Supplemental material: Additional Figures

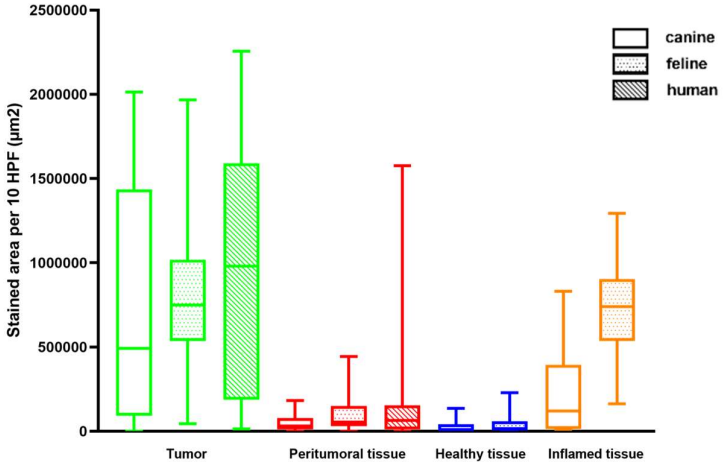

Figure 1: FAP stained area by tissue type and species.

Box plot of the FAP stained area (µm^2) per 10 HPF (2.37mm^2) for tumor (green), peritumoral (red), healthy (blue) and inflamed (orange) control tissue grouped by species. The size of the area positively stained for FAP does not differ between canine, feline and human STS. Interspecies comparisons detects a larger stained area in canine STS compared to canine peritumoral and healthy control tissue, in feline STS compared to feline peritumoral and healthy control tissue, in human STS compared to human peritumoral tissue, in feline control compared to feline inflamed tissue (p<0.0001) and in feline peritumoral compared to inflamed tissue (p=0.00063).

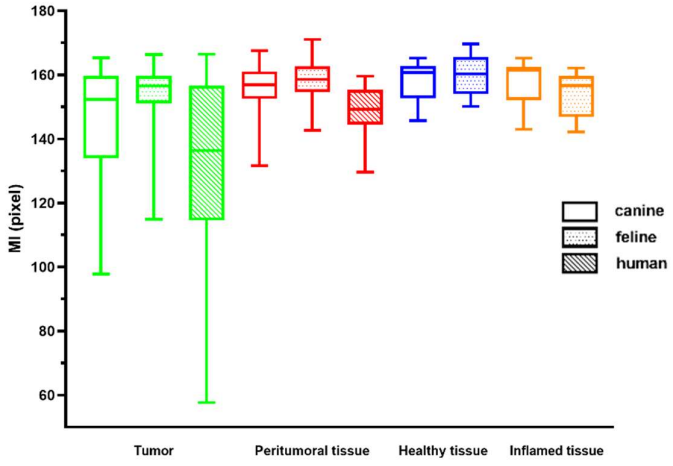

Figure 2: Mean staining intensity of FAP in different tissue types and species.

Box plot of the mean staining intensity (MI) (pixel) for tumor (green), peritumoral (red), healthy (blue) and inflamed (orange) control tissue divided by species. Lower MI values resemble higher staining intensities. Human STS have the lowest MI and differ from feline STS with a higher MI (p=0.0122). MI is lower in tumor compared to peritumoral tissue with significant differences only in canine (p=0.0215). The MI is lower in canine STS compared to healthy control tissue (p=0.0423). MI between tumor and inflamed, healthy control and inflamed, and peritumoral and inflamed tissue is similar in dogs and cats (p>0.3614).

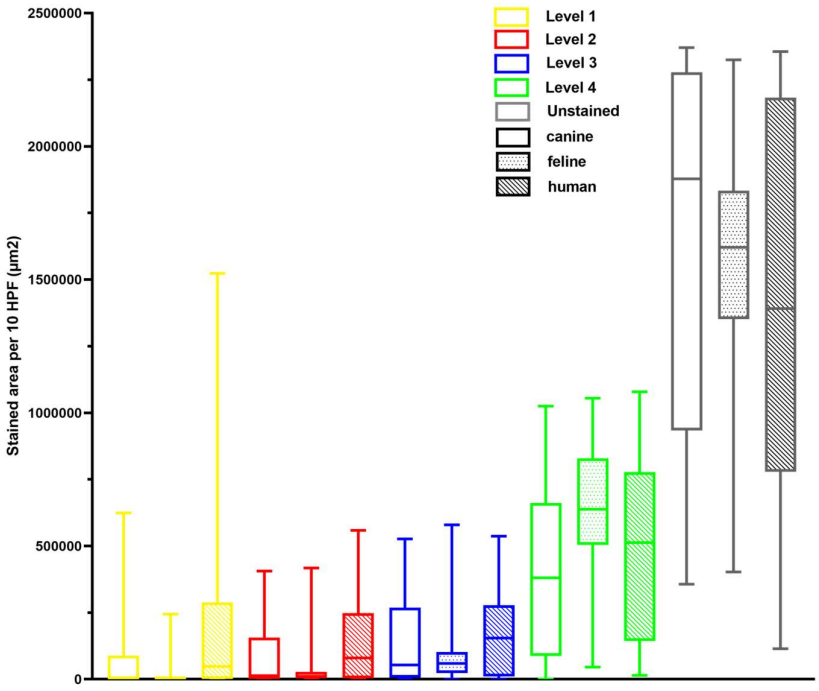

Figure 3: FAP stained area divided by staining intensity levels.

Box plot showing the FAP stained area (µm^2) per 10 HPF (2.37mm^2) in canine, feline and human STS divided into four staining intensity levels and the unstained area, with level 1 being the lowest and levels 4 resembling the highest staining intensity. There are no differences in the stained areas within one staining intensity level between species ($p>0.1634$). Areas of high staining intensity (level 4) comprise the largest stained areas within the four staining intensity levels in tumors of all species with significant differences if compared to areas of low staining intensity (level 1) ($p<0.0017$).

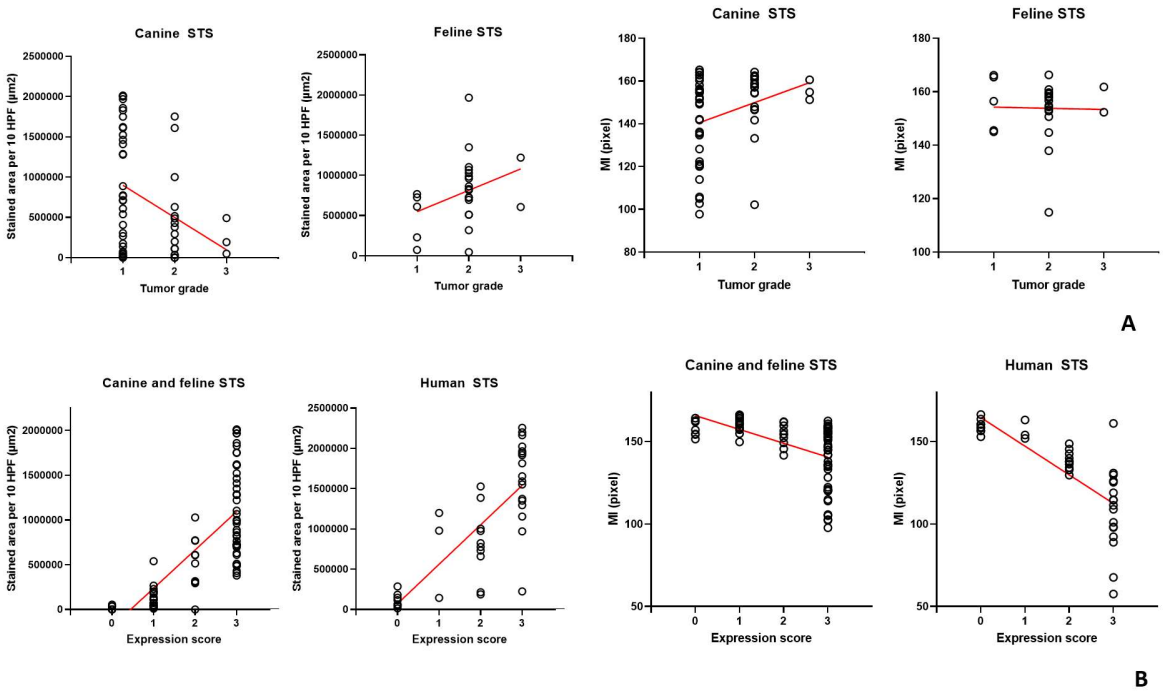

Figure 4: Associations between the tumor grade (A) or the semiquantitative expression score (B) with the stained area and mean staining intensity for canine and feline STS.

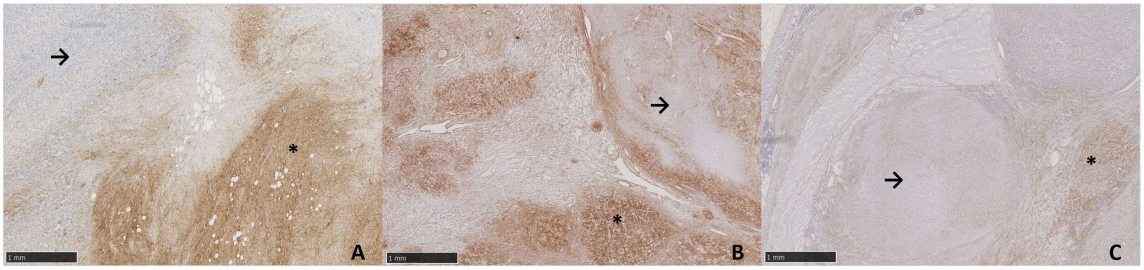

Figure 5: Examples for heterogeneous FAP expression in STS.

Areas of high staining intensity (*) and areas with low FAP labelling (arrow) in a human UPS (A), a canine PWT (B) and a fFS (C). Scale bar 1mm.

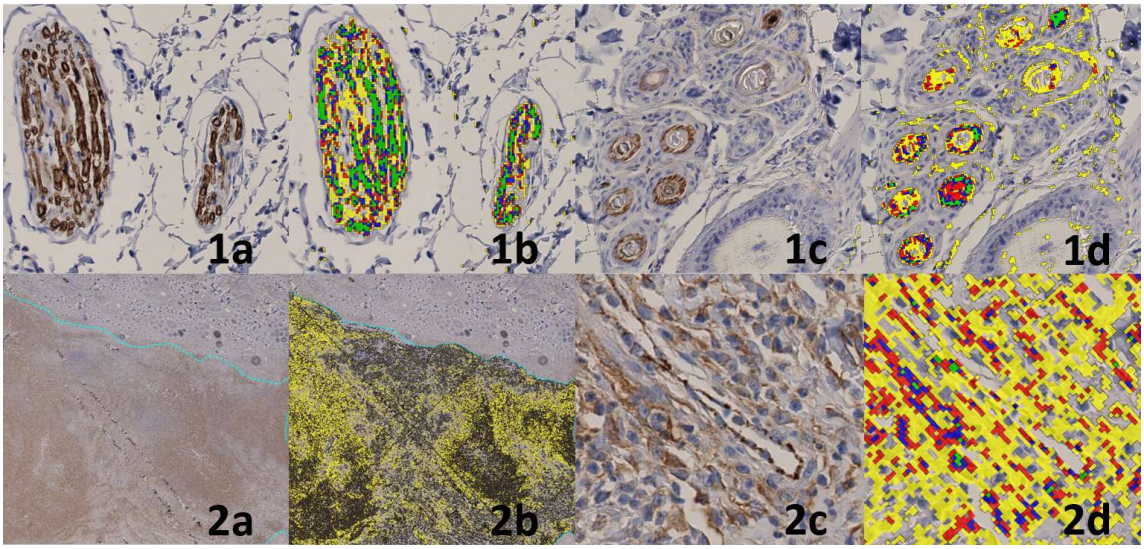

Figure 6: FAP expression in peritumoral, healthy and inflamed control tissue and artificial staining.

In healthy or peritumoral canine control tissue (1) structures such as peripheral nerves (1a) lying within the connective tissue or hair follicle within the dermis (1c) show a moderate to strong staining for FAP, contributing to the overall stained area and staining intensity (1b, 1c) within these regions of interest. A marked overexpression of FAP is visible in inflammatory tissue, here as an example feline tissue (2a-d). The magnification (2c, 2d) shows the positivity of immune cells and endothelial cells.