

Supplementary material

S1 File. Excel spreadsheet (in a separate Excel file) with an overview of the data, EquiFACS annotations, and output and coefficients from the elastic net regression modeling.

S1 Table. Modified ELAN template for annotation with EquiFACS

Tier	AU/AD	Meaning
Ears	EAD101 (R/L)	<i>Ear forward</i>
	EAD102 (R/L)	<i>Ear adductor</i>
	EAD103 (R/L)	<i>Ear flattener</i>
	EAD104 (R/L)	<i>Ear rotator</i>
	Unscorable (R/L)	<i>Ear not visible</i>
Upper face	AU101	<i>Inner brow raiser</i>
	AU143	<i>Eye closure</i>
	AU145	<i>Blink</i>
	AU47	<i>Half blink</i>
	AU5	<i>Upper lid raiser</i>
	AD1	<i>Eye white increase</i>
Lower face	AU10	<i>Upper lip raiser</i>
	AU12	<i>Lip corner puller</i>
	AU113	<i>Sharp lip puller</i>
	AUH13	<i>Nostril lift</i>
	AU16	<i>Lower lip depressor</i>
	AU17	<i>Chin raiser</i>
	AU18	<i>Lip pucker</i>
	AU122	<i>Upper lip curl</i>
	AU24	<i>Lip presser</i>
	AU25	<i>Lips part</i>
	AU26	<i>Jaw drop</i>
	AU 27	<i>Mouth stretch</i>
	AD38	<i>Nostril dilator</i>
	AD160	<i>Lower lip relax</i>
Miscellaneous	AD19	<i>Tongue show</i>
	AD29	<i>Jaw thrust</i>
	AD30	<i>Jaws sideways</i>
	AD133	<i>Blow</i>
Gross behaviour	AD50	<i>Vocalization</i>
	AD76	<i>Yawning</i>
	AD80	<i>Swallow</i>
	AD81	<i>Chewing</i>
	AD84	<i>Head shake side to side</i>
	AD85	<i>Head nod up and down</i>
	AD86	<i>Grooming</i>
	AD87	<i>Ear shake</i>
Unscorable face	Unscorable	<i>Face not visible (excl. the ears)</i>

S1 Figure. Distribution of annotation data between ‘no pain’ and ‘pain’ videos per horse.

