52 Category	Task 52 Status	Task 52 Priority	Task 52 Assignee	Task 52 Due Date	Task 52 Start Date	Task 52 End Date	Task 52 Progress (%)	Task 52 Comments
53	Task 53	Task 53 Description	Task 53 Category	Task 53 Status	Task 53 Priority	Task 53 Assignee	Task 53 Due Date	Task 53 Start Date	Task 53 End Date	Task 53 Progress (%)	Task 53 Comments
54	Task 54	Task 54 Description	Task 54 Category	Task 54 Status	Task 54 Priority	Task 54 Assignee	Task 54 Due Date	Task 54 Start Date	Task 54 End Date	Task 54 Progress (%)	Task 54 Comments
55	Task 55	Task 55 Description	Task 55 Category	Task 55 Status	Task 55 Priority	Task 55 Assignee	Task 55 Due Date	Task 55 Start Date	Task 55 End Date	Task 55 Progress (%)	Task 55 Comments
56	Task 56	Task 56 Description	Task 56 Category	Task 56 Status	Task 56 Priority	Task 56 Assignee	Task 56 Due Date	Task 56 Start Date	Task 56 End Date	Task 56 Progress (%)	Task 56 Comments
57	Task 57	Task 57 Description	Task 57 Category	Task 57 Status	Task 57 Priority	Task 57 Assignee	Task 57 Due Date	Task 57 Start Date	Task 57 End Date	Task 57 Progress (%)	Task 57 Comments
58	Task 58	Task 58 Description	Task 58 Category	Task 58 Status	Task 58 Priority	Task 58 Assignee	Task 58 Due Date	Task 58 Start Date	Task 58 End Date	Task 58 Progress (%)	Task 58 Comments
59	Task 59	Task 59 Description	Task 59 Category	Task 59 Status	Task 59 Priority	Task 59 Assignee	Task 59 Due Date	Task 59 Start Date	Task 59 End Date	Task 59 Progress (%)	Task 59 Comments
60	Task 60	Task 60 Description	Task 60 Category	Task 60 Status	Task 60 Priority	Task 60 Assignee	Task 60 Due Date	Task 60 Start Date	Task 60 End Date	Task 60 Progress (%)	Task 60 Comments
61	Task 61	Task 61 Description	Task 61 Category	Task 61 Status	Task 61 Priority	Task 61 Assignee	Task 61 Due Date	Task 61 Start Date	Task 61 End Date	Task 61 Progress (%)	Task 61 Comments
62	Task 62	Task 62 Description	Task 62 Category	Task 62 Status	Task 62 Priority	Task 62 Assignee	Task 62 Due Date	Task 62 Start Date	Task 62 End Date	Task 62 Progress (%)	Task 62 Comments
63	Task 63	Task 63 Description	Task 63 Category	Task 63 Status	Task 63 Priority	Task 63 Assignee	Task 63 Due Date	Task 63 Start Date	Task 63 End Date	Task 63 Progress (%)	Task 63 Comments
64	Task 64	Task 64 Description	Task 64 Category	Task 64 Status	Task 64 Priority	Task 64 Assignee	Task 64 Due Date	Task 64 Start Date	Task 64 End Date	Task 64 Progress (%)	Task 64 Comments
65	Task 65	Task 65 Description	Task 65 Category	Task 65 Status	Task 65 Priority	Task 65 Assignee	Task 65 Due Date	Task 65 Start Date	Task 65 End Date	Task 65 Progress (%)	Task 65 Comments
66	Task 66	Task 66 Description	Task 66 Category	Task 66 Status	Task 66 Priority	Task 66 Assignee	Task 66 Due Date	Task 66 Start Date	Task 66 End Date	Task 66 Progress (%)	Task 66 Comments
67	Task 67	Task 67 Description	Task 67 Category	Task 67 Status	Task 67 Priority	Task 67 Assignee	Task 67 Due Date	Task 67 Start Date	Task 67 End Date	Task 67 Progress (%)	Task 67 Comments
68	Task 68	Task 68 Description	Task 68 Category	Task 68 Status	Task 68 Priority	Task 68 Assignee	Task 68 Due Date	Task 68 Start Date	Task 68 End Date	Task 68 Progress (%)	Task 68 Comments
69	Task 69	Task 69 Description	Task 69 Category	Task 69 Status	Task 69 Priority	Task 69 Assignee	Task 69 Due Date	Task 69 Start Date	Task 69 End Date	Task 69 Progress (%)	Task 69 Comments
70	Task 70	Task 70 Description	Task 70 Category	Task 70 Status	Task 70 Priority	Task 70 Assignee	Task 70 Due Date	Task 70 Start Date	Task 70 End Date	Task 70 Progress (%)	Task 70 Comments
71	Task 71	Task 71 Description	Task 71 Category	Task 71 Status	Task 71 Priority	Task 71 Assignee	Task 71 Due Date	Task 71 Start Date	Task 71 End Date	Task 71 Progress (%)	Task 71 Comments
72	Task 72	Task 72 Description	Task 72 Category	Task 72 Status	Task 72 Priority	Task 72 Assignee	Task 72 Due Date	Task 72 Start Date	Task 72 End Date	Task 72 Progress (%)	Task 72 Comments
73	Task 73	Task 73 Description	Task 73 Category	Task 73 Status	Task 73 Priority	Task 73 Assignee	Task 73 Due Date	Task 73 Start Date	Task 73 End Date	Task 73 Progress (%)	Task 73 Comments
74	Task 74	Task 74 Description	Task 74 Category	Task 74 Status	Task 74 Priority	Task 74 Assignee	Task 74 Due Date	Task 74 Start Date	Task 74 End Date	Task 74 Progress (%)	Task 74 Comments
75	Task 75	Task 75 Description	Task 75 Category	Task 75 Status	Task 75 Priority	Task 75 Assignee	Task 75 Due Date	Task 75 Start Date	Task 75 End Date	Task 75 Progress (%)	Task 75 Comments
76	Task 76	Task 76 Description	Task 76 Category	Task 76 Status	Task 76 Priority	Task 76 Assignee	Task 76 Due Date	Task 76 Start Date	Task 76 End Date	Task 76 Progress (%)	Task 76 Comments
77	Task 77	Task 77 Description	Task 77 Category	Task 77 Status	Task 77 Priority	Task 77 Assignee	Task 77 Due Date	Task 77 Start Date	Task 77 End Date	Task 77 Progress (%)	Task 77 Comments
78	Task 78	Task 78 Description	Task 78 Category	Task 78 Status	Task 78 Priority	Task 78 Assignee	Task 78 Due Date	Task 78 Start Date	Task 78 End Date	Task 78 Progress (%)	Task 78 Comments
79	Task 79	Task 79 Description	Task 79 Category	Task 79 Status	Task 79 Priority	Task 79 Assignee	Task 79 Due Date	Task 79 Start Date	Task 79 End Date	Task 79 Progress (%)	Task 79 Comments
80	Task 80	Task 80 Description	Task 80 Category	Task 80 Status	Task 80 Priority	Task 80 Assignee	Task 80 Due Date	Task 80 Start Date	Task 80 End Date	Task 80 Progress (%)	Task 80 Comments
81	Task 81	Task 81 Description	Task 81 Category	Task 81 Status	Task 81 Priority	Task 81 Assignee	Task 81 Due Date	Task 81 Start Date	Task 81 End Date	Task 81 Progress (%)	Task 81 Comments
82	Task 82	Task 82 Description	Task 82 Category	Task 82 Status	Task 82 Priority	Task 82 Assignee	Task 82 Due Date	Task 82 Start Date	Task 82 End Date	Task 82 Progress (%)	Task 82 Comments
83	Task 83	Task 83 Description	Task 83 Category	Task 83 Status	Task 83 Priority	Task 83 Assignee	Task 83 Due Date	Task 83 Start Date	Task 83 End Date	Task 83 Progress (%)	Task 83 Comments
84	Task 84	Task 84 Description	Task 84 Category	Task 84 Status	Task 84 Priority	Task 84 Assignee	Task 84 Due Date	Task 84 Start Date	Task 84 End Date	Task 84 Progress (%)	Task 84 Comments
85	Task 85	Task 85 Description	Task 85 Category	Task 85 Status	Task 85 Priority	Task 85 Assignee	Task 85 Due Date	Task 85 Start Date	Task 85 End Date	Task 85 Progress (%)	Task 85 Comments
86	Task 86	Task 86 Description	Task 86 Category	Task 86 Status	Task 86 Priority	Task 86 Assignee	Task 86 Due Date	Task 86 Start Date	Task 86 End Date	Task 86 Progress (%)	Task 86 Comments
87	Task 87	Task 87 Description	Task 87 Category	Task 87 Status	Task 87 Priority	Task 87 Assignee	Task 87 Due Date	Task 87 Start Date	Task 87 End Date	Task 87 Progress (%)	Task 87 Comments
88	Task 88	Task 88 Description	Task 88 Category	Task 88 Status	Task 88 Priority	Task 88 Assignee	Task 88 Due Date	Task 88 Start Date	Task 88 End Date	Task 88 Progress (%)	Task 88 Comments
89	Task 89	Task 89 Description	Task 89 Category	Task 89 Status	Task 89 Priority	Task 89 Assignee	Task 89 Due Date	Task 89 Start Date	Task 89 End Date	Task 89 Progress (%)	Task 89 Comments
90	Task 90	Task 90 Description	Task 90 Category	Task 90 Status	Task 90 Priority	Task 90 Assignee	Task 90 Due Date	Task 90 Start Date	Task 90 End Date	Task 90 Progress (%)	Task 90 Comments
91	Task 91	Task 91 Description	Task 91 Category	Task 91 Status	Task 91 Priority	Task 91 Assignee	Task 91 Due Date	Task 91 Start Date	Task 91 End Date	Task 91 Progress (%)	Task 91 Comments
92	Task 92	Task 92 Description	Task 92 Category	Task 92 Status	Task 92 Priority	Task 92 Assignee	Task 92 Due Date	Task 92 Start Date	Task 92 End Date	Task 92 Progress (%)	Task 92 Comments
93	Task 93	Task 93 Description	Task 93 Category	Task 93 Status	Task 93 Priority	Task 93 Assignee	Task 93 Due Date	Task 93 Start Date	Task 93 End Date	Task 93 Progress (%)	Task 93 Comments
94	Task 94	Task 94 Description	Task 94 Category	Task 94 Status	Task 94 Priority	Task 94 Assignee	Task 94 Due Date	Task 94 Start Date	Task 94 End Date	Task 94 Progress (%)	Task 94 Comments
95	Task 95	Task 95 Description	Task 95 Category	Task 95 Status	Task 95 Priority	Task 95 Assignee	Task 95 Due Date	Task 95 Start Date	Task 95 End Date	Task 95 Progress (%)	Task 95 Comments
96	Task 96	Task 96 Description	Task 96 Category	Task 96 Status	Task 96 Priority	Task 96 Assignee	Task 96 Due Date	Task 96 Start Date	Task 96 End Date	Task 96 Progress (%)	Task 96 Comments
97	Task 97	Task 97 Description	Task 97 Category	Task 97 Status	Task 97 Priority	Task 97 Assignee	Task 97 Due Date	Task 97 Start Date	Task 97 End Date	Task 97 Progress (%)	Task 97 Comments
98	Task 98	Task 98 Description	Task 98 Category	Task 98 Status	Task 98 Priority	Task 98 Assignee	Task 98 Due Date	Task 98 Start Date	Task 98 End Date	Task 98 Progress (%)	Task 98 Comments
99	Task 99	Task 99 Description	Task 99 Category	Task 99 Status	Task 99 Priority	Task 99 Assignee	Task 99 Due Date	Task 99 Start Date	Task 99 End Date	Task 99 Progress (%)	Task 99 Comments
100	Task 100										

[illegible]

Figure 10 cont.

Index	Category	Item	Value	Unit	Notes	Source	Year	Period	Frequency	Seasonality	Forecast	Confidence	Accuracy	Model	Version	Author	Reviewer	Approved	Comments
1	Agriculture	Wheat Production	1200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
2		Corn Production	800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
3		Soybean Production	600000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	600000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
4		Rice Production	900000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	900000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
5		Barley Production	400000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	400000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
6		Oats Production	300000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	300000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
7		Wheat Production	1200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
8		Corn Production	800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
9		Soybean Production	600000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	600000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
10		Rice Production	900000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	900000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
11	Livestock	Cattle Production	500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
12		Poultry Production	700000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	700000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
13		Pig Production	300000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	300000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
14		Sheep Production	200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
15		Cattle Production	500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
16		Poultry Production	700000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	700000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
17		Pig Production	300000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	300000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
18		Sheep Production	200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
19		Cattle Production	500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
20		Poultry Production	700000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	700000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
21	Forestry	Timber Production	1000000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1000000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
22		Wood Production	800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
23		Paper Production	600000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	600000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
24		Timber Production	1000000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1000000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
25		Wood Production	800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
26		Paper Production	600000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	600000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
27		Timber Production	1000000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1000000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
28		Wood Production	800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
29		Paper Production	600000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	600000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
30		Timber Production	1000000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1000000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
31	Manufacturing	Steel Production	1500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
32		Automotive Production	1200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
33		Chemical Production	900000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	900000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
34		Steel Production	1500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
35		Automotive Production	1200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
36		Chemical Production	900000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	900000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
37		Steel Production	1500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
38		Automotive Production	1200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
39		Chemical Production	900000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	900000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
40		Steel Production	1500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
41	Energy	Coal Production	1800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
42		Natural Gas Production	1500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
43		Oil Production	1200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
44		Coal Production	1800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
45		Natural Gas Production	1500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
46		Oil Production	1200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
47		Coal Production	1800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
48		Natural Gas Production	1500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
49		Oil Production	1200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
50		Coal Production	1800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
51	Healthcare	Pharmaceutical Production	1000000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1000000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
52		Medical Equipment Production	800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
53		Pharmaceutical Production	1000000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1000000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
54		Medical Equipment Production	800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
55		Pharmaceutical Production	1000000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1000000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
56		Medical Equipment Production	800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
57		Pharmaceutical Production	1000000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1000000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
58		Medical Equipment Production	800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
59		Pharmaceutical Production	1000000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1000000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
60		Medical Equipment Production	800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	800000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
61	Retail	Food Retail Sales	1500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
62		Clothing Retail Sales	1200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
63		Food Retail Sales	1500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
64		Clothing Retail Sales	1200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
65		Food Retail Sales	1500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
66		Clothing Retail Sales	1200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
67		Food Retail Sales	1500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
68		Clothing Retail Sales	1200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
69		Food Retail Sales	1500000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1500000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
70		Clothing Retail Sales	1200000	kg	2023-01-01	FAO	2023	Q1	Quarterly	Stable	1200000	95%	98%	ARIMA	1.0	John Doe	Jane Smith	2023-03-15	Initial forecast for Q1 2023.
71	Education	Textbook Production	800000	kg	2023-01-01	FAO	2023	Q1	Quarterly	St									

Figure 10 cont.

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40/57

Figure 11

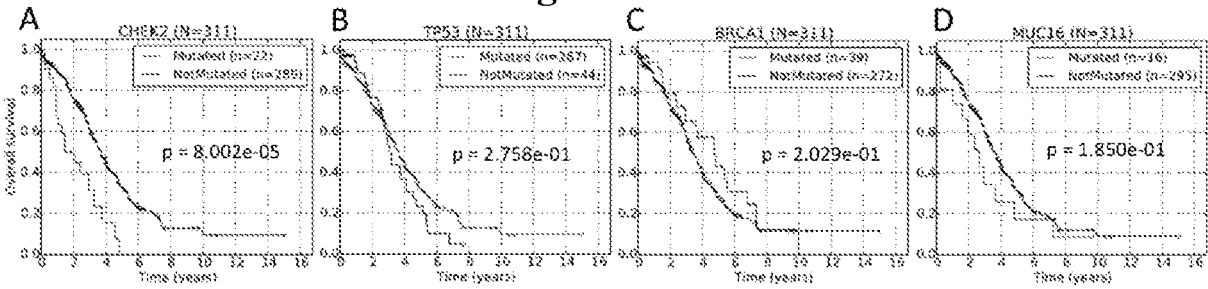


Figure 12

(A) For any CHEK2 mutations (including silent)

	Progressive disease	Complete response, partial response, or stable disease
Any CHEK2 mutation	5	17
No CHEK2 mutation	21	215

Kappa

0.1278

p-value (one-sided, right-tailed)

0.95536

(B) For any CHEK2 mutations (excluding silent)

	Progressive disease	Complete response, partial response, or stable disease
Any CHEK2 Mutation (non-silent)	5	15
Silent or no CHEK2 mutation	21	217

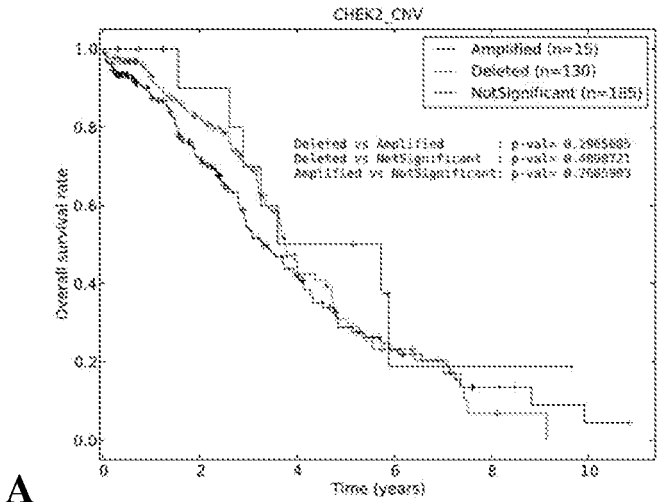
Kappa

0.1422

p-value (one-sided, right-tailed)

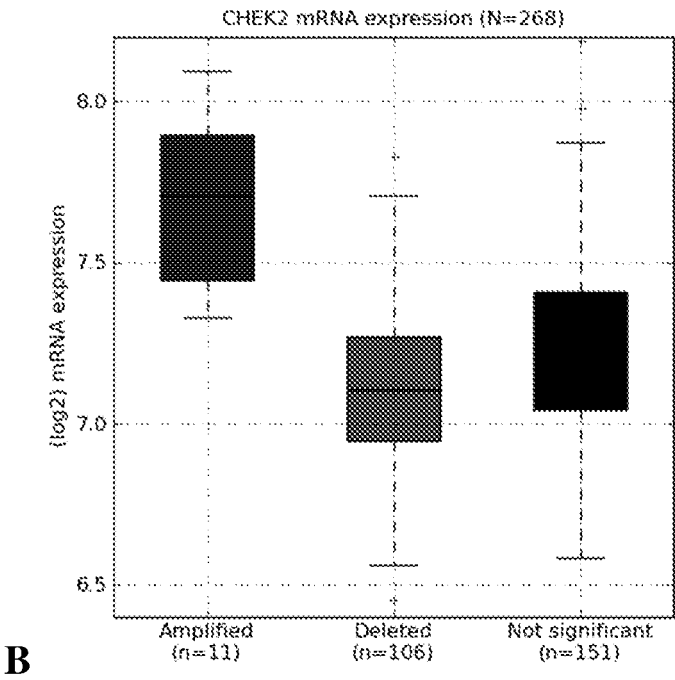
0.93769

Figure 13

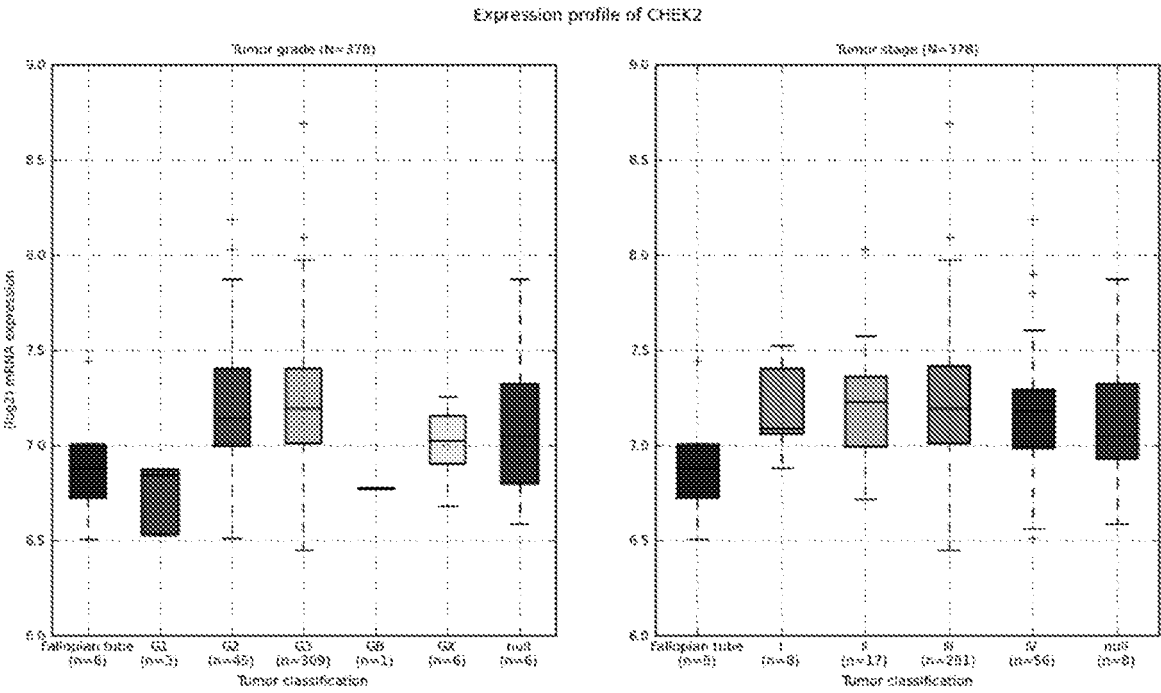


41/57

Figure 13 cont.



C



42/57

Figure 13 cont.

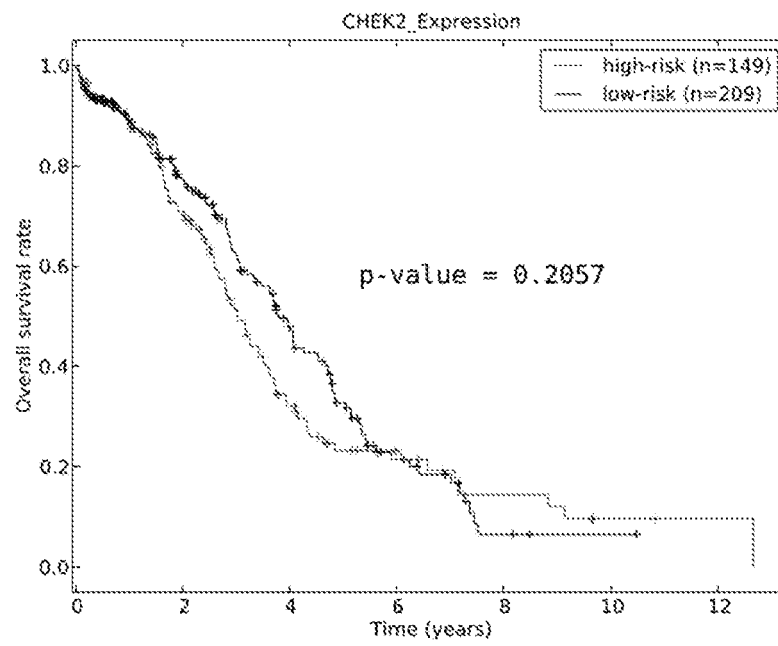


Figure 14

Task		Task Progress Summary										Task Details			
Task ID	Task Name	Start Date	End Date	Current Status	Next Steps	Assigned To	Progress %	Notes	Dependencies	Resources	Estimated Duration	Actual Duration	Completion Date		
1	Task 1	2023-01-01	2023-01-05	Completed		John Doe	100%				5 days	5 days	2023-01-05		
2	Task 2	2023-01-06	2023-01-10	In Progress		Jane Smith	75%				5 days	4 days	2023-01-10		
3	Task 3	2023-01-11	2023-01-15	Not Started		Mike Johnson	0%				5 days	0 days	2023-01-15		
4	Task 4	2023-01-16	2023-01-20	On Hold		Sarah Lee	20%				5 days	1 day	2023-01-20		
5	Task 5	2023-01-21	2023-01-25	Completed		David Kim	100%				5 days	5 days	2023-01-25		
6	Task 6	2023-01-26	2023-02-01	In Progress		Emily White	60%				6 days	4 days	2023-02-01		
7	Task 7	2023-02-02	2023-02-06	Not Started		Chris Brown	0%				5 days	0 days	2023-02-06		
8	Task 8	2023-02-07	2023-02-11	On Hold		Alex Green	10%				5 days	0 days	2023-02-11		
9	Task 9	2023-02-12	2023-02-16	Completed		Mia Black	100%				5 days	5 days	2023-02-16		
10	Task 10	2023-02-17	2023-02-21	In Progress		Noah Gray	80%				5 days	4 days	2023-02-21		
11	Task 11	2023-02-22	2023-02-26	Not Started		Olivia Blue	0%				5 days	0 days	2023-02-26		
12	Task 12	2023-02-27	2023-03-03	On Hold		Liam Purple	30%				6 days	2 days	2023-03-03		
13	Task 13	2023-03-04	2023-03-08	Completed		Ava Pink	100%				5 days	5 days	2023-03-08		
14	Task 14	2023-03-09	2023-03-13	In Progress		Ethan Yellow	50%				5 days	3 days	2023-03-13		
15	Task 15	2023-03-14	2023-03-18	Not Started		Sophia Cyan	0%				5 days	0 days	2023-03-18		
16	Task 16	2023-03-19	2023-03-23	On Hold		Lucas Magenta	10%				5 days	0 days	2023-03-23		
17	Task 17	2023-03-24	2023-03-28	Completed		Isabella Teal	100%				5 days	5 days	2023-03-28		
18	Task 18	2023-03-29	2023-04-02	In Progress		Mason Gold	70%				5 days	4 days	2023-04-02		
19	Task 19	2023-04-03	2023-04-07	Not Started		Charlotte Silver	0%				5 days	0 days	2023-04-07		
20	Task 20	2023-04-08	2023-04-12	On Hold		Benjamin Bronze	20%				5 days	1 day	2023-04-12		
21	Task 21	2023-04-13	2023-04-17	Completed		Evelyn Copper	100%				5 days	5 days	2023-04-17		
22	Task 22	2023-04-18	2023-04-22	In Progress		William Tin	60%				5 days	4 days	2023-04-22		
23	Task 23	2023-04-23	2023-04-27	Not Started		Grace Nickel	0%				5 days	0 days	2023-04-27		
24	Task 24	2023-04-28	2023-05-02	On Hold		James Zinc	10%				5 days	0 days	2023-05-02		
25	Task 25	2023-05-03	2023-05-07	Completed		Madison Lead	100%				5 days	5 days	2023-05-07		
26	Task 26	2023-05-08	2023-05-12	In Progress		Christopher Platinum	70%				5 days	4 days	2023-05-12		
27	Task 27	2023-05-13	2023-05-17	Not Started		Victoria Gold	0%				5 days	0 days	2023-05-17		
28	Task 28	2023-05-18	2023-05-22	On Hold		Matthew Silver	20%				5 days	1 day	2023-05-22		
29	Task 29	2023-05-23	2023-05-27	Completed		Chloe Copper	100%				5 days	5 days	2023-05-27		
30	Task 30	2023-05-28	2023-06-01	In Progress		Daniel Tin	60%				5 days	4 days	2023-06-01		

Figure 14 cont.

[illegible]

Figure 14 cont.

[illegible]

47/57

Figure 14 cont.

[illegible]

Figure 14 cont.

[illegible]

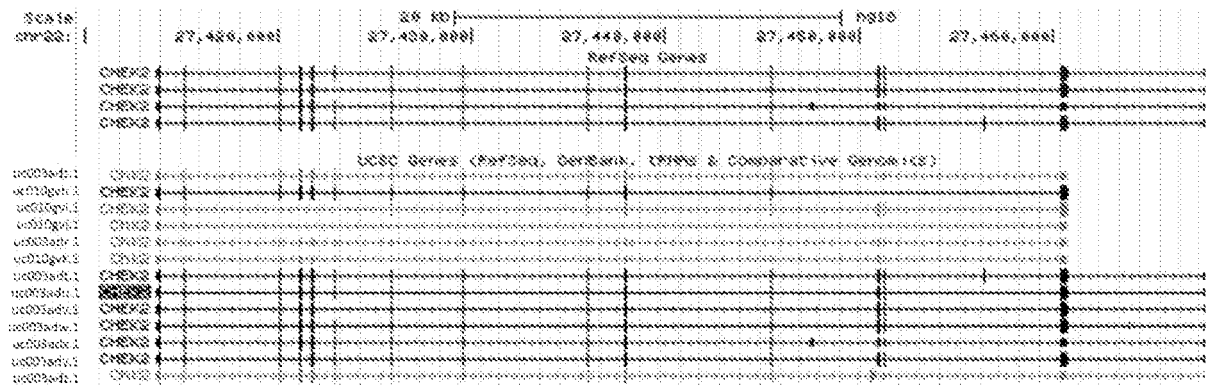
Figure 14 cont.

[illegible]

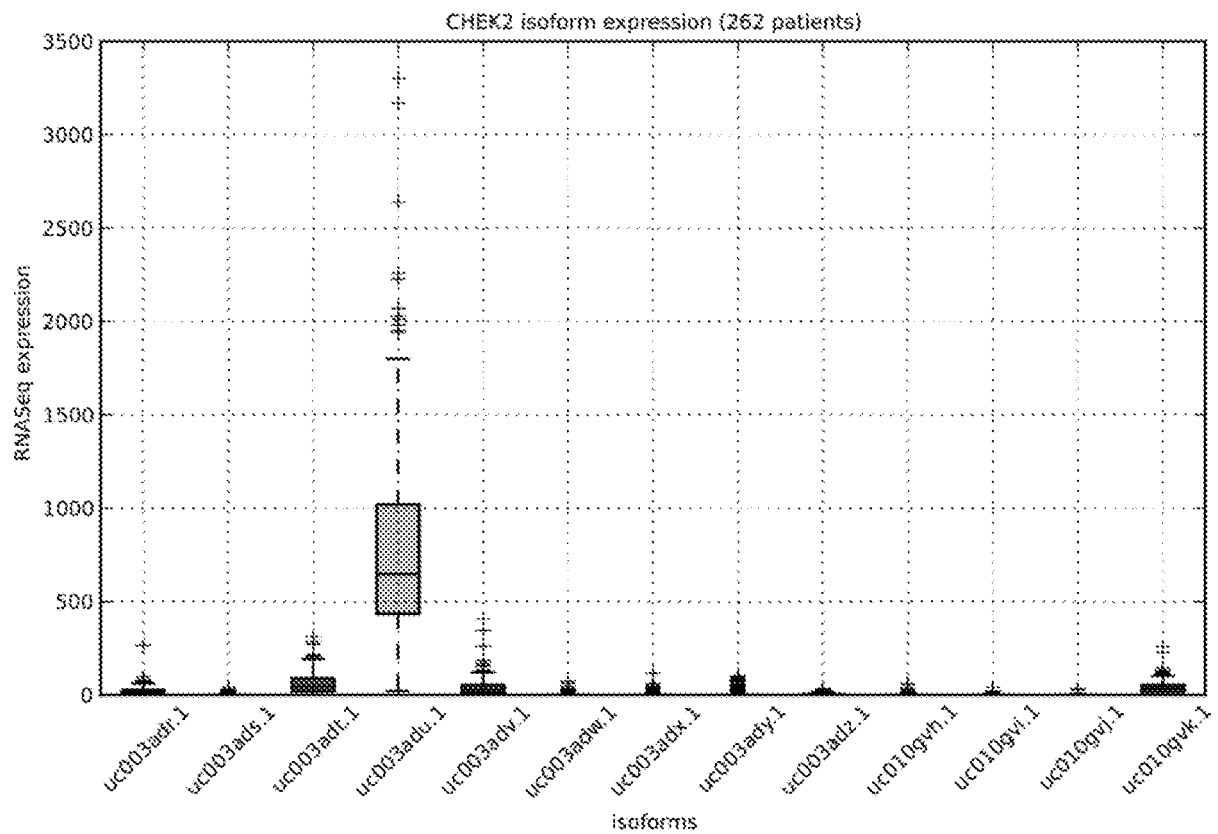
50/57

Figure 15

A



B



51/57

Figure 16

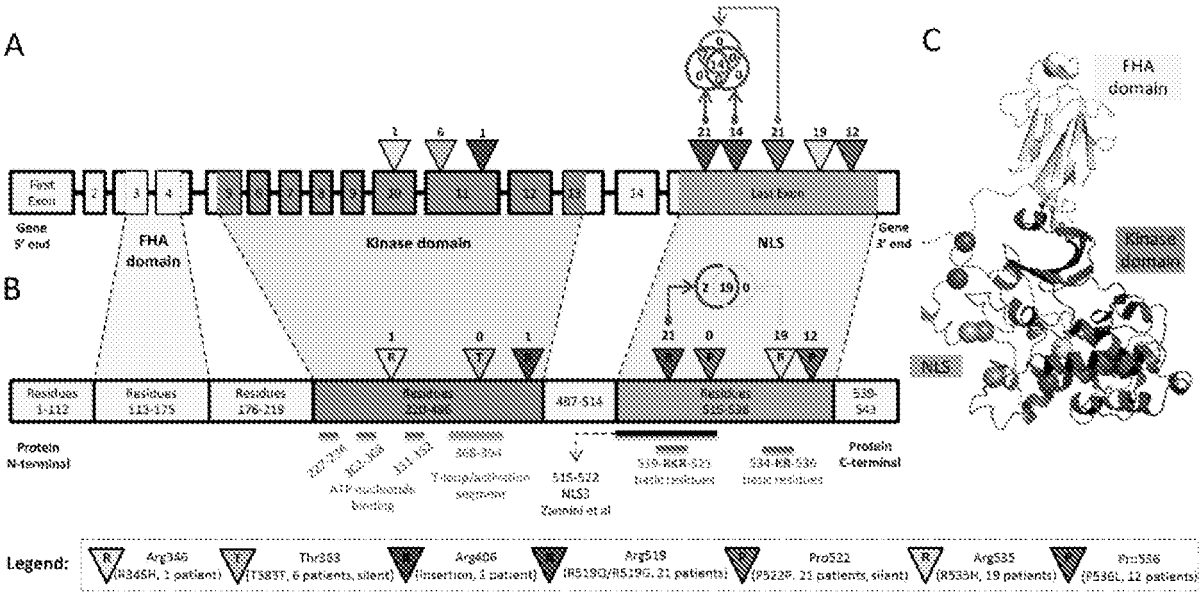


Figure 17

Gene symbol	Gene name	Non-mutated	Mutated	Median overall survival time (Non-mutated)	Median overall survival time (Mutated)	log-rank p-value	Effect of mutation on patient prognosis
ADAMTS13	ADAMTS-like 3	295	12	3.67	2.43	1.029E-02	poorer prognosis
ATR	ataxia telangiectasia and Rad3 related	306	5	3.63	0.96	8.611E-05	poorer prognosis
CHK2	checkpoint kinase 2	285	22	3.69	1.53	8.032E-05	poorer prognosis
ENAM	enailed homolog (Encephala)	304	7	3.63	1.48	1.026E-02	poorer prognosis
ERK2	endoplasmic reticulum to nucleus signaling 2	306	5	3.50	Not applicable	2.447E-02	better prognosis
GLI2	GLI family zinc finger 2	300	11	3.67	1.68	2.253E-02	poorer prognosis
GYP6	glycophorin B (KNS blood group)	301	10	3.61	1.53	2.132E-02	poorer prognosis
KIAA1324L	KIAA1324-like	306	5	3.63	1.57	3.257E-02	poorer prognosis
LRKN2	leucine rich repeat neuronal 2	306	5	3.67	2.43	1.576E-02	poorer prognosis
MAP3K6	mitogen-activated protein kinase kinase kinase 6	306	5	3.63	1.48	3.155E-04	poorer prognosis
MAPK13	mitogen-activated protein kinase 13	303	8	3.61	2.05	1.369E-02	poorer prognosis
MET	met proto-oncogene	302	9	3.63	2.05	1.826E-02	poorer prognosis
MLL4	lysine [K]-specific methyltransferase 2B	291	20	3.69	2.05	7.596E-03	poorer prognosis
NPPL	Nipped-B homolog (Drosophila)	306	5	3.61	1.32	7.988E-04	poorer prognosis
PDCD15	programmed cell death 15	306	5	3.67	2.59	1.433E-02	poorer prognosis
PPP1CC	protein phosphatase 1, catalytic subunit, gamma isoform	306	6	3.61	2.05	3.170E-02	poorer prognosis
PTCH1	patched 1	305	6	3.63	2.05	2.602E-03	poorer prognosis
PTK2B	protein tyrosine kinase 2 beta	300	11	3.63	2.43	3.435E-02	poorer prognosis
RPS6K2	ribosomal protein S6 kinase, SKI-like, polypeptide 2	288	23	3.71	2.05	1.563E-04	poorer prognosis
RSU1	Ras suppressor protein 1	299	13	3.67	2.43	1.778E-02	poorer prognosis
TNC	tenascin C	306	5	3.63	1.48	1.514E-02	poorer prognosis

52/57

Figure 18

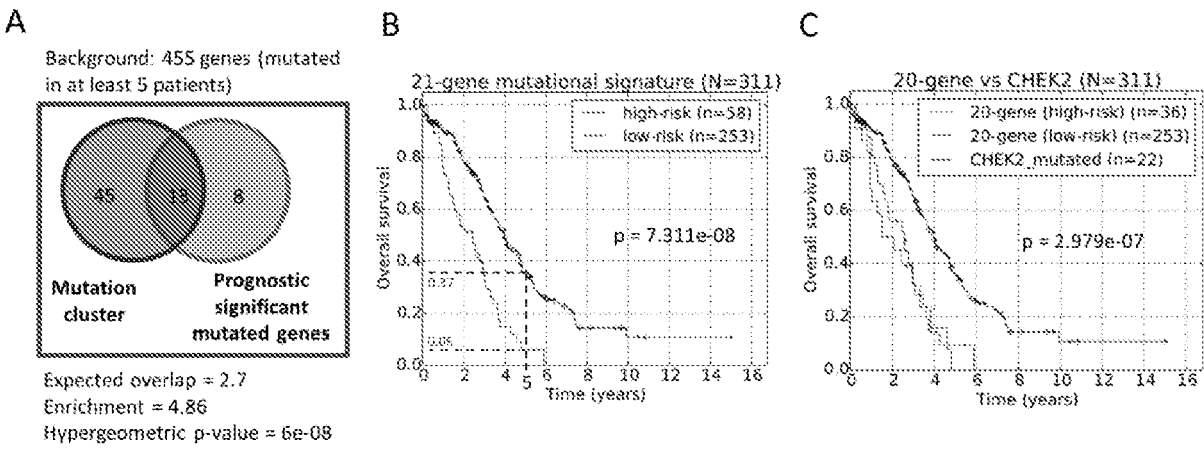


Figure 19

	Progressive disease	Complete response, partial response, or stable disease	Total
high-risk	8	42	50
low-risk	18	190	208
Total	26	232	258

Kappa 0.8884
p-value (one-sided, right-tailed) 0.06065

53/57
Figure 20

SEQ ID NO.	Gene Symbol	Approved Name	EntrezID	#Patients with observed mutation (including silent)	#Patients with observed mutation (excluding silent)
1	<i>CHEK2</i>	checkpoint kinase 2	11200	24	22
6	<i>ATR</i>	ataxia telangiectasia and Rad3 related	545	7	6
3	<i>RPS6KA2</i>	ribosomal protein S6 kinase, 90kDa, polypeptide 2	6196	23	23
12	<i>MAP3K6</i>	mitogen-activated protein kinase kinase kinase 6	9064	6	5
15	<i>NIPBL</i>	Nipped-B homolog (Drosophila)	25836	5	5
18	<i>PTCH1</i>	patched 1	5727	6	6
4	<i>MLL4</i>	lysine (K)-specific methyltransferase 2B	9757	20	20
7	<i>ENAH</i>	enabled homolog (Drosophila)	55740	8	7
5	<i>ADAMTSL3</i>	ADAMTS-like 3	57188	16	12
20	<i>RSU1</i>	Ras suppressor protein 1	6251	13	13
16	<i>PCDH15</i>	protocadherin-related 15	65217	7	5
11	<i>LRRN2</i>	leucine rich repeat neuronal 2	10446	5	5
14	<i>MET</i>	met proto-oncogene	4233	9	9
21	<i>TNC</i>	tenascin C	3371	6	5
13	<i>MAPK15</i>	mitogen-activated protein kinase 15	225689	9	8
9	<i>GYPB</i>	glycophorin B (MNS blood group)	2994	10	10
8	<i>GLI2</i>	GLI family zinc finger 2	2736	14	12
2	<i>ERN2</i>	endoplasmic reticulum to nucleus signaling 2	10595	6	5
17	<i>PPP1CC</i>	protein phosphatase 1, catalytic subunit, gamma isozyme	5501	6	6
10	<i>KIAA1324L</i>	KIAA1324-like	222223	6	5
19	<i>PTK2B</i>	protein tyrosine kinase 2 beta	2185	17	11

54/57
Figure 21

A

Category	Term	Count	%	Genes	Fold Enrichment	Benjamini
GOTERM_MF_FAT	GO:0004672 protein kinase activity	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	10.7	1.58E-04
GOTERM_MF_FAT	GO:0004674 protein serine/threonine kinase	6	28.6	MAP3K6, RPS6KA2, MAPK15, ERN2, ATR,	11.3	0.0032365
GOTERM_MF_FAT	GO:0001882 nucleoside binding	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	4.0	0.01208501
GOTERM_MF_FAT	GO:0032553 adenylyl ribonucleotide binding	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	4.3	0.01346113
GOTERM_MF_FAT	GO:0001883 purine nucleoside binding	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	4.1	0.0135163
GOTERM_MF_FAT	GO:0030554 adenylyl nucleotide binding	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	4.1	0.01478872
GOTERM_MF_FAT	GO:0005524 ATP binding	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	4.4	0.01650055
GOTERM_MF_FAT	GO:0032553 ribonucleotide binding	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	3.5	0.02291329
GOTERM_MF_FAT	GO:0032555 purine ribonucleotide binding	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	3.5	0.02291329
GOTERM_MF_FAT	GO:0017076 purine nucleotide binding	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	3.4	0.02629272
GOTERM_BP_FAT	GO:0006796 phosphate metabolic process	9	42.9	PTK2B, MET, MAPK15, ERN2, ATR, CHEK2, PPP1CC	6.6	0.00388316
GOTERM_BP_FAT	GO:0006793 phosphorus metabolic process	9	42.9	PTK2B, MET, MAPK15, ERN2, ATR, CHEK2, PPP1CC	6.6	0.00388316
GOTERM_BP_FAT	GO:0006468 protein amino acid phosphorylation	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	8.5	0.00662048
GOTERM_BP_FAT	GO:0016310 phosphorylation	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	7.1	0.00717624
SP_PIR_KEYWORD	kinase	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	10.7	3.30E-04
SP_PIR_KEYWORD	transferase	9	42.9	PTK2B, MET, MAPK15, ERN2, ATR, CHEK2, MLL4	5.9	0.00125072
SP_PIR_KEYWORD	serine/threonine-protein kinase	6	28.6	MAP3K6, RPS6KA2, MAPK15, ERN2, ATR,	14.4	0.00158422
SP_PIR_KEYWORD	atp-binding	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	5.5	0.00557353
SP_PIR_KEYWORD	alternative splicing	16	76.2	ADAMTSL3, TNC, MET, PCDH15, CHEK2, ATR, PPP1CC, GLI2, MAP3K6, NIPBL, PTK2B,	2.0	0.01679098
SP_PIR_KEYWORD	nucleotide-binding	8	38.1	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	4.3	0.01907265
UP_SEQ_FEATURE	binding site:ATP	7	33.3	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	11.8	0.00248343
UP_SEQ_FEATURE	active site:Proton acceptor	7	33.3	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	9.7	0.00370675
UP_SEQ_FEATURE	domain:Protein kinase	6	28.6	MAP3K6, PTK2B, MET, MAPK15, ERN2, CHEK2	11.6	0.00588826
UP_SEQ_FEATURE	nucleotide phosphate-binding region:ATP	7	33.3	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	6.6	0.01490434
UP_SEQ_FEATURE	splice variant	16	76.2	ADAMTSL3, TNC, MET, PCDH15, CHEK2, ATR, PPP1CC, GLI2, MAP3K6, NIPBL, PTK2B,	2.0	0.04141218
INTERPRO	IPR000719:Protein kinase, core	7	33.3	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	12.2	4.43E-04
INTERPRO	IPR017441:Protein kinase, ATP binding site	7	33.3	MAP3K6, RPS6KA2, PTK2B, MET, MAPK15,	12.8	6.84E-04
INTERPRO	IPR017442:Serine/threonine protein kinase-related	5	23.8	MAP3K6, RPS6KA2, MAPK15, ERN2, CHEK2	11.6	0.0134309
INTERPRO	IPR008271:Serine/threonine protein kinase, active site	5	23.8	MAP3K6, RPS6KA2, MAPK15, ERN2, CHEK2	11.8	0.01695776
INTERPRO	IPR002290:Serine/threonine protein kinase	4	19.0	MAP3K6, RPS6KA2, MAPK15, CHEK2	12.9	0.04969024

55/57

Figure 21 cont.

B

#	Pathway Maps	Total	p-value	In Data	Genes
1	DNA damage_DNA-damage-induced responses	9	5.82E-05		2 CHEK2, ATR
2	DNA damage_Role of NERF1 in DNA damage response	13	1.26E-04		2 CHEK2, ATR
3	Apoptosis and survival_DNA-damage-induced apoptosis	15	1.69E-04		2 CHEK2, ATR
4	Cell cycle_Role of 14-3-3 proteins in cell cycle regulation	22	3.79E-04		2 CHEK2, ATR
5	DNA damage_ATM / ATR regulation of G2 / M checkpoint	26	5.19E-04		2 CHEK2, ATR
6	Colorectal cancer (general schema)	30	6.93E-04		2 PTCH1, MET
7	DNA damage_Brca1 as a transcription regulator	30	6.93E-04		2 CHEK2, ATR
8	DNA damage_Role of Brca1 and Brca2 in DNA repair	30	6.93E-04		2 CHEK2, ATR
9	DNA damage_ATM/ATR regulation of G1/S checkpoint	32	7.89E-04		2 CHEK2, ATR
10	Development_HGF-dependent inhibition of TGF-beta-induced EMT	34	8.91E-04		2 RPS6KA2, MET

C

#	Networks	Total	p-value	In Data	Genes
1	Cell cycle_G2-M	206	1.50E-03		PTCH1, CHEK2, RPS6KA2, ATR
2	DNA damage_Core	29	2.34E-03		2 CHEK2, ATR
3	Reproduction_FSH-beta signaling pathway	160	7.04E-03		2 RPS6KA2, PTK2B
4	DNA damage_MMR repair	59	9.43E-03		2 CHEK2, ATR
5	Cell adhesion_Cadherins	180	9.73E-03		3 PPP1CC, MET, PCDH15
6	Reproduction_Progesterone signaling	213	1.53E-02		3 CHEK2, RPS6KA2, MET
7	Development_Regulation of angiogenesis	223	1.73E-02		2 PTCH1, GLI2
8	Neurophysiological process_Long-term potentiation	82	1.77E-02		2 RPS6KA2, PTK2B
9	Apoptosis_Endoplasmic reticulum stress pathway	87	1.98E-02		2 ERN2, PPP1CC
10	Development_Hedgehog signaling	254	2.44E-02		2 PTCH1, GLI2

D

#	Diseases	Total	p-value	In Data	Genes
1	Abnormalities, Multiple	577	8.24E-07	7	PTCH1, GLI2, CHEK2, RPS6KA2, MLL4, NIPBL, PCDH15
2	Teratoma	18	1.91E-06	2	PTCH1, CHEK2
3	Glioblastoma	2724	4.66E-06	12	PTCH1, ADAMTSL3, TNC, GLI2, CHEK2, RPS6KA2, MAP3K6, MLL4, PPP1CC, MET, LRRN2, ATR
4	Glioma	5184	4.82E-06	15	RSU1, PTCH1, ADAMTSL3, TNC, GLI2, CHEK2, RPS6KA2, MLL4, MAP3K6, PPP1CC, MET, PTK2B, PCDH15, LRRN2, ATR
5	Basal Cell Nevus Syndrome	3	5.52E-06	1	PTCH1
6	Astrocytoma	2773	5.76E-06	12	PTCH1, ADAMTSL3, TNC, GLI2, CHEK2, RPS6KA2, MAP3K6, MLL4, PPP1CC, MET, LRRN2, ATR
7	Neoplasms, Neuroepithelial	5449	1.06E-05	15	RSU1, PTCH1, ADAMTSL3, TNC, GLI2, CHEK2, RPS6KA2, MLL4, MAP3K6, PPP1CC, MET, PTK2B, PCDH15, LRRN2, ATR
8	Odontogenic Cysts	36	1.65E-05	2	PTCH1, GLI2
9	Jaw Cysts	36	1.65E-05	2	PTCH1, GLI2
10	Holoprosencephaly	37	1.79E-05	2	PTCH1, GLI2

56/57

Figure 22

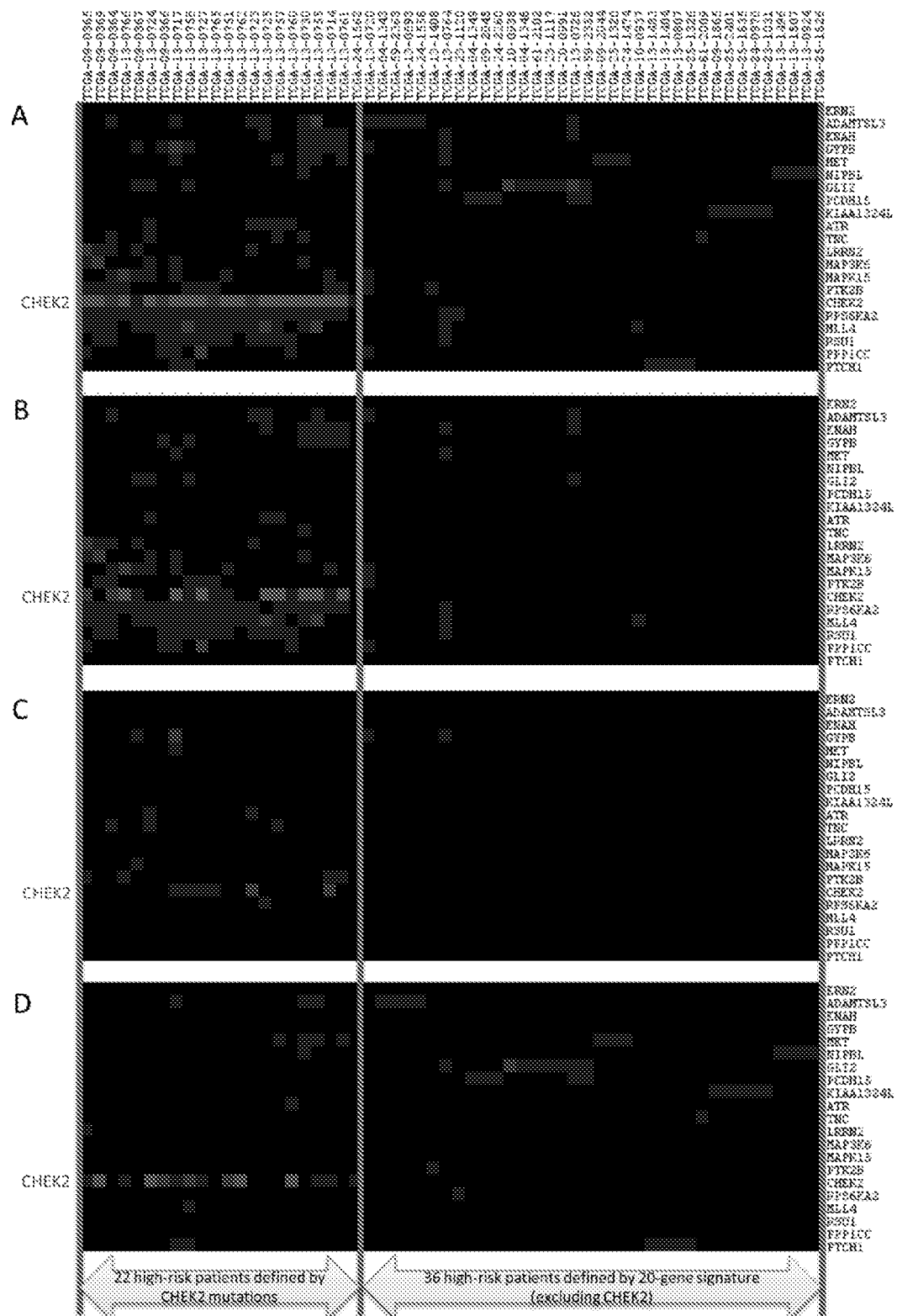


Figure 23

SampleID (n=22)	Years to last follow up	Vital status (1: deceased, 0: living)	TUMOR STAGE	TUMOR GRADE	CHEK2 Copy Number Variation	CHEK2 Mutation	RPS6KA2 Mutation	ATL1A Mutation	CHEK2 and/or RPS6KA2 and/or ATL1A	BRCA1 Mutation	BRCA2
TCGA-09-0364	2.43	1	II	G2	-	G	G	G	2G	-	G
TCGA-09-0365	0.73	1	III	G3	Deleted	G,S	G	G	3G,1S	-	-
TCGA-09-0366	4.81	1	III	G3	-	S	G	G	2G,1S	-	-
TCGA-09-0367	1.50	1	III	G3	-	G	G	G	3G	-	-
TCGA-09-0369	2.96	1	III	G3	-	S	G	G	2G,1S	-	-
TCGA-13-0714	0.52	1	IV	G3	-	G,L,S	G	-	2G,1L,1S	-	-
TCGA-13-0717	2.35	1	III	G3	-	G,L,S	G	G	3G,1L,1S	-	-
TCGA-13-0723	3.30	1	III	G3	-	L	G	G	2G,1L	-	-
TCGA-13-0724	0.23	1	IV	G3	-	S	G	G	2G,1S	-	-
TCGA-13-0725	1.93	1	III	G3	Deleted	G	L	G	2G,1L	-	-
TCGA-13-0727	1.27	1	III	G2	Deleted	G,L,S	G	G	3G,1L,1S	-	-
TCGA-13-0730	1.48	1	III	G3	-	G	G	G	3G	S	-
TCGA-13-0751	4.50	1	III	G3	Deleted	G,S	G	G	3G,1S	-	-
TCGA-13-0755	0.21	1	IV	G3	-	G,S	G	G	3G,1S	-	-
TCGA-13-0757	0.32	1	III	G3	Deleted	G	G	G	3G	-	-
TCGA-13-0758	0.95	1	IV	G3	-	G,L,S	G	G,S	3G,1L,2S	-	-
TCGA-13-0760	0.36	1	IV	G3	-	G,S	G	-	2G,1S	-	-
TCGA-13-0761	2.84	0	IV	G3	Deleted	G	G	-	1G	S	G,L
TCGA-13-0762	2.69	0	III	G2	-	S	G	G	2G,1S	G,L	-
TCGA-13-0765	2.33	0	III	G3	-	G,L	G	G	3G,1L	-	-
TCGA-13-0766	1.78	0	III	G3	-	G,S	G	-	2G,1S	-	G
TCGA-24-1552	3.79	1	III	G3	Deleted	S	-	-	1S	-	G
mean: 1.38 ± 1.303		81.8% deceased	Stage III-IV	G3	33.3% deleted	72.7% germline	90.9% germline	77.3% germline	95.5% germline	4.5% germline	18.2% germline

Figure 24

