

Supplementary Materials: Metallo-Liposomes of Ruthenium Used as Promising Vectors of Genetic Material

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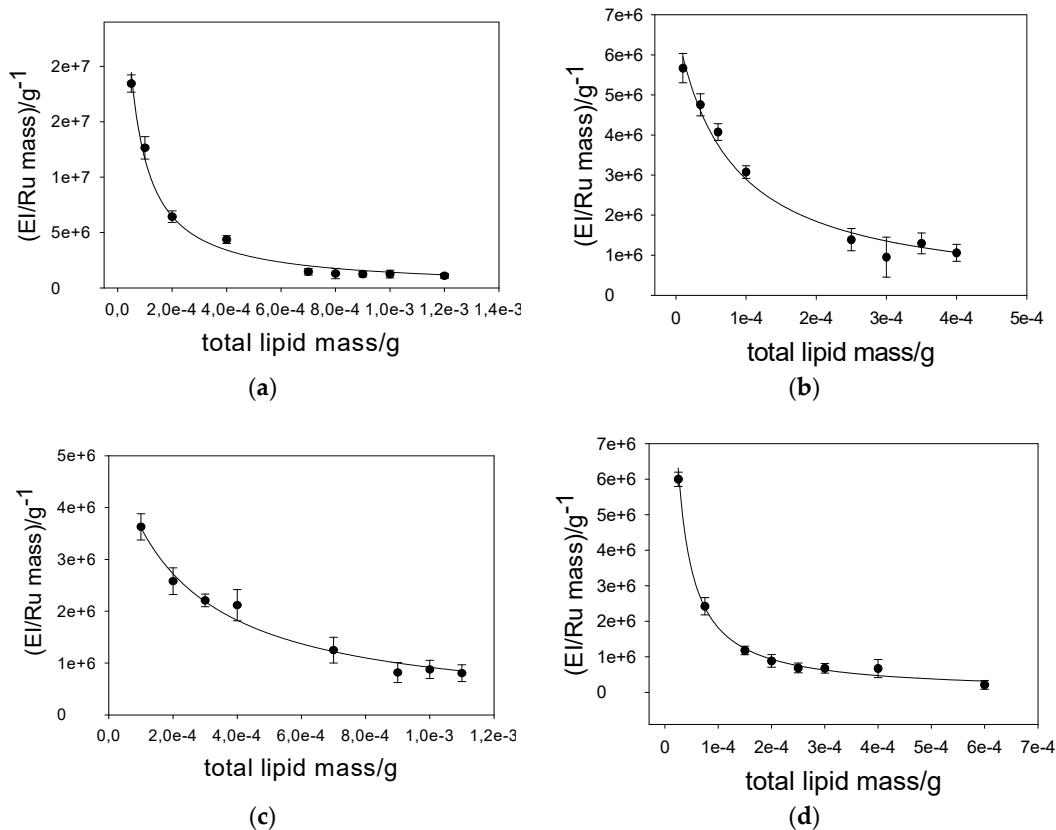


Figure S1. Plot of the relative fluorescence intensity versus the total lipid mass at different α values. RuC11C11: A) $\alpha=0.2$ and B) $\alpha=0.8$. RuC19C19: C) $\alpha=0.2$ and D) $\alpha=0.8$. Lines show the best fit obtained by using equation 7.

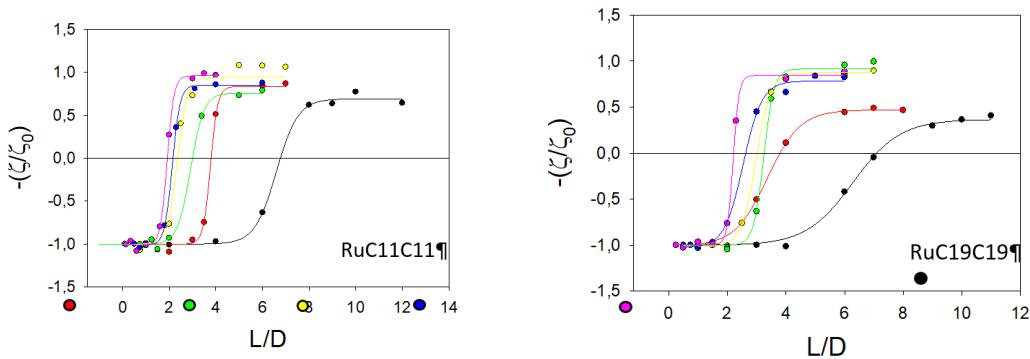


Figure S2. Plot of the relative zeta potential (ζ and ζ_0 being the zeta potential values in the presence and absence of liposome) versus the L/D ratio for different α values: (●) $\alpha = 0.2$, (●) $\alpha = 0.4$, (●) $\alpha = 0.5$, (●) $\alpha = 0.6$, (●) $\alpha = 0.7$ y (●) $\alpha = 0.8$.

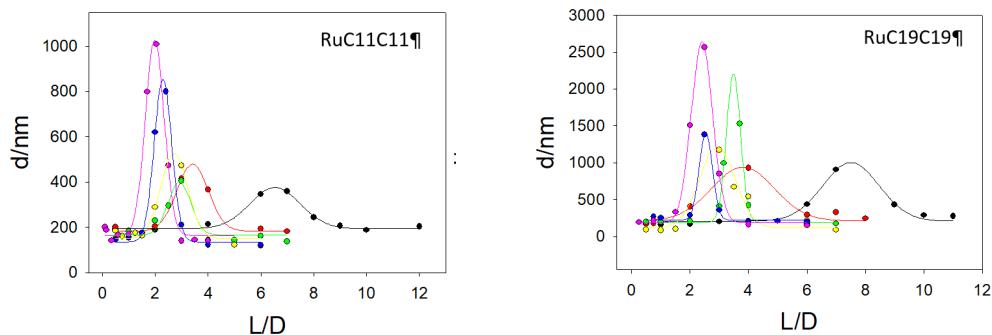


Figure S3. Plot of the lipoplex diameter (nm) versus the L/D ratio for different α values: (●) $\alpha = 0.2$, (●) $\alpha = 0.4$, (●) $\alpha = 0.5$, (●) $\alpha = 0.6$, (●) $\alpha = 0.7$ y (●) $\alpha = 0.8$.

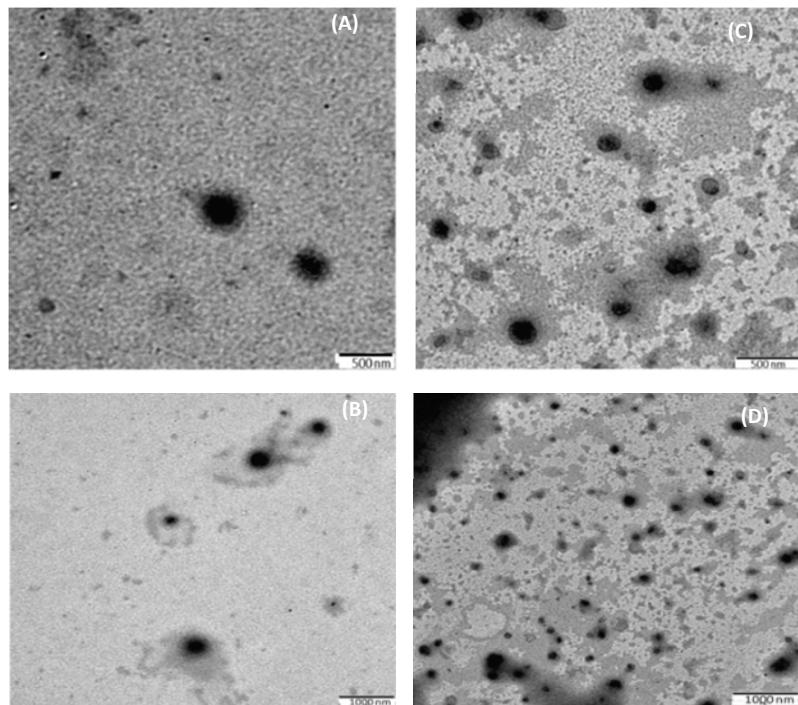


Figure S4. TEM images of RuC11C11- and RuC19C19-liposomes (A and B, respectively) and RuC11C11- and RuC19C19-lipoplexes (C and D, respectively). A and B: $\alpha = 0.2$, C and D: $\alpha = 0.2$ $L/D=11$. $[DNA]=2.1 \times 10^{-6} \text{ mol dm}^{-3}$.

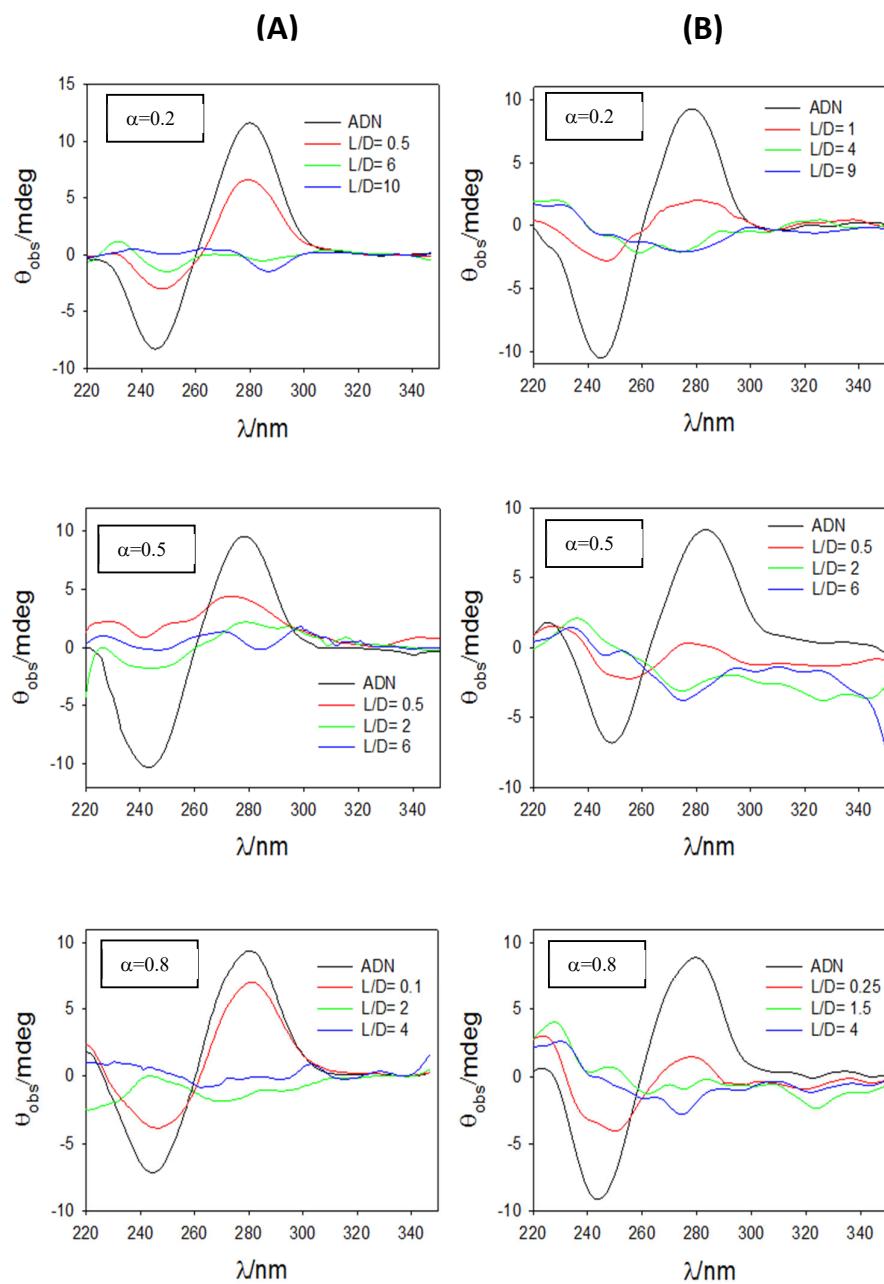


Figure S5. CD spectra of DNA ($[\text{DNA}] = 8.1 \times 10^{-5} \text{ mol dm}^{-3}$) in the presence and absence of RuC11C11-liposomes (A) and RuC19C19-liposomes (B) at different α values.

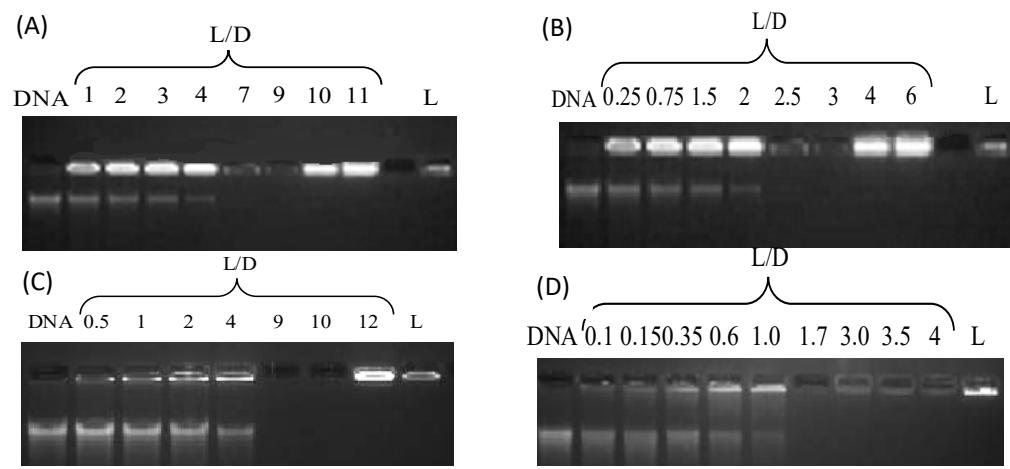


Figure S6. Agarose gel electrophoresis of free DNA, free liposomes (L) and lipoplexes at different α and L/D values. RuC11C11 lipoplexes at $\alpha = 0.2$ (**A**) and $\alpha = 0.8$ (**B**); and RuC19C19 lipoplexes at $\alpha = 0.2$ (**C**) and $\alpha = 0.8$ (**D**).

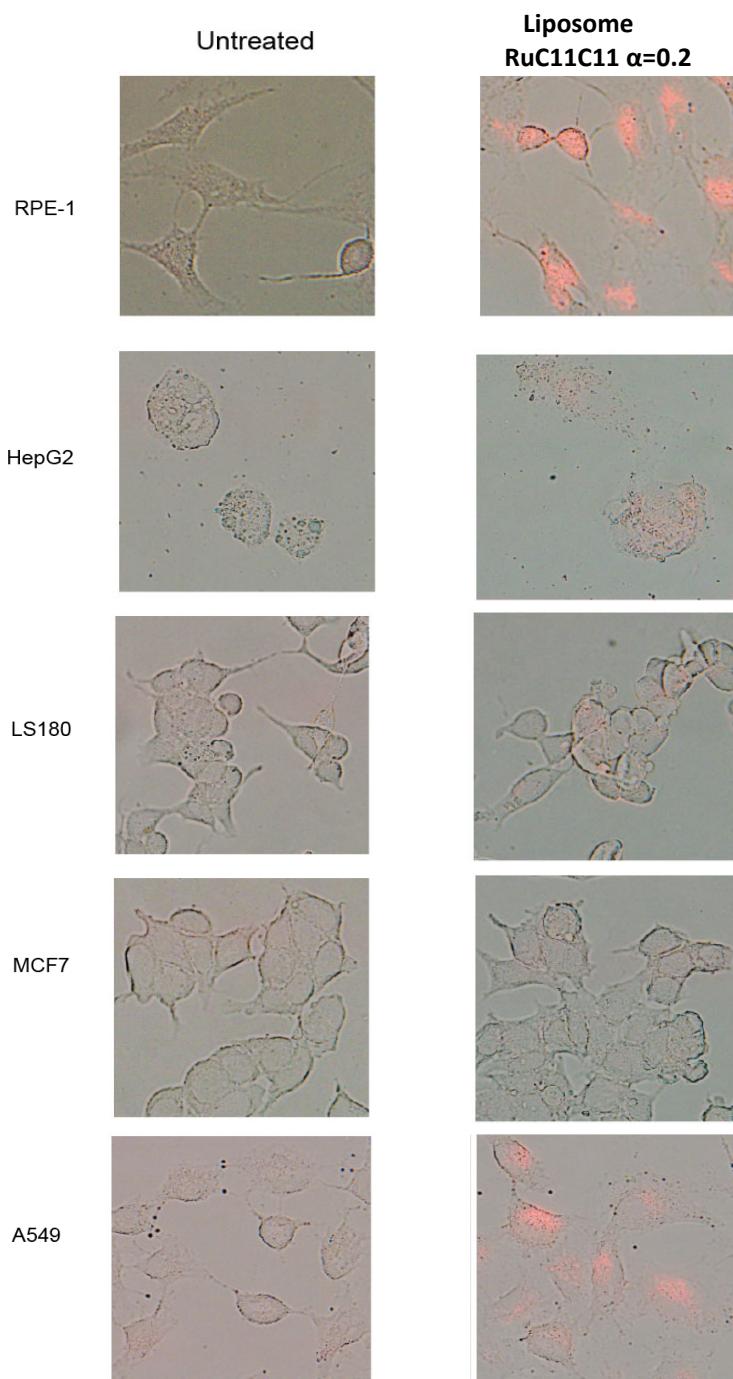


Figure S7. Fluorescence microscopy of the cell lines MCF7, LS180, HepG2, A549 and RPE-1 in the absence (mock) and presence of liposomes containing RuC11C11 at $\alpha=0.2$ for 24 hours, washed, fixed and mounted on coverslips. Magnification 40 \times .