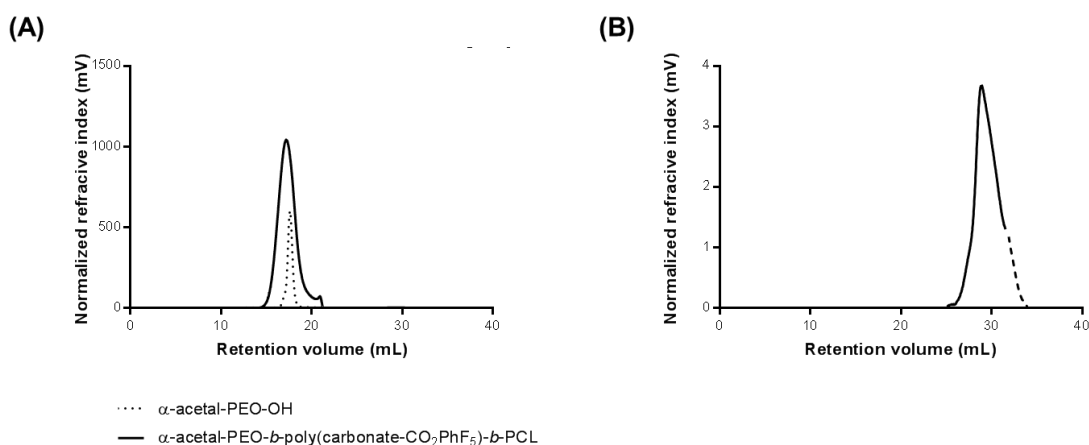# Supplementary information – Hybrid Gd^{3+}/cisplatin cross-linked polymer nanoparticles enhance platinum accumulation and formation of DNA adducts in glioblastoma cell lines

(A)

(B)

···· α-acetal-PEO-OH

— α-acetal-PEO-*b*-poly(carbonate-CO$_2$PhF$_5$)-*b*-PCL

Fig. 1: SEC chromatograms of: **(A)** the synthesized α-acetal-PEO-OH and the triblock copolymer α-acetal-PEO-*b*-poly(carbonate-CO$_2$PhF$_5$)-*b*-PCL in THF, and **(B)** the functionalized tribloc copolymer α-acetal-PEO-*b*-poly(carbonate-spacer-COOH)-*b*-PCL in DMF

The SEC chromatogram (B) of the triblock copolymer after functionalization was recorded in DMF. Due to the relatively low molecular weight of the synthesized copolymer, the end of the curve was overlapped by the injection peak, an artifact that is typical of this characterization technique. For clarity purpose, the end of the curve was therefore represented by a dotted line.

Table 1 : Impact of the cisplatin to carboxylate ratio on the drug-loading content and mean size of the formulated nanoparticles for a 24-hour formulation

(provided data arise from one representative experiment)

Cisplatin to carboxylate ratio (mol:mol)	Drug-loading content (wt%)	Mean size (nm)
1:1	4.12 ± 0.5	117.4 ± 42.1
5:1	20.0 ± 2.5	124.6 ± 56.8

Table 2 : Impact of the duration of the coordination reaction on the drug-loading content and mean size of the formulated nanoparticles

(provided data arise from one representative experiment)

(A) formulation with an equimolar cisplatin to carboxylate ratio:

Duration of the coordination reaction (hours)	Drug-loading content (wt%)	Mean size (nm)
24	4.12 ± 0.5	117.4 ± 42.1
48	4.03 ± 3.4	110.3 ± 45.7
72	7.12 ± 1.2	112.4 ± 57.0
96	15.6 ± 2.3	97.2 ± 36.1

(B) formulation with a 5:1 (mol:mol) cisplatin to carboxylate ratio:

Duration of the coordination reaction (hours)	Drug-loading content (wt%)	Mean size (nm)
24	20.0 ± 2.5	124.6 ± 56.8
48	31.0 ± 1.9	125.8 ± 49.6
72	45.2 ± 3.45	133.9 ± 57.8
96	59.0 ± 1.0	139.6 ± 48.5