Formation, stability, and pH sensitivity of stable, free-floating, giant unilamellar vesicles using palmitic acid - cholesterol mixtures

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Electronic supplementary information (ESI)

Fig S1. Fluorescence microscopy images of POPC/POPG/Chol GUVs at pH 8.4 and 3.4. The red channel corresponds to membranes labeled with Nile Red whereas the green channel represents calcein entrapped in the inner aqueous pool of the GUVs. Both channels are superimposed in the images. The scale bars correspond to 10 µm. This control indicates that the external acidic pH does not affect the fluorescence intensity of the entrapped calcein.

Fig S2. Effect of pH on the GUVs stability monitored by fluorescence microscopy. The images, recorded during the titration of GUVs from pH 8.4 to 3.4, represent only the fluorescence of apolar Nile Red. These images are paired with those obtained from the green channel presented in Figure 5 of the manuscript. A drastic change in morphology is clearly observed, going from (hollow) GUVs with walls labeled in red at high pH, to fully labeled hydrophobic particles, believed to be Chol and/or PA solid particles, at low pH. The scale bars represent 10 µm.