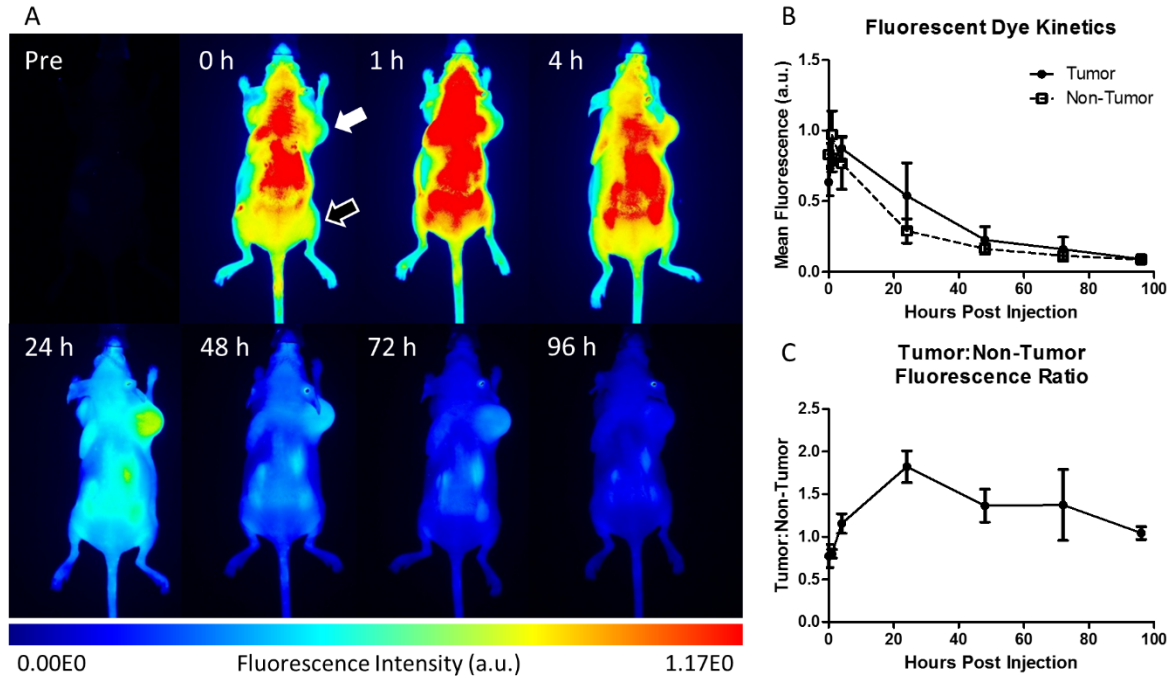
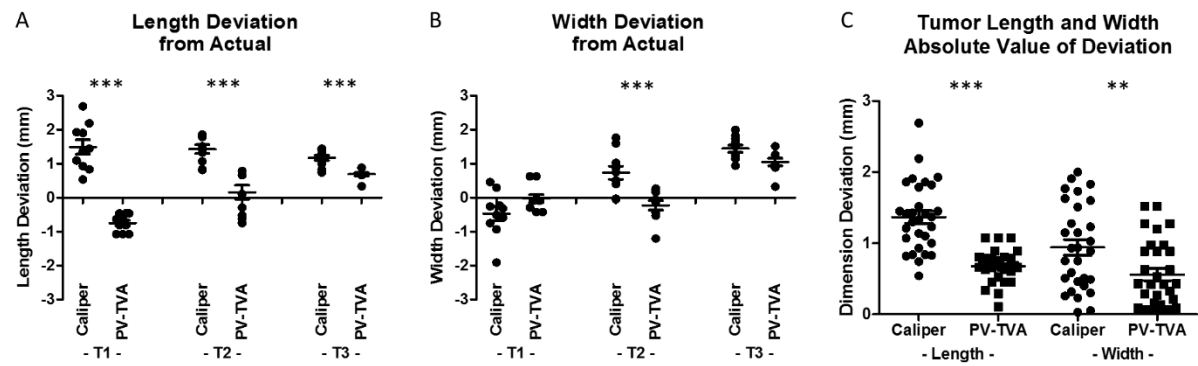


SUPPLEMENTAL DATA



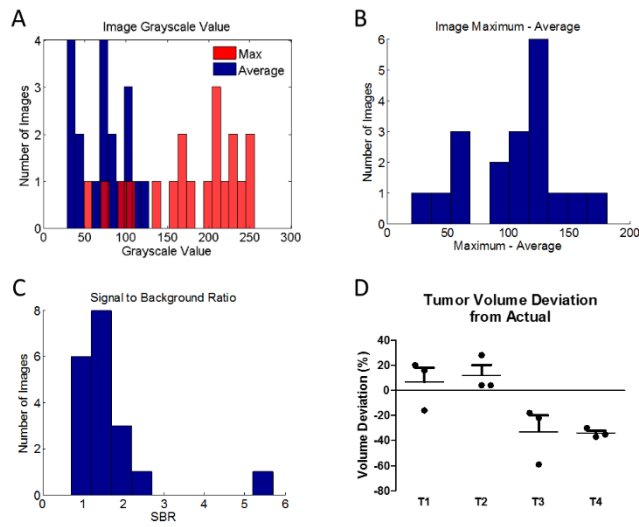
Supplemental Figure 1: A) Time course images of a HT1080 xenograft model injected with a targeted fluorescent dye, from pre-injection to 96 hours post injection. Tumor identified by the white arrow and non-tumor region identified by the outlined arrow. B) Fluorescent dye *in vivo* kinetics, with 24 hours post injection showing largest difference between tumor and non-tumor regions. C) Tumor to non-tumor ratio showing maximum contrast at 24 hours post injection.

SUPPLEMENTAL DATA



Supplemental Figure 2: A) PV-TVA Length deviations for three HT1080 tumors (T1, T2, and T3) from the *in situ* length measurement. The algorithm was run 10 times for each image. B) Width deviations from the *in situ* width measurement. C) Absolute value of the deviations of the length and width for both calculation methods to measure the accuracy.

SUPPLEMENTAL DATA



Supplemental Figure 3: A) Maximum and average grayscale values for the images shown in Figure 5A. B) Maximum minus average grayscale values for each of the images demonstrating the range of values analyzed that produced a result. (T4-Wk2 is not included because there was inadequate contrast to generate a tumor volume). C) Signal to background ratios for each of the images. (Assumes that the maximum value is the signal and the average is the background. Calculated: $[M-A]/A$, where M is the maximum and A is the average.) D) Tumor volume deviation from actual for each mouse at Week 4. The PV-TVA was run 3 times for each tumor and the percent deviation was determined using the post mortem water displacement method.