

Supplementary Table 1. Statistical comparisons of gender distribution, tumor location and metastasis incidence

A. Gender distribution in HP, HPN1 and HPN2 mice

Genotype	Total Mice	Male	Female	% Male	% Female	Chi-square P-Value	
						HP vs HPN1	HP vs HPN2
HP	20	14	6	70.0	30.0		
HPN1	24	15	9	62.5	37.5	0.102	
HPN2	25	8	17	32.0	68.0		< 0.001

B. Anatomical locations of primary melanomas in HP, HPN1 and HPN2 mice

Genotype	Back/Neck/Top of head/Flanks		Extremities: Hindlegs/Forelegs/Tail/Ears		Face: Cheeks/ Nose		Chi-square P-Value	
	Total	%	Total	%	Total	%	HP vs HPN1	HP vs HPN2
HP	59	85.5	8	11.6	2	2.9		
HPN1	48	82.8	8	13.8	2	3.4	0.359	
HPN2	48	80.0	7	11.7	5	8.3		0.036

C. Incidence of primary face melanomas in HP, HPN1 and HPN2 mice

Genotype	Face tumor positive	Face tumor negative	Chi-square P-Value	
			HP vs HPN1	HP vs HPN2
HP	2	18		
HPN1	2	22	0.346	
HPN2	5	20		0.030

D. Incidence of lung metastases in HP, HPN1 and HPN2 mice

Genotype	Total Mice	Metastasis-positive	Metastasis-negative	% Metastasis-positive	% Metastasis-negative	Chi-square P-Value	
						HP vs HPN1	HP vs HPN2
HP	20	5	15	25.0	75.0		
HPN1	24	18	6	75.0	25.0	< 0.001	
HPN2	25	18	7	72.0	28.0		< 0.001

E. Incidence of lymph node enlargement in HP, HPN1 and HPN2 mice

Genotype	Total Mice	Enlargement-positive	Enlargement-negative	% Enlargement-positive	% Enlargement-negative	Chi-square P-Value	
						HP vs HPN1	HP vs HPN2
HP	20	13	15	25.0	75.0		
HPN1	24	22	2	91.7	8.3	< 0.001	
HPN2	25	21	4	84.0	16.0		< 0.001