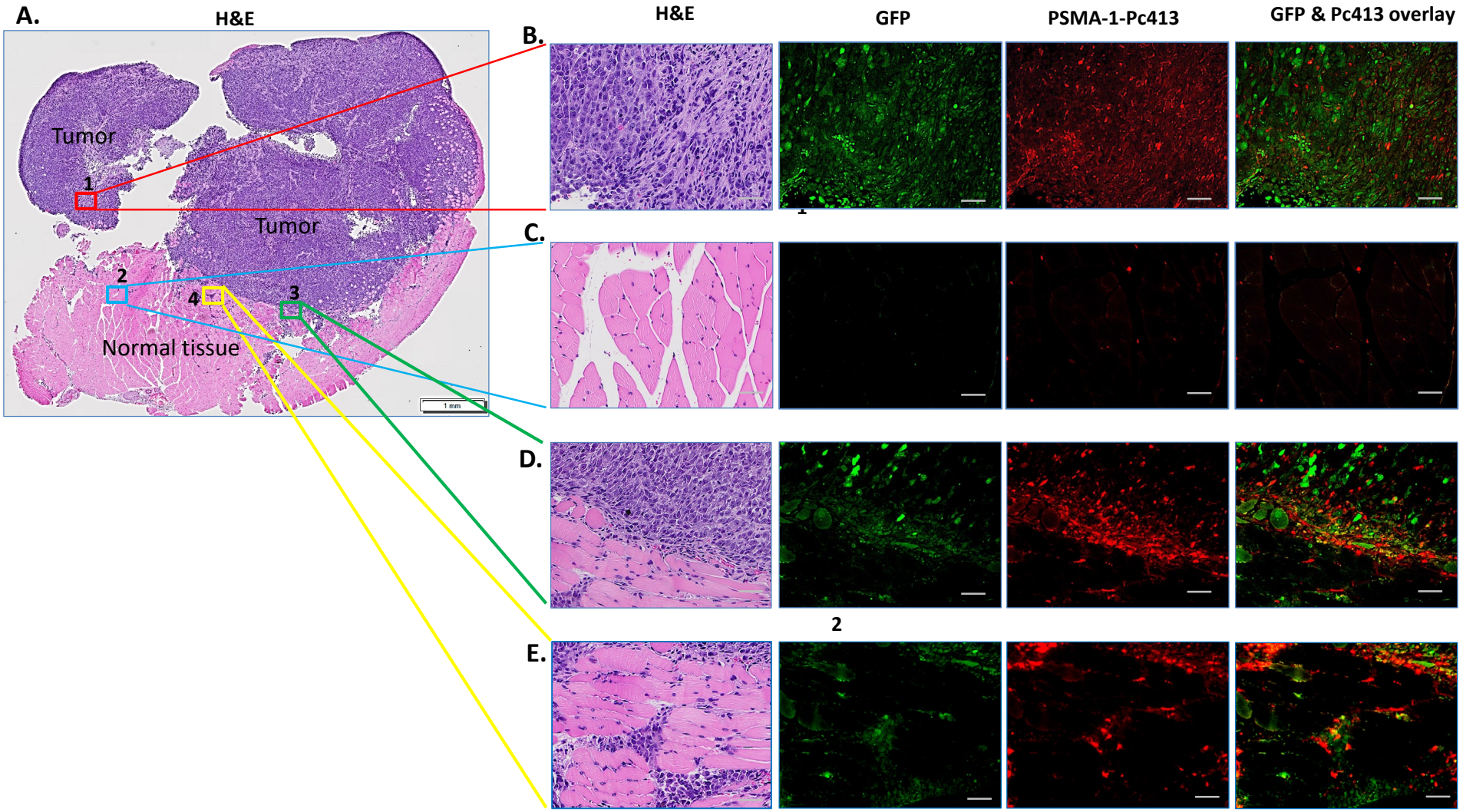

Figure S4: Pathological examination of resected tumor. (A) H&E staining of resected tumor tissue with surrounding normal tissue. (B) H&E staining and fluorescence images of PC3pip GFP tumor (insert 1 in A). PSMA-1-Pc413 florescence signal correlated well with H&E staining and GFP fluorescence signal. (C) H&E staining and fluorescence images of normal tissue (insert 2 in A). No/Minimal GFP and PSMA-1-Pc413 signal were observed. (D) H&E staining and fluorescence images of borderline between PC3pip GFP tumor and normal tissue (insert 3 in A). PSMA-1-PC413 was able to delineate the borderline between normal and cancer tissue. (E) H&E staining and fluorescence images of PC3pip GFP tumor that invaded into normal tissue (insert 4 in A). PSMA-1-Pc413 was able to detect the invasion of cancer cell into normal tissue. (Fluorescent microscopy pseudo colors: green – green fluorescein protein (GFP); red – PC413; yellow/orange – co-localization of GFP and PC413. Scale bars = 1mm in A, and 50µm in B-E.

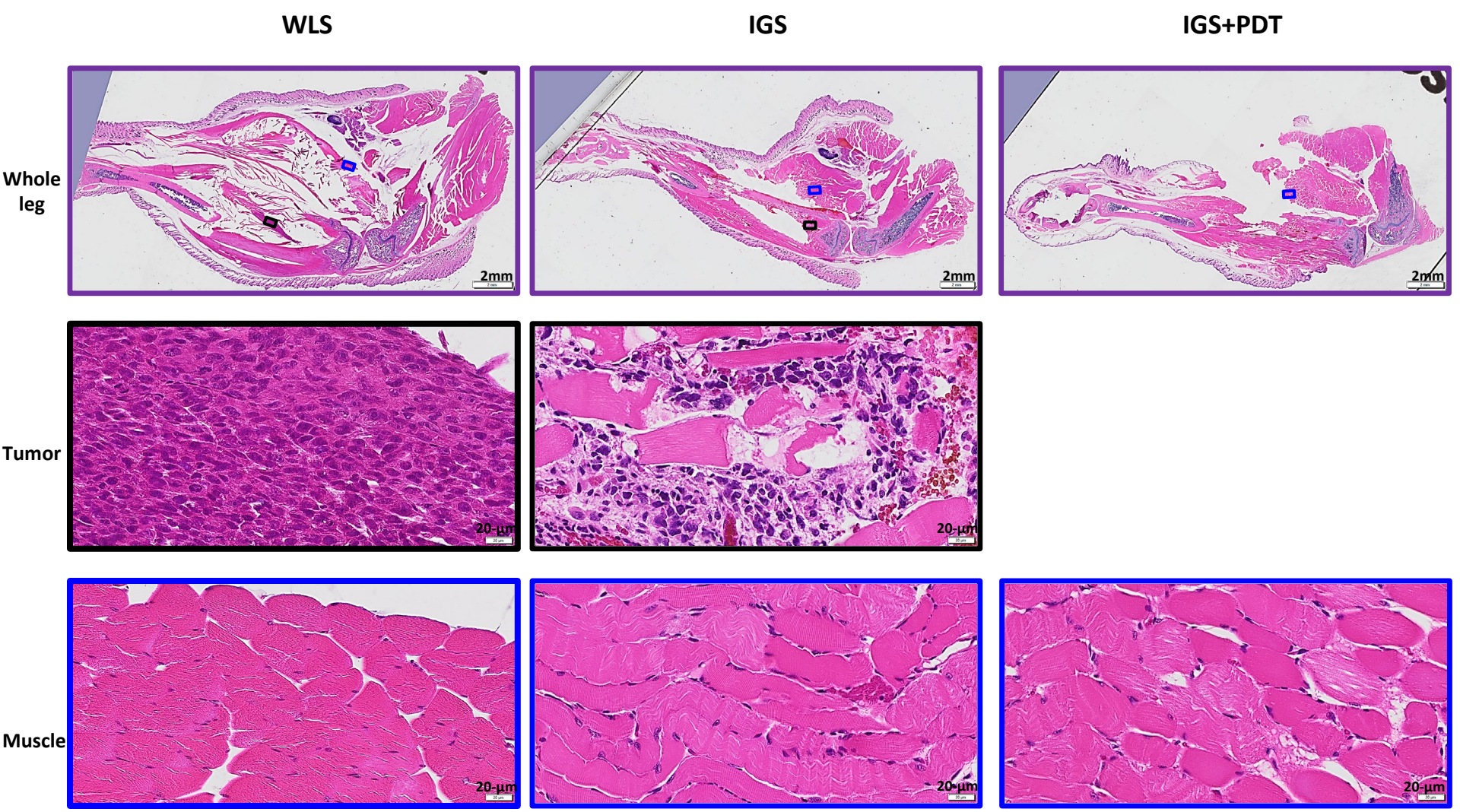

Figure S5. Pathological examination of leg with surgical bed. Mice were implanted PC3pipGFP tumors and underwent WLS, IGS, or IGS+PDT. Following the surgery and treatment the legs containing the surgical bed were removed, fixed, and sent to the university core for FFPE and H&E staining. Ten sections were taken from region of the leg from which the tumor was removed and subjected to a blinded assessment by a prostate pathologist. All 5 mice that received WLS had tumor remaining in the surgical bed, 3 out of 5 mice in the IGS group had tumor remaining in the surgical bed, and all 4 mice in the IGS+PDT group were tumor free. Tumors are indicated in the black box. No difference was observed in muscle tissue (blue box) between the 3 groups.

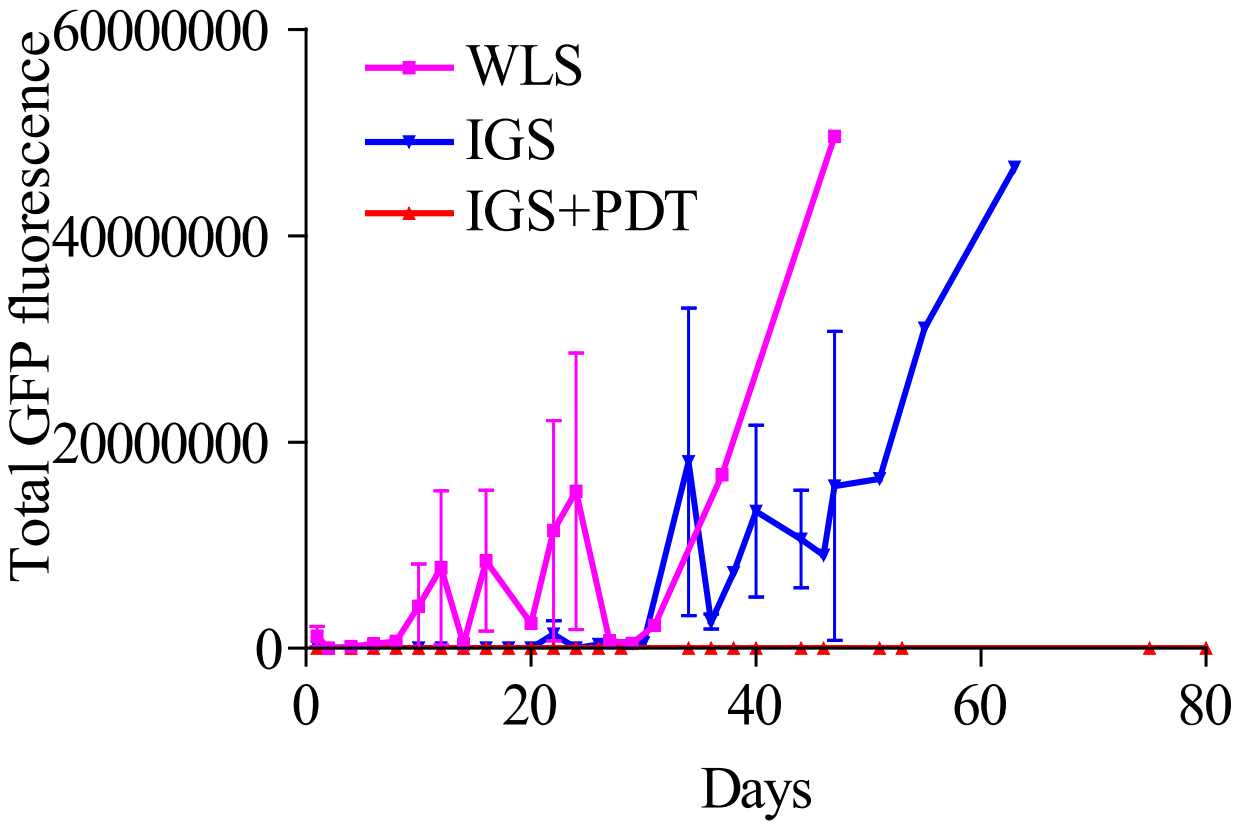

Figure S6: GFP-monitoring of tumor growth after surgery. Quantification of GFP signals from the surgical bed of tumor bearing animals. Data represents average signal of live animals +/- SD. GFP signals vary over time as animal number changed due to tumor related death.