Electronic Supplementary Material (ESI) for Soft Matter.

Supplementary information

Preparation of GUVs by and electroformation method

A protocol based on Okamura *et al*.[1] was adapted as follows. Three sets of incisions, 2mm apart, were made on the bottom of a Perfusion Chamber Cover Well to accommodate two platinum wires and a narrow glass capillary, 50-100µm in diameter. The glass capillary was coated with a thin layer of a 0.1M lipid solution (of the required lipid mixture) in chloroform, and allowed to dry for several minutes. A perfusion Chamber Cover Well ™ was placed onto the adhesive surface of an imaging Spacer Secure-Seal, which was in turn placed onto a microscope slide and allowed to adhere for several minutes. The chamber then was filled with MilliQ water ensuring no air bubbles were formed around the Pt wires or the glass capillary. The platinum wires were connected to a function generator (built in-house) operating at 10Hz and 2V using crocodile clips. Electroformation was carried out typically for two hours.

1. Y. Okamura, H. Zhang, T. Sugiyama and Y. Iwata, *J. Am. Chem. Soc.*, 2007, **129**, 1490-1491

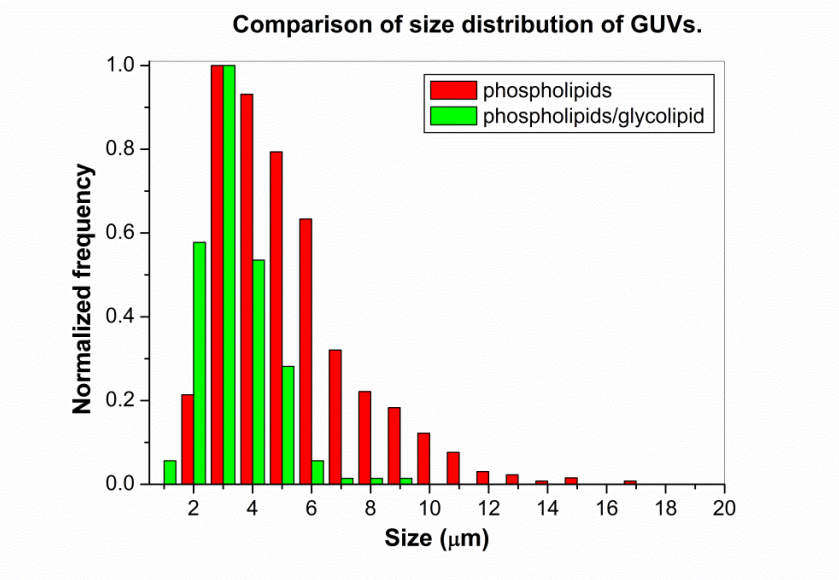

Fig. S1 Size distribution of GUVs prepared by method 2 from lipid film containing only phospholipids (red) or 1:9 glycolipid/phospholipid mixtures (green).

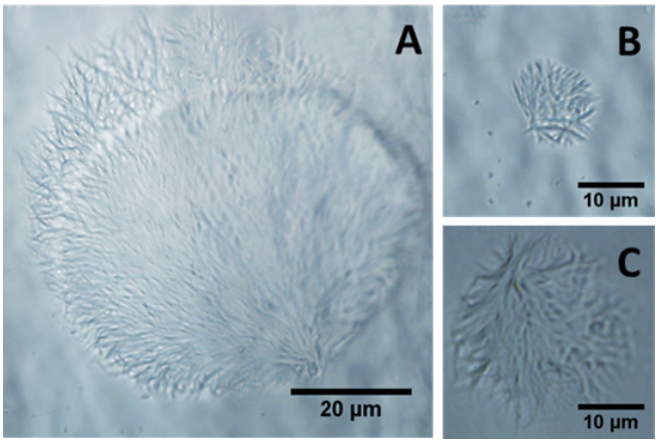

Fig. S2 Fluorescent microscopy images of tubules formed by the electroformation method in aqueous solvent from a lipid composition 1:4 glycolipid/DOPC.

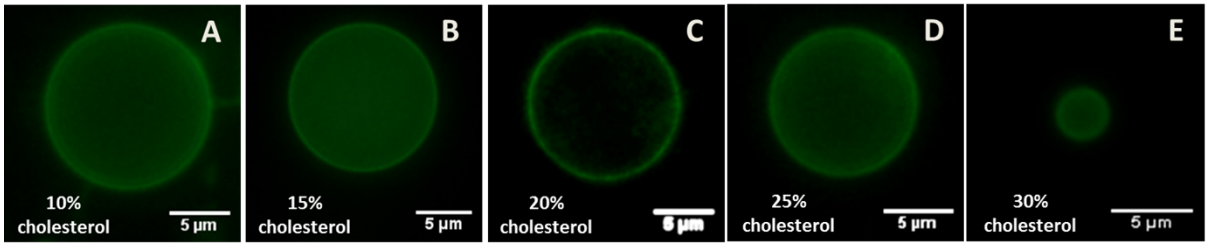

Fig. S3 Fluorescent microscopy images of GUVs prepared by method 2 (the fluorescent dye used in each case was 0.05 % cholesteryl bodipy FL C_{12}); A) 85:10:5 DOPC/cholesterol/glycolipid; B) 80:15:5 DOPC/cholesterol/glycolipid; C) 75:20:5 DOPC/cholesterol/glycolipid; D) 70:25:5 DOPC/cholesterol/glycolipid; E) 65:30:5 DOPC/cholesterol/glycolipid.