

Supplementary material

S1 – Correlations between nerve conduction variables and feline pain phenotype.

Variables	Age (years)		Rx (score)		MI-CAT(V) (%)		PWT_thoracic (grams)		PWT_pelvic (grams)		RMTS (count)	
	Coef	p value	Coef	p value	Coef	p value	Coef	p value	Coef	p value	Coef	p value
Tibial/sciatic motor nerve												
Amp tarsus (mV)	−0.49	0.038	−0.37	0.131	−0.56	0.016	0.44	0.065	0.39	0.107	0.14	0.578
Amp stifle (mV)	−0.49	0.040	−0.21	0.407	−0.38	0.119	0.13	0.619	0.30	0.233	0.12	0.639
Amp hip (mV)	−0.47	0.049	−0.30	0.230	−0.42	0.085	0.28	0.261	0.38	0.122	0.08	0.766
CV stifle-tarsus (m.s ^{−1})	−0.62	0.006	−0.48	0.044	−0.67	0.002	0.36	0.138	0.45	0.060	0.28	0.262
CV hip-stifle (m.s ^{−1})	0.11	0.664	−0.07	0.786	0.14	0.584	0.07	0.795	0.01	0.982	−0.01	0.995
CV hip-tarsus (m.s ^{−1})	−0.52	0.027	−0.52	0.028	−0.55	0.019	0.50	0.034	0.48	0.045	0.31	0.216
Ulnar motor nerve												
Amp carpus (mV)	−0.46	0.057	−0.36	0.146	−0.39	0.120	0.38	0.119	0.38	0.118	0.11	0.654
Amp elbow (mV)	−0.51	0.031	−0.52	0.028	−0.57	0.013	0.70	0.001	0.36	0.143	0.23	0.351
Amp axilla (mV)	0.11	0.651	0.14	0.570	−0.04	0.866	−0.01	0.992	0.21	0.412	0.16	0.523
CV elbow-carpus (m.s ^{−1})	−0.71	<0.001	−0.76	<0.001	−0.73	<0.001	0.61	0.007	0.48	0.042	0.30	0.229
CV axilla-elbow (m.s ^{−1})	−0.43	0.073	−0.42	0.081	−0.45	0.063	0.68	0.002	0.62	0.001	0.20	0.424

CV axilla-carpus (m.s ⁻¹)	-0.60	0.008	-0.49	0.041	-0.64	0.004	0.67	0.002	0.66	0.003	0.16	0.536
Sensory nerves												
Amp tibial (μV)	-0.62	0.008	-0.57	0.018	-0.31	0.246	0.34	0.188	0.37	0.141	0.24	0.347
CV tibial (m.s ⁻¹)	-0.13	0.607	-0.45	0.064	-0.18	0.497	0.21	0.401	0.05	0.844	0.21	0.406
Amp ulnar (μV)	-0.53	0.030	-0.44	0.076	-0.45	0.069	0.13	0.620	0.10	0.696	0.03	0.914
CV ulnar (m.s ⁻¹)	-0.24	0.338	-0.01	0.983	-0.31	0.233	0.21	0.409	0.25	0.316	0.30	0.229

Coef: correlation coefficient (*r* for all variables except for the motor amplitude at carpus, sensory amplitude tibial, sensory CV ulnar and all RMTS correlations, where Spearman's *p* was calculated); Amp: amplitude; CV: conduction velocity, Rx: radiographic; MI-CAT(V): Montreal instrument for cat arthritis testing for use by veterinarians; PWT: paw withdrawal threshold; RMTS: response to mechanical temporal summation.