Supporting Information
nCVTs: A Hybrid Smart Tumour Targeting Platform

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- Already used in clinical trials[1]
- Preparation methods widely established[2]
- Easily functionalized[3]

- Relatively low cellular uptake
- Increased clearance rates from MPS[4]
- PEGylated liposomes are affected by ABC[5]
- Risk of immunogenicity such as CARPA[6]
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- Improved cellular uptake[7]
- Smart Targeting[8]
- Reduced immunogenicity[9]

- Difficultly in drug loading[10]
- New & relatively untested

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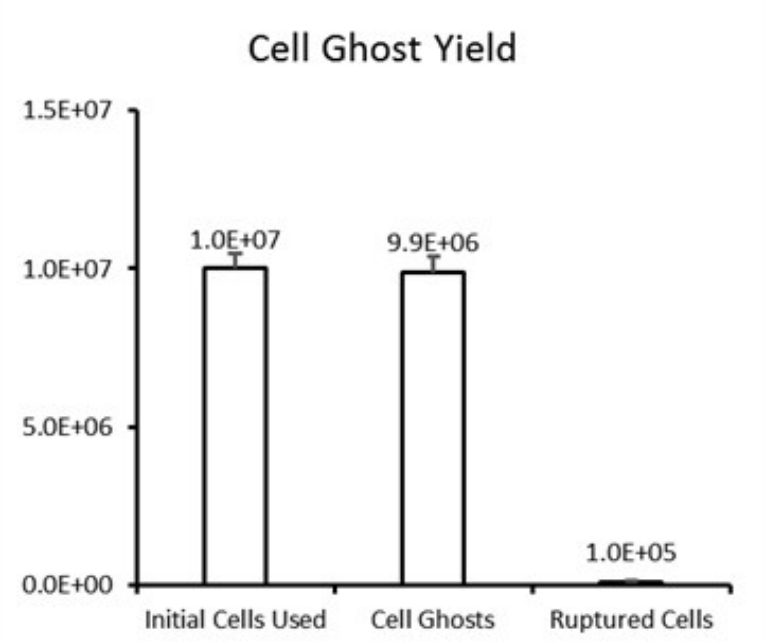

Figure S1. Indicative cell ghost yield from cell emptying procedure used.

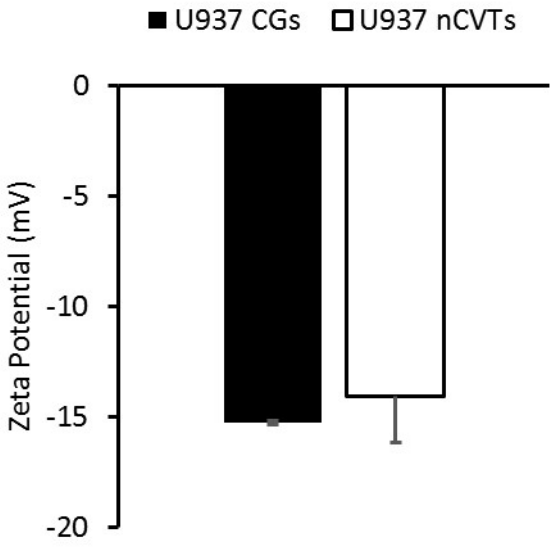

Figure S2. Zeta Potential of U937 CGs and nCVTs.

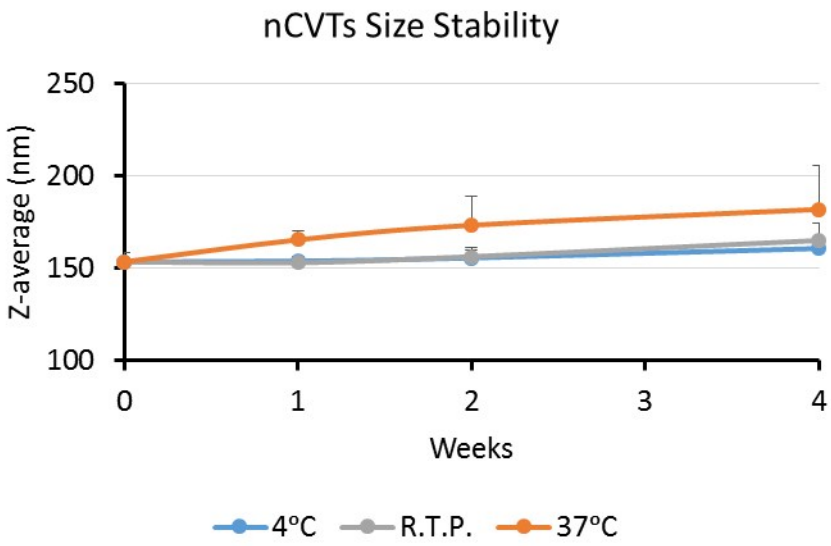

Fig S3. Stability of nCVTs in terms of Z-average size over 4 weeks at different storage temperatures.

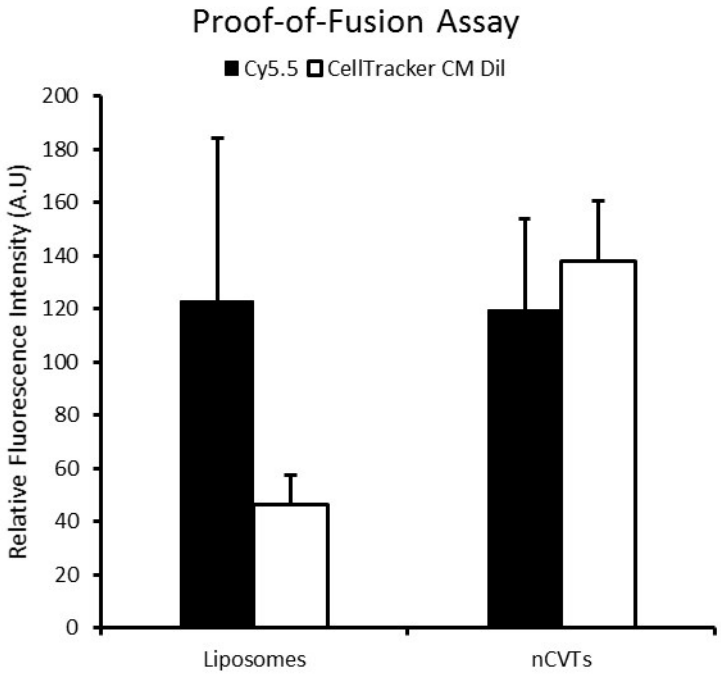

Fig. S4. Supporting experiment demonstrating proof of fusion between cellular membranes from CGs and liposomes. Lipid components of liposomes were labelled with Cyanine 5.5 NHS monoester and biotinylated lipids. Cell Ghosts were labelled with CellTracker CM DIL dye. Liposomes and nCVTs were purified by use of magnetic streptavidin beads (Dynabeads MyOne Streptavidin) where only biotinylated samples are assayed. The fusion of lipids and cell membranes yield elevated fluorescence from both Cy5.5 and CellTracker dyes, whereas liposomes only yield elevated Cy5.5 fluorescence. Should fusion have failed to occur, non-biotinylated cell ghosts would be removed and no fluorescence from CellTracker CM Dil would be observed.