Supporting Information

Formation of Platinum Nanocrystals on Silicon Nanotubes and Corresponding Anti-Cancer Activity *In Vitro*

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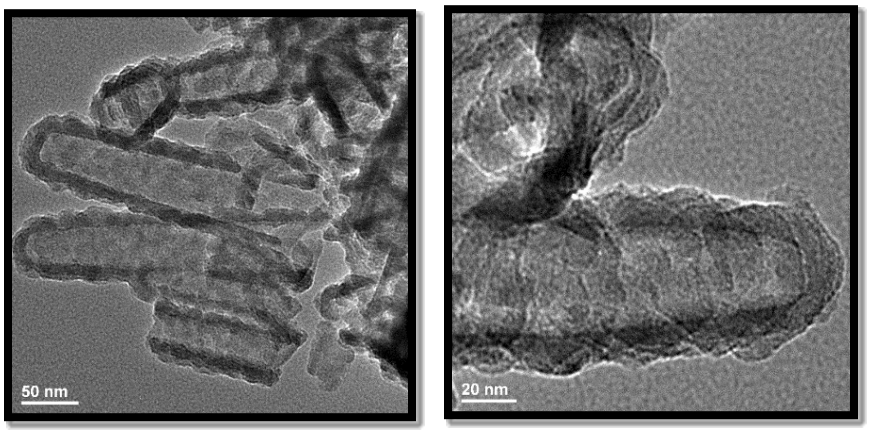

Figure S1. *Structural morphology of pSiNTs after functionalization with APTES.*

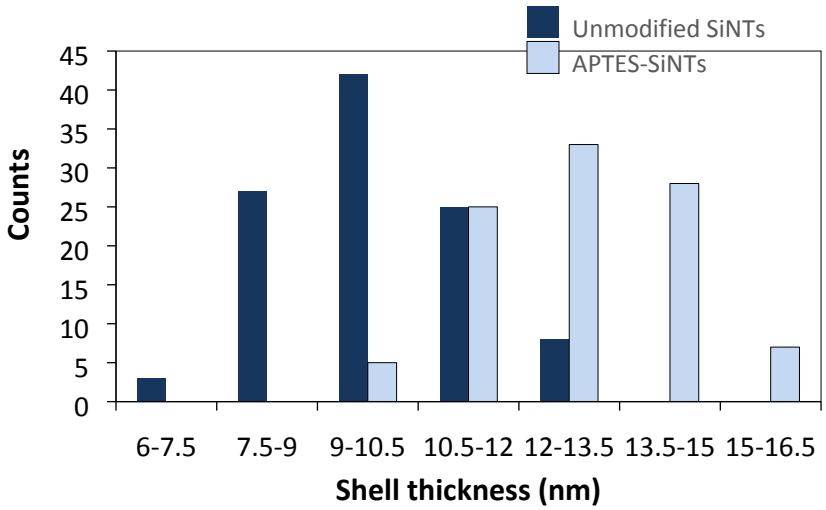

Figure S2. *Shell thickness of Unmodified pSiNTs and APTES-pSiNTs.*

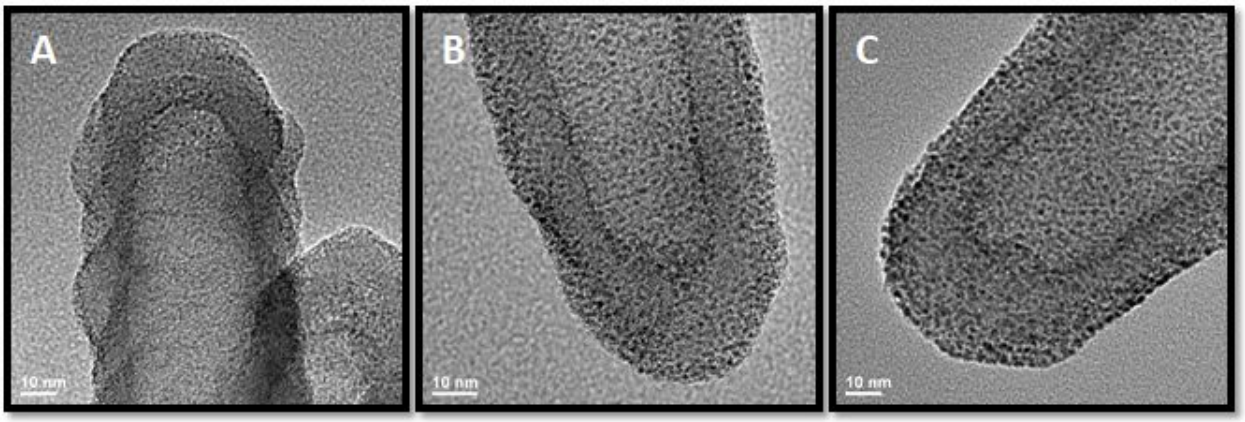

Figure S3. *Pt NCs-pSiNTs after incubation in different K_2PtCl_4 salt concentrations and time A) K_2PtCl_4 = 0.5 mM (4 h), B) K_2PtCl_4 = 0.5 mM (24 h), C) K_2PtCl_4 = 3.3 mM (24 h). Scale bar = 10 nm.*

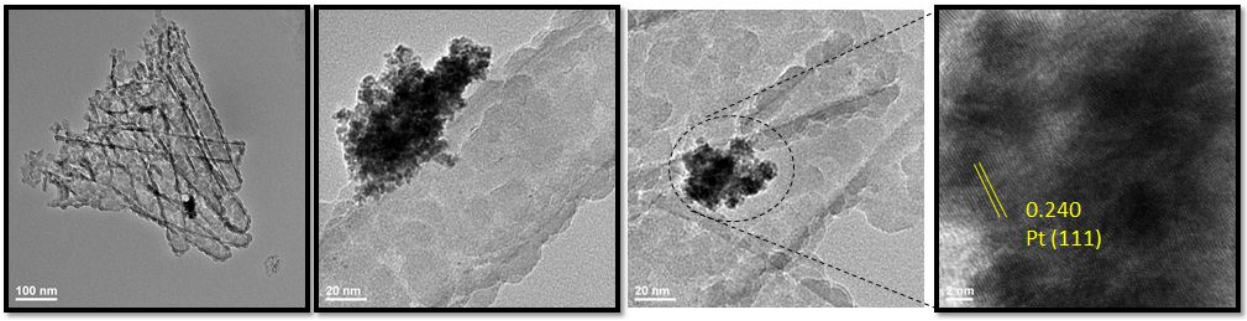

Figure S4. *Pt NCs formed on unmodified pSiNTs after 24 h.*

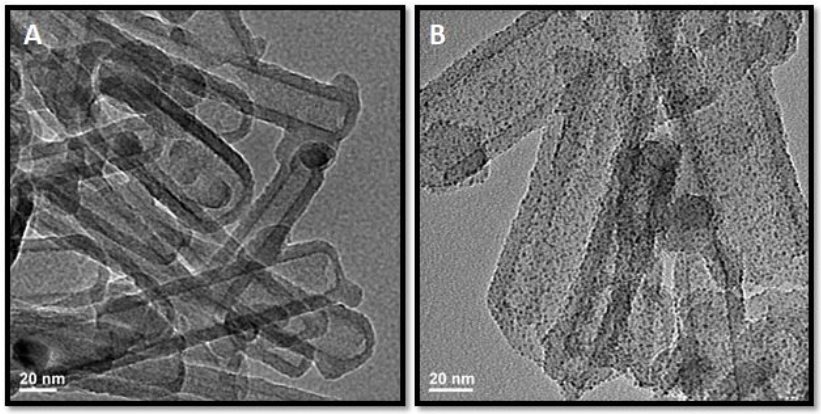

Figure S5*. Pt NCs formed on A) unmodified SiO_2 NTs and B) APTES-functionalized SiO_2 NTs.*

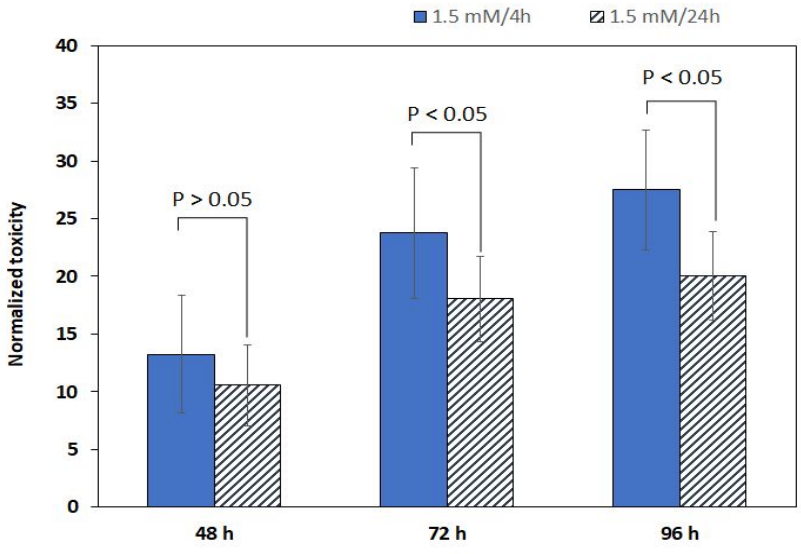

Figure S6. *Normalized toxicity based on wt% Pt.*

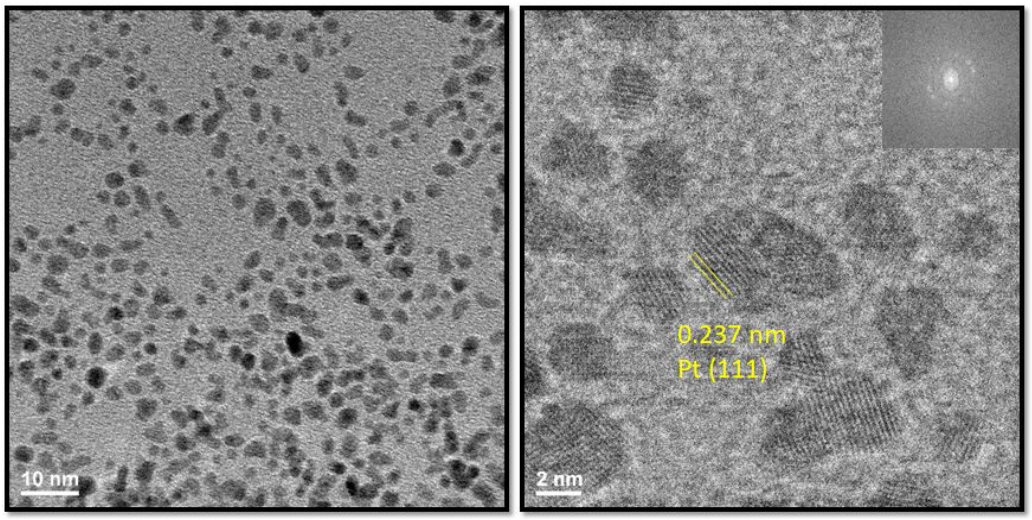

Figure S7. *Citrate-capped Pt NCs.*

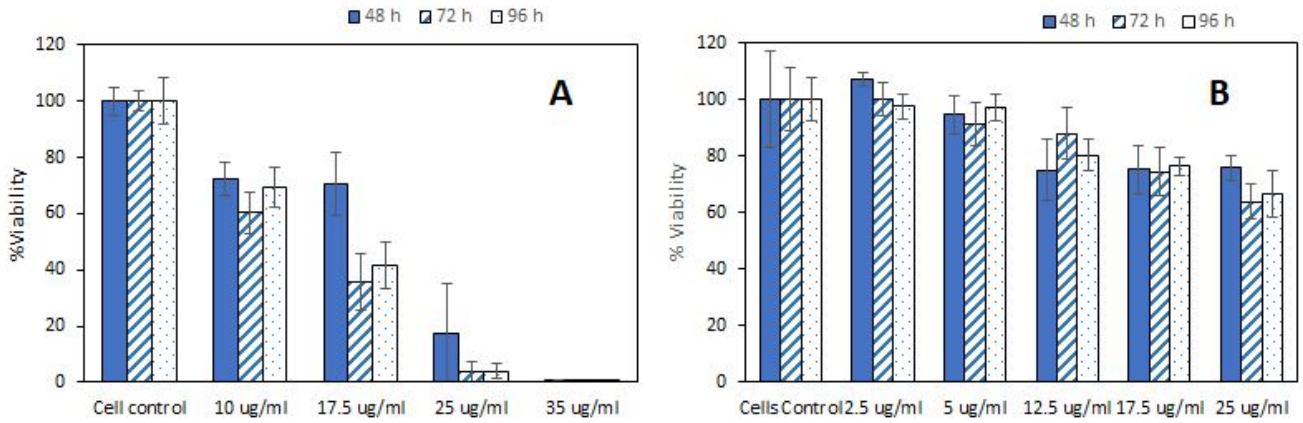

Figure S8. *Cytotoxicity of A) Pt NCs (3.5 ± 1.1 nm) and B) K_2PtCl_4 at different doses.*

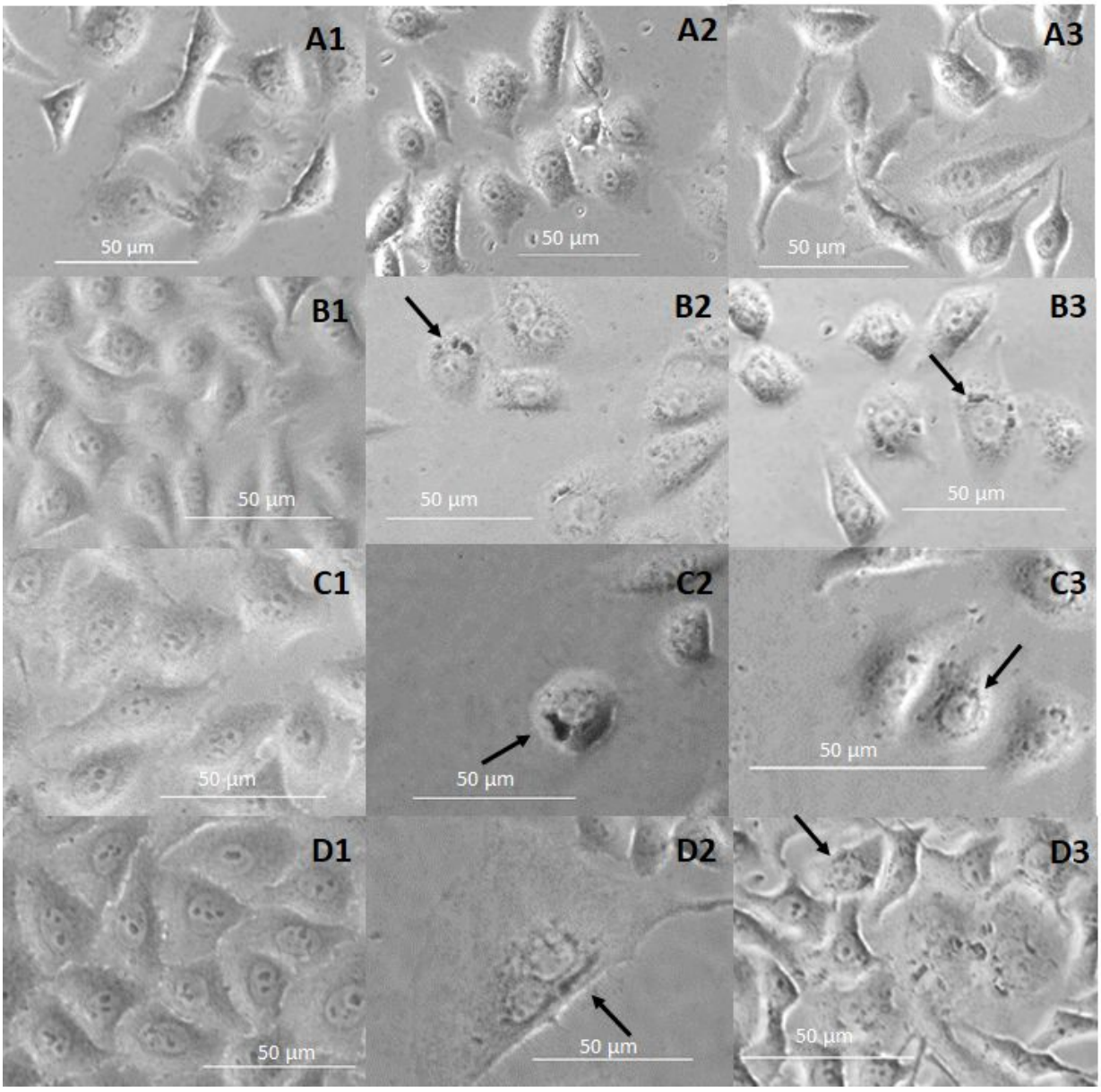

Figure S9. *Localization of Pt NCs-pSiNTs in HeLa cells after 4h (A1-A3), 24h (B1-B3), 48h (C1-C3) and 72h (D1-D3) under brightfield of fluorescence microscope (non-fluorescence method). A1-D1: Cell with no treatment; A2-D2: 1.5 mM/4h (30-35 %wt Pt) Pt NCs-pSiNTs; A3-D3: 1.5 mM/24h (40-45 %wt Pt) Pt NCs-pSiNTs.*