

Table S1. Audit of Mice and Tumors

Table S1. Mice and Tumors					
Mice	Cysts	Time-1st cyst	Cancer	Time-1st cancer	Cancer Histologies
WT					
1	-	N/A	-	N/A	
2	-	N/A	-	N/A	
3	-	N/A	-	N/A	
4	-	N/A	-	N/A	
5	-	N/A	-	N/A	
6	-	N/A	-	N/A	
7	-	N/A	-	N/A	
8	-	N/A	-	N/A	
9	-	N/A	-	N/A	
10	-	N/A	-	N/A	
11	-	N/A	-	N/A	
12	-	N/A	-	N/A	
13	-	N/A	-	N/A	
14	-	N/A	-	N/A	
15	-	N/A	-	N/A	
16	-	N/A	-	N/A	
17	-	N/A	-	N/A	
18	-	N/A	-	N/A	
19	-	N/A	-	N/A	
20	-	N/A	-	N/A	
21	-	N/A	-	N/A	
22	-	N/A	-	N/A	
23	-	N/A	-	N/A	
24	-	N/A	-	N/A	
25	-	N/A	-	N/A	
26	+	128	-	N/A	
27	+	228	-	N/A	
28	+	366	-	N/A	
Xpc ^{-/-} ; Ink4a ^{+/+}					
1	-	N/A	-	N/A	
2	-	N/A	-	N/A	
3	-	N/A	-	N/A	
4	+	90	-	N/A	
5	+	90	-	N/A	
6	+	106	-	N/A	
7	+	106	-	N/A	
8	+	118	-	N/A	
9	+	118	-	N/A	
10	+	122	-	N/A	
11	+	141	-	N/A	
12	+	142	-	N/A	

13	+	159	-	N/A	
14	+	162	-	N/A	
15	+	184	-	N/A	
16	+	197	-	N/A	
17	+	206	-	N/A	
18	+	211	-	N/A	
19	+	211	-	N/A	
20	+	211	-	N/A	
21	+	245	-	N/A	
22	+	306	-	N/A	
23	+	317	-	N/A	
24	+	340	-	N/A	
25	+	352	-	N/A	
26	+	349	-	N/A	
27	+	157	+	368	Squamous cell carcinoma
Xpc ^{-/-} ; Ink4a ^{-/-}					
1	-	N/A	-	N/A	
2	-	N/A	-	N/A	
3	-	N/A	-	N/A	
4	-	N/A	-	N/A	
5	-	N/A	-	N/A	
6	-	N/A	-	N/A	
7	-	N/A	-	N/A	
8	-	N/A	-	N/A	
9	-	N/A	-	N/A	
10	-	N/A	-	N/A	
11	-	N/A	+	83	Spindle cell melanoma (Tyrp1+)
12	-	N/A	+	88	Malignant myxoid spindle and epithelioid neoplasm (Tyrp1-), spindle cell melanoma
13	-	N/A	+	88	Spindle and Epithelioid melanoma (NR)
14	-	N/A	+	94	Spindle and Epithelioid melanoma (NR)
15	-	N/A	+	104	Lymphoma
16	-	N/A	+	132	Spindle and Epithelioid melanoma (Tyrp1+)
17	-	N/A	+	138	Spindle and Epithelioid melanoma (NR)
18	-	N/A	+	152	Spindle and Epithelioid melanoma (x2)
19	-	N/A	+	199	Spindle and Epithelioid melanoma (NR)
20	-	N/A	+	241	Spindle and Epithelioid melanoma (Tyrp1+), angiosarcoma
21	+	94	-	N/A	
22	+	109	-	N/A	
23	+	116	-	N/A	
24	+	124	-	N/A	
25	+	131	-	N/A	
26	+	138	-	N/A	
27	+	146	-	N/A	
28	+	149	-	N/A	
29	+	151	-	N/A	
30	+	157	-	N/A	
31	+	94	+	131	Undifferentiated spindle cell neoplasm (Tyrp1-)

32	+	102	+	123	Spindle cell melanoma (Tyrp1+)
33	+	104	+	203	Spindle cell melanoma (Tyrp1+), angiosarcoma
34	+	112	+	125	Spindle cell melanoma (Tyrp1+), spindle cell melanoma (Tyrp1+)
35	+	119	+	168	Angiosarcoma (Tyrp1-)
36	+	124	+	172	Squamous cell carcinoma
37	+	143	+	180	Spindle and Epithelioid melanoma (NR)
38	+	166	+	102	Spindle and Epithelioid melanoma (Tyrp1+), Spindle and Epithelioid melanoma (Tyrp1+)
39	+	180	+	214	Spindle and Epithelioid melanoma (x2) (NR)
40	+	203	+	188	Spindle and Epithelioid melanoma (Tyrp1+)
41	+	236	+	230	Spindle and Epithelioid melanoma (NR)
Xpc+/+; Ink4a-/-					
1	-	N/A	-	N/A	
2	-	N/A	-	N/A	
3	-	N/A	-	N/A	
4	-	N/A	-	N/A	
5	-	N/A	-	N/A	
6	-	N/A	-	N/A	
7	-	N/A	-	N/A	
8	-	N/A	-	N/A	
9	-	N/A	-	N/A	
10	-	N/A	-	N/A	
11	-	N/A	+	87	Squamous cell carcinoma, Undifferentiated spindle cell neoplasm (Tyrp1-)
12	-	N/A	+	95	Undifferentiated spindle cell neoplasm (Tyrp1-)
13	-	N/A	+	107	Undifferentiated neoplasm (Tyrp1-), Spindle and Epithelioid melanoma (Tyrp1+)
14	-	N/A	+	120	Squamous cell carcinoma
15	-	N/A	+	123	Epithelioid melanoma (Tyrp1+)
16	-	N/A	+	210	Spindle and Epithelioid melanoma (NR)
17	+	87	-	N/A	
18	+	101	-	N/A	
19	+	112	-	N/A	
20	+	127	-	N/A	
21	+	140	-	N/A	
22	+	141	-	N/A	
23	+	141	-	N/A	
24	+	143	-	N/A	
25	+	165	-	N/A	
26	+	285	-	N/A	
27	+	107	+	127	Spindle and Epithelioid melanoma (NR)
28	+	138	+	112	Squamous cell carcinoma
29	+	143	+	115	Lymphoma
30	+	147	+	127	Spindle and Epithelioid melanoma (NR)
31	+	148	+	87	Squamous cell carcinoma
32	+	167	+	112	Squamous cell carcinoma
33	+	183	+	127	Spindle and Epithelioid melanoma (NR)
34	+	185	+	149	Squamous cell carcinoma

35	+	190	+	371	Undifferentiated neoplasm (Tyrp1-)
36	+	203	+	225	Undifferentiated neoplasm (Tyrp1-)
37	+	210	+	231	Malignant myxoid spindle and epithelioid neoplasm, spindle cell melanoma (Tyrp1+)
38	+	210	+	239	Edematous spindle cell malignant neoplasm Tyrp1-)
39	+	227	+	299	Squamous cell carcinoma
40	+	251	+	264	Squamous cell carcinoma, Spindle and Epithelioid melanoma

Abbreviations: N/A: not applicable; T: tumors (1) whose histological patterns are similar to melanomas from *Ras/Ink4a-arf* mice and (2) whose *Tyrp1* expression levels are in the range observed for *Ras/Ink4a-arf* melanomas are designated Tyrp1+. Those tumors whose histological patterns may be similar to *Ras/Ink4a-arf* melanomas but whose *Tyrp1* expression levels are below the range for *Ras/Ink4a-arf* melanomas are designated Tyrp1-. NR = no viable RNA for analysis

