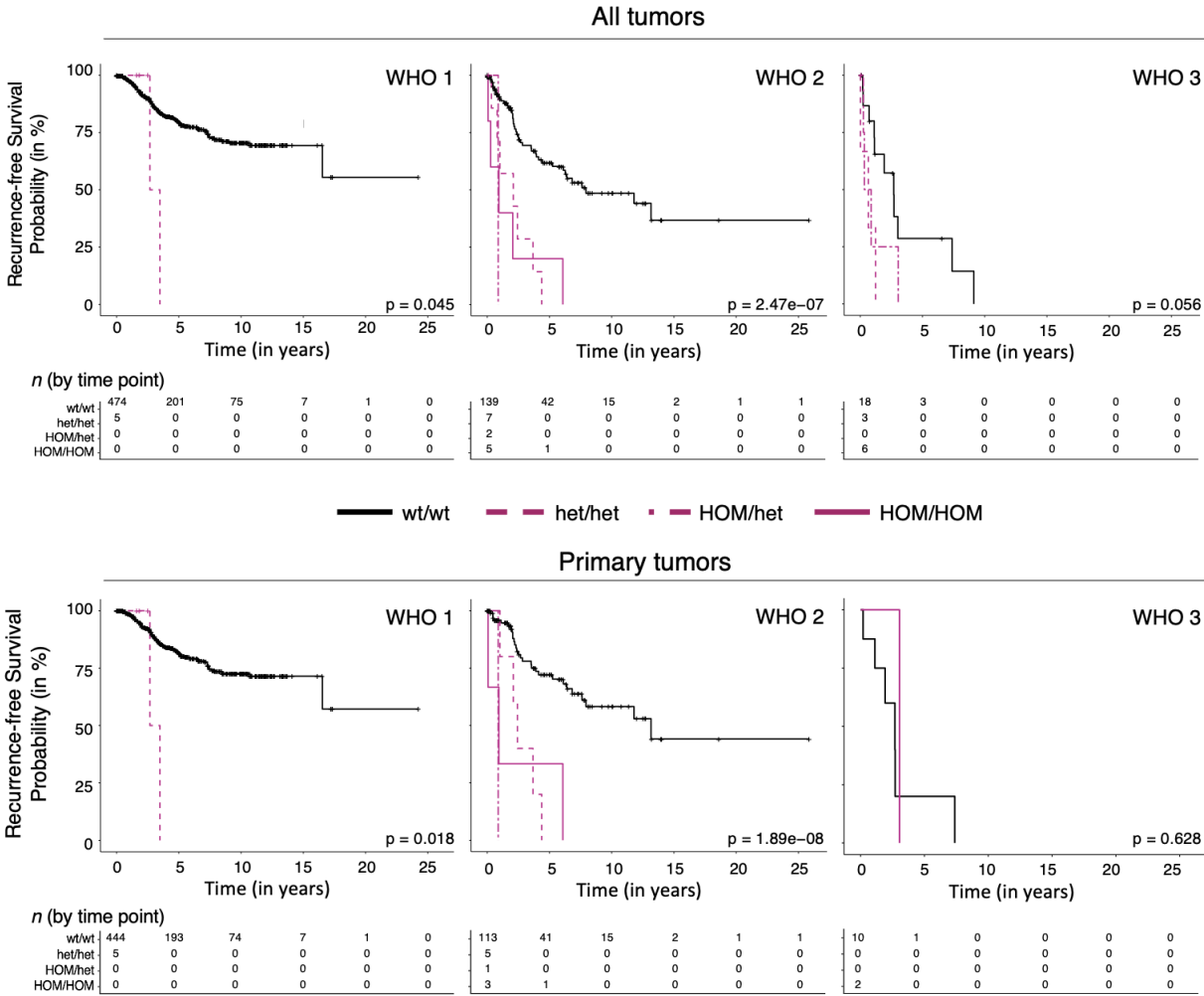


Supplementary Online Material



Supplementary Figure 1. Recurrence-free survival probability of all tumors (n=659, top) and of primary tumors (n=583, bottom) by WHO grade. Kruskal-Wallis ANOVA.

Supplementary Table 1: Clinical characteristics of tumors with CDKN2A/B losses, grouped by genotype. TERTp, TERT promoter mutation.

	Gender	Age	Primary Tumor	Extent of Resection	Recurrence	RFS (mo)	WHO grade	MenG Group	TERTp Mutation
CDKN2A/B homozygous / homozygous (HOM/HOM)									
Tumor 1	F	52.6	No	GTR	No	0.9	3	C	No
Tumor 2	F	51	No	STR	Yes	3.9	3	C	No
Tumor 3	F	52.6	No	STR	Yes	10.5	3	C	No
Tumor 4	F	60.4	Yes	STR	Yes	36.6	3	C	No
Tumor 5	M	68.9	No	GTR	Yes	3	3	C	No
Tumor 6	M	73.4	Yes	STR	No	0.6	3	C	NA
Tumor 7	F	70	Yes	GTR	Yes	72.9	2	C	No
Tumor 8	F	75	No	UNKN	Yes	3.2	2	C	NA
Tumor 9	M	65	Yes	GTR	Yes	11.2	2	C	No
Tumor 10	M	65	Yes	STR	Yes	0.8	2	C	c.-124C>T
Tumor 11	M	74.3	No	STR	Yes	24.6	2	C	No
CDKN2A/B homozygous / heterozygous (HOM/het)									
Tumor 12	F	62.7	No	STR	No	1.2	2	C	NA
Tumor 13	F	69	Yes	GTR	Yes	10.6	2	C	No
CDKN2A/B heterozygous / heterozygous (het/het)									
Tumor 14	F	75.9	No	UNKN	Yes	14.8	3	C	c.-124C>T
Tumor 15	M	58.1	No	GTR	Yes	7.8	3	C	No
Tumor 16	M	74.1	No	GTR	Yes	0.1	3	C	No
Tumor 17	F	57	No	STR	Yes	9.6	2	C	No
Tumor 18	M	47.6	Yes	GTR	Yes	12.2	2	C	c.-57A>C
Tumor 19	M	43.3	Yes	GTR	Yes	52.5	2	C	No
Tumor 20	M	54.3	Yes	GTR	Yes	29.1	2	C	No
Tumor 21	M	59	Yes	GTR	Yes	25.1	2	C	No
Tumor 22	M	68.1	No	STR	Yes	4	2	C	NA
Tumor 23	M	Unknown	Yes	STR	Yes	44.1	2	C	No
Tumor 24	F	48.4	Yes	STR	Yes	41.7	1	C	No
Tumor 25	F	58	Yes	GTR	No	19.3	1	C	No
Tumor 26	F	62	Yes	GTR	No	30	1	A	No
Tumor 27	M	70	Yes	GTR	No	21.9	1	C	No
Tumor 28	M	80.4	Yes	GTR	Yes	32.1	1	C	c.-59T>G

Supplementary Table 2. Ratio of CDKN2A/B-altered meningioma to CDKN2A/B wildtype tumors (n=695). MIB, mitotic index. Statistical test, Fisher's Exact Test. *Due to unknown MIB scores for some tumors, the total tumor count for wildtype is 307 and CDKN2A/B altered is 16.

	CDKN2A/B status		
MIB*	WT	altered	p-Value
Median	3.8	12.5	5.13E-03
Tumor Type	WT	altered	p-Value
Primary	567 (97.3%)	16 (2.7%)	1.60E-05
Recurrence	64 (84.2%)	12 (15.8%)	
Recurrence	WT	altered	p-Value
No	485 (98.8%)	6 (1.2%)	2.51E-09
Yes	146 (86.9%)	22 (13.1%)	
WHO Grade (2016)	WT	altered	p-Value
1	474 (99.0%)	5 (1.0%)	1.14E-11
2	139 (90.8%)	14 (9.2%)	
3	18 (66.7%)	9 (33.3%)	
Molecular Group	WT	altered	p-Value
MenG A	258 (99.6%)	1 (0.4%)	3.07E-12
MenG B	173 (100.0%)	0 (0.0%)	
MenG C	198 (88.0%)	27 (12.0%)	
Unknown	2 (100.0%)	0 (0.0%)	