

Supplemental information

# Mesoporous Silica Nanoparticles for pH-responsive delivery of Iridium Metallotherapeutics and Treatment of Glioblastoma Multiforme

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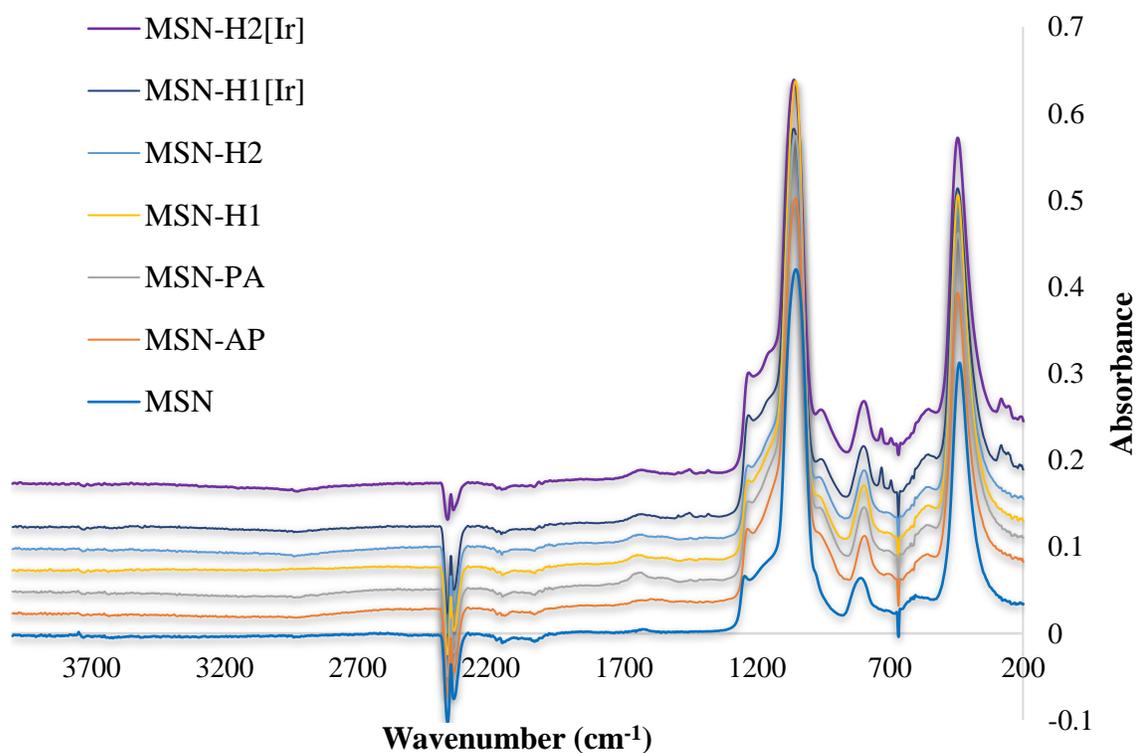


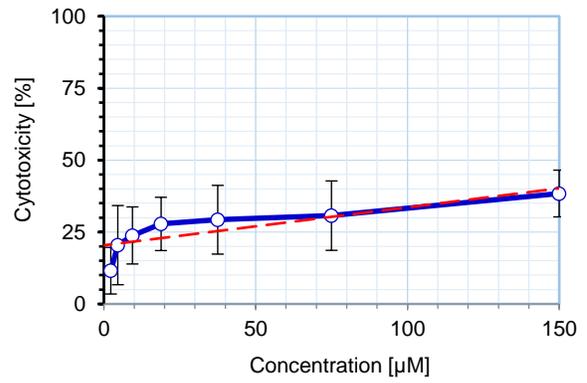
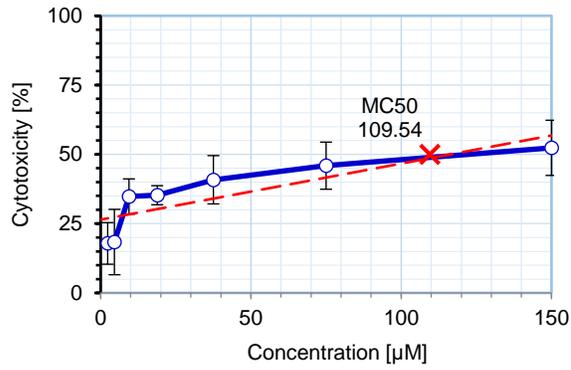
Figure S1. FTIR spectra of the prepared materials

Cell line:

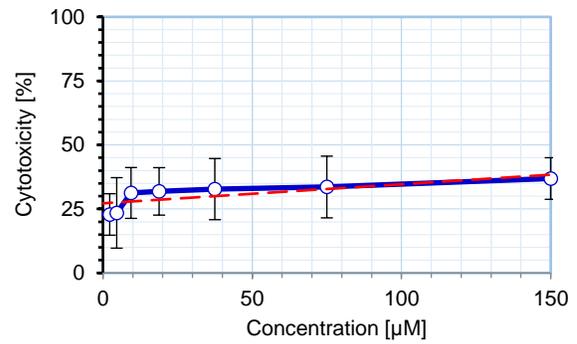
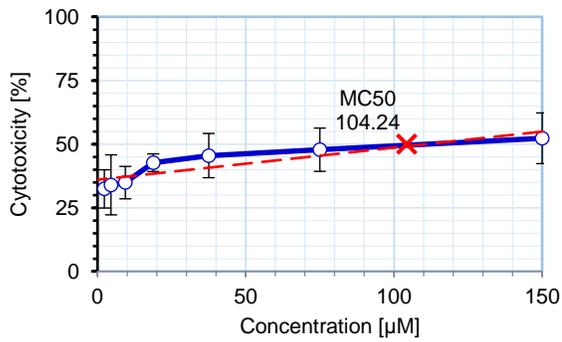
**U251**

**MRC-5**

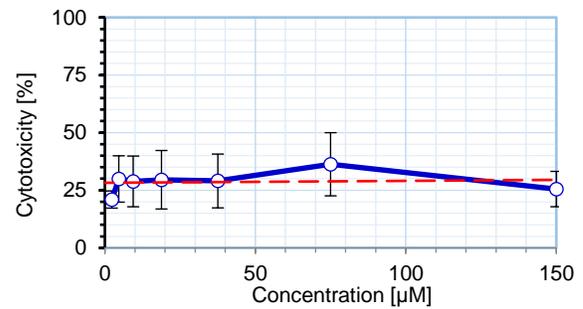
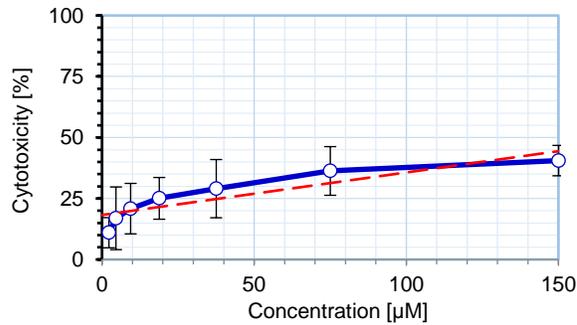
**MSN-H1[Ir] pH 5**



**MSN-H1[Ir] pH 7.4**



**MSN-H1[Ir] Medium**



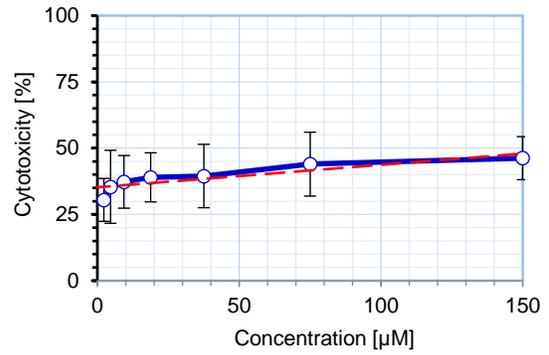
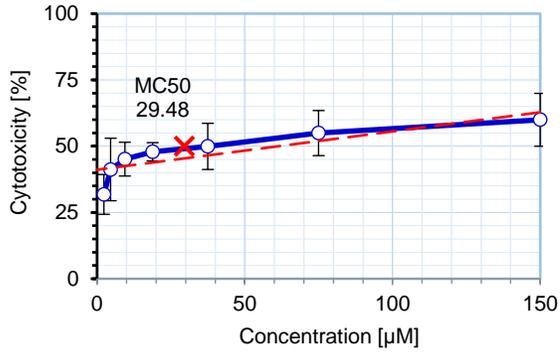
**Figure S2.** Cytotoxicity of MSN-H1[Ir] against U251 and MRC-5 cells

Cell line:

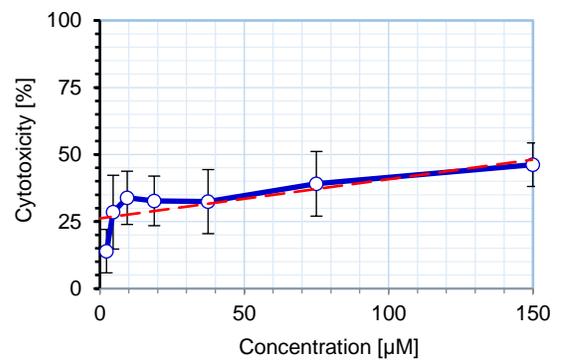
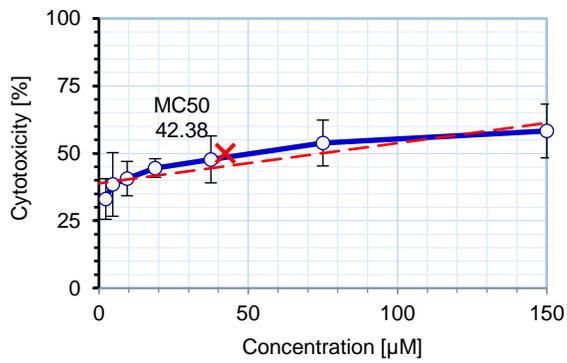
U251

MRC-5

MSN-H2[Ir] pH 5



MSN-H2[Ir] pH 7.4



MSN-H2[Ir] Medium

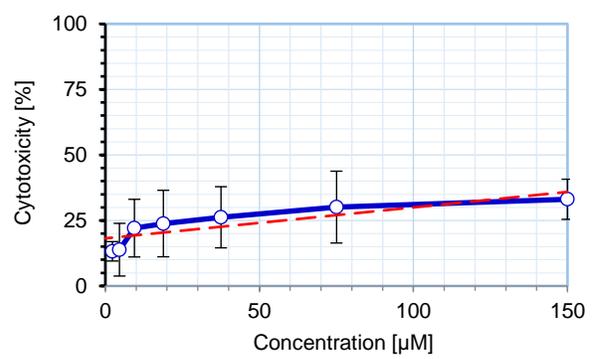
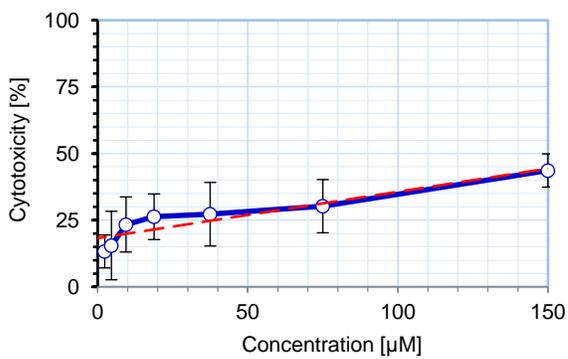
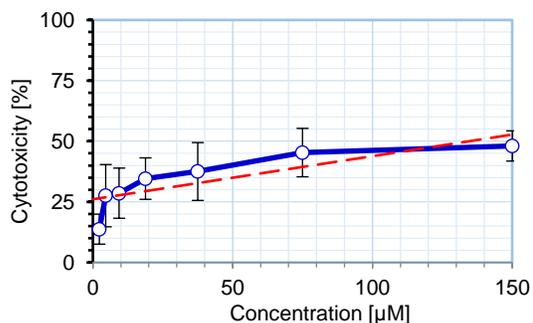


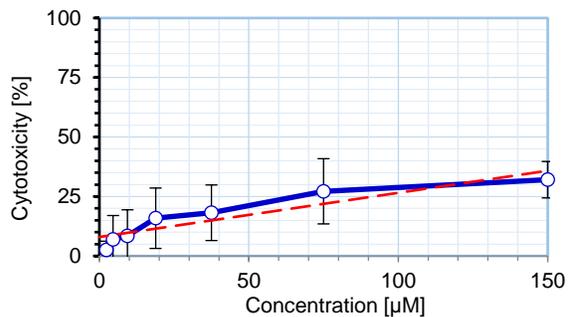
Figure S3. Cytotoxicity of MSN-H2[Ir] against U251 and MRC-5 cells

Cell line:

U251



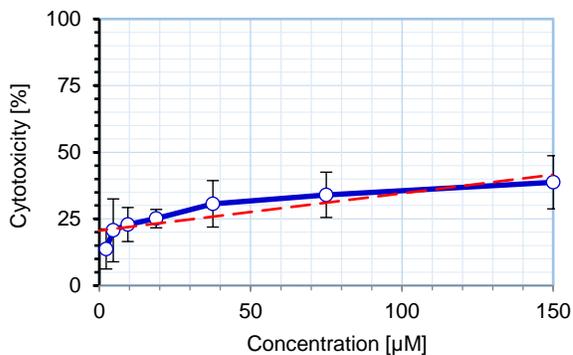
MRC-5



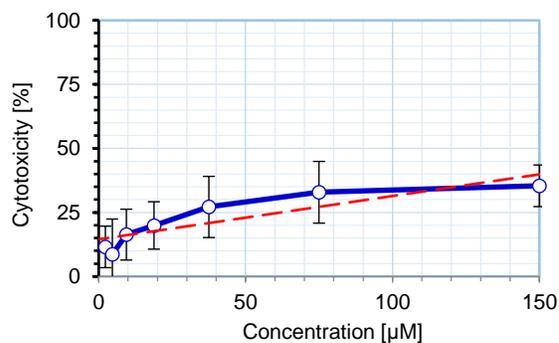
**Figure S4.** Cytotoxicity of (Pentamethylcyclopentadienyl)iridium(III) chloride dimer ( $[\text{Ir}]_2$ ), with stock solution prepared in DMSO, against U251 and MRC-5 cells

Cell line:

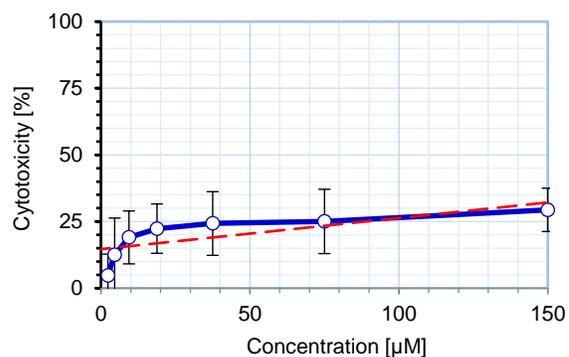
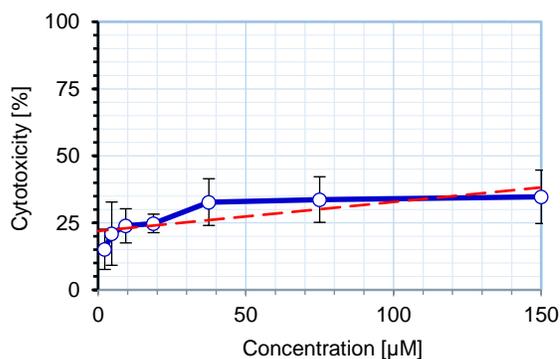
U251



MRC-5



MSN pH 7.4



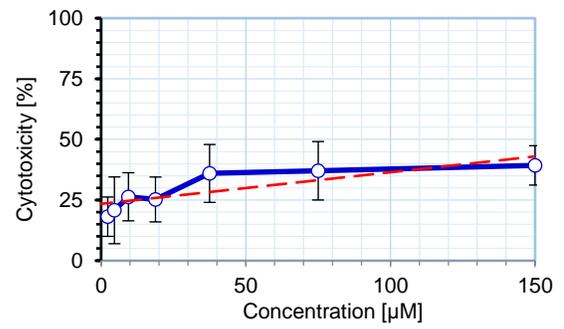
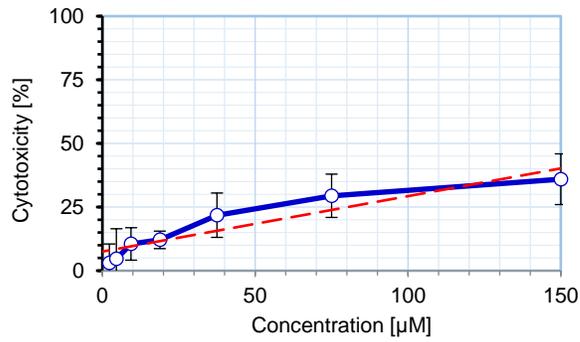
**Figure S5.** Cytotoxicity of MSN against U251 and MRC-5 cells

Cell line:

U251

MRC-5

MSN-H1 pH 5



MSN-H1 pH 7.4

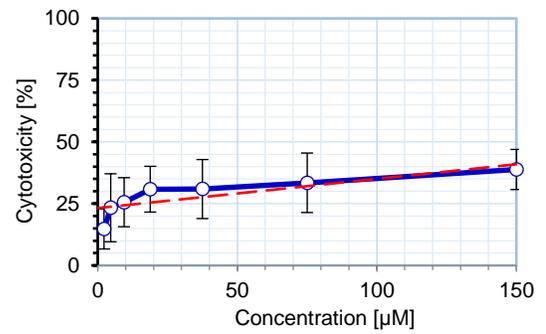
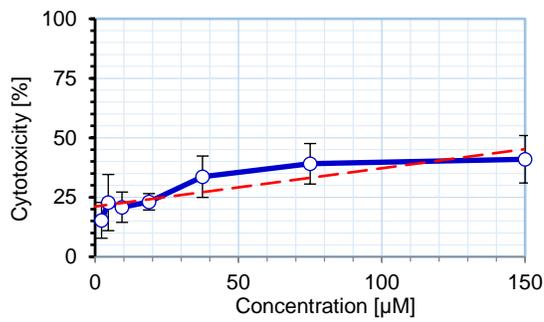


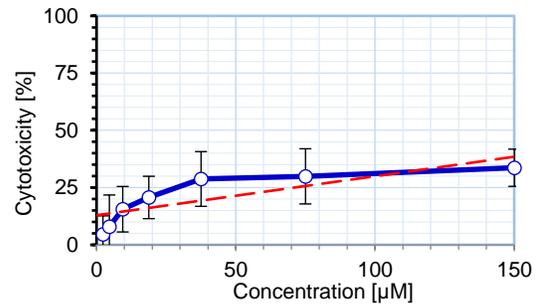
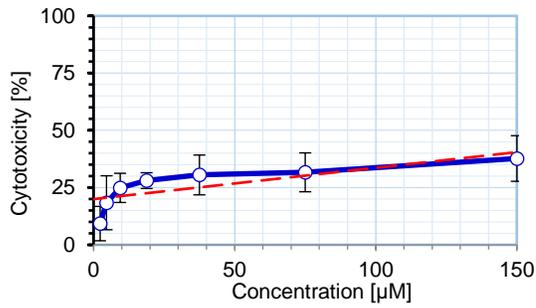
Figure S6. Cytotoxicity of MSN-H1 against U251 and MRC-5 cells

Cell line:

U251

MRC-5

MSN-H2 pH 5



MSN-H2 pH 7.4

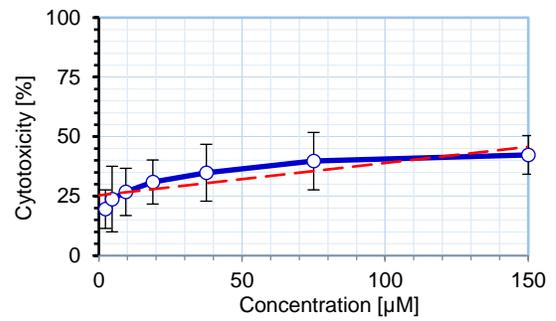
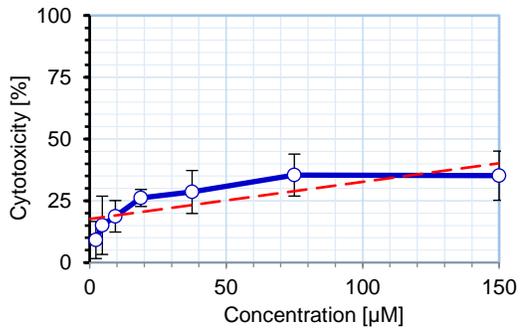


Figure S7. Cytotoxicity of MSN-H2 against U251 and MRC-5 cells