

Supplementary Information:

**Targeting Tumor Vasculature with Aptamer Functionalized Doxorubicin-Polylactide
Nanoconjugates for Enhanced Cancer Therapy**

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Supplemental Figure Legends

Figure S1. Nephrotoxicity assessment 21 days following single intravenous administration of (A) free Doxo (10 mg/kg), (B) saline, (C) blank A10 PLA NC, (D) A10 Doxo-PLA NC (10 mg/kg Doxo equivalent), (E) A10 Doxo-PLA NC (20 mg/kg Doxo equivalent), and (F) 10 Doxo-PLA NC (50 mg/kg Doxo equivalent). Histologic evidence of (A) severe renal tubular dilation and pathology indicated by *, and absence of any histopathologic lesions in (B-F).

Figure S2. Comparative safety assessment of free Doxo (10 mg/kg) compared with A10 Doxo-PLA NCs (50 mg/kg Doxo equivalent) 21 days following single intravenous administration in BALB/c mice. No histologic evidence for any organ toxicity identified.

Figure S3. Accumulation of A10 IR783-PLA NCs (A) and IR783-PLA NCs (B) in macroscopic SB-HSA tumors 24 h following intravenous administration visualized *ex vivo* with LI-COR Odyssey scanner.

Figure S4. SCID/beige mouse with (A) macroscopic SB-HSA endothelial tumor growing subcutaneously in the right flank region. Established SB-HSA endothelial tumors adopt (B) multilobulated and (C) invasive characteristics, and express (D-E) normal and (F) tumor-associated endothelial markers.

Figure S5. Two intravenous treatments with A10 Doxo-PLA NCs exert rapid and clinically appreciable cytoreductive activities against established macroscopic SB-HSA endothelial tumors.

Intravenous treatment of A10 Doxo-PLA NC (50 mg/kg) on Days 1 and 4 resulted in partial response with greater than 50% reduction in tumor volume.

Supplementary Figures

Figure S1

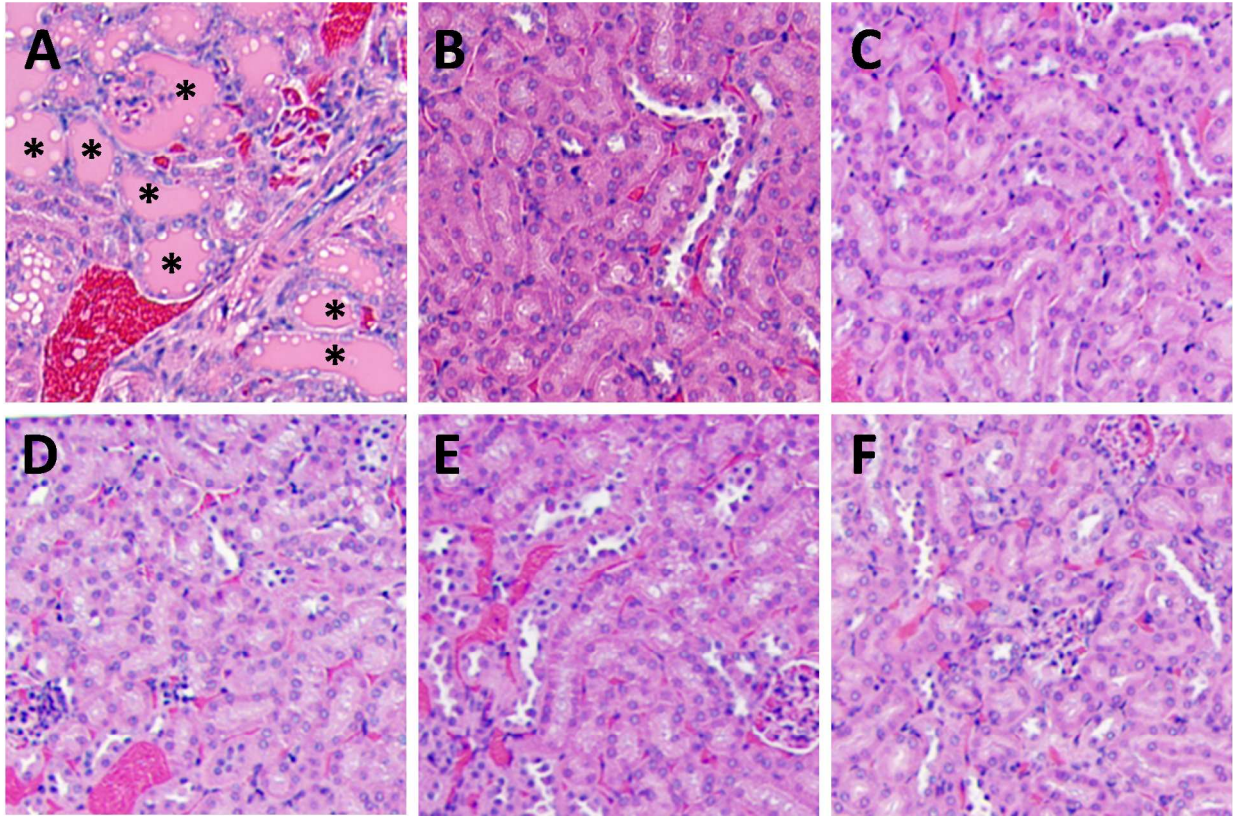


Figure S2

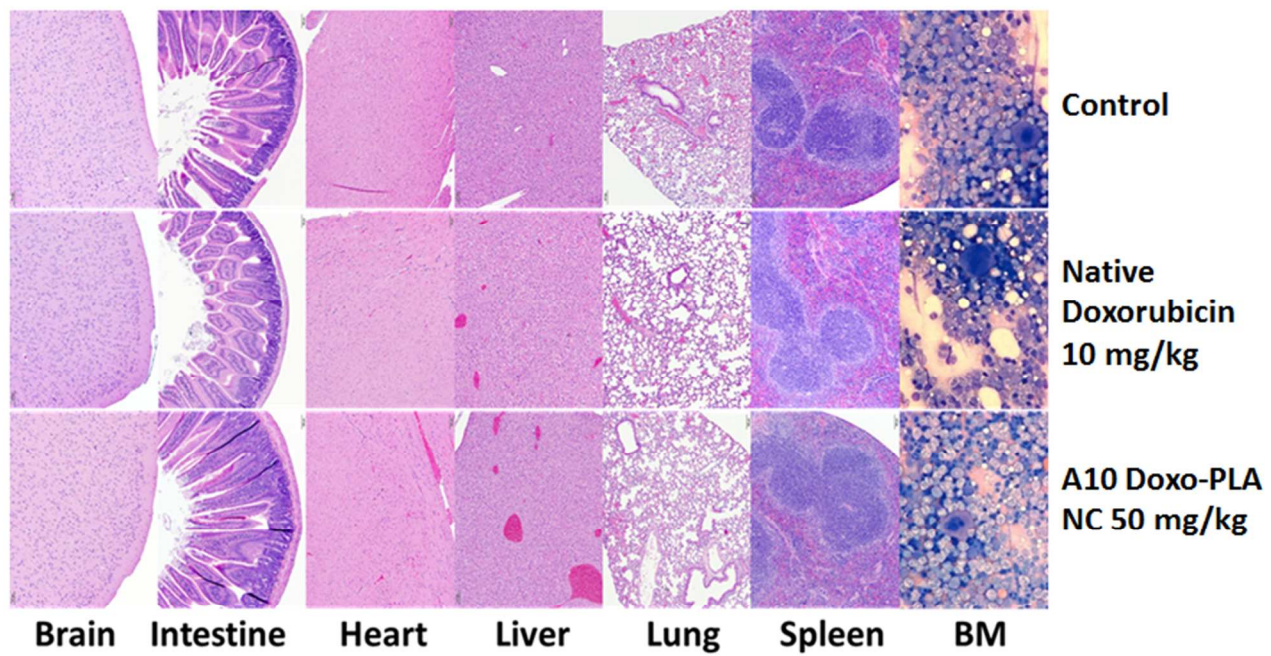


Figure S3

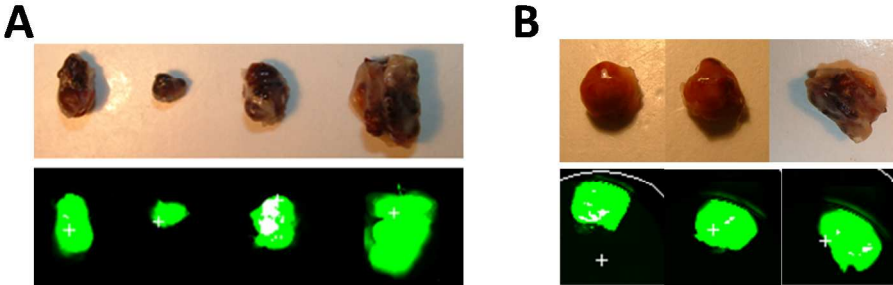


Figure S4

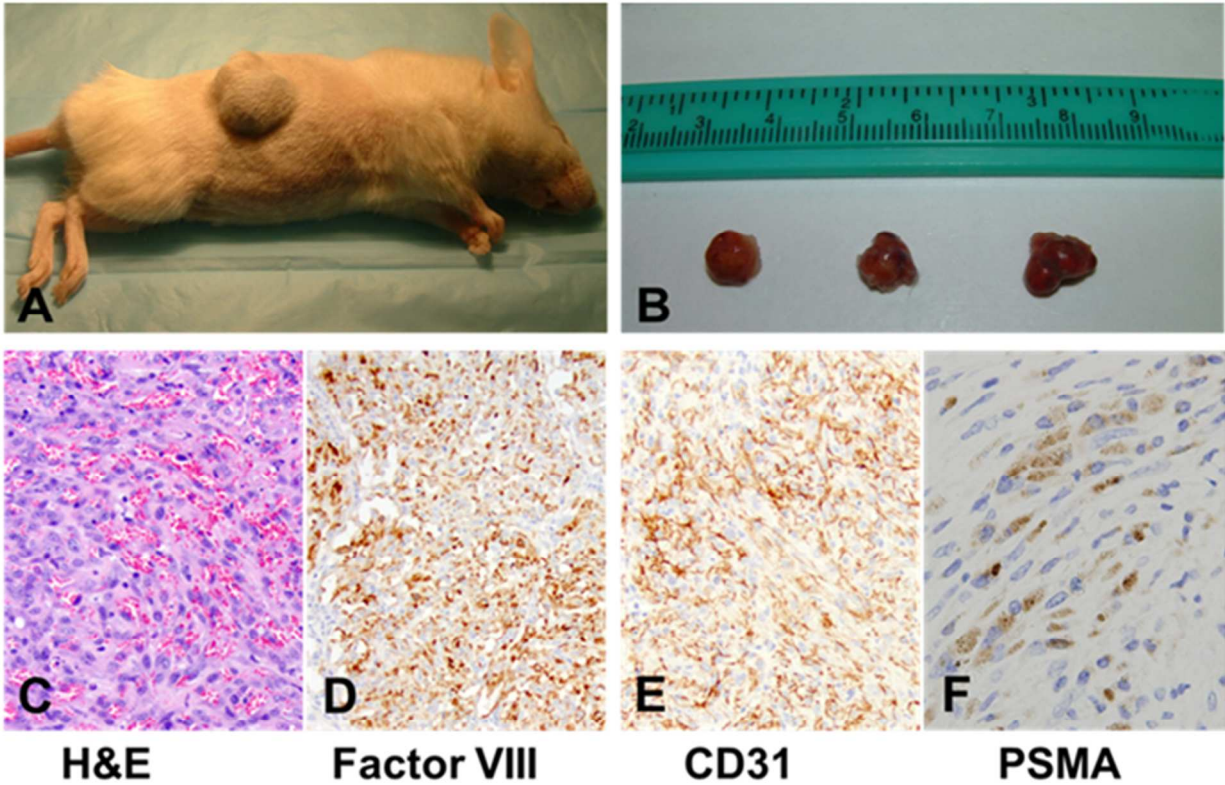
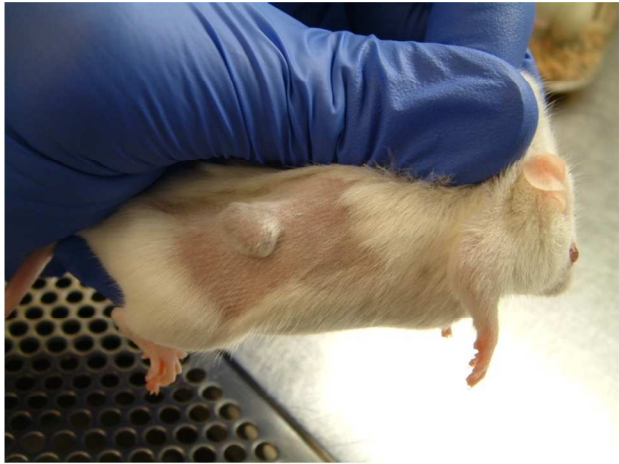
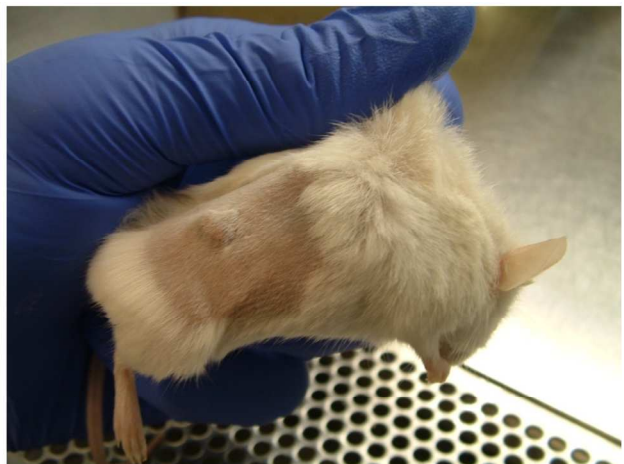


Figure S5



Day 0- Pretreatment



Day 7- Post-treatment