In vitro release

In vitro release study of Taxotere, DPL and YDPL was carried out using a dialysis bag method using phosphate buffer pH 7.4 with 0.2 % w/v tween 80 as release medium. The dialysis bag (MWCO 50 kD, Spectrum lab, USA) filled with 1 ml of DTX formulation was tied to the paddle of USP dissolution apparatus II (50 rpm, 37 °C). Samples were withdrawn at 0.5, 1, 2, 4, 8, 12 and 24 h and DTX content was analyzed by HPLC. As shown in Fig. S1, both DPL and YDPL showed nearly similar release of DTX over the period of 48 h. Taxotere solution showed complete release of DTX within first 2 h while liposomal formulation showed sustained release with <50 % DTX release in 48 h. However, complete release is expected in vivo due to degradation of liposomes. YSA coating has no significant impact on DTX release.

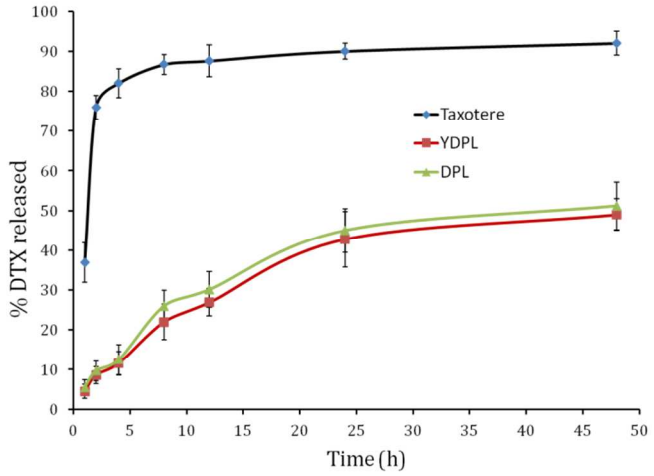

Fig. S1: In vitro release of Taxotere, DPL and YDPL in USP apparatus II using dialysis bag (MWCO 50 kD) in phosphate buffer pH 7.4 with 0.2 % w/v tween 80 at 37˚C (n=3).