

**Table S1. Histological grading given by panellists (P) for the 36 canine mammary tumor samples included in the study, majority opinion (GM) for grade is given for those with a majority opinion of malignancy. No GM grade was given to three malignant cases with a subtype GM (see table 5) for which grading is not expected (i.e. squamous cell carcinoma, sarcoma, and carcinosarcoma).**

Sample ID	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	P11	P12	P13	P14	P15	GM grade	GM H/B/M
1			II	II	III	I	I	I	II	II	III		II	I	II	II	M
2	III	II	I	II	I	III	II	II	III	III	II	I	III	I	III	III	M
3			I	I	I								I				B
4	I	II	I	I		I	I	II	II	II	I	I	II	I	II	I	M
5	II	I	II	II	I	II	II	II	II	II	II	II	III	I	II	II	M
6		III	II	II	I	II	II	II	III	III	I	II	II	I	III	II	M
7	I		II		I	I	I	I				I					B
8																	H
9																	H
10	II					I	I		II					I	II		
11	III	III	III	II	I	III	III	II	III	III	III	II	III	II	III	III	M
12					II												H
13			I					I									H
14	II	II	III	III			III	II		II	II	II	II	I		II	M
15								I									B
16		III						II								no grading	M
17		I	III	I		I	II	II		II	II	I	I	I		I	M
18																	H
19																	B
20	III			III										III		no grading	M
21	III	II	III	II		III	III	III		III	II	II	III			III	M
22																	H
23																	H
24	II	II	I	I		II	I	II	III	II	II	I	II	I	III	II	M
25					I											no grading	M
26													II				B
27	II		II	II			II	III		III	II	II		II		II	M
28	II	II	I	II		II	I	II		II	II	II	III	I		II	M
29										I							B
30	I	II	III	I		III	I	II	III	II	I	II	II	I	III	-	M

31	II	I	II	II	I	II	II	III	I	II	I	I	II	I	II	II	M
32			I		I												B
33		I	II	II				I	II	II	I	I	II		II		M
34	III		II	II	I	II								I		no grading	M
35																	H
36	III	II	III				II	III			II	III		II		-	M

H, hyperplasia-dysplasia; B, benign tumour; M, malignant tumour; GM, majority opinion