

Vectorization of ultrasound-responsive nanoparticles in placental mesenchymal stem cells for cancer therapy

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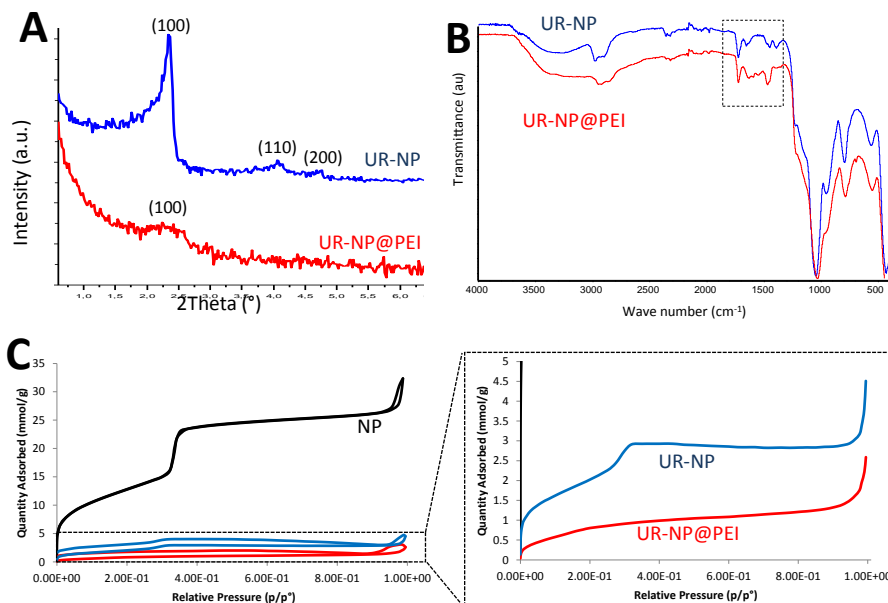


Figure S1. Characterization of Mesoporous Silica Nanoparticles: Small Angle XRD pattern (A), FTIR spectra (B) and N₂ adsorption-desorption isotherms (C).

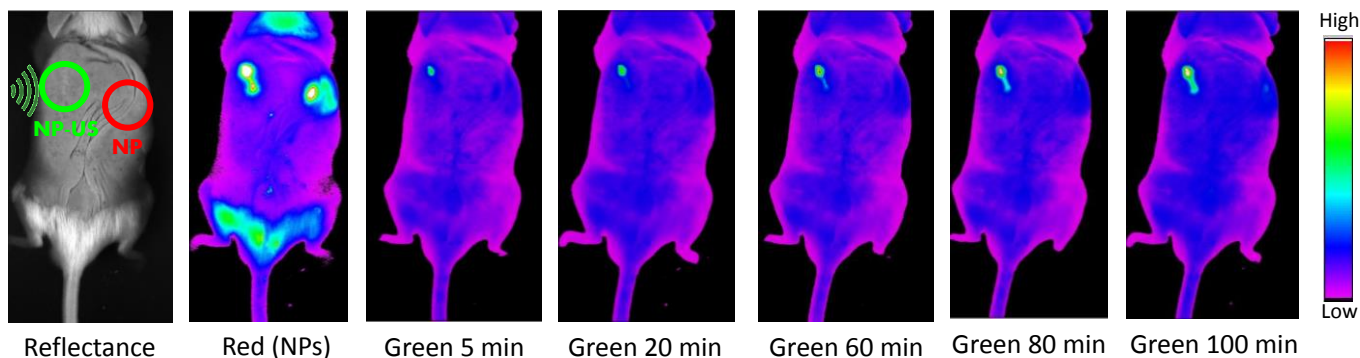


Figure S2. *In vivo* fluorescence of subcutaneously injected UR-NPs@PEI (red channel) and calcein produced after calcein-AM release at different times after ultrasound application (1 MHz, 3 W cm⁻², 10 min) (green channel).

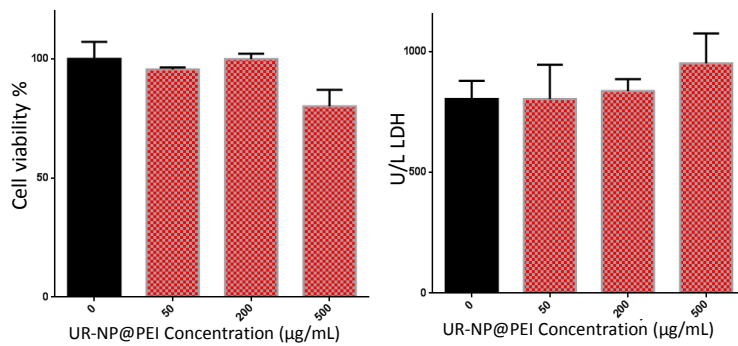


Figure S3. Cytotoxicity assay in DMSCs of UR-NP@PEI at different concentrations after 24 h measured by MTS reduction (left); LDH release by DMSCs with internalized UR-NP@PEI at different concentrations after 24 h. (Data presented as Mean \pm SD, N = 3).

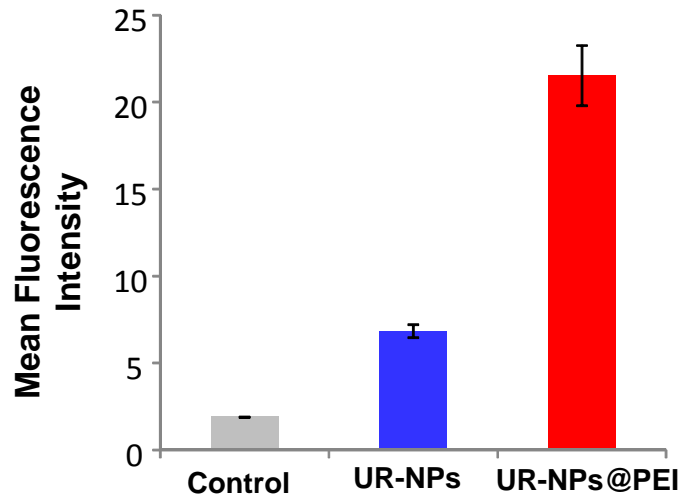


Figure S4. Flow-cytometry data regarding UR-NPs and UR-NPs@PEI uptake shown as Mean Fluorescence Intensity (a.u.). (Data presented as Mean \pm SD, N = 3).

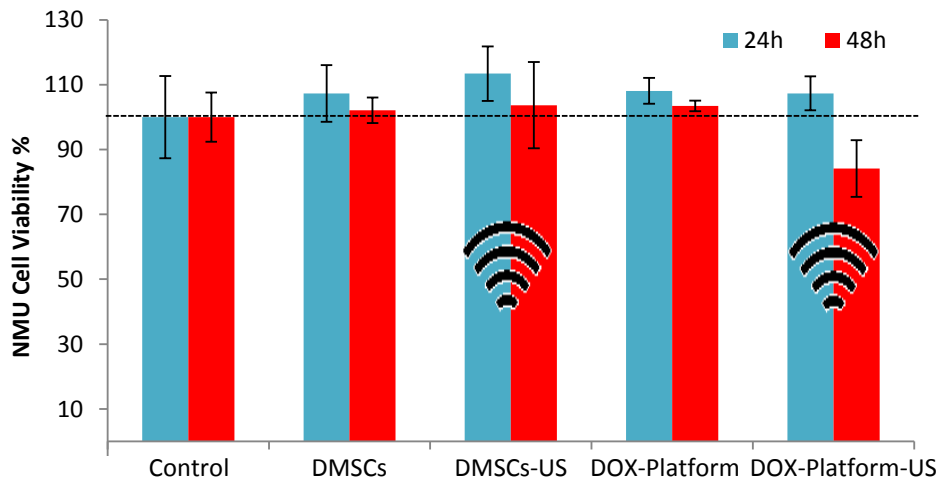


Figure S5. Cytotoxicity assay of NMU cells after co-culture with DMSCs or with DOX-Platform (with or without Ultrasound application) measured by Alamar Blue test. DMSCs to NMU ratio was 1:5. (Data are Means \pm SD, N = 3).