

**A microsatellite repeat in *PCA3* long non-coding RNA is associated with prostate cancer risk and aggressiveness**

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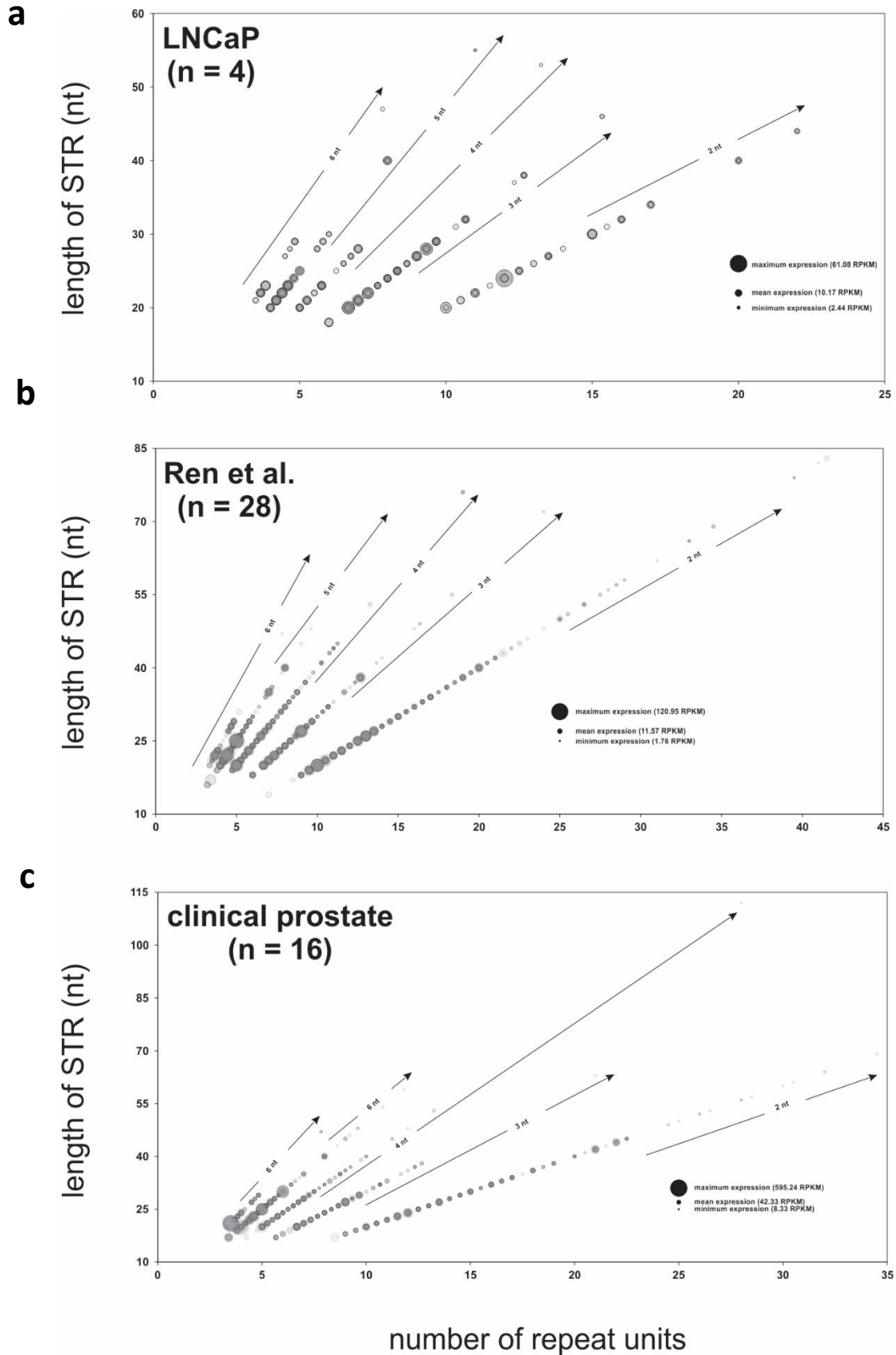
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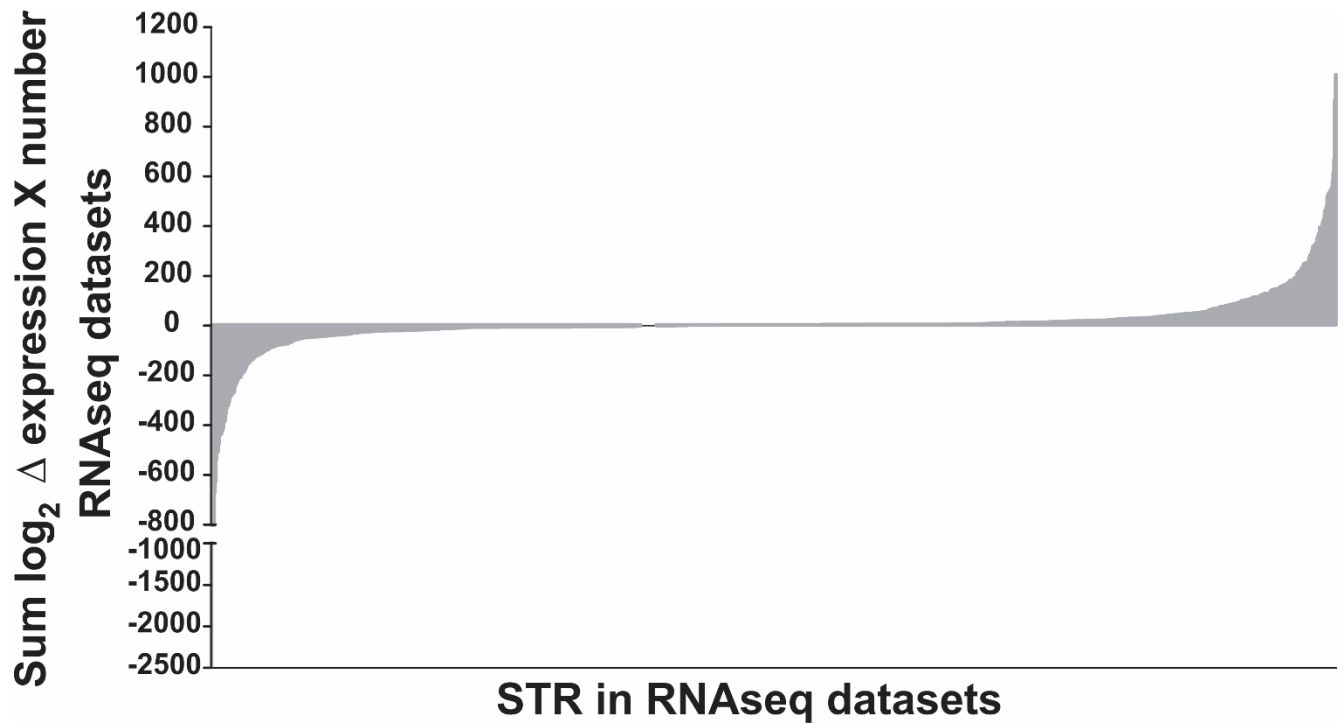
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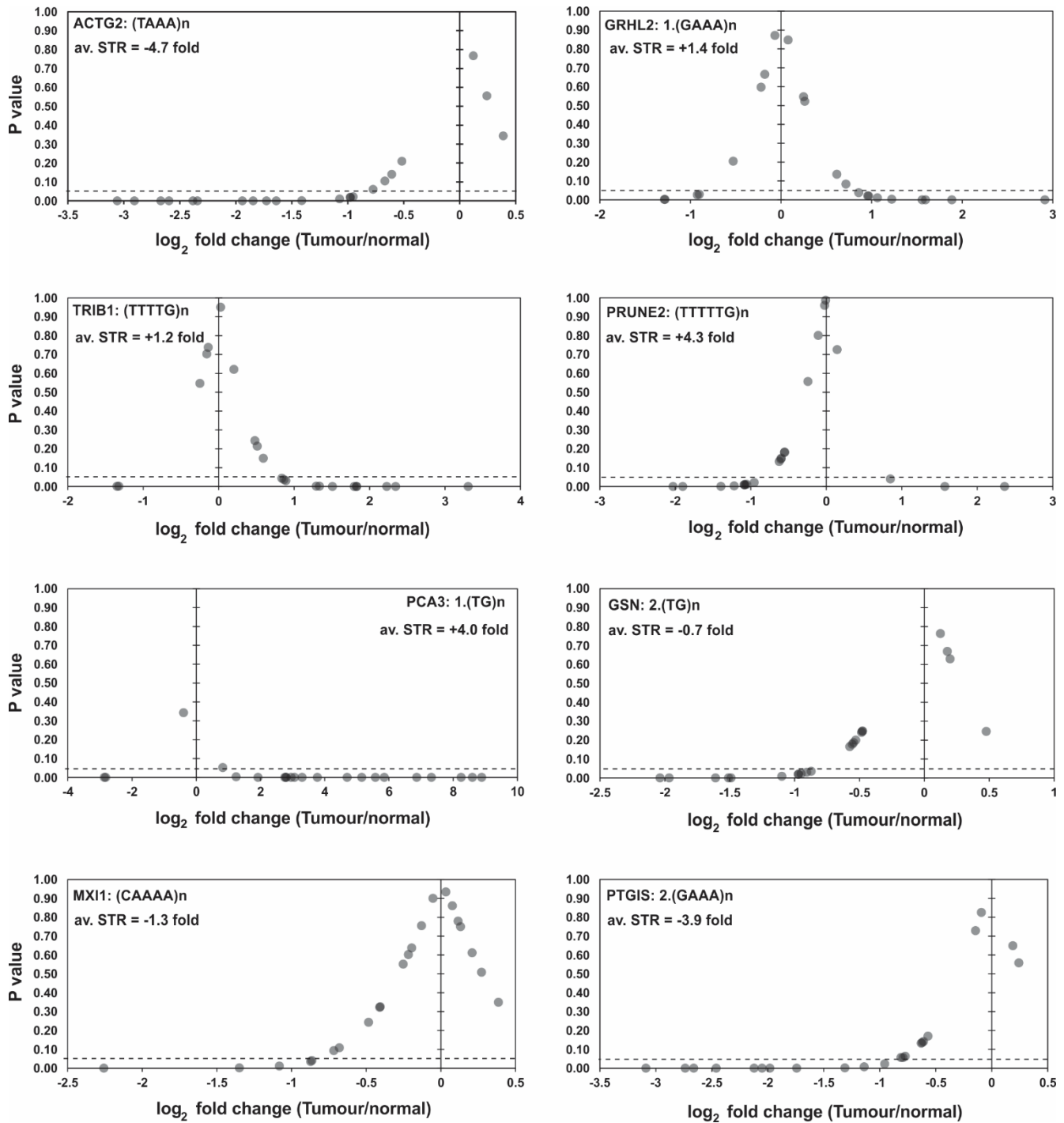
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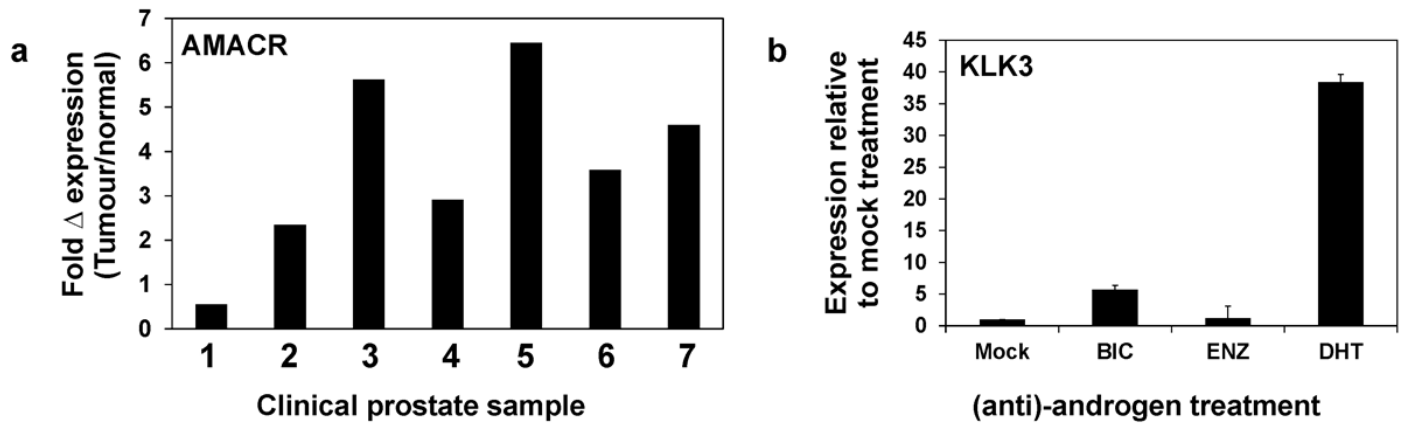
**Supplementary Figure S1.** Bubble plot of STR expression (size of bubble) relative to the length of the STR (y-axis) and the number of repeats (x-axis) for di- (2 nt), tri- (3 nt), tetra- (4 nt), penta- (5 nt), and hexa- (6 nt) nucleotide repeat STRs in (a) LNCaP cells, (b) the Ren *et al.* dataset, and (c) the clinical prostate samples. The number of RNAseq samples for each analysis is indicated below the dataset name.



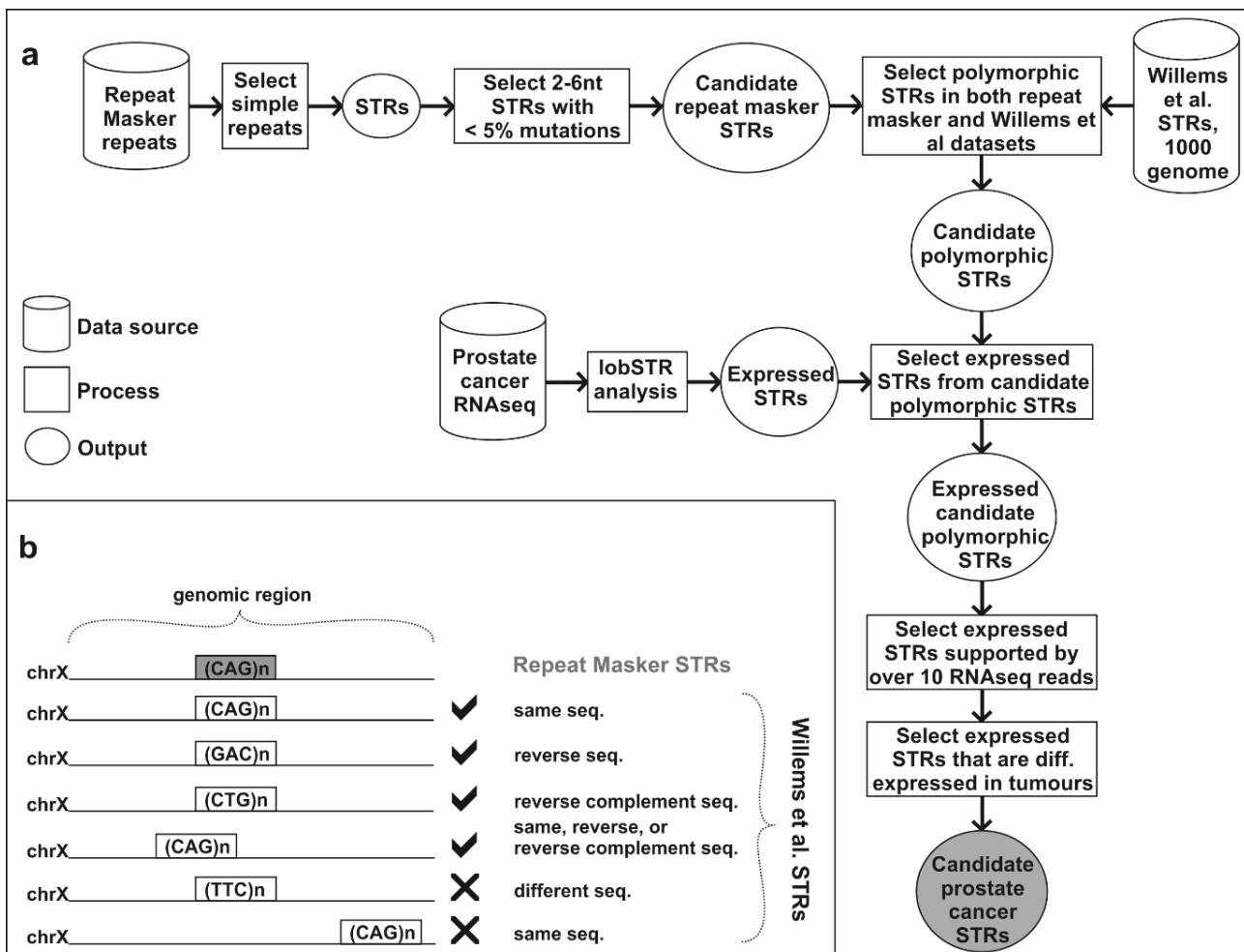
**Supplementary Figure S2.** Waterfall plot of STRs that are consistently up- or down-regulated in prostate tumors compared to their corresponding non-cancer prostate cells. Values above the line refer to STRs that are up-regulated in tumors, while below the line refer to STRs that are down-regulated in tumors.



**Supplementary Figure S3. Differential expression of 8 genes harbouring STRs in prostate cancer vs non-cancerous cells.** The average log<sub>2</sub> fold change in expression for the corresponding STR are shown below the gene name. Differential gene expression was determined by edgeR analysis, and RNAseq reads were mapped by Tophat2 (hg19). The dotted line indicates a P value of 0.05.



**Supplementary Figure S4.** RT-qPCR analysis of positive controls. **(a)**, The up-regulation of the AMACR prostate cancer biomarker in all clinical samples indicates that tumors and adjacent non-cancer prostate cells were appropriately extracted. **(b)**, The expression of the prototypical androgen regulated gene, KLK3, indicates that cells were appropriately treated by anti-androgens: bicalutamide (BIC), enzalutamide (ENZ) and androgen (DHT). Data is represented as the SEM from 6



**Supplementary Figure S5.** **(a)**, Bioinformatics workflow for identifying and characterising prostate cancer expressed STRs. **(b)**, Algorithm used to identify STRs within the Repeat Masker track from the Willems et al. dataset of polymorphic STRs. In this example of a chromosome X locus, if the genomic co-ordinates of STRs between the two datasets both overlap and have matching sequences (seq.), then they are considered the same STR (tick). Otherwise, they are not considered the same STR (cross).

**Supplementary Table S1.** Percentage of expressed STRs in their genomic loci from RNAseq datasets.

	All_datasets	LNCaP	Ren_et_al	Clinical_prostate
<b>Intergenic</b>	542	8	385	149
<b>Promoter</b>	5	1	1	3
<b>5_UTR</b>	42	12	17	13
<b>Coding</b>	62	31	18	13
<b>Intron</b>	875	17	300	558
<b>3_UTR</b>	286	77	112	97
<b>total</b>	1812	146	833	833

**Supplementary Table S2.** RT-qPCR primers and genotype data of the eight candidate STRs. \*Supported by more than 10 RNAseq reads

str_region_(hg19)	rep_mask_repeat	Primer_L	Primer_R	Product_length	Gene	Genomic_loci	Willems_et_al_genotypes_(1000_genome)
chr2:7414431 6-74144336	TAAA	TGCACTCCAGCCTGT CTCTA	TTTCCCATCTCCTG ATTTCCT	112	ACTG2	intron	3.75,5.25,6.6.5,6.75,7.25, 7.5,8.25
chr8:1025638 48- 102563874	GAAA	GGTGCAAAGGAGTT TGGCTA	TAGGCTTCAATTGG GTTGGT	117	GRHL2	intron	2.75,4.5,4.75,5.5,5.75, 6.5,7.5
chr8:1264502 87- 126450311	TTTTG	GAATGCCGTGTATA CCTCACG	CGCAGGTTATTCAG ACAGACA	139	TRIB1	3'_UTR	2.6,3,3.2,3.4,3.6,3.8,4.4, 5.5,2
chr9:7939565 3-79395679	TTTTTG	CAAAAACAAGCAGC AAGAGG	CATCTCCGATACG ATGGAG	127	PRUNE2	intron	1.66667,2.66667,3.33333, 3.66667,4.4.16667,4.5,5
chr9:7940065 0-79400676	TG	GGGTTCACTCCTGGC AATAA	GGTCAAAGAGAGA GAGGCACA	121	PCA3	intergenic	11,12,12.5,14,15,17
chr9:1240949 78- 124094997	TG	TGCCTTTTGGAAGT TCCTT	TTTTGCAGGGCTAT TTTTGG	130	GSN	3'_UTR	5.5,7.7.5,8.8.5,9.10,10.5,1 1,11.5,12,12.5
chr10:112044 843- 112044867	CAAAA	TGGGTTTCATGATGC AGTCTC	CTGCCCCACTTTTT GCTAAG	115	MXII	3'_UTR	3.2,3.8,5
chr20:481217 08-48121728	GAAA	TTTCAATTCTTGCCAC TGAGC	GGAAGTTACCTGG ATGCCATT	122	PTGIS	3'_UTR	4.4.5,4.75,5.25,5.75,6
NA	NA	ATAAGGCCACCACC AGCAAA	CCACGATATCAAC TATTTGGCTTT	111	AMACR	NA	NA
NA	NA	AGTGCGAGAAGCAT TCCCAAC	CCAGCAAGATCAC GCTTTTGT	138	KLK3	NA	NA
NA	NA	GATCCATTGGAGGG CAAGTCT	CCAAGATCCAAC ACGAGCTTTTT	103	18S	NA	NA

**Supplementary Table S3.** Differential analysis of genes harbouring STRs in Taylor *et al.* study.

GEO ID	Sample Number	Patient ID	Cancer and Normal Type	Biopsy Gleason Grades
GSM527863	185	8	Prostate Carcinoma	3 + 4
GSM527865	87	10	Prostate Carcinoma	3 + 3

GSM527866	160	11	Prostate Carcinoma	3 + 3
GSM527867	184	12	Prostate Carcinoma	3 + 3
GSM527875	180	22	Prostate Carcinoma	3 + 3
GSM527879	179	27	Prostate Carcinoma	3 + 2
GSM527885	151	33	Prostate Carcinoma	3 + 3
GSM527886	174	34	Prostate Carcinoma	3 + 3
GSM527887	158	35	Prostate Carcinoma	3 + 3
GSM527895	60	56	Prostate Carcinoma	3 + 3
GSM527897	82	58	Prostate Carcinoma	3 + 3
GSM527898	98	62	Prostate Carcinoma	3 + 3
GSM527900	76	64	Prostate Carcinoma	3 + 3
GSM527907	142	77	Prostate Carcinoma	3 + 3
GSM527910	134	82	Prostate Carcinoma	3 + 3
GSM527912	94	84	Prostate Carcinoma	3 + 3
GSM527915	152	89	Prostate Carcinoma	3 + 3
GSM527920	119	95	Prostate Carcinoma	3 + 3
GSM527922	62	97	Prostate Carcinoma	3 + 3
GSM527925	143	101	Prostate Carcinoma	3 + 3
GSM527929	127	107	Prostate Carcinoma	3 + 3
GSM527930	135	108	Prostate Carcinoma	3 + 3
GSM527931	70	109	Prostate Carcinoma	3 + 3
GSM527932	133	110	Prostate Carcinoma	3 + 3
GSM527941	144	120	Prostate Carcinoma	3 + 3
GSM527942	123	122	Prostate Carcinoma	3 + 3
GSM527943	137	123	Prostate Carcinoma	3 + 3
GSM527951	112	132	Prostate Carcinoma	3 + 3
GSM527957	90	144	Prostate Carcinoma	3 + 4
GSM527959	116	146	Prostate Carcinoma	3 + 3
GSM527960	105	147	Prostate Carcinoma	3 + 3
GSM527963	108	151	Prostate Carcinoma	3 + 3
GSM527968	95	157	Prostate Carcinoma	3 + 3
GSM527970	84	158	Prostate Carcinoma	3 + 3
GSM527972	69	160	Prostate Carcinoma	3 + 3
GSM527977	125	164	Prostate Carcinoma	3 + 3
GSM527979	83	165	Prostate Carcinoma	3 + 3
GSM527984	99	169	Prostate Carcinoma	3 + 3
GSM527986	65	171	Prostate Carcinoma	3 + 3
GSM527988	85	173	Prostate Carcinoma	3 + 4
GSM527990	88	175	Prostate Carcinoma	3 + 4
GSM527992	91	178	Prostate Carcinoma	3 + 3
GSM527858	183	1	Prostate Carcinoma	3 + 3
GSM527860	57	3	Prostate Carcinoma	3 + 4
GSM527861	182	5	Prostate Carcinoma	3 + 3
GSM527862	168	7	Prostate Carcinoma	3 + 4
GSM527864	59	9	Prostate Carcinoma	3 + 3
GSM527868	66	13	Prostate Carcinoma	3 + 4
GSM527869	155	14	Prostate Carcinoma	3 + 3
GSM527863	185	8	Prostate Carcinoma	3 + 4
GSM527865	87	10	Prostate Carcinoma	3 + 3
GSM527866	160	11	Prostate Carcinoma	3 + 3
GSM527867	184	12	Prostate Carcinoma	3 + 3
GSM527875	180	22	Prostate Carcinoma	3 + 3
GSM527879	179	27	Prostate Carcinoma	3 + 2
GSM527885	151	33	Prostate Carcinoma	3 + 3
GSM527886	174	34	Prostate Carcinoma	3 + 3
GSM527887	158	35	Prostate Carcinoma	3 + 3
GSM527895	60	56	Prostate Carcinoma	3 + 3
GSM527897	82	58	Prostate Carcinoma	3 + 3
GSM527898	98	62	Prostate Carcinoma	3 + 3
GSM527900	76	64	Prostate Carcinoma	3 + 3
GSM527907	142	77	Prostate Carcinoma	3 + 3
GSM527910	134	82	Prostate Carcinoma	3 + 3
GSM527912	94	84	Prostate Carcinoma	3 + 3
GSM527915	152	89	Prostate Carcinoma	3 + 3
GSM527920	119	95	Prostate Carcinoma	3 + 3

GSM527922	62	97	Prostate Carcinoma	3 + 3
GSM527925	143	101	Prostate Carcinoma	3 + 3
GSM527929	127	107	Prostate Carcinoma	3 + 3
GSM527930	135	108	Prostate Carcinoma	3 + 3
GSM527931	70	109	Prostate Carcinoma	3 + 3
GSM527932	133	110	Prostate Carcinoma	3 + 3
GSM527941	144	120	Prostate Carcinoma	3 + 3
GSM527942	123	122	Prostate Carcinoma	3 + 3
GSM527943	137	123	Prostate Carcinoma	3 + 3
GSM527951	112	132	Prostate Carcinoma	3 + 3
GSM527957	90	144	Prostate Carcinoma	3 + 4
GSM527959	116	146	Prostate Carcinoma	3 + 3
GSM527960	105	147	Prostate Carcinoma	3 + 3
GSM527963	108	151	Prostate Carcinoma	3 + 3
GSM527968	95	157	Prostate Carcinoma	3 + 3
GSM527970	84	158	Prostate Carcinoma	3 + 3
GSM527972	69	160	Prostate Carcinoma	3 + 3
GSM527977	125	164	Prostate Carcinoma	3 + 3
GSM527979	83	165	Prostate Carcinoma	3 + 3
GSM527984	99	169	Prostate Carcinoma	3 + 3
GSM527986	65	171	Prostate Carcinoma	3 + 3
GSM527988	85	173	Prostate Carcinoma	3 + 4
GSM527990	88	175	Prostate Carcinoma	3 + 4
GSM527992	91	178	Prostate Carcinoma	3 + 3
GSM527858	183	1	Prostate Carcinoma	3 + 3
GSM527860	57	3	Prostate Carcinoma	3 + 4
GSM527861	182	5	Prostate Carcinoma	3 + 3
GSM527862	168	7	Prostate Carcinoma	3 + 4
GSM527864	59	9	Prostate Carcinoma	3 + 3
GSM527868	66	13	Prostate Carcinoma	3 + 4
GSM527869	155	14	Prostate Carcinoma	3 + 3
GSM527870	74	15	Prostate Carcinoma	3 + 3
GSM527871	172	17	Prostate Carcinoma	3 + 4
GSM527872	73	18	Prostate Carcinoma	3 + 3
GSM527873	130	20	Prostate Carcinoma	3 + 4
GSM527874	58	21	Prostate Carcinoma	4 + 3
GSM527876	167	24	Prostate Carcinoma	3 + 4
GSM527877	181	25	Prostate Carcinoma	4 + 3
GSM527878	159	26	Prostate Carcinoma	3 + 3
GSM527881	78	29	Prostate Carcinoma	3 + 3
GSM527882	177	30	Prostate Carcinoma	3 + 3
GSM527883	175	31	Prostate Carcinoma	3 + 5
GSM527888	165	36	Prostate Carcinoma	3 + 3
GSM527889	171	37	Prostate Carcinoma	3 + 3
GSM527890	169	38	Prostate Carcinoma	5 + 4
GSM527891	166	40	Prostate Carcinoma	3 + 3
GSM527892	162	50	Prostate Carcinoma	3 + 4
GSM527893	170	52	Prostate Carcinoma	3 + 3
GSM527896	161	57	Prostate Carcinoma	3 + 3
GSM527901	157	65	Prostate Carcinoma	3 + 3
GSM527902	156	66	Prostate Carcinoma	3 + 4



GSM527903	55	68	Prostate Carcinoma	3 + 3
GSM527904	148	73	Prostate Carcinoma	4 + 3
GSM527905	164	74	Prostate Carcinoma	3 + 4
GSM527906	114	75	Prostate Carcinoma	3 + 3
GSM527908	163	80	Prostate Carcinoma	4 + 4
GSM527909	153	81	Prostate Carcinoma	3 + 4
GSM527911	154	83	Prostate Carcinoma	3 + 4
GSM527913	139	86	Prostate Carcinoma	4 + 3
GSM527914	128	87	Prostate Carcinoma	3 + 3
GSM527916	110	90	Prostate Carcinoma	3 + 3
GSM527918	106	93	Prostate Carcinoma	3 + 3
GSM527919	149	94	Prostate Carcinoma	3 + 3
GSM527923	63	99	Prostate Carcinoma	4 + 5
GSM527924	92	100	Prostate Carcinoma	4 + 3
GSM527926	145	103	Prostate Carcinoma	3 + 4
GSM527927	101	104	Prostate Carcinoma	3 + 3
GSM527928	75	105	Prostate Carcinoma	4 + 3
GSM527933	115	111	Prostate Carcinoma	3 + 4
GSM527935	138	113	Prostate Carcinoma	3 + 4
GSM527936	93	114	Prostate Carcinoma	3 + 3
GSM527937	77	115	Prostate Carcinoma	3 + 3
GSM527938	147	117	Prostate Carcinoma	3 + 5
GSM527939	103	118	Prostate Carcinoma	3 + 3
GSM527940	107	119	Prostate Carcinoma	3 + 3
GSM527944	126	124	Prostate Carcinoma	3 + 3
GSM527945	141	125	Prostate Carcinoma	3 + 4
GSM527946	121	126	Prostate Carcinoma	3 + 3
GSM527947	102	127	Prostate Carcinoma	4 + 4
GSM527948	140	128	Prostate Carcinoma	3 + 3
GSM527949	129	129	Prostate Carcinoma	3 + 4
GSM527952	80	133	Prostate Carcinoma	3 + 3
GSM527953	64	134	Prostate Carcinoma	3 + 3
GSM527954	120	135	Prostate Carcinoma	3 + 3
GSM527955	72	136	Prostate Carcinoma	3 + 3
GSM527956	96	141	Prostate Carcinoma	3 + 3
GSM527958	111	145	Prostate Carcinoma	3 + 4
GSM527961	136	149	Prostate Carcinoma	3 + 4
GSM527962	118	150	Prostate Carcinoma	3 + 4
GSM527965	109	155	Prostate Carcinoma	3 + 4
GSM527966	67	156	Prostate Carcinoma	3 + 4
GSM527973	86	161	Prostate Carcinoma	3 + 3
GSM527974	68	162	Prostate Carcinoma	4 + 3
GSM527975	104	163	Prostate Carcinoma	3 + 4
GSM527980	79	167	Prostate Carcinoma	3 + 3
GSM527982	113	168	Prostate Carcinoma	3 + 3
GSM527985	122	170	Prostate Carcinoma	4 + 3
GSM527989	100	174	Prostate Carcinoma	4 + 3
GSM527859	132	2	Prostate Carcinoma	3 + 4
GSM527880	178	28	Prostate Carcinoma	3 + 3
GSM527894	173	54	Prostate Carcinoma	4 + 3
GSM527899	56	63	Prostate Carcinoma	3 + 4

GSM527917	150	92	Prostate Carcinoma	4 + 3
GSM527934	146	112	Prostate Carcinoma	4 + 4
GSM527950	61	130	Prostate Carcinoma	4 + 4
GSM527971	131	159	Prostate Carcinoma	4 + 3
GSM527884	176	32	Prostate Carcinoma	3 + 3
GSM527921	97	96	Prostate Carcinoma	3 + 4
GSM527987	124	172	Prostate Carcinoma	4 + 4
GSM527991	117	176	Prostate Carcinoma	3 + 3
GSM527993	89	179	Prostate Carcinoma	4 + 5
GSM527994	71	180	Prostate Carcinoma	4 + 3
GSM527995	81	181	Prostate Carcinoma	4 + 5
GSM528021	26	95	Prostate Gland	
GSM528022	27	107	Prostate Gland	
GSM528023	28	109	Prostate Gland	
GSM528024	29	110	Prostate Gland	
GSM528025	30	112	Prostate Gland	
GSM528026	31	113	Prostate Gland	
GSM528027	32	114	Prostate Gland	
GSM528028	33	115	Prostate Gland	
GSM528029	34	117	Prostate Gland	
GSM528030	35	120	Prostate Gland	
GSM528031	36	122	Prostate Gland	
GSM528032	37	125	Prostate Gland	
GSM528033	38	127	Prostate Gland	
GSM528034	39	128	Prostate Gland	
GSM528035	40	129	Prostate Gland	
GSM528036	41	134	Prostate Gland	
GSM528037	42	135	Prostate Gland	
GSM528038	43	136	Prostate Gland	
GSM528039	44	144	Prostate Gland	
GSM528040	45	147	Prostate Gland	
GSM528041	46	151	Prostate Gland	
GSM528042	47	157	Prostate Gland	
GSM528043	48	162	Prostate Gland	
GSM528044	49	164	Prostate Gland	
GSM528045	50	167	Prostate Gland	
GSM528046	51	169	Prostate Gland	
GSM528047	52	171	Prostate Gland	
GSM528048	53	172	Prostate Gland	
GSM528049	54	174	Prostate Gland	

(Cont.) **Supplementary Table S3.** Differential analysis of genes harbouring STRs in Taylor *et al.* study.

GEO ID	Pathology Gleason Grades	Gleason Score (Prostate Carcinoma)	Pre-Diagnosis Biopsy PSA (ng/ml)	Pre-Treatment PSA (ng/ml)
GSM527863	3 + 3	Gleason Score 6	10.4	10.4
GSM527865	3 + 3	Gleason Score 6	5.2	5.2
GSM527866	3 + 3	Gleason Score 6	2	6.7
GSM527867	3 + 3	Gleason Score 6	3.3	3.26
GSM527875	3 + 3	Gleason Score 6	5.8	5.8
GSM527879	3 + 3	Gleason Score 6	6.69	6.69
GSM527885	3 + 3	Gleason Score 6	9.6	14.47

GSM527886	3 + 3	Gleason Score 6	5.4	5.4
GSM527887	3 + 3	Gleason Score 6	13.1	13.1
GSM527895	3 + 3	Gleason Score 6		
GSM527897	3 + 3	Gleason Score 6	7.2	7.66
GSM527898	3 + 3	Gleason Score 6	1.09	1.15
GSM527900	3 + 3	Gleason Score 6	3.3	5.52
GSM527907	3 + 3	Gleason Score 6	2.9	2.77
GSM527910	3 + 3	Gleason Score 6	4.11	4.13
GSM527912	3 + 3	Gleason Score 6	3.1	3.69
GSM527915	3 + 3	Gleason Score 6	7	7
GSM527920	3 + 3	Gleason Score 6	4.5	4.5
GSM527922	3 + 3	Gleason Score 6	5.3	5.3
GSM527925	3 + 3	Gleason Score 6	5	5
GSM527929	3 + 3	Gleason Score 6	1.8	1.8
GSM527930	3 + 3	Gleason Score 6	4.9	4.9
GSM527931	3 + 3	Gleason Score 6	4.8	5.38
GSM527932	3 + 3	Gleason Score 6	5.7	5.7
GSM527941	3 + 3	Gleason Score 6	3.8	4.07
GSM527942	3 + 3	Gleason Score 6	4.2	4.2
GSM527943	3 + 3	Gleason Score 6	6.6	6.6
GSM527951	3 + 3	Gleason Score 6	4.4	5.29
GSM527957	3 + 3	Gleason Score 6	5.6	5.6
GSM527959	3 + 3	Gleason Score 6	3.1	3.1
GSM527960	3 + 3	Gleason Score 6	5.4	5.4
GSM527963	3 + 3	Gleason Score 6	4.5	4.5
GSM527968	3 + 3	Gleason Score 6	3.5	3.5
GSM527970	3 + 3	Gleason Score 6	4.8	3.2
GSM527972	3 + 3	Gleason Score 6	4	4
GSM527977	3 + 3	Gleason Score 6	7.67	7.67
GSM527979	3 + 3	Gleason Score 6	6.34	6.34
GSM527984	3 + 3	Gleason Score 6	6.7	6.7
GSM527986		Gleason Score 6	8.2	8.2
GSM527988	3 + 3	Gleason Score 6	5.24	5.24
GSM527990	3 + 3	Gleason Score 6	5.6	5.6
GSM527992	3 + 3	Gleason Score 6	4.6	4.65
GSM527858	4 + 3	Gleason Score 7	132	43.9
GSM527860	3 + 4	Gleason Score 7	4.6	11.3
GSM527861	3 + 4	Gleason Score 7	8.7	5.9
GSM527862	3 + 4	Gleason Score 7	14	3.8
GSM527864	3 + 4	Gleason Score 7	14.6	12.9
GSM527868	3 + 4	Gleason Score 7	9.4	9.35
GSM527869	3 + 4	Gleason Score 7	4.2	2.91
GSM527870	3 + 4	Gleason Score 7	2.9	2.9
GSM527871	3 + 4	Gleason Score 7	9.32	7.65
GSM527872	4 + 3	Gleason Score 7	8.5	9.23
GSM527873	3 + 4	Gleason Score 7	3.8	3.8
GSM527874	3 + 4	Gleason Score 7	9.24	9.64
GSM527876	3 + 4	Gleason Score 7	14.9	18.41
GSM527877	3 + 4	Gleason Score 7	3.7	3.7
GSM527878	3 + 4	Gleason Score 7	8.6	9.49
GSM527881	3 + 4	Gleason Score 7	6.9	6.82

GSM527882	3 + 4	Gleason Score 7	8.55	12.8
GSM527883	4 + 3	Gleason Score 7	6.3	6.3
GSM527888	4 + 3	Gleason Score 7	6.1	6.92
GSM527889	3 + 4	Gleason Score 7	5	5
GSM527890	4 + 3	Gleason Score 7	5.5	5.5
GSM527891	3 + 4	Gleason Score 7	4.6	4.6
GSM527892	3 + 4	Gleason Score 7	6.7	6.7
GSM527893	3 + 4	Gleason Score 7	12	12
GSM527896	3 + 4	Gleason Score 7	5	5.43
GSM527901	3 + 4	Gleason Score 7	4	5.04
GSM527902	3 + 4	Gleason Score 7	11.5	13.6
GSM527903	4 + 3	Gleason Score 7	8.6	7.62
GSM527904	4 + 3	Gleason Score 7	5	4.26
GSM527905	3 + 4	Gleason Score 7	4.5	5.11
GSM527906	3 + 4	Gleason Score 7	4.8	4.62
GSM527908	4 + 3	Gleason Score 7	8.3	10.02
GSM527909	3 + 4	Gleason Score 7	5.8	5.8
GSM527911	4 + 3	Gleason Score 7	8.9	14
GSM527913	3 + 4	Gleason Score 7	3.4	6.63
GSM527914	3 + 4	Gleason Score 7	4.9	4.9
GSM527916	3 + 4	Gleason Score 7	7.4	7.4
GSM527918	3 + 4	Gleason Score 7	6.74	4.97
GSM527919	3 + 4	Gleason Score 7	8.6	8.6
GSM527923	4 + 3	Gleason Score 7	12.4	12.47
GSM527924	3 + 4	Gleason Score 7	6.95	6.95
GSM527926	3 + 4	Gleason Score 7	4.5	4.5
GSM527927	3 + 4	Gleason Score 7	2.1	1.6
GSM527928	4 + 3	Gleason Score 7	3.8	3.8
GSM527933	3 + 4	Gleason Score 7	9.2	6.69
GSM527935	3 + 4	Gleason Score 7	4.2	4.2
GSM527936	4 + 3	Gleason Score 7	9	9
GSM527937	3 + 4	Gleason Score 7	5.97	5.97
GSM527938	3 + 4	Gleason Score 7	18.58	22.36
GSM527939	3 + 4	Gleason Score 7	4	5.08
GSM527940	4 + 3	Gleason Score 7	5.3	2.8
GSM527944	3 + 4	Gleason Score 7	8.93	10.8
GSM527945	3 + 4	Gleason Score 7	5	4.11
GSM527946	3 + 4	Gleason Score 7	4.39	3.33
GSM527947	4 + 3	Gleason Score 7	5.1	5.93
GSM527948	4 + 3	Gleason Score 7	2.2	1.48
GSM527949	3 + 4	Gleason Score 7	11.7	11.7
GSM527952	3 + 4	Gleason Score 7	6.98	6.98
GSM527953	4 + 3	Gleason Score 7	24.09	26.02
GSM527954	3 + 4	Gleason Score 7	6.1	6.1
GSM527955	4 + 3	Gleason Score 7	4.8	4.66
GSM527956	3 + 4	Gleason Score 7	6.55	5.44
GSM527958	3 + 4	Gleason Score 7	6.6	6.6
GSM527961	3 + 4	Gleason Score 7	16	20.4
GSM527962	4 + 3	Gleason Score 7	11.84	11.84
GSM527965	4 + 3	Gleason Score 7	11.1	11.1
GSM527966	3 + 4	Gleason Score 7	13.3	13.3

GSM527973	3 + 4	Gleason Score 7	6.9	6.9
GSM527974	3 + 4	Gleason Score 7	6.2	7.11
GSM527975	3 + 4	Gleason Score 7	2.65	2.65
GSM527980	3 + 4	Gleason Score 7	2.5	2.98
GSM527982	3 + 4	Gleason Score 7	3.94	4.27
GSM527985	4 + 3	Gleason Score 7	9.26	8.97
GSM527989	4 + 3	Gleason Score 7	4.6	4.6
GSM527859	5 + 3	Gleason Score 8	8.1	43.2
GSM527880	5 + 3	Gleason Score 8	3.82	3.82
GSM527894	3 + 5	Gleason Score 8	31	39.9
GSM527899	4 + 4	Gleason Score 8	15	15
GSM527917	4 + 4	Gleason Score 8	5.8	5
GSM527934	4 + 4	Gleason Score 8	25	33.71
GSM527950	4 + 4	Gleason Score 8	3.6	2.21
GSM527971	4 + 4	Gleason Score 8	4	5.36
GSM527884	4 + 5	Gleason Score 9	9.6	16.71
GSM527921	4 + 5	Gleason Score 9	5.8	8.32
GSM527987	4 + 5	Gleason Score 9	17.2	22.82
GSM527991	4 + 5	Gleason Score 9	8.1	8.66
GSM527993	4 + 5	Gleason Score 9	40.24	46.36
GSM527994	4 + 5	Gleason Score 9	8.03	13.34
GSM527995	4 + 5	Gleason Score 9	27	27
<b>GEO ID</b>	<b>Clinical T Stage</b>	<b>Extracapsular Extension</b>	<b>Number of Nodes Removed</b>	<b>Overall Survival Followup Time (Months)</b>
GSM527863	T2c	Established	7	149.19
GSM527865	T1c	None	3	35.06
GSM527866	T1c	None	10	82.17
GSM527867	T2c	None	10	128.43
GSM527875	T1c	Capsular Invasion	4	119.16
GSM527879	T1c	Capsular Invasion	15	116.83
GSM527885	T2b	None	17	69.09
GSM527886	T1c	None	9	109.97
GSM527887	T2b	Established	12	77.8
GSM527895	T1c	None	1	25
GSM527897	T1c	None	5	30.19
GSM527898	T1c	None	5	42.94
GSM527900	T2b	Capsular Invasion	10	24.28
GSM527907	T2b	Capsular Invasion	9	61.7
GSM527910	T1c	Capsular Invasion	7	58.97
GSM527912	T1c	Capsular Invasion	NA	39.66
GSM527915	T1c	Capsular Invasion	NA	70.18
GSM527920	T1c	None	9	51.58
GSM527922	T1c	None	3	1.87
GSM527925	T1c	None	8	62.36
GSM527929	T2b	Capsular Invasion	8	56.15
GSM527930	T3a	Established	15	59.14
GSM527931	T1c	None	14	13.86
GSM527932	T1c	None	NA	58.91
GSM527941	T1c	None	18	62.65
GSM527942	T1c	Capsular Invasion	NA	52.47
GSM527943	T1c	Capsular Invasion	NA	60.06

GSM527951	T2a	Capsular Invasion	NA	48.56
GSM527957	T1c	None	NA	37.59
GSM527959	T1c	Capsular Invasion	NA	50.89
GSM527960	T1c	None	5	45.73
GSM527963	T1c	Capsular Invasion	NA	47.34
GSM527968	T1c	Focal	NA	39.85
GSM527970	T1c	Capsular Invasion	NA	31.61
GSM527972	T1c	None	NA	12.98
GSM527977	T1c	None	NA	54.54
GSM527979	T1c	Capsular Invasion	NA	30.52
GSM527984	T1c	None	NA	42.94
GSM527986	T2a	Established	20	8.84
GSM527988	T1c	None	18	32.69
GSM527990	T1c	None	6	36.01
GSM527992	T1c	None	11	37.68
GSM527858	T2a	Established	12	126.2
GSM527860	T2b	Established	7	93.14
GSM527861	T1c	None	5	126.1
GSM527862	T1c	None	8	98.6
GSM527864	T2a	None	20	85.88
GSM527868	T1c	None	3	10.38
GSM527869	T1c	Capsular Invasion	NA	76.45
GSM527870	T2c	Established	NA	22.7
GSM527871	T2a	Focal	8	104.38
GSM527872	T2a	Established	NA	18.96
GSM527873	T2b	Established	3	56.94
GSM527874	T2c	Established	NA	61.5
GSM527876	T1c	None	6	90.81
GSM527877	T2b	None	9	119.26
GSM527878	T1c	None	NA	78.16
GSM527881	T2b	Capsular Invasion	2	26.68
GSM527882	T2a	Capsular Invasion	8	115.09
GSM527883	T2a	Established	3	112.5
GSM527888	T1c	Capsular Invasion	5	85.32
GSM527889	T2a	None	9	104.05
GSM527890	T2b	Capsular Invasion	7	100.21
GSM527891	T2a	Capsular Invasion	7	89.5
GSM527892	T2b	None	27	83.85
GSM527893	T1c	Established	12	102.54
GSM527896	T1c	Capsular Invasion	9	82.86
GSM527901	T1c	Capsular Invasion	7	77.37
GSM527902	T2b	Established	13	77.11
GSM527903	T2b	Capsular Invasion	4	45.54
GSM527904	T3a	Focal	3	65.94
GSM527905	T1c	Capsular Invasion	8	84.31
GSM527906	T2a	None	15	49.35
GSM527908	T1c	Capsular Invasion	5	84.27
GSM527909	T2b	Established	12	73
GSM527911	T3	Established	13	74.74
GSM527913	T1c	Capsular Invasion	NA	60.85
GSM527914	T2c	Focal	35	56.84

GSM527916	T1c	Established	5	48.43
GSM527918	T1c	Capsular Invasion	21	46.42
GSM527919	T1c	None	18	66.1
GSM527923	T2c	Established	19	5.78
GSM527924	T2a	Capsular Invasion	3	38.21
GSM527926	T1c	Capsular Invasion	3	63.71
GSM527927	T2a	Focal	NA	43.47
GSM527928	T2c	Capsular Invasion	13	23
GSM527933	T1c	Capsular Invasion	9	49.84
GSM527935	T1c	Capsular Invasion	27	60.45
GSM527936	T1c	Established	5	38.77
GSM527937	T2a	Capsular Invasion	11	26.22
GSM527938	T1c	Established	10	64.13
GSM527939	T1c	None	19	43.83
GSM527940	T1c	Capsular Invasion	7	46.49
GSM527944	T2a	Capsular Invasion	23	55.2
GSM527945	T2c	Focal	19	61.37
GSM527946	T1c	Capsular Invasion	13	51.85
GSM527947	T2a	Capsular Invasion	15	43.53
GSM527948	T2a	None	17	60.98
GSM527949	T2a	Capsular Invasion	8	56.87
GSM527952	T1c	None	11	28.06
GSM527953	T2a	Capsular Invasion	18	8.18
GSM527954	T1c	Capsular Invasion	NA	51.65
GSM527955	T1c	Established	NA	16.56
GSM527956	T1c	None	3	41.76
GSM527958	T1c	Capsular Invasion	12	48.43
GSM527961	T2c	Established	9	59.17
GSM527962	T2b	Established	8	51.35
GSM527965	T2a	None	5	47.61
GSM527966	T1c	Focal	8	10.81
GSM527973	T1c	None	NA	33.05
GSM527974	T1c	Capsular Invasion	13	11.83
GSM527975	T1c	Established	NA	45.37
GSM527980	T2b	None	NA	26.84
GSM527982	T2c	None	15	49.02
GSM527985	T2b	Established	14	52.17
GSM527989	T1c	None	12	43.3
GSM527859	T1c	Capsular Invasion	13	58.02
GSM527880	T1c	Established	6	116.31
GSM527894	T1c	Established	15	105.14
GSM527899	T2b	Established	9	74.12
GSM527917	T3a	Established	9	68.08
GSM527934	T3a	Established	16	63.94
GSM527950	T1c	Capsular Invasion	13	61.24
GSM527971	T2a	Established	16	57.3
GSM527884	T2a	Established	9	114.34
GSM527921	T2a	Established	15	42.38
GSM527987	T1c	Established	7	53.88
GSM527991	T1c	Established	11	51.02
GSM527993	T1c	Established	48	36.76

GSM527994	T1c	Established	8	14.16	
GSM527995	T1c	Established	17	30.03	
<b>GEO ID</b>	<b>Race/Ethnicity (Detailed)</b>	<b>Recurrence Followup Time (Months)</b>	<b>Recurrence Status (Detailed)</b>	<b>Surgical Margins</b>	<b>T Stage</b>
GSM527863	Black Non Hispanic	149.19	No Biochemical Recurrence	Positive	T3a
GSM527865	White Non Hispanic	35.06	No Biochemical Recurrence	Positive	T4
GSM527866	Black Non Hispanic	82.17	No Biochemical Recurrence	Negative	T2c
GSM527867	Black Non Hispanic	128.43	No Biochemical Recurrence	Negative	T2c
GSM527875	White Non Hispanic	39.95	Biochemical Recurrence	Negative	T2c
GSM527879	Black Non Hispanic	116.83	No Biochemical Recurrence	Negative	T2b
GSM527885	Black Non Hispanic	69.09	No Biochemical Recurrence	Negative	T2b
GSM527886	White Non Hispanic	92.98	Biochemical Recurrence	Negative	T2b
GSM527887	White Non Hispanic	77.8	No Biochemical Recurrence	Negative	T3a
GSM527895	White Non Hispanic	25	No Biochemical Recurrence	Negative	T2a
GSM527897	White Non Hispanic	30.19	No Biochemical Recurrence	Negative	T2c
GSM527898	White Non Hispanic	42.94	No Biochemical Recurrence	Negative	T2b
GSM527900	White Non Hispanic	24.28	No Biochemical Recurrence	Negative	T2b
GSM527907	White Non Hispanic	61.7	No Biochemical Recurrence	Positive	T2b
GSM527910	White Non Hispanic	58.97	No Biochemical Recurrence	Negative	T2b
GSM527912	White Non Hispanic	39.66	No Biochemical Recurrence	Negative	T2b
GSM527915	White Non Hispanic	70.18	No Biochemical Recurrence	Negative	T2c
GSM527920	White Non Hispanic	51.58	No Biochemical Recurrence	Negative	T4
GSM527922	White Non Hispanic	1.87	No Biochemical Recurrence	Negative	T2b
GSM527925	White Non Hispanic	62.36	No Biochemical Recurrence	Negative	T2b
GSM527929	White Non Hispanic	56.15	No Biochemical Recurrence	Negative	T2c
GSM527930	Asian	59.14	No Biochemical Recurrence	Negative	T3a
GSM527931	White Non Hispanic	13.86	No Biochemical Recurrence	Negative	T2b
GSM527932	White Non Hispanic	58.91	No Biochemical Recurrence	Negative	T2c
GSM527941	White Non Hispanic	62.65	No Biochemical Recurrence	Negative	T2a
GSM527942	White Non Hispanic	52.47	No Biochemical Recurrence	Negative	T2b
GSM527943	White Non Hispanic	60.06	No Biochemical Recurrence	Negative	T2c
GSM527951	White Non Hispanic	48.56	No Biochemical Recurrence	Negative	T2c
GSM527957	White Non Hispanic	37.59	No Biochemical Recurrence	Negative	T2c
GSM527959	White Non Hispanic	50.89	No Biochemical Recurrence	Negative	T2c
GSM527960	White Non Hispanic	45.73	No Biochemical Recurrence	Negative	T2c
GSM527963	White Non Hispanic	47.34	No Biochemical Recurrence	Negative	T2b
GSM527968	White Non Hispanic	39.85	No Biochemical Recurrence	Positive	T3a
GSM527970	White Non Hispanic	31.61	No Biochemical Recurrence	Negative	T2c



GSM527972	White Non Hispanic	12.98	No Biochemical Recurrence	Negative	T2a
GSM527977	White Non Hispanic	54.54	No Biochemical Recurrence	Negative	T2b
GSM527979	White Non Hispanic	30.52	No Biochemical Recurrence	Negative	T2b
GSM527984	White Non Hispanic	42.94	No Biochemical Recurrence	Negative	T2b
GSM527986	White Non Hispanic	8.84	No Biochemical Recurrence	Negative	T3a
GSM527988	White Non Hispanic	32.69	No Biochemical Recurrence	Negative	T3b
GSM527990	Black Non Hispanic	36.01	No Biochemical Recurrence	Negative	T2b
GSM527992	White Non Hispanic	37.68	No Biochemical Recurrence	Negative	T2b
GSM527858	Black Non Hispanic	18.5	Biochemical Recurrence	Negative	T3c
GSM527860	Black Non Hispanic	93.14	No Biochemical Recurrence	Positive	T3a
GSM527861	Black Non Hispanic	126.1	No Biochemical Recurrence	Positive	T2c
GSM527862	Black Non Hispanic	98.6	No Biochemical Recurrence	Negative	T2c
GSM527864	Black Non Hispanic	64.76	Biochemical Recurrence	Positive	T2c
GSM527868	Black Non Hispanic	10.38	No Biochemical Recurrence	Positive	T3a
GSM527869	White Non Hispanic	76.45	No Biochemical Recurrence	Positive	T2c
GSM527870	Black Hispanic	22.7	No Biochemical Recurrence	Positive	T3a
GSM527871	Black Non Hispanic	104.38	No Biochemical Recurrence	Negative	T3a
GSM527872	White Non Hispanic	18.96	No Biochemical Recurrence	Positive	T3a
GSM527873	White Non Hispanic	56.94	No Biochemical Recurrence	Negative	T3a
GSM527874	White Non Hispanic	61.5	No Biochemical Recurrence	Negative	T3a
GSM527876	Black Non Hispanic	3.94	Biochemical Recurrence	Negative	T2c
GSM527877	White Non Hispanic	68.04	Biochemical Recurrence	Positive	T2c
GSM527878	White Non Hispanic	78.16	No Biochemical Recurrence	Positive	T2a
GSM527881	Black Non Hispanic	26.68	No Biochemical Recurrence	Negative	T2b
GSM527882	White Non Hispanic	115.09	No Biochemical Recurrence	Negative	T2b
GSM527883	White Non Hispanic	35.35	Biochemical Recurrence	Negative	T3a
GSM527888	White Non Hispanic	85.32	No Biochemical Recurrence	Negative	T2a
GSM527889	Black Non Hispanic	104.05	No Biochemical Recurrence	Negative	T2a
GSM527890	White Non Hispanic	100.21	No Biochemical Recurrence	Negative	T2b
GSM527891	White Non Hispanic	89.5	No Biochemical Recurrence	Negative	T2b
GSM527892	White Non Hispanic	83.85	No Biochemical Recurrence	Negative	T2b
GSM527893	Black Non Hispanic	102.54	No Biochemical Recurrence	Positive	T3a
GSM527896	White Non Hispanic	82.86	No Biochemical Recurrence	Negative	T2b
GSM527901	White Non Hispanic	77.37	No Biochemical Recurrence	Positive	T2b
GSM527902	White Non Hispanic	77.11	No Biochemical Recurrence	Negative	T3b
GSM527903	Black Non Hispanic	45.54	No Biochemical Recurrence	Negative	T2b
GSM527904	Black Non Hispanic	13.04	Biochemical Recurrence	Negative	T3a

GSM527905	White Non Hispanic	84.31	No Biochemical Recurrence	Negative	T2b
GSM527906	White Non Hispanic	49.35	No Biochemical Recurrence	Negative	T2b
GSM527908	White Non Hispanic	55.39	Biochemical Recurrence	Negative	T2b
GSM527909	White Non Hispanic	9.86	Biochemical Recurrence	Positive	T4
GSM527911	Black Hispanic	31.8	Biochemical Recurrence	Positive	T3a
GSM527913	Black Non Hispanic	60.85	No Biochemical Recurrence	Positive	T2a
GSM527914	White Non Hispanic	56.84	No Biochemical Recurrence	Negative	T3a
GSM527916	White Non Hispanic	48.43	No Biochemical Recurrence	Positive	T3b
GSM527918	White Non Hispanic	46.42	No Biochemical Recurrence	Negative	T2b
GSM527919	Black Non Hispanic	66.1	No Biochemical Recurrence	Negative	T2b
GSM527923	White Non Hispanic	5.78	No Biochemical Recurrence	Negative	T3a
GSM527924	Black Hispanic	38.21	No Biochemical Recurrence	Negative	T2b
GSM527926	White Non Hispanic	28.65	Biochemical Recurrence	Negative	T2b
GSM527927	Unknown	43.47	No Biochemical Recurrence	Negative	T2b
GSM527928	White Non Hispanic	23	No Biochemical Recurrence	Negative	T2b
GSM527933	White Non Hispanic	49.84	No Biochemical Recurrence	Negative	T2c
GSM527935	Unknown	60.45	No Biochemical Recurrence	Negative	T2c
GSM527936	White Non Hispanic	38.77	No Biochemical Recurrence	Negative	T3a
GSM527937	White Non Hispanic	26.22	No Biochemical Recurrence	Negative	T2c
GSM527938	White Non Hispanic	18.83	Biochemical Recurrence	Positive	T3b
GSM527939	Unknown	43.83	No Biochemical Recurrence	Negative	T2b
GSM527940	White Non Hispanic	46.49	No Biochemical Recurrence	Negative	T2b
GSM527944	White Non Hispanic	55.2	No Biochemical Recurrence	Negative	T2c
GSM527945	White Non Hispanic	61.37	No Biochemical Recurrence	Negative	T3a
GSM527946	White Non Hispanic	51.85	No Biochemical Recurrence	Negative	T2c
GSM527947	White Non Hispanic	43.53	No Biochemical Recurrence	Negative	T2c
GSM527948	White Non Hispanic	53.82	Biochemical Recurrence	Positive	T2c
GSM527949	White Non Hispanic	56.87	No Biochemical Recurrence	Negative	T2c
GSM527952	White Non Hispanic	28.06	No Biochemical Recurrence	Negative	T2b
GSM527953	Unknown	8.18	No Biochemical Recurrence	Positive	T2b
GSM527954	White Non Hispanic	51.65	No Biochemical Recurrence	Negative	T2b
GSM527955	White Non Hispanic	5.72	Biochemical Recurrence	Negative	T3a
GSM527956	White Non Hispanic	41.76	No Biochemical Recurrence	Negative	T2a
GSM527958	White Non Hispanic	48.43	No Biochemical Recurrence	Negative	T2c
GSM527961	White Non Hispanic	59.17	No Biochemical Recurrence	Negative	T3b
GSM527962	White Non Hispanic	51.35	No Biochemical Recurrence	Positive	T3a
GSM527965	White Non Hispanic	47.61	No Biochemical Recurrence	Negative	T2b

GSM527966	White Non Hispanic	10.81	No Biochemical Recurrence	Negative	T4
GSM527973	White Non Hispanic	19.02	Biochemical Recurrence	Negative	T2b
GSM527974	White Non Hispanic	11.83	No Biochemical Recurrence	Negative	T2b
GSM527975	White Non Hispanic	45.37	No Biochemical Recurrence	Negative	T3a
GSM527980	White Non Hispanic	26.84	No Biochemical Recurrence	Negative	T2b
GSM527982	White Non Hispanic	49.02	No Biochemical Recurrence	Negative	T2b
GSM527985	White Non Hispanic	52.17	No Biochemical Recurrence	Negative	T3a
GSM527989	White Non Hispanic	43.3	No Biochemical Recurrence	Negative	T2b
GSM527859	Black Non Hispanic	58.02	No Biochemical Recurrence	Positive	T2a
GSM527880	White Non Hispanic	27.6	Biochemical Recurrence	Positive	T3b
GSM527894	White Non Hispanic	2.1	Biochemical Recurrence	Positive	T3c
GSM527899	White Non Hispanic	74.12	No Biochemical Recurrence	Negative	T2b
GSM527917	White Non Hispanic	16.82	Biochemical Recurrence	Negative	T4
GSM527934	Asian	13.21	Biochemical Recurrence	Negative	T3a
GSM527950	White Non Hispanic	27.86	Biochemical Recurrence	Negative	T2c
GSM527971	White Non Hispanic	1.41	Biochemical Recurrence	Negative	T3b
GSM527884	White Non Hispanic	3.71	Biochemical Recurrence	Positive	T3a
GSM527921	White Non Hispanic	42.38	No Biochemical Recurrence	Negative	T3b
GSM527987	White Non Hispanic	30.56	Biochemical Recurrence	Positive	T4
GSM527991	Black Non Hispanic	2.56	Biochemical Recurrence	Positive	T3b
GSM527993	White Non Hispanic	2.92	Biochemical Recurrence	Positive	T3b
GSM527994	White Non Hispanic	1.38	Biochemical Recurrence	Negative	T3a
GSM527995	White Non Hispanic	30.03	No Biochemical Recurrence	Positive	T3a

GEO ID	log <sub>2</sub> med_centered_intensisty_TRI_B1_17625	log <sub>2</sub> med_centered_intensisty_PCA3_26071	log <sub>2</sub> med_centered_intensisty_AC_TG2_6185	log <sub>2</sub> med_centered_intensisty_GRHL2_17476
GSM527863	2.85193	3.69291	4.40317	1.70772
GSM527865	2.65111	2.62461	5.1316	2.10978
GSM527866	1.85979	0.12591	5.14089	1.21802
GSM527867	3.12481	3.35955	4.27266	2.64314
GSM527875	1.23581	2.86814	4.70101	1.85856
GSM527879	2.8494	3.15243	4.86002	2.29372
GSM527885	2.10824	2.06209	4.37272	2.25686
GSM527886	2.02235	4.2486	4.45327	2.30174
GSM527887	2.2335	4.28941	3.93303	2.11517
GSM527895	1.61269	-0.43955	3.71247	1.38823
GSM527897	1.72892	4.02118	4.20251	2.81495
GSM527898	2.13172	1.85651	4.25698	1.99686
GSM527900	2.4828	4.34914	3.42323	2.29468
GSM527907	2.16969	3.38669	4.73463	1.13904
GSM527910	2.86167	4.27053	4.21533	2.22049

GSM527912	3.18685	3.97462	2.90135	2.37604
GSM527915	0.89689	1.23445	3.08652	2.00297
GSM527920	2.42055	1.54106	4.80547	2.32317
GSM527922	2.88768	2.93408	3.64246	1.54698
GSM527925	3.11998	3.17274	4.71682	1.91748
GSM527929	2.66454	3.50111	3.59176	1.96504
GSM527930	2.38029	4.16572	2.27025	2.2281
GSM527931	2.06771	3.93722	4.39381	2.50622
GSM527932	2.11938	2.86132	3.95027	1.53858
GSM527941	2.40184	1.87166	4.07316	2.0662
GSM527942	1.39369	1.97663	4.18892	1.50864
GSM527943	1.35756	3.42702	4.36775	2.38664
GSM527951	2.41898	1.98616	4.03278	2.31171
GSM527957	1.59732	3.73704	3.68035	2.36308
GSM527959	1.09463	1.66905	4.59611	2.5907
GSM527960	2.48789	0.70678	5.03398	2.31254
GSM527963	1.25439	3.02731	3.63614	1.4866
GSM527968	1.99029	3.61948	3.54722	1.21156
GSM527970	2.26798	3.94693	3.69703	2.09892
GSM527972	1.62131	3.70636	4.28948	2.14533
GSM527977	0.45783	3.72421	3.0277	1.17551
GSM527979	0.60858	1.56702	3.66448	0.91212
GSM527984	1.50037	0.47866	4.49054	2.54148
GSM527986	2.65156	4.04762	3.46242	1.98788
GSM527988	1.52516	4.22379	4.23824	2.78788
GSM527990	1.01599	1.67318	4.24455	1.64438
GSM527992	1.90531	3.50786	4.31396	1.84198
GSM527858	1.37992	2.67799	4.51279	1.48549
GSM527860	2.1922	2.80913	3.98475	2.07455
GSM527861	2.04025	3.83914	4.25199	2.40522
GSM527862	2.9264	2.73896	4.52181	2.32266
GSM527864	1.94803	3.63487	4.52564	2.52431
GSM527868	3.10208	1.09597	3.36401	2.06069
GSM527869	2.95408	2.81223	4.54399	2.2318
GSM527870	2.1877	0.46585	5.55605	1.89143
GSM527871	1.96704	3.52079	3.6242	2.04706
GSM527872	3.147	3.60564	4.24074	2.44061
GSM527873	1.75008	1.90144	4.48194	2.28856
GSM527874	2.48118	0.5079	3.84723	1.81073
GSM527876	2.3614	3.98464	4.06952	2.36236
GSM527877	2.80131	1.21925	3.8908	1.55191
GSM527878	3.01924	2.7305	4.35097	1.71733
GSM527881	3.44376	4.26552	4.51842	2.13552
GSM527882	3.24148	3.46668	4.68083	1.87216
GSM527883	2.82271	2.94146	4.00182	1.33744
GSM527888	2.56604	3.80586	4.32948	1.76467
GSM527889	3.35821	3.6991	4.56518	2.73491
GSM527890	2.69297	0.2511	4.12889	1.94711
GSM527891	1.2277	0.2193	4.8927	1.34786
GSM527892	2.25756	1.20966	3.94419	1.62094
GSM527893	3.66524	1.24408	4.18385	2.68688

GSM527896	2.04705	3.74716	3.17827	1.09943
GSM527901	1.86818	1.08435	4.62936	1.90234
GSM527902	1.39437	3.54209	4.37774	1.81061
GSM527903	2.59038	4.21543	4.75723	2.51238
GSM527904	1.83318	2.70519	4.52567	2.44336
GSM527905	1.40506	2.47817	4.13048	1.51148
GSM527906	1.64309	2.81986	3.91373	1.98242
GSM527908	2.54547	3.83582	3.89398	2.30423
GSM527909	2.27953	3.79548	3.53891	2.70493
GSM527911	2.51752	3.84453	3.81295	1.88464
GSM527913	1.57279	3.2748	3.92195	2.70142
GSM527914	3.27805	4.22646	3.66876	3.05578
GSM527916	2.44943	4.11641	4.6394	1.99207
GSM527918	2.23592	3.73026	4.51893	2.30324
GSM527919	2.30468	1.68833	3.6007	1.53883
GSM527923	1.83865	3.56138	4.03874	2.44259
GSM527924	2.81759	2.42065	4.22246	1.82804
GSM527926	2.23646	3.80725	4.35563	2.1382
GSM527927	1.93604	2.3489	3.82672	3.11821
GSM527928	1.63936	0.93864	4.37599	2.10186
GSM527933	1.45313	2.2788	4.31867	1.60849
GSM527935	1.02868	3.1231	4.29561	1.65518
GSM527936	1.87086	3.60749	3.70213	2.05745
GSM527937	1.35085	4.19906	2.86121	1.88502
GSM527938	1.32546	1.89967	4.13447	1.35522
GSM527939	1.99629	4.35547	3.68649	2.19237
GSM527940	3.71051	0.39933	2.84796	1.22835
GSM527944	2.25346	4.40486	3.9561	2.23099
GSM527945	2.26004	2.70416	4.75361	1.71793
GSM527946	3.053	4.0246	3.59747	1.6692
GSM527947	0.81818	2.25276	3.93069	2.48126
GSM527948	1.74076	2.54273	4.4079	1.82397
GSM527949	1.65374	3.68877	3.78842	1.90128
GSM527952	3.51542	1.58625	3.76833	2.0251
GSM527953	0.7867	3.00619	2.92605	2.45425
GSM527954	3.48475	2.451	3.72703	2.67529
GSM527955	2.52466	3.2434	3.45731	1.35891
GSM527956	2.69918	4.34258	3.8035	2.05311
GSM527958	1.31251	1.88764	4.0739	1.34447
GSM527961	1.17802	1.74991	3.28953	1.93342
GSM527962	1.72882	1.11323	4.26522	2.25107
GSM527965	1.27063	4.10114	1.8724	3.00199
GSM527966	3.46115	4.00491	3.02856	2.2914
GSM527973	1.39235	4.03568	4.0049	1.92336
GSM527974	1.4849	4.01333	3.39087	2.00795
GSM527975	0.72124	2.58103	3.92834	1.59667
GSM527980	1.93183	4.04324	4.1326	2.13573
GSM527982	2.66053	3.85141	3.80534	2.27957
GSM527985	1.15906	2.92834	3.96791	1.1917
GSM527989	1.35616	0.91084	3.69312	1.6496
GSM527859	2.12733	4.36435	3.47977	2.47895

GSM527880	2.34203	1.61127	5.05364	1.5318
GSM527894	1.27777	2.43209	3.32305	1.17384
GSM527899	1.63136	2.2446	3.69854	2.72173
GSM527917	1.55524	4.03659	3.07867	1.98308
GSM527934	1.61502	3.2962	2.99842	2.30959
GSM527950	0.32635	1.62578	2.65663	1.64997
GSM527971	1.70012	-0.26453	4.73125	2.0651
GSM527884	2.94857	4.47622	2.59534	1.76198
GSM527921	1.83547	3.97972	3.6304	2.09107
GSM527987	2.12092	4.26143	3.34795	1.67232
GSM527991	1.30567	0.70171	4.44474	1.1177
GSM527993	1.1808	2.72121	2.84624	1.112
GSM527994	2.01075	3.9867	1.83613	2.16146
GSM527995	1.40757	1.80892	0.32978	0.60082
GSM528021	0.79516	-0.73095	4.01742	2.26811
GSM528022	1.62843	0.54913	3.96726	1.99606
GSM528023	0.86495	0.49778	5.09344	1.38452
GSM528024	0.85435	-0.21116	4.64546	2.15095
GSM528025	1.74904	1.50094	5.11774	1.28128
GSM528026	0.09898	0.10155	4.02013	1.9306
GSM528027	-0.06092	0.27396	4.32463	0.92988
GSM528028	-0.0374	-0.10554	5.12601	1.2922
GSM528029	0.5101	0.68648	4.43661	1.23688
GSM528030	0.51912	0.26546	4.68092	1.04204
GSM528031	1.78137	0.87159	4.46845	1.30729
GSM528032	1.42548	0.23323	4.78454	0.96617
GSM528033	0.18053	0.00992	4.51385	1.81601
GSM528034	1.81631	-0.10515	5.12307	1.13584
GSM528035	1.36414	1.73371	3.94512	1.44793
GSM528036	0.89316	0.2108	4.85506	1.10935
GSM528037	1.08168	0.1307	5.23977	1.95738
GSM528038	1.82004	0.52287	4.2383	1.87761
GSM528039	0.80711	1.60121	4.73662	2.02782
GSM528040	1.51679	0.97861	4.69623	1.61303
GSM528041	1.18764	2.8281	4.70269	2.72798
GSM528042	0.55266	1.07933	4.92284	2.36169
GSM528043	-0.02081	-0.10127	5.29121	1.47469
GSM528044	0.42233	-0.49563	5.06005	0.69084
GSM528045	1.78357	-1.13155	4.85843	2.42264
GSM528046	0.01763	-0.41868	5.17824	1.84814
GSM528047	0.64865	0.0867	5.15356	1.90486
GSM528048	1.5658	-0.57309	5.10134	1.9909
GSM528049	0.05796	1.9732	4.86524	2.20782
<b><u>Tumor vs normal analysis</u></b>				
<b>av_tumour</b>	2.074451908	2.836096412	3.940172672	1.989211145
<b>av_normal</b>	0.890477586	0.422836207	4.729801034	1.668983103
<b>sd_tumour</b>	0.734227609	1.236764307	0.714974028	0.477540494
<b>sd_normal</b>	0.653353765	0.878837274	0.410339389	0.51626142
<b>log_fold_change</b>	1.220079008	2.745735754	-0.263520641	0.25322707
<b>t-test_p-value</b>	4.22662E-11	1.51853E-17	1.52849E-11	0.003946198

<b>GEO ID</b>	<b>log<sub>2</sub>_med_centered_intensisty_PRUNE2_13139</b>	<b>log<sub>2</sub>_med_centered_intensisty_GSN</b>	<b>log<sub>2</sub>_med_centered_intensisty_MXII</b>	<b>log<sub>2</sub>_med_centered_intensisty_PTGIS</b>
GSM527863	1.25093	2.96989	0.88696	4.49704
GSM527865	2.70434	3.38738	1.35823	4.71773
GSM527866	1.14304	2.45417	0.74659	4.45947
GSM527867	1.13233	2.36852	0.93914	4.51644
GSM527875	1.42967	2.48075	0.89871	4.39949
GSM527879	2.64994	2.72359	0.95556	4.81349
GSM527885	1.11874	2.55752	0.74423	4.54432
GSM527886	1.18632	3.00416	1.01405	4.40977
GSM527887	1.09394	2.81598	0.84195	4.49631
GSM527895	0.17129	1.94912	0.16881	4.68784
GSM527897	2.5579	2.3536	0.88821	4.72238
GSM527898	1.72809	2.41347	0.89469	4.65492
GSM527900	2.13168	1.38061	0.86713	4.57224
GSM527907	1.93981	2.46607	0.97351	4.45002
GSM527910	1.98285	2.05159	0.87606	4.60059
GSM527912	1.22889	2.20635	1.09861	4.54465
GSM527915	1.65961	1.17883	0.2095	4.49856
GSM527920	2.44686	2.58222	0.92059	4.67608
GSM527922	0.9789	2.15642	0.78496	4.39807
GSM527925	1.9877	2.64939	1.11679	4.63571
GSM527929	1.17975	1.74038	0.66307	4.3719
GSM527930	0.38487	1.38179	0.70043	4.48198
GSM527931	1.45895	2.41328	0.63984	4.64783
GSM527932	1.11275	1.80775	0.63402	4.31154
GSM527941	1.07513	1.76715	0.36952	4.48232
GSM527942	1.24016	2.23736	0.58466	4.50613
GSM527943	1.44651	2.10474	0.76536	4.56634
GSM527951	1.41463	2.41375	0.66911	4.46122
GSM527957	0.60412	2.03398	1.09692	4.28942
GSM527959	1.20359	2.08243	0.67306	4.41478
GSM527960	2.5657	2.83719	1.08964	4.62796
GSM527963	0.65885	2.22765	0.84056	4.39409
GSM527968	0.52193	1.4206	0.74201	4.12451
GSM527970	1.38599	1.66281	0.78226	4.45511
GSM527972	1.36655	2.49936	0.90704	4.49926
GSM527977	0.31236	2.45423	0.56089	4.47667
GSM527979	1.16708	2.06629	0.99817	4.35068
GSM527984	1.51079	2.47353	0.9054	4.40417
GSM527986	1.47575	2.24198	0.79879	4.48389
GSM527988	2.39852	2.40266	0.9195	4.72234
GSM527990	0.79588	1.97252	0.69301	4.54437
GSM527992	1.28969	2.08758	0.59863	4.65055
GSM527858	1.44086	2.80932	0.92322	4.58678
GSM527860	0.63544	2.1821	0.43494	4.3601
GSM527861	1.39212	2.2477	0.88306	4.69625
GSM527862	1.59494	2.23883	0.86308	4.49333
GSM527864	1.47654	2.82471	0.72939	4.68438
GSM527868	1.45402	2.09154	0.50093	4.45872
GSM527869	1.85891	2.50261	0.93491	4.53011

GSM527870	2.67431	3.44056	0.88252	4.72703
GSM527871	0.80769	2.16764	0.58837	4.51348
GSM527872	1.71258	2.77944	1.0184	4.59423
GSM527873	1.28826	2.66368	0.88886	4.54389
GSM527874	3.28891	2.79542	0.66042	4.49741
GSM527876	1.13459	1.8143	0.48055	4.64911
GSM527877	1.68325	2.18423	0.9968	4.49472
GSM527878	1.35602	2.68614	0.78726	4.67137
GSM527881	1.85316	2.54347	0.73608	4.56824
GSM527882	0.97803	2.88563	1.08818	4.3789
GSM527883	0.80218	1.97865	0.68339	4.44864
GSM527888	0.93824	2.85127	0.825	4.63486
GSM527889	1.49446	2.19304	0.91742	4.57748
GSM527890	1.21519	2.68817	1.01577	4.63123
GSM527891	1.86795	1.96544	0.5101	4.69611
GSM527892	1.8166	2.41726	0.47539	4.67369
GSM527893	1.35758	2.25427	1.11366	4.63795
GSM527896	0.07461	1.47063	0.14867	4.58253
GSM527901	2.22521	2.21855	1.02335	4.69859
GSM527902	1.5535	2.04256	0.52408	4.54365
GSM527903	1.76671	2.89396	1.08229	4.57967
GSM527904	1.87404	2.35539	0.76992	4.50279
GSM527905	1.89648	2.10125	0.95309	4.43822
GSM527906	2.56818	2.04515	0.5563	4.37484
GSM527908	1.01176	2.48163	0.98802	4.61149
GSM527909	1.59459	1.87268	0.84284	4.42629
GSM527911	1.64564	2.05812	0.40445	4.60731
GSM527913	1.74808	1.87852	1.03851	4.6129
GSM527914	1.58041	1.51148	0.58726	4.52715
GSM527916	1.87693	2.73359	1.18157	4.66868
GSM527918	2.21225	2.17953	0.77024	4.70907
GSM527919	0.32034	1.90062	0.62023	4.23097
GSM527923	2.5313	2.76252	0.96739	4.68968
GSM527924	1.78876	2.23928	0.7226	4.68112
GSM527926	1.81251	2.27033	0.78442	4.55322
GSM527927	1.88592	2.1671	0.63619	4.57834
GSM527928	1.28802	2.27887	0.70569	4.62581
GSM527933	1.37761	2.6979	0.70167	4.54706
GSM527935	1.62689	2.20855	0.76828	4.51347
GSM527936	0.71154	1.66856	0.39398	4.43825
GSM527937	0.55772	1.35072	0.45815	4.39217
GSM527938	0.58853	1.91061	0.66665	4.34537
GSM527939	1.40432	1.52156	0.55402	4.57539
GSM527940	0.12391	1.61483	0.50717	4.48398
GSM527944	1.15393	1.42507	0.52992	4.59097
GSM527945	2.07461	2.54139	0.79421	4.75327
GSM527946	0.47259	2.08876	0.52601	4.55537
GSM527947	2.31548	1.96924	0.37089	4.48784
GSM527948	1.18403	1.88898	0.48287	4.48196
GSM527949	0.80031	1.61239	0.63918	4.4034
GSM527952	1.60324	1.89068	0.80451	4.4804



GSM527953	0.81447	1.98153	0.72614	4.48441
GSM527954	0.1925	2.043	1.02151	4.42172
GSM527955	0.04294	2.17661	0.87889	4.35436
GSM527956	1.20081	1.989	0.81847	4.50429
GSM527958	0.65359	2.10344	0.79554	4.56398
GSM527961	1.83113	2.00652	0.65157	4.40159
GSM527962	1.23292	2.60077	1.04725	4.54724
GSM527965	-0.89387	1.8381	0.65221	4.31298
GSM527966	-0.22582	1.48414	0.70306	4.57255
GSM527973	2.02906	2.00796	0.66966	4.57673
GSM527974	0.99549	2.15814	0.77881	4.40887
GSM527975	0.72122	1.69949	0.64844	4.54837
GSM527980	1.15916	2.01946	0.69227	4.16701
GSM527982	0.54814	2.05465	0.70614	4.44931
GSM527985	0.95935	2.65846	0.72038	4.63464
GSM527989	0.82103	2.26001	0.73392	4.49306
GSM527859	1.12401	2.37433	0.81213	4.47781
GSM527880	2.19677	3.06435	1.02118	4.57684
GSM527894	0.16473	1.96052	0.3412	4.52559
GSM527899	2.75105	1.4155	0.86904	4.69735
GSM527917	2.41429	1.82447	0.7974	4.43131
GSM527934	1.43206	1.98573	0.76111	4.41577
GSM527950	1.8319	1.17584	0.39584	4.62188
GSM527971	1.43913	2.76056	0.98577	4.38067
GSM527884	1.60789	2.09734	0.94054	4.27354
GSM527921	1.74167	1.94654	1.05419	4.58805
GSM527987	0.20203	1.90424	0.4927	4.56521
GSM527991	1.65887	3.15123	0.74909	4.4626
GSM527993	-0.43181	1.71931	0.15377	4.40395
GSM527994	-0.54949	0.7789	0.35586	4.58175
GSM527995	-0.82354	1.10924	0.88271	4.19425
GSM528021	1.60614	2.48853	0.66827	4.62222
GSM528022	2.02402	2.04769	0.81214	4.49177
GSM528023	1.94118	3.3513	0.86705	4.5284
GSM528024	1.83284	2.14931	0.9445	4.60834
GSM528025	2.18037	3.48877	1.24562	4.50771
GSM528026	2.04655	2.08499	0.7399	4.37527
GSM528027	0.97189	2.75948	0.92651	4.45668
GSM528028	2.55369	3.43538	1.19692	4.59184
GSM528029	1.30329	2.52481	1.05112	4.39068
GSM528030	1.63066	2.57405	1.04453	4.33244
GSM528031	1.26865	2.72363	0.94146	4.23315
GSM528032	1.33381	2.63416	0.84289	4.31042
GSM528033	1.74826	2.13466	0.78856	4.4488
GSM528034	2.21243	3.6375	1.33545	4.53336
GSM528035	0.72834	1.92373	0.76584	4.24983
GSM528036	2.22138	2.90149	1.16915	4.59051
GSM528037	2.50116	3.31382	1.46029	4.54491
GSM528038	1.36478	2.44745	1.03192	3.98158
GSM528039	1.85153	2.55469	1.2894	4.4529
GSM528040	2.0337	2.48168	1.03573	4.46425

GSM528041	2.31531	2.39802	0.92218	4.67453
GSM528042	2.51678	2.4358	0.99172	4.56611
GSM528043	2.66179	3.36258	1.25703	4.48303
GSM528044	2.48149	3.64155	1.23235	4.56094
GSM528045	2.1555	2.5213	1.32031	4.67518
GSM528046	2.23608	3.11075	1.0588	4.58972
GSM528047	2.58002	3.33713	1.71655	4.70102
GSM528048	2.05464	2.72375	0.88597	4.65965
GSM528049	2.52045	2.65442	0.82429	4.63436
<b><u>Tumour vs normal analysis</u></b>				
<b>av_tumour</b>	1.322945344	2.182323969	0.756605191	4.520909084
<b>av_normal</b>	1.961266552	2.753186897	1.047118966	4.491710345
<b>sd_tumour</b>	0.747715346	0.472747478	0.224888837	0.125779021
<b>sd_normal</b>	0.511347058	0.505632542	0.241625126	0.159123288
<b>log_fold_change</b>	-0.568032164	-0.335237261	-0.46881278	0.009348009
<b>t-test_p-value</b>	7.76276E-07	1.99196E-06	6.19945E-07	0.360495094

**Supplementary Table S4: Genotypes of STRs in 40 patients**

Sample	STR	allele <sub>-1</sub>	allele <sub>-2</sub>	STR	allele <sub>-1</sub>	allele <sub>-2</sub>	STR	allele <sub>-1</sub>	allele <sub>-2</sub>	STR	allele <sub>-1</sub>	allele <sub>-2</sub>	STR	allele <sub>-1</sub>	allele <sub>-2</sub>	STR	allele <sub>-1</sub>	allele <sub>-2</sub>	STR	allele <sub>-1</sub>	allele <sub>-2</sub>
1	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	3	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
2	GAAA - GRHL 2	5	5	CAAA A- MXII	4	4	TAAA - ACTG 2	6	6	TTTT G- TRIB1	3	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
3	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	5	TTTT G- TRIB1	3	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
4	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	12	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
5	GAAA - GRHL 2	5	5	CAAA A- MXII	5	5	TAAA - ACTG 2	6	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
6	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	12	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
7	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
8	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	6	6	TTTT G- TRIB1	4	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
9	GAAA - GRHL 2	5	5	CAAA A- MXII	4	4	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
10	GAAA - GRHL 2	5	5	CAAA A- MXII	4	4	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
11	GAAA - GRHL 2	5	5	CAAA A- MXII	5	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
12	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	5	TTTT G- TRIB1	3	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
13	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	6	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
14	GAAA - GRHL 2	5	5	CAAA A- MXII	5	5	TAAA - ACTG 2	6	6	TTTT G- TRIB1	3	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
15	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
16	GAAA - GRHL 2	5	5	CAAA A- MXII	4	4	TAAA - ACTG 2	6	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5

17	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
18	GAAA - GRHL 2	5	5	CAAA A- MXII	4	4	TAAA - ACTG 2	6	6	TTTT G- TRIB1	4	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
19	GAAA - GRHL 2	5	5	CAAA A- MXII	5	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
20	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
21	GAAA - GRHL 2	5	5	CAAA A- MXII	4	4	TAAA - ACTG 2	5	5	TTTT G- TRIB1	3	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
22	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	3	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
23	GAAA - GRHL 2	5	5	CAAA A- MXII	5	5	TAAA - ACTG 2	6	6	TTTT G- TRIB1	3	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
24	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	5	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
25	GAAA - GRHL 2	4	5	CAAA A- MXII	4	4	TAAA - ACTG 2	6	6	TTTT G- TRIB1	3	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
26	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
27	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	6	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
28	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
29	GAAA - GRHL 2	4	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
30	GAAA - GRHL 2	5	5	CAAA A- MXII	5	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
31	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
32	GAAA - GRHL 2	5	5	CAAA A- MXII	4	4	TAAA - ACTG 2	6	6	TTTT G- TRIB1	3	3	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
33	GAAA - GRHL 2	5	5	CAAA A- MXII	5	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
34	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
35	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
36	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	6	TTTT G- TRIB1	4	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
37	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	5	5	TTTT G- TRIB1	4	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
38	GAAA - GRHL 2	5	5	CAAA A- MXII	4	4	TAAA - ACTG 2	5	5	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
39	GAAA - GRHL 2	5	5	CAAA A- MXII	4	5	TAAA - ACTG 2	6	6	TTTT G- TRIB1	3	4	TG- PCA3	11	12	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
40	GAAA - GRHL 2	5	5	CAAA A- MXII	4	4	TAAA - ACTG 2	6	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
positive _control s	GAAA - GRHL 2	5	5	CAAA A- MXII	4	4	TAAA - ACTG 2	6	6	TTTT G- TRIB1	4	4	TG- PCA3	11	11	GAAA - PTGIS	5	5	TTTT G- PRUN E2	5	5
alleles	4	5		4	5		5	6		3	4		11	12		5			5		
% alleles	0.025	0.9 75		0.5375	0.4 63		0.4125	0.5 88		0.15	0.8 5		0.775	0.2 25		1			1		
genotyp e	4/4	4/ 5	5/ 5	4/4	4/ 5	5/ 5	4/4	4/ 5	5/ 5	4/4	4/ 5	5/ 5	11/11	11 /1 2	12 /1 2	5/5			5/5		
% expected genotyp es	0.0006 25	0.0 49	0.9 50 6	0.2889 0625	0.4 97	0.2 13 9	0.1701 5625	0.4 85	0.3 45 2	0.0225	0.2 55	0.7 22 5	0.6006 25	0.3 49	0.0 50 6	1			1		

% observed genotypes	0	0.05	0.95	0.25	0.575	0.175	0.15	0.525	0.325	0.025	0.25	0.725	0.6	0.35	0.05	1			1		
	Heterozygosity	0.05		Heterozygosity	0.575		Heterozygosity	0.525		Heterozygosity	0.25		Heterozygosity	0.35		Heterozygosity	N/A		Heterozygosity	N/A	
	In_HWE	yes		In_HWE	yes		In_HWE	yes		In_HWE	yes		In_HWE	yes		In_HWE	not tested		In_HWE	not tested	
	calculated-p-value	0.87		calculated-p-value	0.32		calculated-p-value	0.6		calculated-p-value	0.9		calculated-p-value	0.98		calculated-p-value	not tested		calculated-p-value	not tested	

**Supplementary Table S5. Information on patient samples used for the RNA-seq and TR-qPCR analysis**

Sample	Tumour site	Gleason score	Experiment	total_RNAseq_reads_normal	total_RNAseq_reads_tumour
1	Posterior	7	RNAseq	20939142	20545681
2	Posterior	7	RNAseq	23330654	20465177
3	Posterior	8	RNAseq	22766169	27295077
4	Posterior	7	RNAseq	20527285	19211352
5	Anterior	6	RNAseq	26555597	26225578
6	Posterior	7	RNAseq	23214078	22700738
7	Posterior	7	RNAseq	25186759	24103860
8	Posterior	7	RNAseq	24009218	26222388
1	Posterior	9	RT-qPCR	N/A	N/A
2	Anterior	9	RT-qPCR	N/A	N/A
3	Anterior	8	RT-qPCR	N/A	N/A
4	Posterior	9	RT-qPCR	N/A	N/A
5	Posterior	9	RT-qPCR	N/A	N/A
6	Posterior	9	RT-qPCR	N/A	N/A
7	Posterior	8	RT-qPCR	N/A	N/A

**Supplementary Table S6. Genotyping primers.**

str_region (hg19)	rep_mask_repeat	dye	Primer_F	Primer_R	Product_length <sup>a</sup> (bp)	Gene
chr2:74144316-74144336	TAAA	FAM	TCTCTAAATATAAATTCAGATAGATCCTG	TTAAAGATACCATAGTGTGACCTCC	141	ACTG2
chr8:102563848-102563874	GAAA	PET	GGTGCAAAGGAGTTTGGCTA	TAGGCTTCAATTGGGTTGT	117	GRHL2
chr8:126450287-126450311	TTTTG	NED	GAGAAATGGCACAAAAACA	TTCTGTCAAGGTAATATTGCAA	299	TRIB1
chr9:79400650-79400676	TG	FAM	GTGAGTGCCTTTAGAATTTG	CATTACTGGAGAATAATGAGATATGG	329	PCA3
chr10:112044867-112044867	CAAAA	NED	TTGAAAGCACAGAGTTCTCC	GTCCTCTGACCCCTTTTGTTC	295	MXI1

<sup>a</sup>According to UCSC hg19

