Supplementary Materials for "Combining Portable Raman Probes with Nanotubes for Theranostic Applications", Ashwinkumar A. Bhirde, et al.



**Figure S1** Schematic showing cancer cell being treated with SWCNTs and MWCNTs dispersed in phospholipid PEG (PL-PEG-NH<sub>2</sub>) and later irradiated.



**Figure S2** A handheld Raman probe directly analyzing the aqueous nanotube dispersion showing a clear spectrum.



**Figure S3. Temperature profile of LP coated SWCNTs and MWCNTs** Aqueous dispersed SWCNTs and MWCNTs were irradiated using a handheld portable iRaman with a 785 nm laser probe at 300 mW.



Figure S4. TUNEL staining of SWCNT-PL-PEG-NH<sub>2</sub> and MWCNT-PL-PEG-NH<sub>2</sub> in 2D cell culture *in vitro*. OVCAR8 ovarian cancer cells treated with LP dispersed SWCNTs and MWCNTs for 3 hrs. TUNEL staining was done on non-irradiated cells in the presence of CNTs to detect apoptosis. (a, b) Cells did not show any green fluorescence indicating the aqueous dispersed CNTs did not prompt apoptosis in the absence of laser.