Cell viability assay. B16F0 skin cancer cells were purchased from American Type Culture Collection (ATCC). Cells were plated at a density of 60 x 10^3 per well in a 24-well microplate. After overnight incubation, culture medium was replaced with fresh medium and the nanocapsules were added with different amount in the range from 0 to 500 μg/ml. Then the cells with the nanocapsules were incubated for 24 hrs. For cell viability assay, 20 μl MTS tetrazolium compound reaction solution [3-(4,5-dimethylthiazole-2-yl)-5-(3-carboxymethoxyphenyl)-2-(4-sulphonul)-2H-tetrazolium] was directly added to each sample. Then the samples were incubated for 90 min in the CO_2 incubator at 37 ^oC. Then the absorbance was measured at 492 nm using a FLUOstar Optima, BMG Lab Tech. Micro plate reader.

It is also important to assess the cytotoxicity of the PCL nanocapsules if they are used for biomedical applications. The viability of B16F0 skin cancer cells incubated with the nanocapsules with different concentrations was measured by the MTS assay. The results showed that more than 85% of the cells remained alive after 24 hrs of incubation (Figure 8).

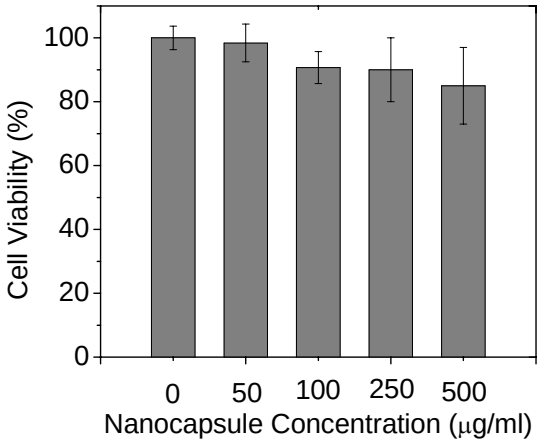

Figure S1. Viability of B16F0 skin cancer cells incubated with mesoporous PCL nanocapsules.

Delivery of siRNA with PCL nanocapsules

HepG2/EGFP cells, a stable EGFP expressing cell line was grown in DMEM, 10% FBS and supplemented with Penicillin/Streptomycin and G-418. 60,000 cells were seeded per well in a 24-well microplate and different concentrations (100, 200, 400, 600 ug/ml) of PCL nanoparticles pre-loaded with GFP-siRNA was incubated with the cells. After 24 hours, the excess nanoparticles were washed away with PBS. Further incubation of 24 hours was done before the cells were lysed and the amount of GFP was quantitated using a fluorescent microplate reader.

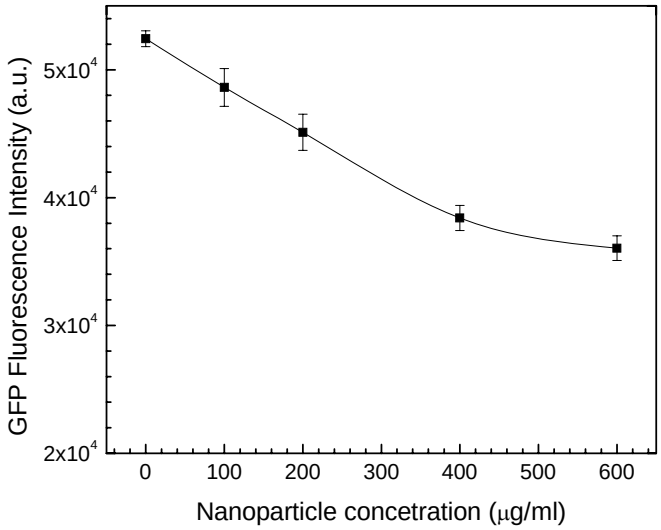

Figure S2. Delivery of siRNA by using PCL nanocapsules with different concentrations.