Electronic Supplementary Information for *Soft Matter* manuscript:

The stabilization of primitive bicontinuous cubic phases with tunable swelling over a wide composition range

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Keywords: lipids; bicontinuous cubic phase; swelling; SAXS; Cryo-EM

Supplementary Information

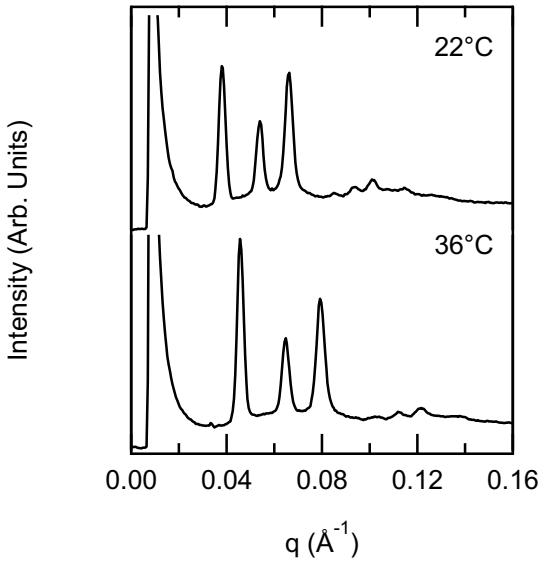

Figure S1. Radially integrated SAXS diffraction pattern for 94:4:2 (mol%) GMO/DOTAP/DOPE-PEG at 22 and 36°C. The primitive cubic phase is stable at physiological temperature.

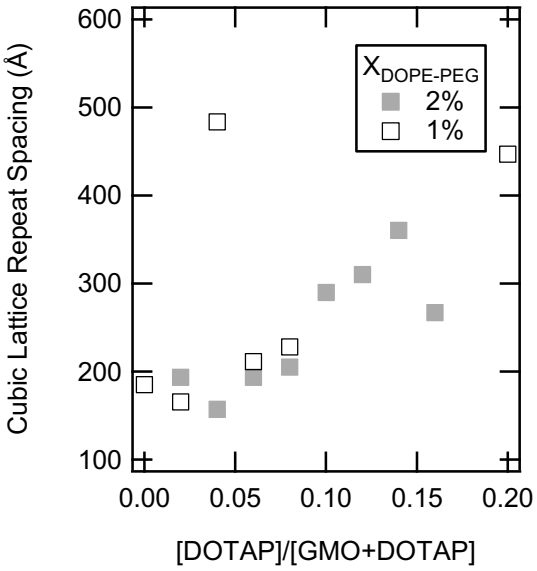

Figure S2. Cubic lattice spacing (a^{Q}) for GMO/DOTAP/DOPE-PEG. Total lipid concentration is 250 mM.

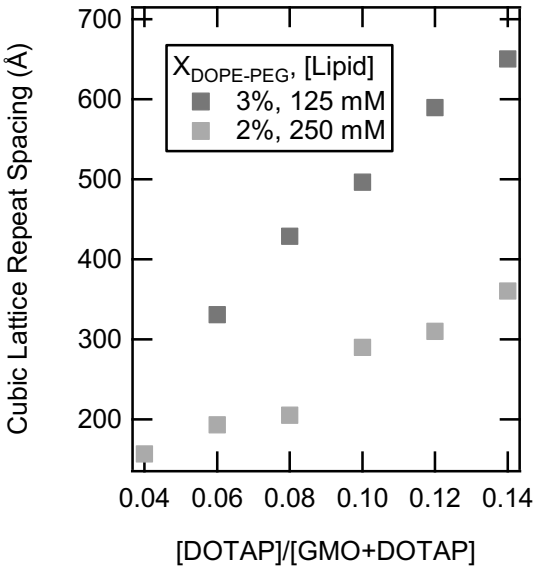

Figure S3. Indirect comparison of cubic lattice spacing (a^{Q}) for GMO/DOTAP/DOPE-PEG at different concentrations.

Table S1. Phase, lattice spacing and estimated water channel diameter information for GMO/DOTAP/DOPE-PEG systems in excess water. Total lipid concentration is 250 mM for 1&2 mol% DOPE-PEG and 125 mM for 3&5 mol% DOPE-PEG.

Composition (mol%)			Phase	Lattice Spacing (Å)	Water Channel Diameter (Å)
DOPE-PEG	GMO	DOTAP			
5.00	0	95.0	Lα	272	-
5.00	9.50	85.5	Lα	284	-
5.00	19.0	76.0	Lα	303	-
5.00	28.5	66.5	Lα	331	-
5.00	47.5	47.5	Lα	334	-
5.00	79.8	15.2	Lα	401	-
5.00	81.7	13.3	Pn3m	337	253
5.00	83.6	11.4	Pn3m	589	444
5.00	85.5	9.50	Pn3m	325	245
5.00	87.4	7.60	Pn3m	331	249
5.00	89.3	5.70	Pn3m	331	250
5.00	91.2	3.80	Lα	262	-
5.00	93.1	1.90	Lα	333	-
3.00	0	97.0	Lα	360	-
3.00	9.70	87.3	Lα	325	-
3.00	19.4	77.6	Lα	336	-
3.00	38.8	58.2	Lα	381	-
3.00	58.2	38.8	Lα	290	-
3.00	67.9	29.1	Lα	267	-
3.00	83.4	13.6	Im3m	650	382
3.00	85.4	11.6	Im3m	589	347
3.00	87.3	9.70	Im3m	496	292
3.00	89.2	7.76	Im3m	429	253
3.00	91.2	5.82	Im3m	331	197
3.00	95.1	1.94	Im3m	382	225
2.00	0	98.0	Lα	162	-
2.00	78.4	19.6	Im3m	278	157
2.00	84.3	13.7	Im3m	267	152
2.00	86.2	11.8	Im3m	360	205
2.00	88.2	9.80	Im3m	310	176
2.00	90.2	7.84	Im3m	290	165
2.00	92.1	5.88	Im3m	205	117
2.00	94.1	3.92	Im3m	193	110
2.00	96.0	1.96	Im3m	157	90
2.00	98.0	0	Im3m	193	111
1.00	0	99.0	Lα	225	-
1.00	19.8	79.2	Lα	204	-
1.00	29.7	69.3	Lα	228	-
1.00	39.6	59.4	Lα	257	-
1.00	49.5	49.5	Lα	283	-
1.00	59.4	39.6	Im3m	436	244
1.00	69.3	29.7	Im3m	310	175
1.00	91.1	7.92	Im3m	228	130
1.00	93.1	5.94	Im3m	211	121
1.00	95.0	3.96	Im3m	484	277
1.00	97.0	1.98	Im3m	165	95
1.00	99.0	0	Im3m	185	106