Nanoparticle PET/CT Imaging of Natriuretic Peptide Clearance Receptor in Prostate Cancer

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SUPPLEMENTAL INFORMATION

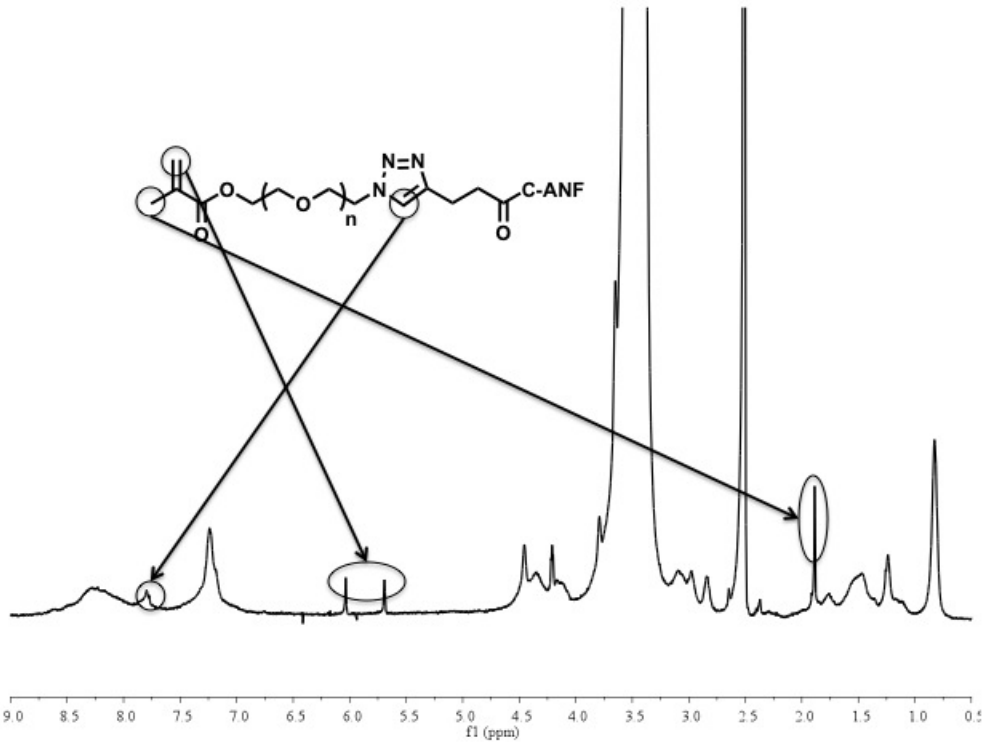

Figure S1. NMR of CANF-PEG-Methacryate monomer.

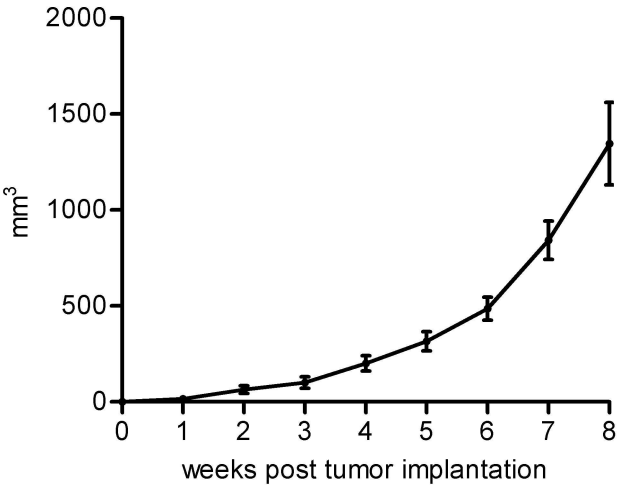

Figure S2. CWR22 tumor growth curve

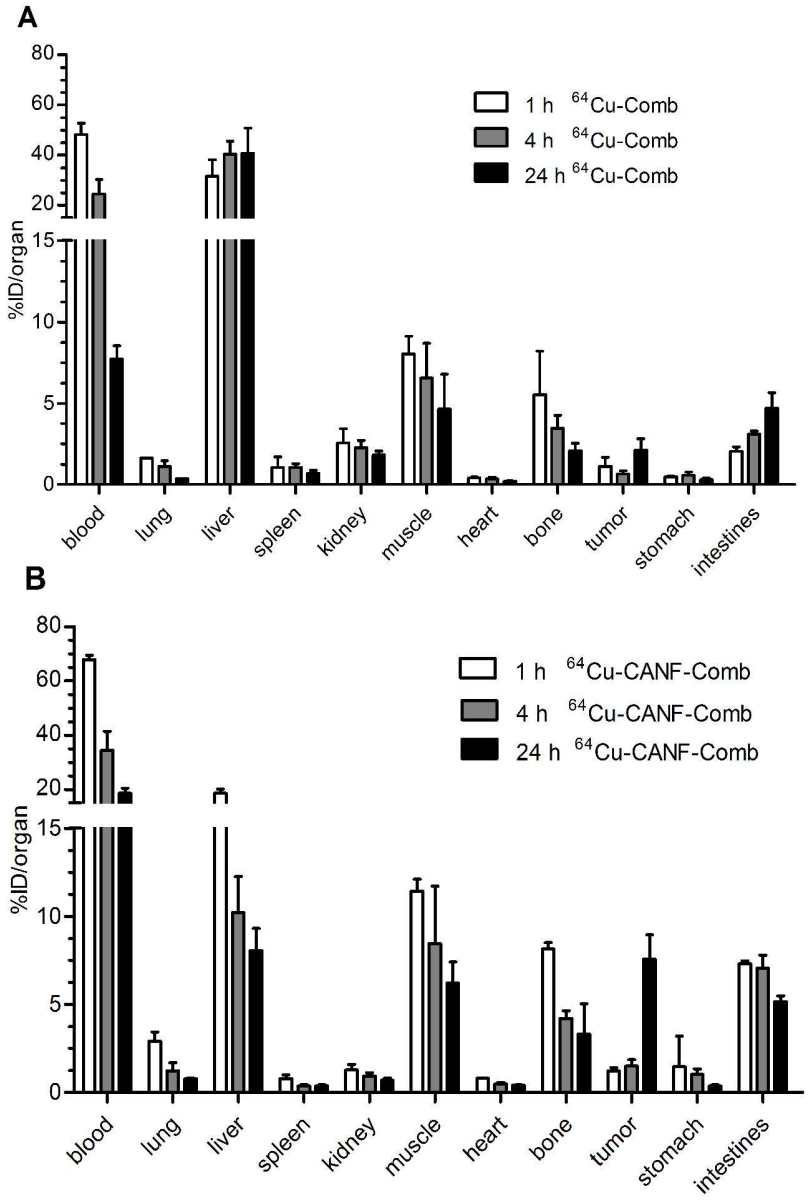

Figure S3. Biodistribution of ^{64}Cu-Comb and ^{64}Cu-CANF-Comb in CWR22 tumor model following intravenous injection (n=4/group) presented in %ID/organ. (A) ^{64}Cu-Comb showing low tumor accumulation but high liver uptake. (B) ^{64}Cu-CANF-Comb showing high tumor localization and superior pharmacokinetics relative to ^{64}Cu-Comb with high blood retention and low hepatic burden.

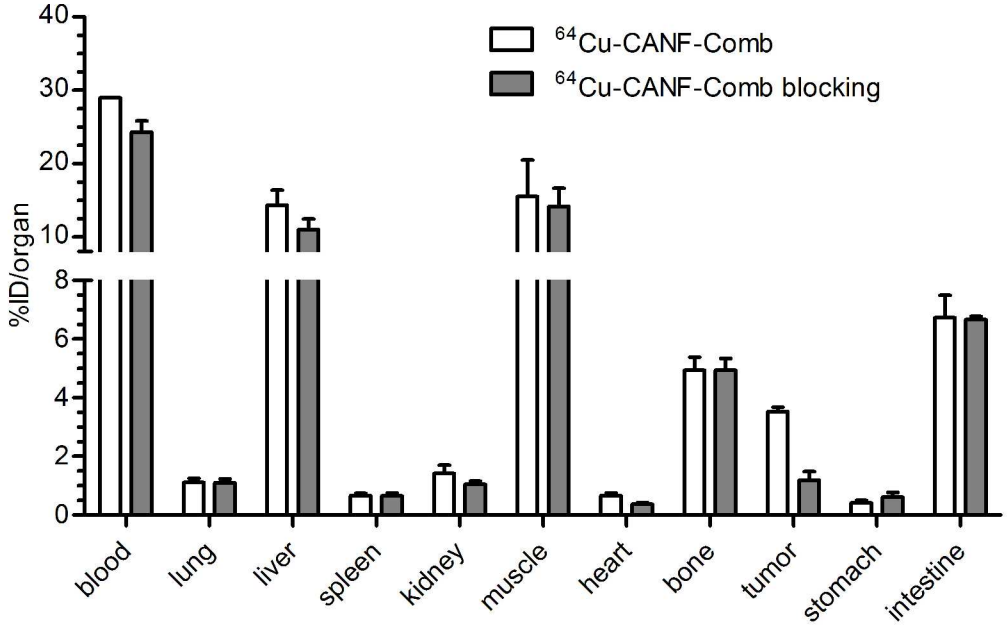

Figure S4. Biodistribution of ^{64}Cu-CANF-Comb and ^{64}Cu-CANF-Comb blocking in CWR 22 tumor model at 24 h post injection (n=4/group, blockade : ^{64}Cu-CANF-Comb = 100:1) presented in %ID/organ.

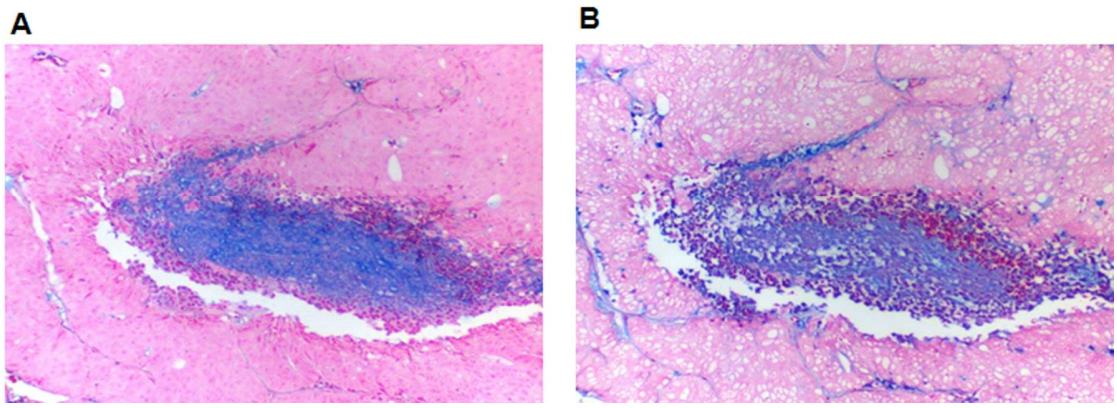

Figure S5. Immunohistochemical staining of CWR 22 tumor tissue showing the co-localization of NPRC receptor to endothelial cells. (A) Pocket of NPRC receptors (blue). (B) CD 31 positive endothelial cells (blue). Both panels are at 200x.

Table S1. Characterization data for nanoparticles

Nanoparticle	CANF-Comb	Control Comb
Size (DLS)	16 nm	22 nm
Zeta Potential	-1.1	-35
# of DOTAs (avg)	105	105
# of CANFs (avg)	35	0
M_n parent polymer*	205 kDa	220 kDa
PDI parent polymer*	1.20	1.25

* PMMA standards