Supporting Information

Cation–anion interaction directed formation of functional vesicles and their biological application for nucleus-specific imaging

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Fig. S1 Critical vesicle concentrations (CVC) of functional imidazolium salts: a) TPAI-C6; b) TPAI-C8; and c) TPEI-C8.

Fig. S2 PL spectra of TPEI-C8 (50 μM) in MeOH and MeOH/THF mixtures. Excitation wavelength: 330 nm.
Fig. S3 Co-staining of Hela cells with **TPEI-C8** and Reddot1: (a) **TPEI-C8** (50 μM) for 4 h ($\lambda_{ex} = 405$ nm, $\lambda_{em} = 420–470$ nm); (b) **Reddot1** for 5 min ($\lambda_{ex} = 633$ nm, $\lambda_{em} = 650–670$ nm); (c) panels (a) and (b) merged; and (d) bright-field image. Scale bar: 25 μm.

$^1$H and $^{13}$C NMR spectra of **TPAI-C6**, **TPAI-C8** and **TPEI-C8**.